

**Workforce transitions and worker experiences during the pandemic**

**Dr Minjie Cai  
Professor Sian Moore  
Dr Alex Stroleny  
Dr Safak Tartanoglu-Bennett  
Dr Scott Tindal**

**Centre for Research on Employment and Work  
University of Greenwich**

**May 2022**

## Contents

|   |    |
|---|----|
| <b>1. Introduction</b> .....  | 1  |
| <b>2. Summary</b> .....   | 1  |
| <b>3. Research Objectives</b> .....   | 4  |
| <b>4. Research Methods</b> .....  | 5  |
| <b>FINDINGS</b> .....   | 6  |
| <b>5. The rise in online retail</b> .....   | 6  |
| <b>5.1 Sectoral Contexts</b> .....  | 6  |
| <b>5.2 Statistical Analysis: Labour shortages and vacancies</b> .....                     | 10 |
| <b>5.3 Worker Experiences of the labour market</b> .....                                  | 14 |
| <b>6. Findings: Sectoral and Occupational Transitions - who is moving and where</b> ..... | 16 |
| <b>6.1 Sectoral Contexts</b> .....  | 16 |
| <b>6.2 Statistical Analysis – Labour Market Transitions</b> .....                         | 17 |
| <b>6.3 Worker Experience</b> .....  | 31 |
| <b>7. Findings: Terms and conditions and the nature of work</b> .....                     | 35 |
| <b>7.1 Sectoral Context</b> .....   | 35 |
| <b>7.2 Statistical Analysis – Pay</b> .....   | 36 |
| <b>7.3 Worker Experience</b> .....  | 37 |
| <b>7.3.1 Terms and Conditions</b> .....   | 37 |
| <b>7.3.2 The nature of work</b> .....   | 40 |
| <b>8. Findings: Automation, Monitoring and Surveillance</b> .....                         | 43 |
| <b>8.1 Context</b> .....  | 43 |
| <b>8.2 Worker experiences</b> .....   | 44 |
| <b>8.2.1 Automation</b> .....   | 44 |
| <b>8.2.2 Management and Performance</b> .....   | 45 |
| <b>8.2.3 Surveillance</b> .....   | 48 |
| <b>9. Findings: Union representation</b> .....  | 51 |
| <b>9.1 Context</b> .....  | 51 |
| <b>9.2 Worker Experience</b> .....  | 52 |
| <b>10. Conclusion</b> .....   | 54 |
| <b>Appendix</b> .....   | 55 |

## **Acknowledgements**

We would like to extend our appreciation to all those who spared time to speak to us as part of this research and also to Kate Bell from the TUC for her support for the project.

## 1. Introduction

The COVID-19 pandemic has intensified existing trends in the growth of e-commerce, online shopping and fast fashion, resulting in serious challenges for high-street stores. Thousands of jobs have been lost in fashion retail following company collapses or takeovers by online fashion brands such as Boohoo and Asos (Eley and Wright, 2019; Eley, 2021). At the same time there has been a rapid increase in job vacancies in the transport, logistics and warehouse sector in 2021. Emerging evidence suggests that the legacy of the COVID-19 pandemic is a significant rise in economic inactivity with workers leaving the labour force promoting labour shortages (Brewer et al., 2021).

The closure of high street stores potentially forecloses a key source of women's employment and possible displacement by male jobs in warehouses, distribution centres and delivery (Johnes, 2018). This shift also has implications for younger workers who are disproportionately represented in retail (ONS, 2021). COVID-19 and Brexit has potential impacts for migrant worker employment in warehouses and distribution. Labour shortages may promote automation, although there is a trade-off between the costs of labour and automation. Rather than replacing labour, there may be wider use of technology monitoring worker performance. The wider literature calls for qualitative research examining individual level experiences of employment trajectories which takes contextual conditions into account (Egdell and Beck, 2020). The research presented in this report offers a labour market analysis, alongside worker interviews. The labour market analysis examines the composition of workforces and labour market flux during the pandemic. The interviews reflect the lived experiences of the changing nature of work, examining terms and conditions, the impact of automation and technology on work, and workplace representation. With evidence of post-COVID-19 occupational and sectoral transitions, this is a key moment to explore the changing nature and content of work, and potential renegotiated divisions of labour on the basis of gender, age and race and ethnicity.

## 2. Summary

### *The rise in online retail*

- Employment in the wholesale, retail, and repair of motor vehicles as a standalone sector shows a trend of decline amid the pandemic and has yet to recover from the significant outflow of workers. Compared to the final quarter of 2019, the number of workers in this sector declined by over seven per cent in the same quarter of 2021.
- There was a large influx of workers into postal and courier activities during the height of the pandemic, increasing by 27 per cent between the first two quarters of 2020. The numbers have returned to below the 2019 levels, dropping significantly by over 28 per cent between the final quarter of 2020 and the first quarter of 2021. The number of workers in warehousing and support for storage in the final quarter of 2021 also dropped to a level that is over three per cent lower than the figure in the same quarter of 2019, reflecting the current labour shortage.
- The number of workers in retail saw a decline, with levels in the final quarter of 2021 remaining lower than the final quarter of 2019 by over seven per cent. In terms of occupations there has been an exit from retail cashier and check-out operator occupations of over 24 per cent in the first two quarters of 2021 – an eight per cent difference between those joining and leaving the role. The trend does not hold for sales and retail assistants and may reflect the restructuring of retail to online delivery and increased automation of checkout in supermarkets.

- The rise in online retail is reflected in the Official National Statistics (ONS) Vacancy Survey and job advert estimates by Adzuna that show a 75 per cent increase in job adverts in transport, logistics, and warehousing between December 2020 and December 2021. The number of vacancies in the wholesale and retail sector reached nearly 160,000 in the final quarter of 2021 and 170,000 in the first quarter of 2022.
- Logistics UK (2021) report the highest number of vacancies in transport and logistics since records began with COVID-19 and Brexit creating ‘a perfect storm for skills shortages in the UK’, highlighting ‘a boom in vacancies for lower-skilled and lower-paid jobs.’

#### *Sectoral and Occupational flows – who is moving and where*

- While vacancies are 50 per cent higher than the pre-pandemic level (nearly 1.3 million in the first quarter of 2022), the number of job seekers remains low due to reduced labour force participation and moves to economic inactivity primarily due to ill health and workers above 50 leaving employment.
- The pandemic appears to have an impact on occupational flows with an increase in those moving in and out of particular jobs. Overall, the number of job-to-job moves in the final quarter of 2021 was over 27 per cent higher than in the same quarter in 2019. Over 40 per cent of these moves were across sectors. The number of workers moving to a different sector dropped during the first wave of the pandemic, but gradually returned to a pre-pandemic level and reached 468,000 in the final quarter of 2021.
- In logistics in particular, the post-Brexit and pandemic periods have seen the exodus of EU workers with no clear indication that they have been replaced in the labour market by UK workers;
- Although the predominance of women in sales and customer service occupations across the retail sector was similar pre- and post-pandemic, there are indications that women in the 35-45, 25-34 and 16-24 age groups left the sector during the pandemic, with a fall by two per cent between the final quarters of 2019 and 2021. Younger age groups appear to have been replaced by older women and men aged 55-64.
- There are suggestions that women have moved into male-dominated jobs. The proportion of women working in warehousing and postal and courier services (including delivery) has increased (although both remain disproportionately male-dominated sectors). The proportion of women working in warehousing and support for transport increased to 33 per cent in the final quarter of 2021 from 27 per cent in the same quarter in 2019. The proportion of women participating in postal and courier activities in the final quarter of 2021 increased by nearly 14 per cent compared to the same quarter in 2019. At the same time there was a substantial decrease in men aged 45-54 in the sector (over 11 percentage points).
- There appears to have been small influx of Black and Minority Ethnic (BME) workers into warehouse work over the pandemic (two percentage point increase between the final quarters of 2019 and 2021), with a decline in proportions in retail (three per cent) and an exodus of BME workers from postal and courier activities (eight per cent), although the proportions of BME workers remain comparatively high in this sector.
- Both the postal and courier activities and warehousing and support for storage saw an inflow from younger workers aged 16-24 in the final quarter of 2021 compared to the same quarter in 2019, although the increase in the former (over four percentage points)

is more substantial than the latter (lower than 0.1 percentage points). In contrast, retail saw an outflow in the final quarter of 2021 with a difference of over one percentage point compared to the same quarter in 2019.

- Both retail and postal and courier activities attracted an inflow of older workers aged 55-64, with increases of over 12 and ten percentage points respectively between the final quarters of 2021 and 2019. There was a very small outflow from warehousing and support for storage (0.1%), with older men leaving the sector. There was an inflow of older women into all three sectors over the period.
- Worker experiences confirm that furlough led to some shift in occupational and sectoral segregation by gender. In delivery respondents reported an influx of a range of furloughed workers during the pandemic, including more women. As with the statistical data for older and younger workers, trends may be transient.
- Reflecting labour market statistics, the interviews suggest that older workers appear more likely to leave the labour market than to transition between occupations and sectors.

#### *Working Conditions*

- Warehouse and distribution work offers greater security in terms of guaranteed hours and fixed shifts in comparison to retail where minimum hours contracts and unpredictable working time are prevalent. While directly employed drivers are more likely to be covered by collective bargaining and have access to employment rights, this is not the case for self-employed delivery drivers, who experience insecurity.
- There is evidence that demand for warehouse and distribution workers has pushed up hourly rates and that there are significant pay rises for drivers.
- Warehouse work was considered by research participants as particularly gruelling ('the job is not human'), explaining labour shortages and high turnover, with a suggestion that automation and robotisation might be necessary to save the physical cost to human physical and mental health.
- Experiences appear to be generational with older retail workers having perceptions of retail as a career based on customer service skills that had been degraded. As was the case with warehouse work, some older workers suggested there was high turnover amongst younger workers who do not put up with poor working conditions.

#### *Automation and worker surveillance*

- The interviews suggest a trade-off between labour costs and technology with variation between organisations and automation not necessarily producing cost efficiencies. Vacancy rates suggest that currently workers have not been substantively displaced by automation, with energy costs a factor.
- Workers expressed mixed feelings about technological surveillance at work, with some feeling constantly under scrutiny and that their autonomy over work is compromised. Others take such surveillance for granted and some feel that it provides protections for their health and safety and against customer abuse and potential allegations of misconduct.

#### *Worker representation:*

- While different forms of surveillance might affect social contact in the workplace, where trade unions are recognised workplace representatives play a key role in mediating technology and constraining its use in disciplinary measures against workers.
- Tight labour markets have enabled unions to make gains in terms of pay and conditions. Labour shortages also give workers confidence to challenge and resist disciplinary regimes, including those which arise from technological monitoring of performance.
- While the terms and conditions of directly paid delivery drivers attached to depots were determined by collective bargaining, home delivery is based on so-called 'self-employment' where couriers are paid by delivery with considerable elements of unpaid labour. However, unions have started to make inroads with union representation and negotiations over employment rights.

### **3. Research Objectives**

This research aimed to:

1. Provide a picture of the post-Covid-19 labour market, with a specific focus on movements between retail and logistics jobs (warehouse and delivery).
2. Explore implications of labour market transitions in retail and logistics in terms of gender, race, migration status and age – considering, where possible, regional impacts of shifting employment patterns. It aims to capture redundancies in the retail fashion sector, and subsequent work trajectories, and the experiences and perceptions of these trajectories.
3. Provide an analysis of retail, distribution and delivery jobs in terms of workers' experiences of:
  - Contractual status.
  - Employment rights (sick pay, holiday pay, pensions).
  - Pay.
  - Hours and work-life balance.
  - Job security.
  - Career progression and mobility.
  - Unionisation and access to representation.
4. Compare the organisation and management of work, including the role of automation and electronic monitoring, in retail, warehouse and delivery, reflecting on change and labour intensification.

## 4. Research Methods

The research employed a number of strategies:

1. A literature review on current developments in retail and logistics, including regional comparisons. It also includes current research on gender, race, and age within these sectors, and work on the application of technologies and automation and the wider (re)organisation of work, as well as worker representation.
2. Analysis of the flows between employment status, occupation, and sector based on the Labour Force Surveys (LFS) two-quarter longitudinal datasets from January-March 2019 to October-December 2021. This data covers the year before the pandemic, the first national lockdown amid the initial outbreak in the first quarter of 2020 and the easing of restrictions in the last quarter of 2021. The analysis adopts a method recommended by the Office for National Statistics (ONS), comparing the 2021 quarters with the same quarters in 2020 and the 2020 quarters with the same quarters in 2019. This method identifies changes on previous quarters and changes on previous years. The latest LFS data released by the ONS is excluded from the *comparative* analysis since it only covers the period between December 2021 and February 2022, which is not comparable to the first quarter (January to March) in previous years. However, this release is considered in other analysis where it is appropriate. To be consistent, the analysis draws on seasonally adjusted data and data on the population of those aged 16 to 64 years old where possible.
3. The ONS Vacancy Survey two-quarter datasets between 2019 and 2021 and Online Job Advert Estimates provided by Adzuna, collected between January 2019 and April 2022, are also used in this report to identify labour market mismatch. Despite the gaps between observations in Adzuna's job advert estimates due to the irregular data collection points, these observations remain useful for analysing changes to vacancies in specific regions and sectors.
4. In-depth, one-on-one, semi-structured interviews with workers in retail, delivery and distribution as shown in Table 1 below and further detailed in Table 2 in the Appendix:

*Table 1: Worker respondents*

| <b>Sector</b>            | <b>Male</b> | <b>Female</b> | <b>Total</b> |
|--------------------------|-------------|---------------|--------------|
| Retail                   | 10          | 2             | 12           |
| Delivery                 | 5           | 0             | 5            |
| Distribution (Warehouse) | 10          | 3             | 13           |
| <b>Total</b>             | <b>25</b>   | <b>5</b>      | <b>30</b>    |

Interviews were conducted via zoom or mobile telephone and lasted between 30 minutes and two hours. The difficulty of engaging delivery workers is reflected in the responses. Overall, 18 respondents were trade union representatives, particularly in distribution and delivery. The dominance of males reflects the distribution and delivery section, but not retail – here the goal was to identify Debenhams workers and those willing to be interviewed were predominantly men. Seven respondents were from BME backgrounds.

The research was based on informed consent and complied with the University of Greenwich Ethics Committee guidelines.



## FINDINGS

The findings begin by looking at the implications of the rise in online retail, changes in the labour market following COVID-19 and sectoral and occupational transitions. They focus on terms and conditions and nature of work in retail, distribution and delivery and the factors that influence transitions, including automation and monitoring and surveillance at work. Finally the study considers trade union representation and organisation, highlighting opportunities in tight labour markets. In each section findings are separated into firstly those providing a context from the wider literature, secondly statistical analysis from the Labour Force Survey and ONS vacancy data and thirdly worker experience and perceptions.

### 5. The rise in online retail

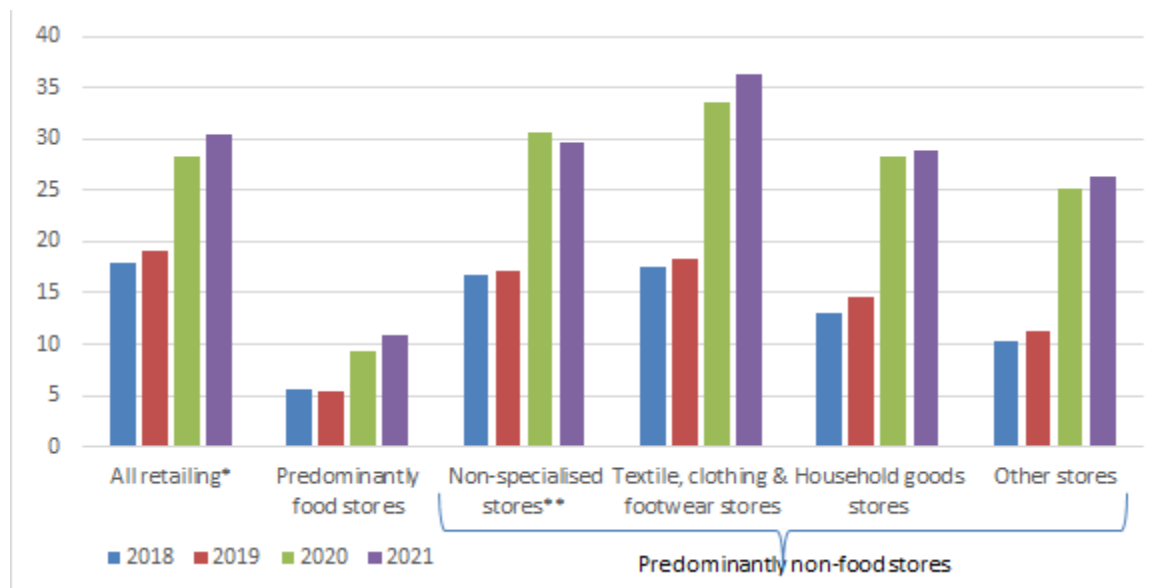
Office for National Statistics (ONS) figures show that during the pandemic in January 2021 online shopping made up over one third (38%) of all retail sales and was around 28 per cent in the February 2022. Transport and storage is now the fastest growing broad industry group (ONS, 2022). This section draws on current literature to look at the implications of the move from high street to online shopping for the retail and logistics sectors and then draws on ONS vacancy data to highlight labour shortages, before exploring worker experiences of the labour market.

#### 5.1 Sectoral Contexts

##### *Retail*

The decline in demand for high-street retail (Costa Dias et al. 2020) and the resulting closures of physical shops have led to thousands of job losses in fashion retail. There have been several high-profile company collapses or takeovers by online fashion brands, such as Boohoo and Asos (Eley and Wright, 2019; Eley, 2021). These challenges predated the pandemic, but have been exacerbated by it. Changes in shopping preferences during the pandemic and the rise of online retail platforms reinforced and intensified existing trends (Gable et al. 2020). According to Balchandani et al. (2020), 20 per cent of UK consumers shop 'mostly' or 'entirely' online, higher than among other Western countries. ONS (2021) data shows that during the pandemic retail internet sales as a proportion of all retailing (seasonally adjusted) dramatically increased across both food and non-food stores (see Figure 3). In 2020, textile, clothing and footwear internet sales saw an increase of 15.2 per cent (seasonally adjusted) and non-specialised non-food stores an increase of 13.2 per cent.

Figure 1: Internet sales as a proportion of all retailing (seasonally adjusted)

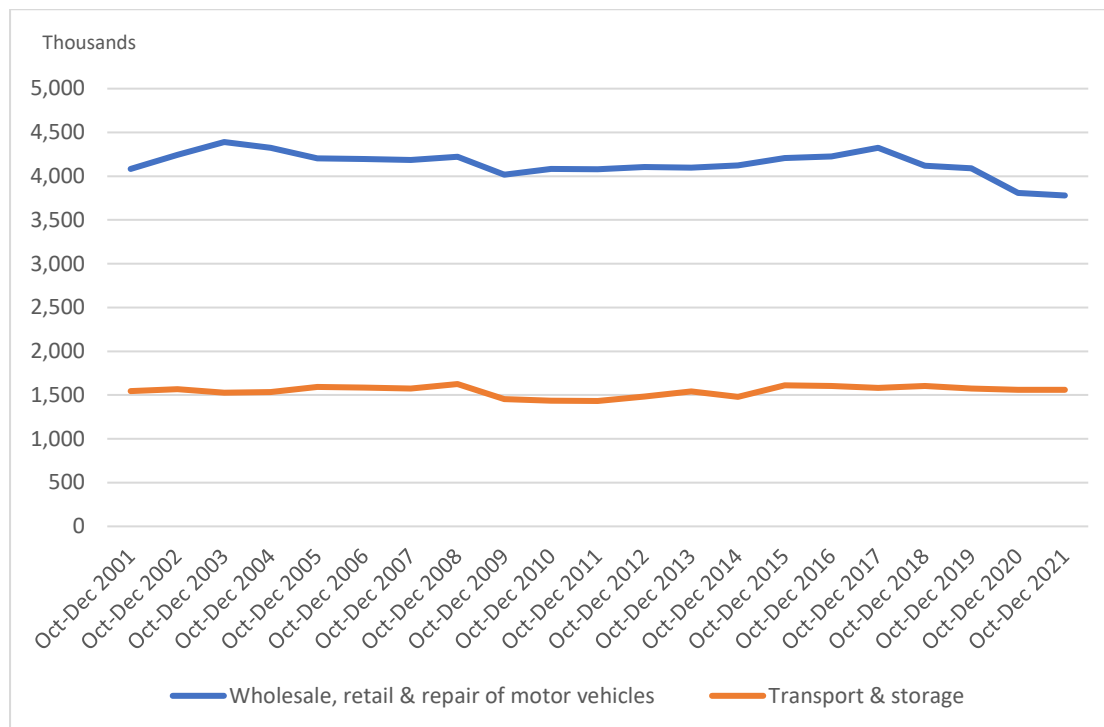


Source: ONS, [Retail sales index: Internet sales](#), accessed 22 November 2021 2021 data up until Sept 2021 \*excluding automotive fuel \*\*Non-specialised non-food stores (i.e. department stores)

Retail work has been described as ‘the new generic form of mass employment in the post-industrial socio-economic landscape’ (Bozkurt and Grugulis, 2011: 2-4) and is the largest source of private sector employment in the UK (in 2021 Quarter 1 there were 3.042 million retail jobs). As of the latest quarterly LFS data released by the ONS that covers the period of December 2021 and February 2022, women comprise 55 per cent of the workforce in retail except vehicles, over one quarter (27%) are under the age of 25 and just under ten per cent are Black or Minority Ethnic (BME). In the UK there has been an increase in the proportion of men in the retail workforce and there are indications that this has led to an increase in full-time employment (Gardner and Tomlinson, 2019). Prior to Covid-19 the sector was identified as having the highest outflow rate to unemployment with 31 per cent of retail leavers exiting to unemployment, and these workers were disproportionately young. Data from 2019 showed that 7.3 per cent of all workers were in sales and customer service occupations, with the proportion for white British almost identical (7.4%). It was higher for Pakistani/Bangladeshi (12.8%) and Asian (9%) groups, for mixed/multiple ethnic groups (8.9%) and Black groups (7.9%) (ONS, 2021b).

Figure 2 shows the decline in employment in the retail sector since 2001 and in the light of changing consumer preference for online shopping (Gardiner and Tomlinson, 2019). The British Retail Consortium (2021) reports that between 2008 (Q1) and 2020 (Q2) retail’s share of UK total employment declined by 1.3 per cent from 10.1 per cent to 8.8 per cent. It estimates that over the three-year period between 2021 and 2023 at least 142,000 jobs retail jobs will be lost within the sector.

Figure 2: Employment in Wholesale retail and repair of motor vehicles and Transport and storage between 2001 and 2021



Source: Labour Force Survey Data, employment by industry (non-seasonally adjusted)

*The Guardian* (2020) collated information on redundancies related to UK high street brands, showing the Arcadia Group hardest hit with 13,000 and Debenhams with 12,000 redundancies. When Debenhams was bought by Boohoo in December 2020, the online retailer purchased only the brand, product assets and website/ e-commerce operations, rather than physical shops, resulting in the closure of 118 department stores. Between 10,000 and 12,000 Debenhams workers lost their jobs without consultation or the statutory notice period. The company's two defined benefit pension schemes are at risk, with workers facing smaller pension pay-outs. Arcadia Group went through a similar process in 2020 – the group includes fashion brands such as Topshop, Topman, Miss Selfridge and HIIT, Burton, Dorothy Perkins and Wallis. As with Debenhams, 70 physical stores were excluded from the deal with ASOS and Boohoo in February 2021, resulting in a loss of 4,950 jobs (Makortoff, 2021; Smith, Wilson and Curtis, 2021) and the vast majority of Debenhams and Arcadia workers only discovered the risk of job losses on social media. The initial deal also excluded Arcadia's warehouses and distribution centres in Daventry, putting warehouse jobs at risk (Webber, 2021). However the distribution centre has been leased to Boohoo, and over 330 workers were expected to be transferred to the online retailer (Helps, 2021). Notably, in response to these developments, supermarket chain Aldi specifically targeted former Arcadia and Debenhams staff in their recruitment campaign for its 4000 newly created jobs in stores and distribution centres (Jahshan, 2021).

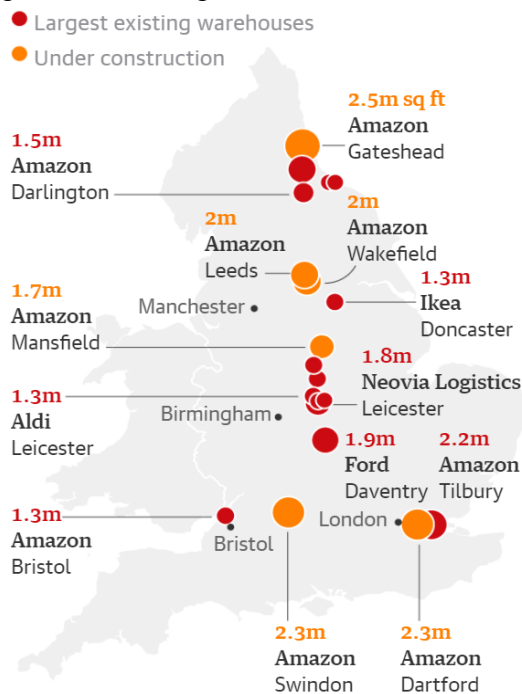
#### Logistics – Distribution and Delivery

Brexit and the move to online retail, intensified by the pandemic, has meant that the number of business premises used for transport, logistics and warehousing in the UK has almost doubled in the last decade (ONS, 2022). The ONS has indicated a "golden logistics triangle" that has extended from the Midlands to parts of the East of England and Yorkshire and The Humber where these premises are concentrated. Although transport and storage accounts for only five per cent of business premises, the number classified as 'freight transport by road' and 'postal and courier activities' increased by 114 per cent and 147 per cent, respectively,

between 2011 and 2021. These subsectors comprise 69 per cent of all transport and storage business units, an increase from 58 per cent in 2011.

The decline in demand for high street retail space is mirrored by an increase in demand for warehouse space. Between the first and third quarters of 2020, warehouse space capacity reached 38.6 million square feet, a record high, with retail-related e-commerce being a key driver for this increase (Turley Economics, 2020). ONS (2021c) data demonstrates that warehouses are concentrated in the Midlands, in London and the Southeast – as illustrated in Figure 3. This geography of warehouses can be explained by greater concentrations of populations and generally robust transportation infrastructure within these regions. The increase in online retail has led to a two-tier market in the warehouse sector, with large remote warehousing/distribution depots in one tier, and an increase in smaller depots near urban centres on the other (Kik et al., 2019). As warehouses tend to be located in ‘harder-to-reach’ areas on the periphery of cities on major transport routes, the location of the warehouses remains one of the reasons that these jobs are less accessible to women, older and disabled workers (Winton, 2021).

Figure 3: Largest warehouses in England (existing and under construction)



Guardian graphic. Source: Savills

Source :: <https://www.theguardian.com/business/2021/aug/12/warehouses-the-latest-boom-in-the-uk-real-estate-sector>

Logistics UK (2021) report that, based on LFS figures, the logistics industry employed 2.56 million people in 2021. It covers a range of occupations including, but not limited to, managers, transport and distribution clerks and assistants, van drivers, forklift drivers, and storage occupations. Pre-Brexit, the sector relied heavily on non-UK workers to combat skill shortages. Post-Brexit, there has been a considerable fall in the number of EU workers. In 2021 there were 59,000 fewer EU workers (a fall of 17.0%), offset by an increase of 2.3 per cent (49,000) UK workers. The UK worker job increases were in some low-skilled and some higher-skilled roles, but the report suggests that lower skilled occupations have been hardest hit by Brexit and the pandemic.

In 2021 job roles were predominantly filled by males (83%) and white workers (89%), with the second largest single ethnic group Black (3%), followed by Indian and Pakistani workers (Logistics UK, 2021). Women comprised 17 per cent of job roles in logistics, an increase from

14 per cent in 2017. While 46 per cent of purchase managers and directors were women, they comprised 27 per cent of postal workers, mail sorters, messengers and couriers, 24 per cent of elementary storage occupations, but only one per cent of forklift truck drivers, two per cent of HGV drivers and five per cent of van drivers.

Kik et al. (2019) suggested that typical warehouse jobs have been characterised by 'lower occupational groups', low pay, and fluctuations in demand (e.g., increase in demand around Christmas). In 2021 Amazon recruited a total of 25,000 workers (15,000 more than originally expected) in UK warehouses and delivery to handle the increase in sales and home deliveries during the pandemic (Thomas, 2022). The use of agency workers was reported as pronounced in the warehousing sector; in 2017 9.5 per cent of all workers in warehousing and storage were agency workers, compared to 1.7 per cent for all industries (Kik et al., 2019). However, Amazon has reportedly transformed short-term contracts into permanent jobs in response to increased demand (McCulloh, 2021).

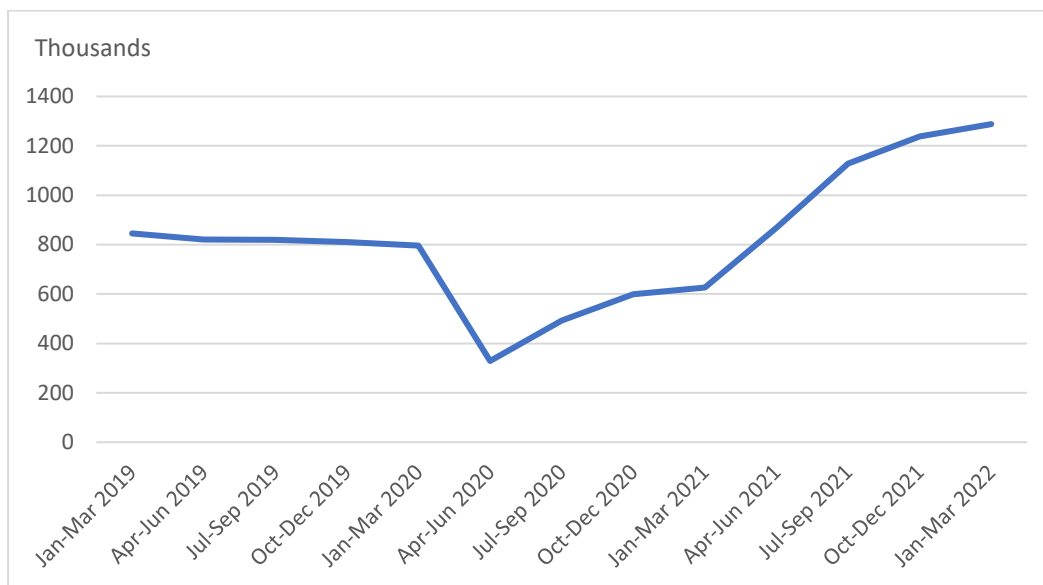
In the UK, delivery drivers as well as warehouse workers were deemed 'key workers' during the onset of the COVID-19 crisis (Burns et al., 2021). The demand for delivery drivers had increased substantially (e.g., Blundell et al., 2020; Clark, 2020; *The Guardian*, 2021) as delivery services became vital for people at home due to the restrictions (Rani and Dhir, 2020). Logistics UK reported a 23% fall in the number of HGV drivers during the pandemic (2019-21) and a 35 per cent reduction in EU HGV drivers, At the same time there was a seven per cent increase in van drivers, but a 45 per cent decrease in EU van drivers. Reports based on data from 'Indeed Flex' stated that the number of temporary delivery drivers, often on furlough from permanent jobs, fell by more than a quarter as these workers return to their former retail or hospitality jobs since COVID-19 restrictions have eased (Iddenden, 2021). This trend has further contributed to the shortages of drivers (e.g., Blundell et al., 2020; Clark, 2020; *The Guardian*, 2021). Delivery drivers in some parts of the UK have seen three times as any shifts available than in the previous 12 months (McCulloh, 2021). Logistics UK report a record number of vacancies in transport and logistics, with between 63 per cent and 76 per cent of employers facing recruitment difficulties as candidates do not have the right skills and 40% of survey respondents having 'very severe problems' recruiting HGV drivers. HGV drivers are significantly older than the general population. While those leaving the sector are driven by pay, Brexit and retirement, a further reason is poor overnight/roadside facilities.

## **5.2 Statistical Analysis: Labour shortages and vacancies**

The ONS Vacancy Survey Data between 2019 and 2022 (Figure 4) shows a rising number of vacancies that reached nearly 1.3 million in the first quarter of 2022 after a steep decline in the second quarter of 2020 during the UK's first national lockdown. The number of vacancies in the first quarter of 2022 was 106 per cent higher than the first quarter of 2021 and 52 per cent higher than the same quarter in 2019.

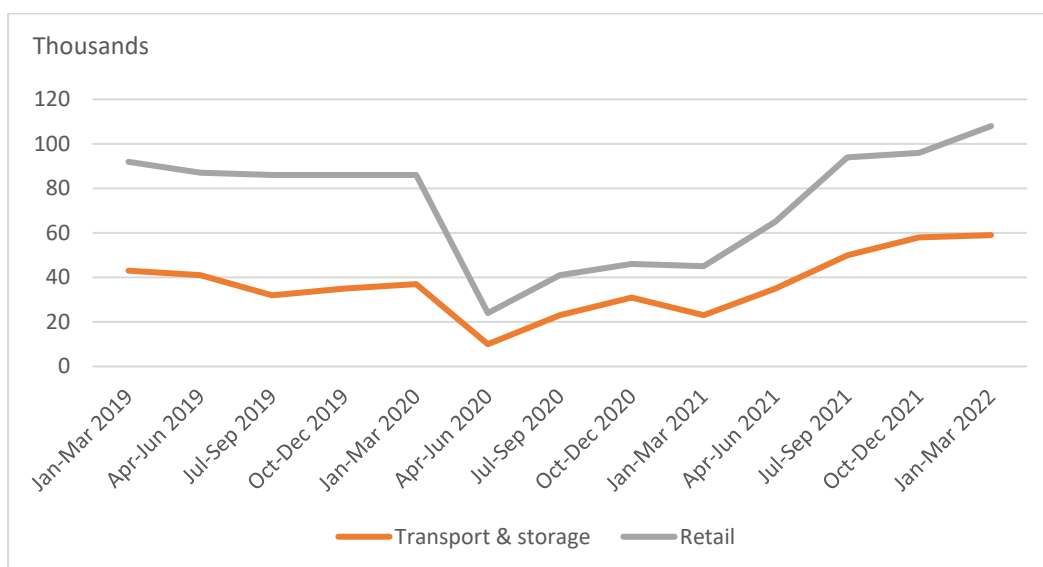
The number of vacancies in both the retail and transport and storage sector (Figure 5) shows a similar trend, declining in the second quarter of 2020 and gradually increasing to exceed the pre-pandemic levels. The number of vacancies in transport and storage increased by 37 per cent from 43,000 in the first quarter of 2019 to 59,000 in the first quarter of 2022. Vacancies in retail increased by 17 per cent from 92,000 in the first quarter of 2019 to 108,000 in the first quarter of 2022. The number of vacancies in retail is the fourth largest in the first quarter of 2021 (Figure 6) and in the period between December 2021 and February 2022 (Figure 7) when compared to other sectors. Retail is behind human health and social work activities, professional scientific technical activities, and accommodation and food service activities. These changes to vacancies indicate workforce outflows and labour shortage and reflect an earlier report on the impact of the pandemic measures on specific sectors (Joyce and Xu, 2020).

**Figure 4: Total vacancies estimates in the UK between 2019 Q1 and 2022Q1**



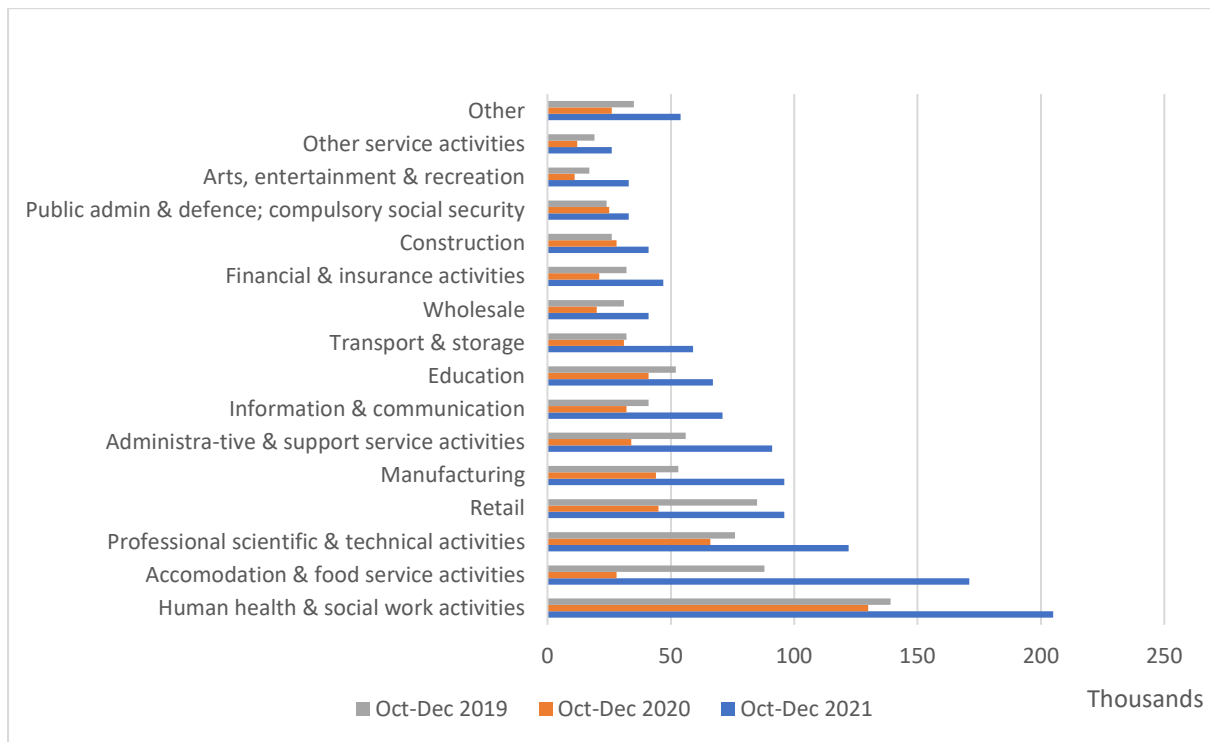
Source: Office for National Statistics Vacancy Survey 2019-2022

**Figure 5: Vacancies estimates in the retail sector and transport and storage between 2019 Q1 and 2022Q1**



Source: Office for National Statistics Vacancy Survey 2019-2022

Figure 6: Vacancies estimates (quarterly) 2019Q1, 2020Q2, and 2021Q3

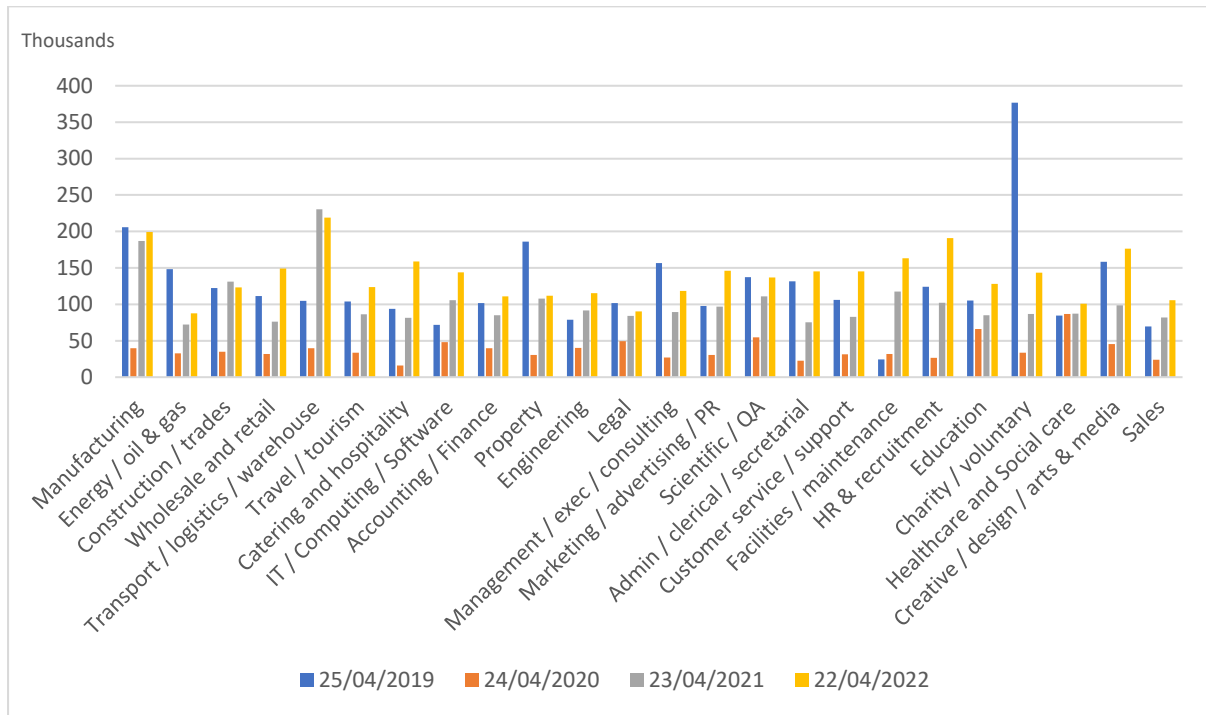


Source: ONS Vacancy Survey two-quarter datasets.

Figure 7 displays the increased number of online adverts for occupational categories taking job adverts in April 2019 as a baseline and draws comparison between the same month in the subsequent years. Transport, logistics and warehouse sector jobs represent the highest of all categories with a 109 per cent increase compared to the pre-pandemic level, reaching 219,000 in April 2022 compared to 104,000 in April 2019. The number of vacancies for occupations in the wholesale and retail sector also increased by 34 per cent compared to the pre-pandemic level, with 149,000 vacancies in April 2022 compared to 111,000 in April 2019.

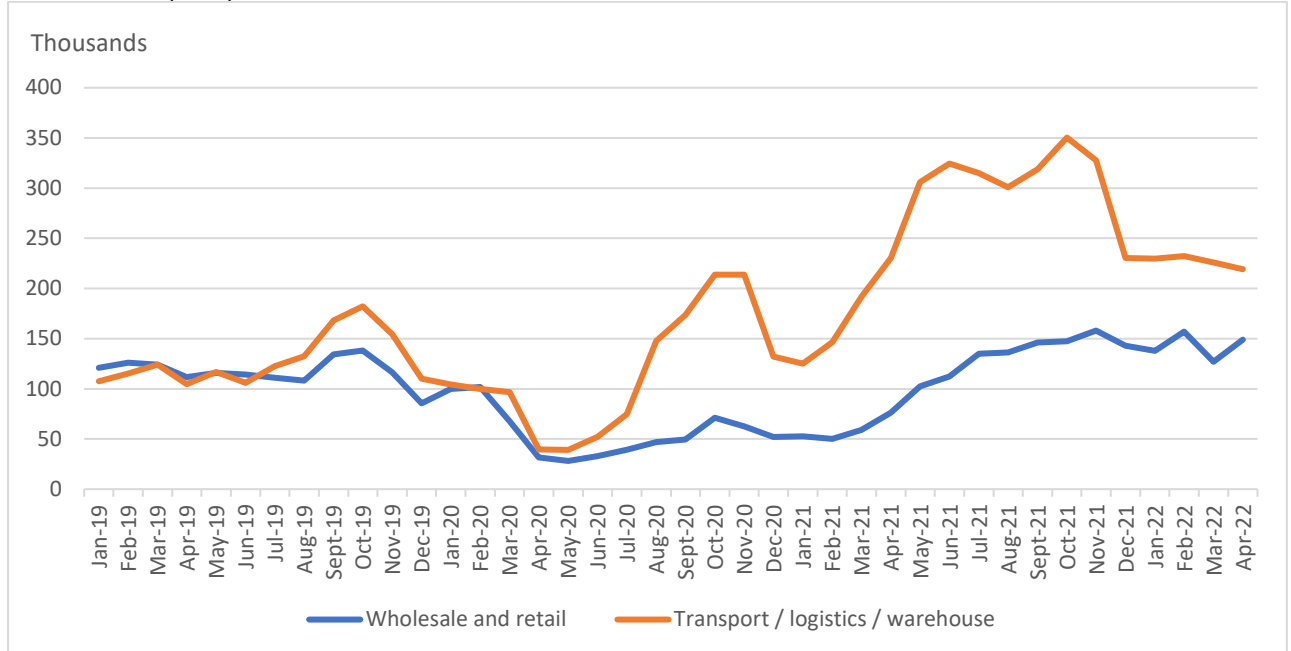
Figure 8 shows significant labour shortages in the transport, logistics, and warehouse sector with a rapid increase in the number of job adverts between January and July 2021, following a reduced demand in early 2020 during the first lockdown. Labour demand in wholesale and retail also saw a steep increase during the pandemic and reached a record high of 350,000 in October 2021 compared to the pre-pandemic level. The demand in both sectors started to decline from late 2021 and continues to show a decreasing trend in early 2022. Yet, the number of vacancies in these sectors in April 2022 remains higher than the pre-pandemic level with 114,000 more vacancies in transport, logistics, and warehouse and 37,000 more vacancies in wholesale and retail.

Figure 7: Job advert estimates by occupational categories, April 2019, 2020, 2021, 2022



Source: Adzuna job adverts by category, 100 = average job adverts, deduplicated and non-seasonally adjusted

Figure 8: Job adverts estimates in Wholesale and Retail (WR) and Transports, Logistics, and Warehouse (TLS) 2019, 2020, 2021, and 2022



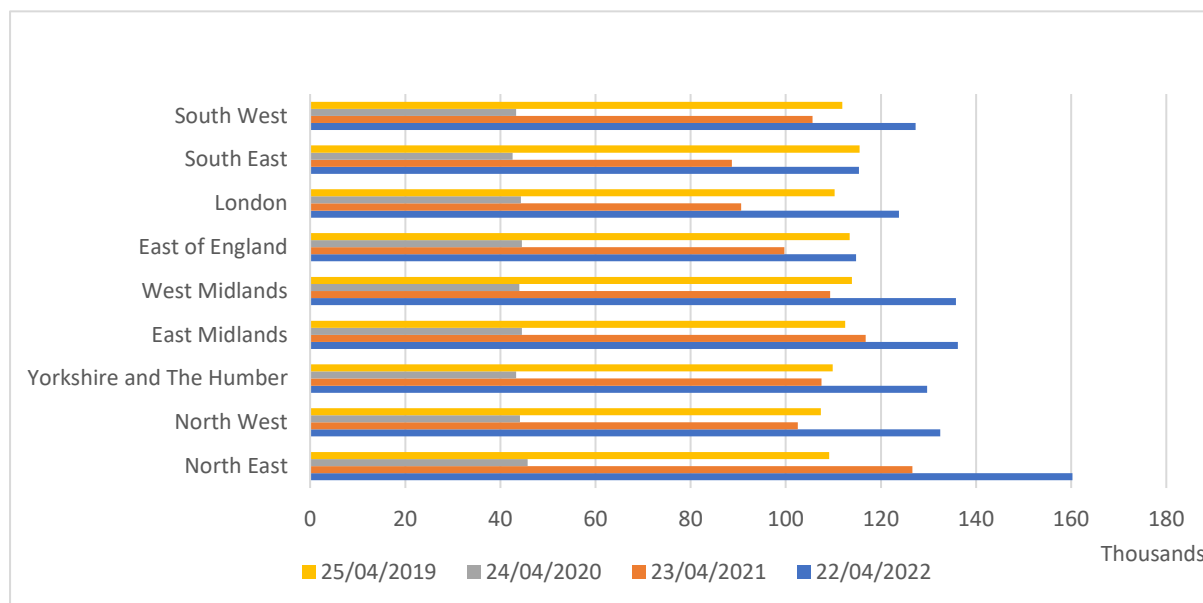
Source: Adzuna job adverts by category, 100 = average job adverts, deduplicated and non-seasonally adjusted (the last data collection point of each month)

When considering the growth of transport, logistics and warehouse sector jobs, it is important to note the geographic dimension. The UK Warehouse Association (2021) report indicates that warehouses in England are predominantly located in East Midlands, Northwest, West Midlands, Southeast, and Yorkshire. The Adzuna job advert estimates appear to reflect potential labour demand in these regions. Figure 9 shows the number of vacancies in



Northwest, East Midlands, West Midlands, and Yorkshire increased by 25,000, 24,000, 22,000 and 20,000 respectively in April 2022 compared to April 2019. The Northeast also saw an increase of 51,000 vacancies in April 2022 compared to April 2019. In contrast, the number of vacancies in Southeast returned to the pre-pandemic level.

Figure 9: Job advert estimates by regions, April 2019, 2020, 2021, 2022



Source: Adzuna job adverts by category, 100 = average job adverts, deduplicated and non-seasonally adjusted

Despite increased vacancies, the number of those in unemployment who reported spending over 12 months looking for a job remained higher than the pre-pandemic level. According to the LFS two-quarterly data between 2019 and 2021 over 30 per cent (nearly 420,000) reported looking for a job over 12 months in the final quarter of 2021, compared to 22 per cent (300,000) in the final quarter of 2019. In contrast, the number of those who found a job within six months returned to a level similar to the pre-pandemic, increasing by 303,000 in the final quarter of 2020

### 5.3 Worker Experiences of the labour market

#### Distribution

Respondents interviewed from distribution reported labour shortages with a high turnover of workers and continual efforts to recruit. Demand was put down to the increase in e-commerce and from homeworking under COVID-19. One worker reported that Amazon prefers full-time workers who could be required to do an extra day's overtime. She also said that management telephoned workers on their days off to try and encourage them to come into work.

Respondents also indicated factors underlying high turnover. One respondent from Sainsburys Distribution commented that younger workers had been brought in, but did not stay in the job long. He thought this was because they lived with parents and did not have families and responsibilities and would not put up with rigid monitoring:

*'We've got a very high turnover. People don't put up with it any more. They just say "well I'm not putting up with this, you've just had a go at me for coming back ten minutes late for my dinner, I'm just gonna leave, ta ta."' (Paul)*

Paul reported that there were more Eastern Europeans on the night shift, motivated by the desire for home ownership, whereas older UK workers had already bought houses and were at the end of their working lives prioritised the time off they could bank through annualised hours.

Across distribution and supermarket home delivery there was a high proportion of agency workers. However, at Tesco it was reported that the company had reduced its reliance on agency work for delivery drivers and moved to a model where they are directly employed by Tesco. One respondent, attributed reduced reliance on agencies to the necessity for a different business model in the light of labour shortages and the equalisation of pay rates:

*'Their reliance on agency is heavily reduced because obviously they're having to pay parity now, which is obviously in the past they would have deemed it to be the cheaper method. But now they're having to do pay parity and the fact there is such a shortage of drivers out there, their business model has changed now. So the business has really heavily recruited and they've been quite successful at that and getting people in the door.'* (Peter)

The location of warehouses affects retention. A number of warehouse workers stated that they had to commute some distances to work adding hours to their working day as well as incurring travel costs. One described her journey to work and back as adding four hours to her working day, with the nearest station to the warehouse a 40-minute walk. Another left a warehouse job because of four hours daily travel to the warehouse, 20 miles from his home. The company put a minibus on, but he would not get home until midnight.

#### *Retail*

Debenhams workers were characterised by a combination of older sales staff with long service and younger workers whom the older workers described as having a high turnover because of an intolerance of poor pay, working conditions and perceived poor customer behaviour.

*'By the time [Debenhams] was closing down, we'd have younger members of staff who would join and [soon] just quit the job on the spot. Times have changed, and these young people, they're not willing to put up with it.'* (Charles).

In contrast older participants often referred to their many years in retail as a 'career'; often rotating between different roles, departments, and branch locations. One participant described working for Debenhams as "how you would imagine it to be if you're starting a career as an air hostess or something like that" (Sue) because of the company's earlier emphasis on high-quality customer service.

#### *Delivery*

Over Christmas 2021 Amazon drivers were given a £1000 bonus if they referred a driver to the company and an operations manager said this was common practice across the distribution sector. It was reported that Tesco was struggling to fill vacancies for both warehouse and for depot delivery drivers. The company was using agencies for home delivery workers in some areas. It was promoting driving apprenticeships for HGV drivers from among the retail workforce, particularly those in home (dot.com) delivery who were largely male. Home delivery drivers reported that shortages meant there was overtime available although the maximum hours drivers can work is 54 hours a week.

## 6. Findings: Sectoral and Occupational Transitions - who is moving and where

The report now tracks key changes that have occurred in the UK labour market amid the COVID-19 pandemic and then identifies how far there has been movement between sectors and occupations (labour market flows), including in the light of the transition to online retail. It further aims to detect whether there are emerging trends in terms of gender, race and ethnicity and age.

### 6.1 Sectoral Contexts

The literature suggests that the stark increase in vacancies in the transport and warehousing sector compares to a slower recovery in traditional retail reflecting a longer-term trajectory from in-store to online shopping (Carrillo-Tudela et al., 2021). The retail sector had more employees on furlough during the pandemic than any other sector with almost two million jobs being at risk (Gable et al., 2020). Johnes (2018) emphasises the lack of information about worker displacement in the retail sector, how quickly and in which sectors they find jobs, or the characteristics of workers that are most successful in the transition process.

It is suggested that there is *potential* to absorb ex-retail staff in the logistics sector as there are similarities in the workforce in terms of qualifications (70% of employees in the retail and logistics sector have NVQ3-level qualifications) and some transferable skills which apply to both sectors, especially around stock movement and control (Turley Economics, 2020). However, as shown in the analysis above, and in the work of others (e.g., Pettigrew, 2005), retail work is often characterised as demanding interpersonal skills, whereas warehouse work is characterised as repetitive and physical demanding. As such, warehouse and distribution work is potentially vulnerable to increased automation (Kik et al., 2019). Instead, Gardiner and Tomlinson (2019) argue that before the pandemic retail staff were most likely to move into other interpersonal, and gendered, occupations such as social care and hospitality sectors, rather than into the logistics or warehouse sector. Social skills utilised in frontline retail jobs may be more easily transferred into these sectors. The Brexit and post-COVID-19 surges in those exiting from social care suggests that this transition may not have materialised.

In the Sainsbury's-Argos group by September 2020, almost 40 per cent of group sales took place online, up from about 19 per cent a year earlier. In response the supermarket group planned to close 420 standalone Argos shops, up to 80 branches of Sainsbury's and all of its supermarket deli, meat and fish counters. The shift would involve 3,500 job losses but, the company expected to employ 6,000 more workers in 32 local fulfilment centres that would operate 'Argos' fast-track delivery operations, delivering to customers' homes and Argos stores and collection points.' The Argos and Sainsbury's supply chain and logistics were to move into a single network with a number of existing depots set to close and investment in digital technology. The company stated that it expected to offer alternative jobs to most staff threatened by job losses<sup>1</sup>. This apparent restructuring within retail may be reflected in the churn within the sector suggested by labour market statistics.

Costa Dias suggests that the impact of the closure of physical shops is higher for experienced workers whose vulnerability to the virus may make it difficult to take alternative jobs (Costa Dias et al. 2020). This notion is in line with evidence that suggests that typically ex-retail employees are more likely be unemployed for six months or more compared to the average

---

<sup>1</sup> <https://internetretailing.net/strategy-and-innovation/strategy-and-innovation/more-than-400-argos-and-sainsburys-stores-to-close-as-online-business-doubles-in-the-first-half-of-the-year-22254>

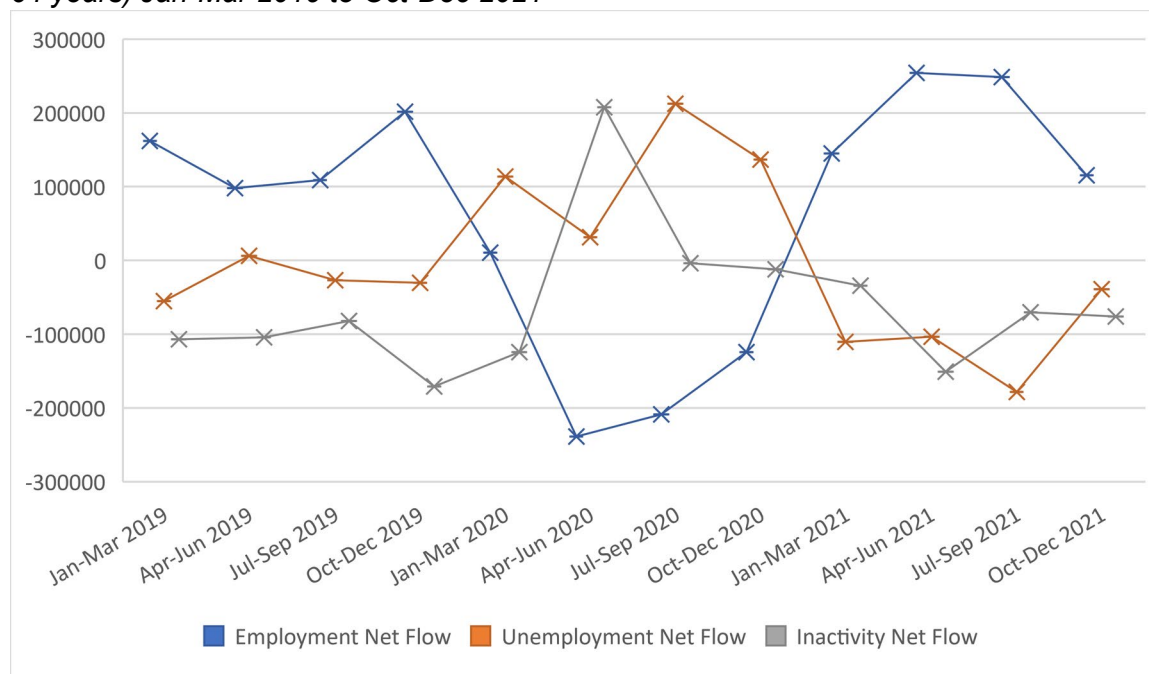
across sectors (Gardiner and Tomlinson, 2019). According to Blundell et al. (2021), research on “scarring effects” of unemployment shows that in relation to earning progression and employment prospects, the negative impact can last up to ten years in individual careers. In the context of COVID-19 this effect is may be exaggerated, leading to increased inequalities in terms of age and gender, particularly if the shift from in-store to online shopping results in a long-term reduction in demand for jobs in retail sectors and an increase in demand for jobs in technology sectors (Blundell et al., 2021). Nevertheless, Brewer et al. (2021) suggests that sectoral reallocation has not happened through workers moving from shrinking sectors to growing sectors, but that changes in the sizes of different sectors happen by new entrants to the labour market going to expanding sectors while people leaving the hard-hit sectors move into unemployment and inactivity.

## 6.2 Statistical Analysis – Labour Market Transitions

### Labour Market Participation

As Figure 10 shows, the pandemic has led to a low level of labour force participation, labour market mismatch, and low employment levels. The low level of participation results from the rise in economic inactivity primarily due to ill health or retirement. The Coronavirus Job Retention Scheme that lasted between 1st March 2020 and 30th September 2021 also appears to play a role in the labour force participation as a sharp increase in the net flow into unemployment can be observed at the end of the scheme. Economic inactivity increased from the third quarter of 2021. The mismatches are evident in the low unemployment-to-vacancy ratio with high numbers of vacancies and an unemployment rate close to the pre-pandemic level.

Figure 10: Changes in the net flow of employment, unemployment, and inactivity (aged 16 to 64 years) Jan-Mar 2019 to Oct-Dec 2021



Source: Authors' calculation based on the ONS Vacancy Survey two-quarter datasets.

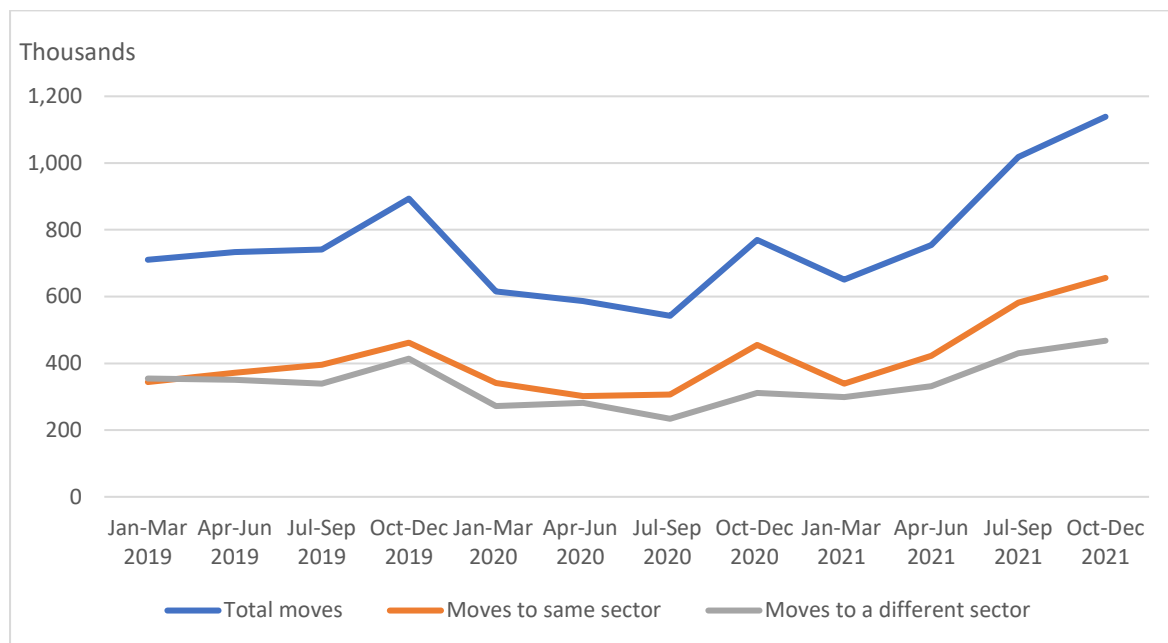
While the ONS has yet to release the LFS data for the first quarter in 2022, the latest LFS data that covers the period between December 2021 and February 2022 shows similar trends with a continuous fall in labour force participation and growing numbers in economic inactivity - 490,000 higher than the pre-pandemic level (IES, 2022). In particular, the number of the

population that cited long-term ill health as the reason for being economic inactive reached 2.38 million.

### Sectoral Transitions

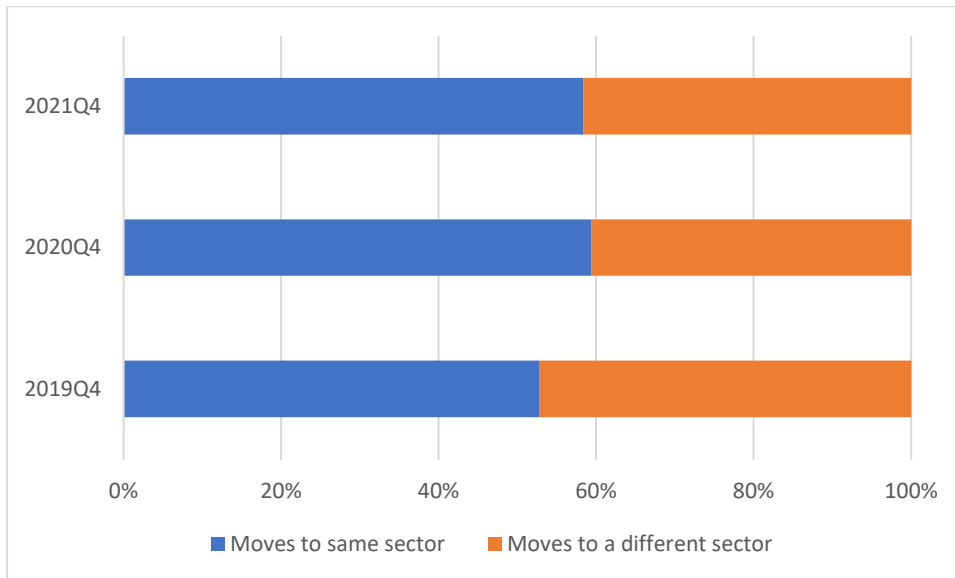
The sectoral analysis considers overall job-to-job moves and changes to the sector of wholesale, retail, and repair of motor vehicles (SIC 2007 one-digit level), and the sector of retail (except vehicles), warehousing and support for transport, and postal and courier activities (SIC 2007 two-digit level) between 2019 and 2021. Overall, the number of job-to-job moves in the final quarter of 2021 was nearly twice as high as in the same quarter of 2020 and over 27 per cent higher than in 2019 (Figure 11). Job-to-job moves within the same sector increased during 2021, following a decline from the final quarter of 2019. The number of workers moving to a different sector dropped during the first wave of the pandemic, but gradually returned to the pre-pandemic level and reached 468,000 in the final quarter of 2021. The number to a different sector was over 40 per cent of the total movements in the final quarter of 2021, which was slightly lower than the proportion for the same quarter of 2019 (Figure 12). The sectoral movements primarily affected those in water supply, administrative support, wholesale, retail, and repair of vehicles, and the service sector.

Figure 11: Level of job-to-job moves in total and within and across sectors between 2019 and 2021



Source: LFS Two-quarterly dataset 2019, 2020, 2021

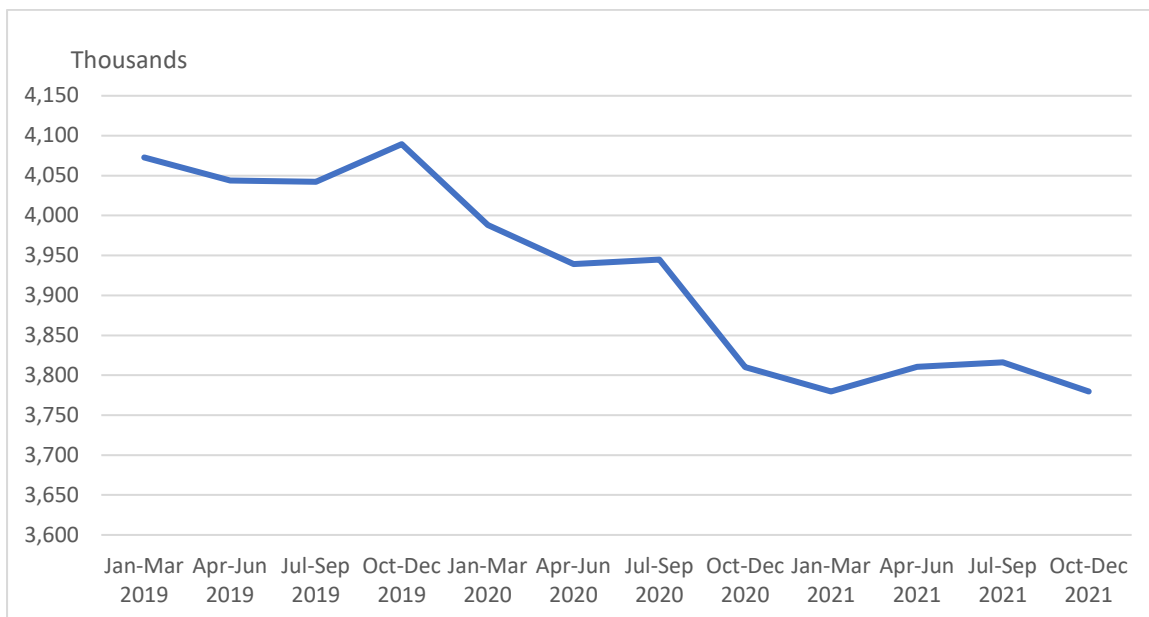
**Figure 12: Level of job-to-job moves to same sector and a different sector, final quarter in 2019, 2020, and 2021**



Source: LFS Two-quarterly dataset October – December 2019, 2020, 2021

The analysis of employment in the wholesale, retail, and repair of motor vehicles as a standalone sector at the one-digit level shows (Figure 13) shows a trend of decline amid the pandemic and has yet to recover from the significant outflow of workers. Compared to the final quarter of 2019, the number of workers in this sector declined by over seven per cent in the same quarter of 2021.

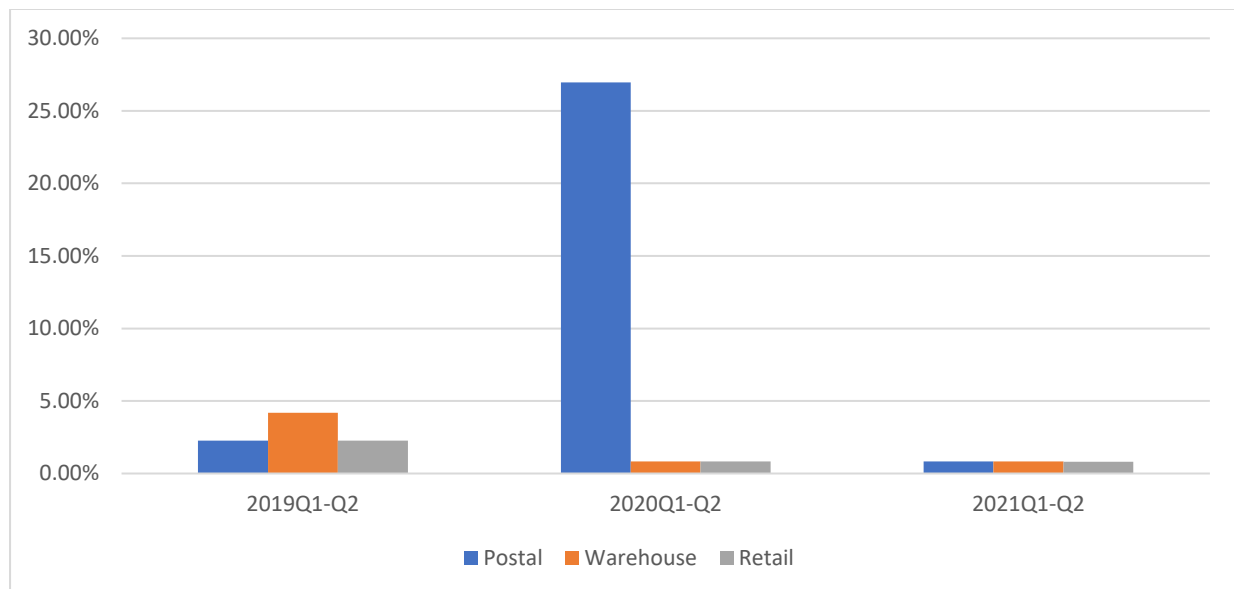
**Figure 13: Level of job-to-job moves in the sector of wholesale, retail & repair of motor vehicles between 2019 and 2021**



Source: LFS Two-quarterly dataset 2019, 2020, 2021

An analysis of specific sector flows was carried out on a two-digit level for the purpose of identifying changes to the three sectors included in this study, which are the retail trade (except vehicles), warehousing and support for transport, and postal and courier activities. The impact of the pandemic on postal and courier activities is evident in the net inflow (difference between those joining and leaving the sector) of nearly 30 per cent between the first two quarters in 2020 (Figure 14). In contrast the net inflow to the other two sectors during this period remained low at 0.83 per cent. Compared to the pre-pandemic trend when there was a net flow of over four per cent between the first two quarters of 2019, the net flow in warehousing and support for storage between the first two quarter of 2020 and 2021 decreased by over three percentage points. Similarly, the net flow in the sector of retail except vehicles during the first two quarters of 2021 decreased by over one per cent compared to the same period in 2020 and 2019.

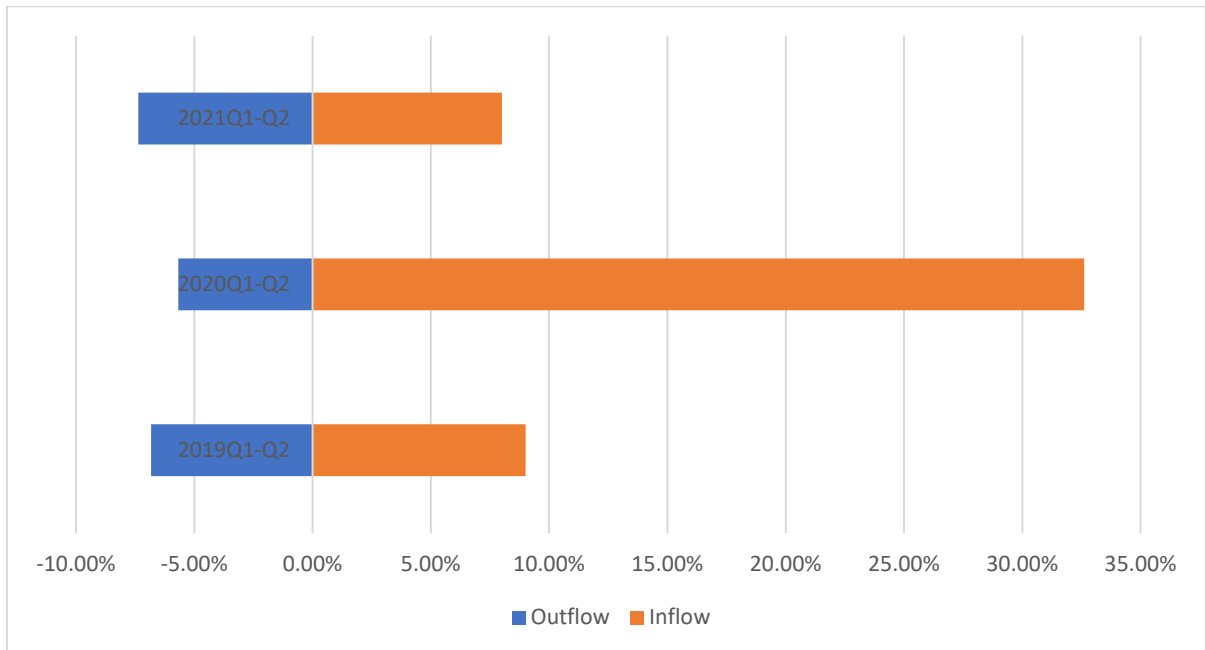
*Figure 14: Sectoral net flow in the sector of retail (except vehicles, 47), warehousing and support for transport (52), and postal and courier activities (53) between the first two quarters of 2019, 2020, and 2021*



*Source: LFS Two-quarterly dataset January-March 2019 and April-June 2019, January-March 2020 and April-June 2020, and January-March 2021 and April-June 2021*

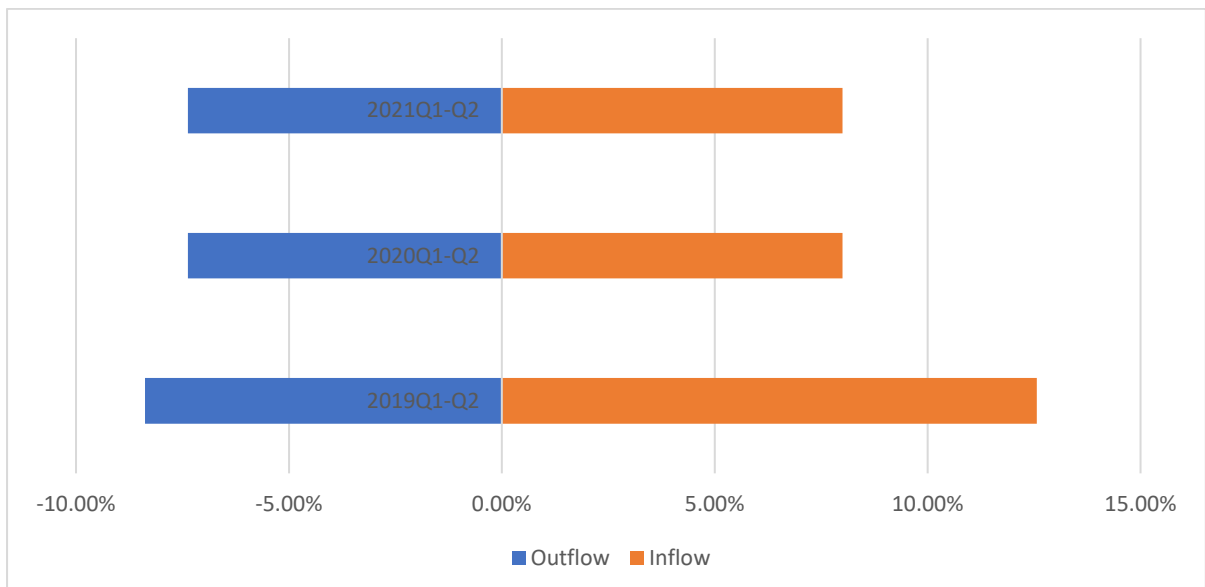
The outflows from these three sectors during the first two quarters of 2019, 2020, and 2021 are similar - within the range of over five and over eight percentage points (Figures 15,16 and 17). The inflow into these sectors during the first two quarters of 2021 are also similar (around 8%). However, warehousing and support for storage saw a larger decrease in the inflow from 13 per cent in the first two quarters of 2019 to only eight per cent in the same quarters in 2021. The exit from the sector may reflect the departure of EU workers. The changes to the inflow in the other two sectors between the pre-pandemic period and early 2021 were comparatively small with a difference of one percentage points.

Figure 15: Sectoral gross outflow and inflow in the sector of postal and courier activities (53) between the first two quarters of 2019, 2020, and 2021



Source: LFS Two-quarterly dataset January-March 2019 and April-June 2019, January-March 2020 and April-June 2020, and January-March 2019 and April-June 2019

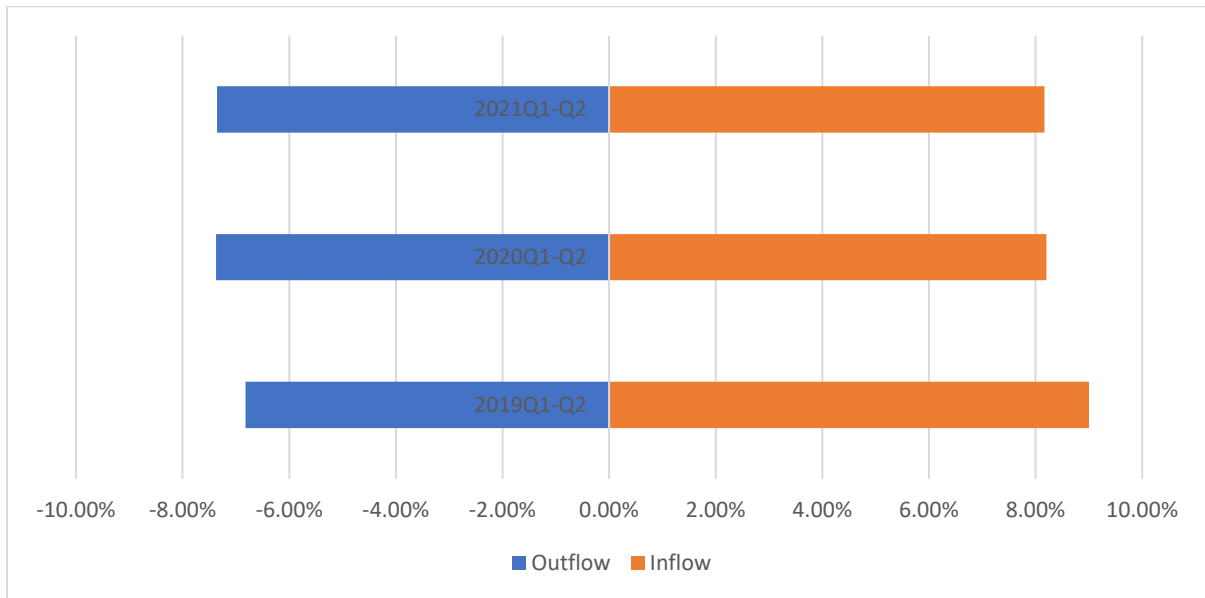
Figure 16: Sectoral gross outflow and inflow in the sector of warehousing and support for transport (52) between the first two quarters of 2019, 2020, and 2021



Source: LFS Two-quarterly dataset January-March 2019 and April-June 2019, January-March 2020 and April-June 2020, and January-March 2019 and April-June 2019



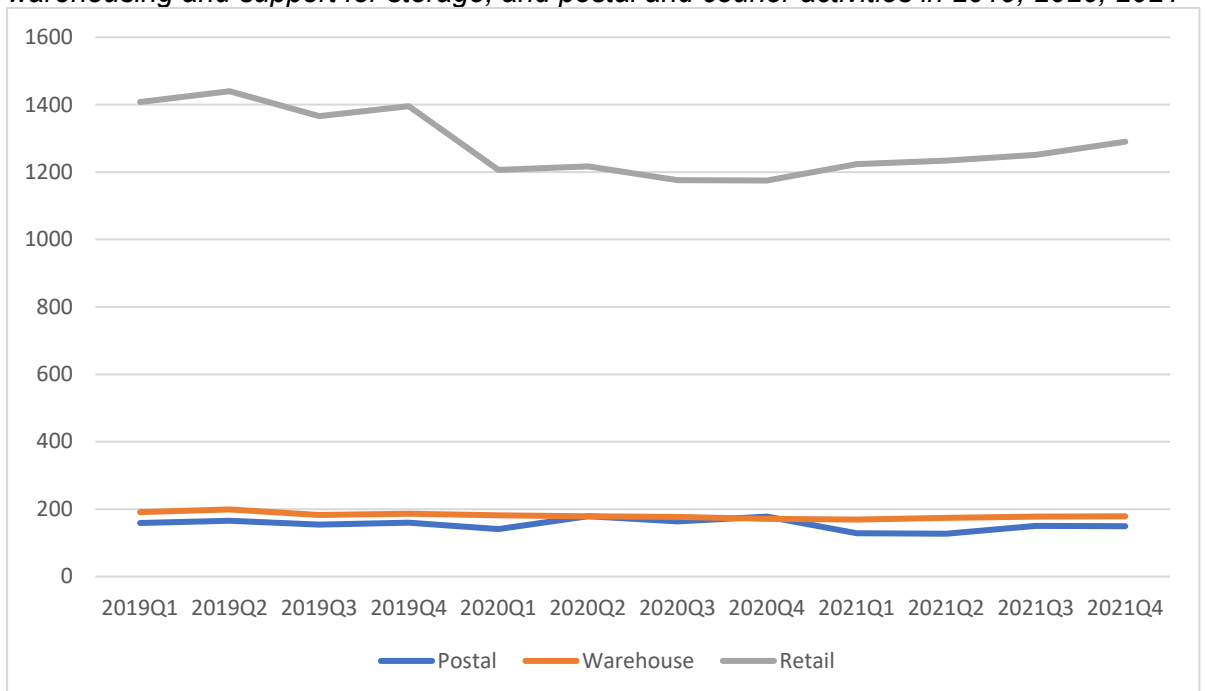
Figure 17: Sectoral gross outflow and inflow in the sector of retail (except vehicles, 47) between the first two quarters of 2019, 2020, and 2021



Source: LFS Two-quarterly dataset January-March 2019 and April-June 2019, January-March 2020 and April-June 2020, and January-March 2019 and April-June 2019

Figure 18 indicates the overall picture over the period with employment in retail not recovering to pre-pandemic levels, the numbers in retail slightly reduced and the temporary influx into postal and courier services returning to pre-pandemic levels.

Figure 18: Numbers of individuals employed in the sector of retail (except vehicles), warehousing and support for storage, and postal and courier activities in 2019, 2020, 2021



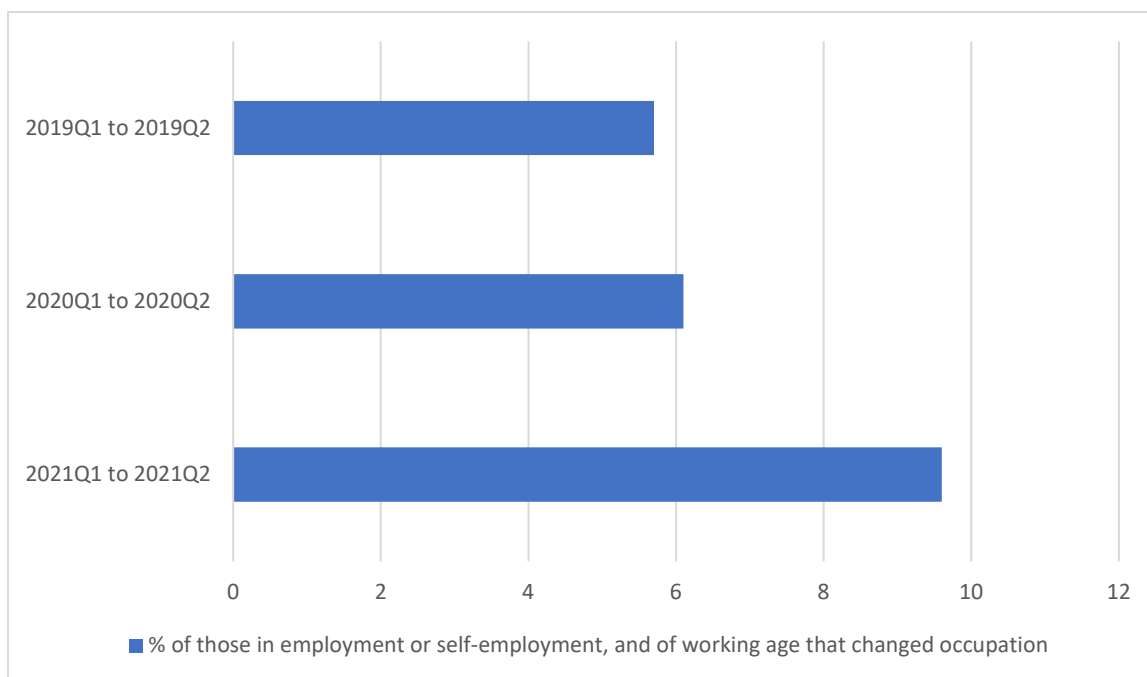
Source: LFS Two-quarterly dataset 2019, 2020, 2021

### Occupational Transitions

The occupational group (main job) variable in the 2021 dataset adopts the SOC2020 classification whereas the 2020 and 2019 datasets use SOC2010<sup>2</sup>. The analysis of the occupational flows in this report focuses on the equivalents of the occupational groups related to retail, warehousing, and delivery work in SOC2020 and SOC2010 using the ONS conversion. Four SOC2010 groups are considered in the analysis of occupational flow between 2020 Q1 and Q2 and 2019 Q1 and Q2, including Sales and retail assistants (7111), Retail cashiers and check-out operators (7112), Van drivers (8212), and Elementary and storage occupations (9260). Four equivalent SOC2020 groups are considered in the analysis of occupational flow between 2021 Q1 and Q2, including Sales and retail assistants (7111), Retail cashiers and check-out operators (7112), Delivery drivers and couriers (8214), and Warehouse operatives (9252).

As illustrated in Figure 19, the pandemic appears to have an impact on occupational flows with 9.6 per cent reporting changes to their occupation between the first quarter and the second quarter in 2021. This is just over three percentage points higher than the proportion changing occupation between the same quarters in 2020. Compared to the pre-pandemic trends in the same quarters in 2019, nearly twice as many workers reported occupational change during the pandemic.

*Figure 19: Proportion of those in employment who changed occupation in the pre-pandemic period (Jan-Mar and Apr-Jun 2019) and during the pandemic period (Jan-Mar and Apr-Jun 2020; Jan-Mar and Apr-Jun 2021)*



Source: Labour Force Survey two-quarter datasets, Quarter 1 and 2 2019, 2020, 2021

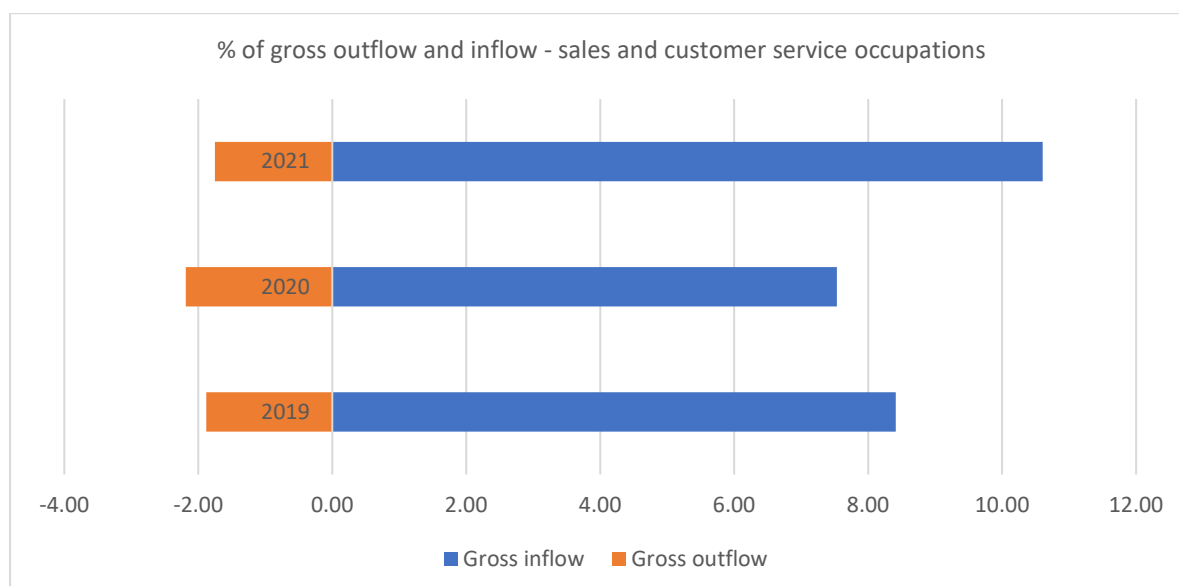
2

<https://www.ons.gov.uk/methodology/classificationsandstandards/standardoccupationalclassificationsoc/soc2020/soc2020volume1structureanddescriptionsofunitgroups>

Figure 20 shows the occupational flows of sales and customer service occupations, the only occupation that can be isolated from the one-digit occupational groups. It shows that sales and customer service occupations have seen both inflows and outflows over the period of the pandemic. However, this churn may also reflect a restructuring of the retail sector and impact of online retail with the introduction by major supermarkets of ‘fulfilment centres’.

The nearly two per cent outflow between the first and the second quarter of 2021, was primarily into administrative and secretarial roles, elementary occupations, managerial occupations and caring, leisure and other support occupations. The gross inflow into sales and customer services between the first and the second quarter of 2021 was over ten per cent, which was higher than the gross inflow between the first and the second quarter of 2019. These inflows primarily came from those who were employed in elementary occupations and as process, plant, and machine operatives. There was an over one per cent outflow from caring, leisure, and other services into sales and customer service in the final quarter of 2021. Despite these inflows labour demand continues to grow.

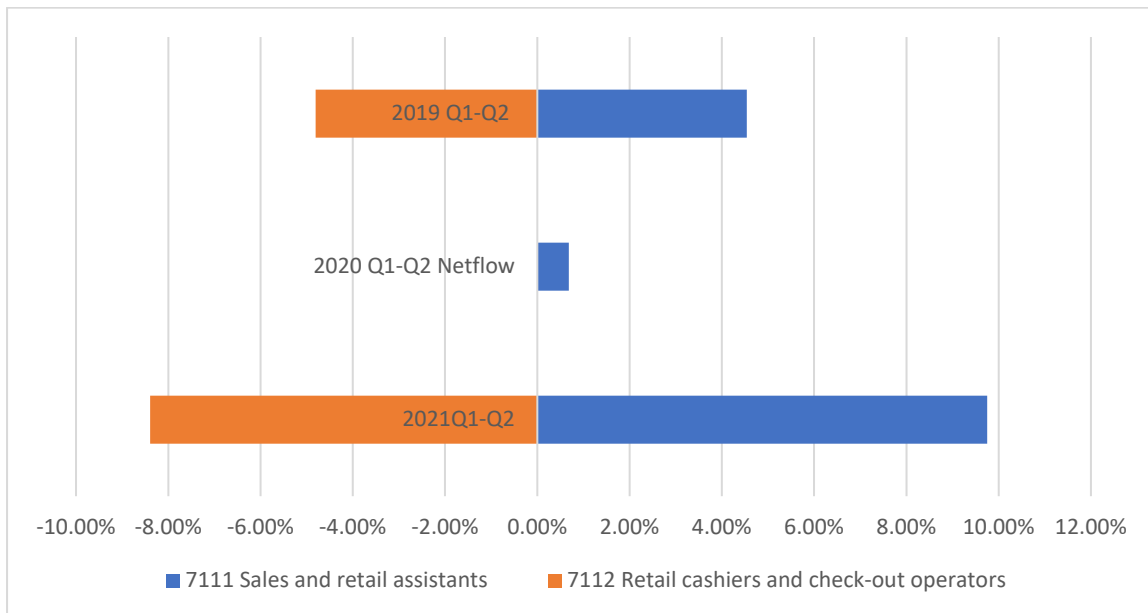
*Figure 20: Occupational flows of sales and customer service occupations in the pre-pandemic period (Jan-Mar and Apr-Jun 2019) and during the pandemic period (Jan-Mar and Apr-Jun 2020; Jan-Mar and Apr-Jun 2021)*



*Source: Labour Force Survey two-quarter datasets, Quarter 1 and 2 2019, 2020, 2021*

Figure 21 shows the increased net inflow by nearly ten per cent into the occupational group Sales and retail assistants (7111) between 2021 Q1 and Q2. This net flow is nearly twice as large as that between 2019 Q1 and Q2, following a significant drop to just 0.68 per cent between 2020 Q1 and Q2, in the middle of the pandemic. However, what is of interest is the opposite trend for Retail cashiers and check-out operators (7112) with a negative net flow of over eight per cent between 2021 Q1 and Q2 compared to negative net flow of nearly five per cent between 2019 Q1 and Q2 with little change between 2020 Q1 and Q2. The overall outflow for this occupation in the first two quarters of 2021 was over 24 per cent with the inflow rate over 16 per cent. This trend may reflect the increased automation of checkout in supermarkets.

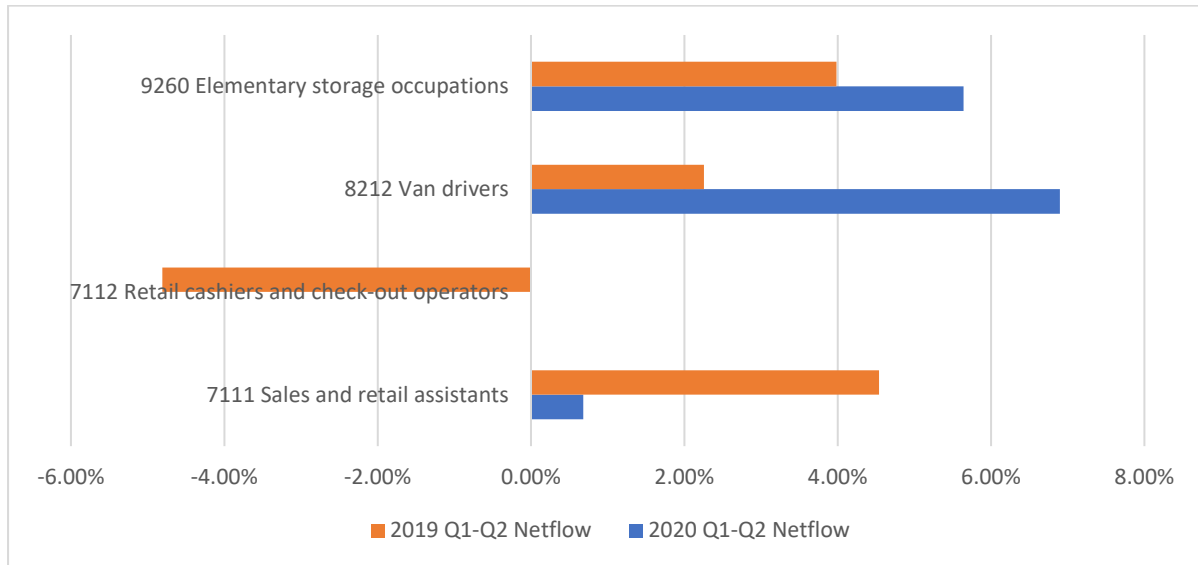
Figure 21: Occupational net flow in the occupational group of Sales and retail assistants (7111), Retail cashiers and check-out operators (7112), between 2019 Q1 and Q2, between 2020 Q1 and Q2, and between 2021 Q1 and Q2



Source: LFS Two-quarterly dataset January-March 2019 and April-June 2019, January-March 2020 and April-June 2020, and January-March 2019 and April-June 2019

Due to the differences between SOC2020 and SOC2010, the comparison between the other occupational groups can only be carried out for 2019 Q1 and Q2 and 2020 Q1 and Q2. As shown in Figure 22, the occupational group Van drivers (8212) saw a positive net flow of nearly seven per cent between 2020 Q1 and Q2 compared to just over two per cent between 2019 Q1 and Q2. A similar trend can be observed in the Elementary storage occupations (9260) that saw a positive net flow of over five per cent between 2020 Q1 and Q2 compared to over four per cent between 2019 Q1 and Q2.

Figure 22: Occupational net flow in the occupational group of Sales and retail assistants (7111), Retail cashiers and check-out operators (7112), Van drivers (8212), and Elementary and storage occupations (9260), between 2019 Q1 and Q2, and between 2020Q1 and Q2

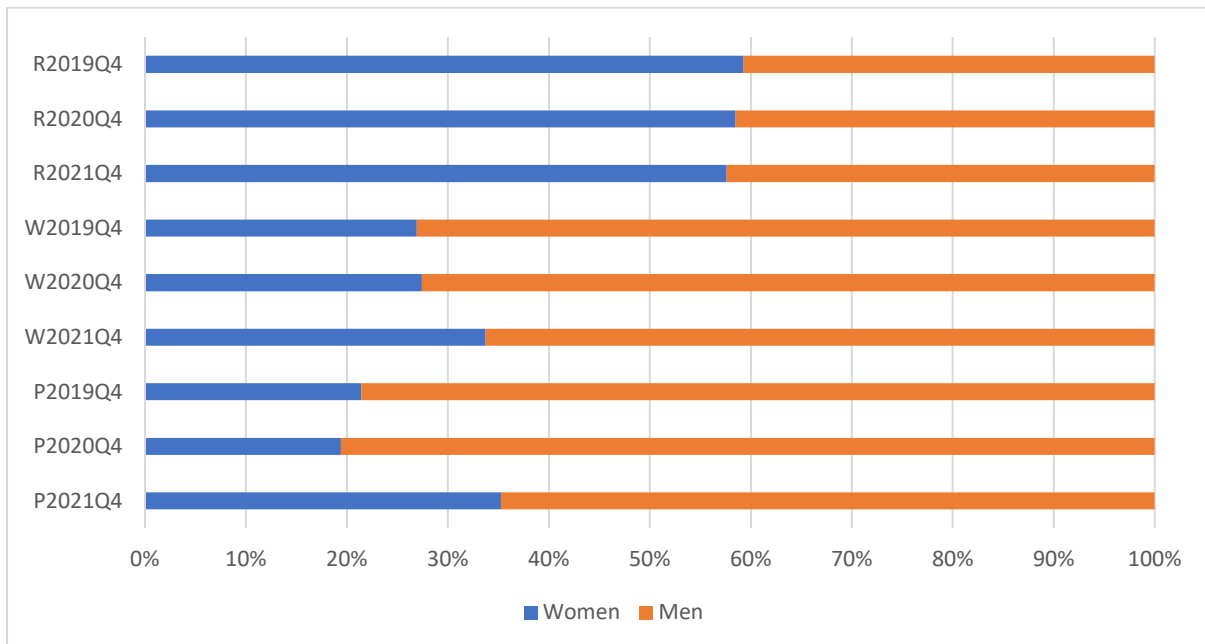


Source: LFS Two-quarterly dataset January-March 2020 and April-June 2020, and January-March 2019 and April-June 2019

#### Changes to occupation and sector by gender, age, and race and ethnicity

The gender composition of those employed in sales and customer service occupations remained almost the same throughout the pandemic as shown in Figure 23. Similarly, there was only a small decrease in the proportion of women working in retail. While the predominance of men in warehousing and support for transport was unchanged during the pandemic, the proportion of women working in this sector increased to 33 per cent in the final quarter of 2021 from 27 per cent in the same quarter in 2019. The substantial gender divide in postal and courier services that predated the pandemic reduced, with a growth in the proportion of women entering the sector. Following a decline during the pandemic, the proportion of women working in postal and courier service in the final quarter of 2021 was higher than the final quarter in 2020 by 16 percentage points and higher than the final quarter in 2019 by 14 percentage points.

Figure 23: Gender composition of workforce, aged 16 and 64 years, in retail (except vehicles) (R), warehousing and support for transport (W), and postal and courier service (P), the final quarter of 2019, 2020, 2021

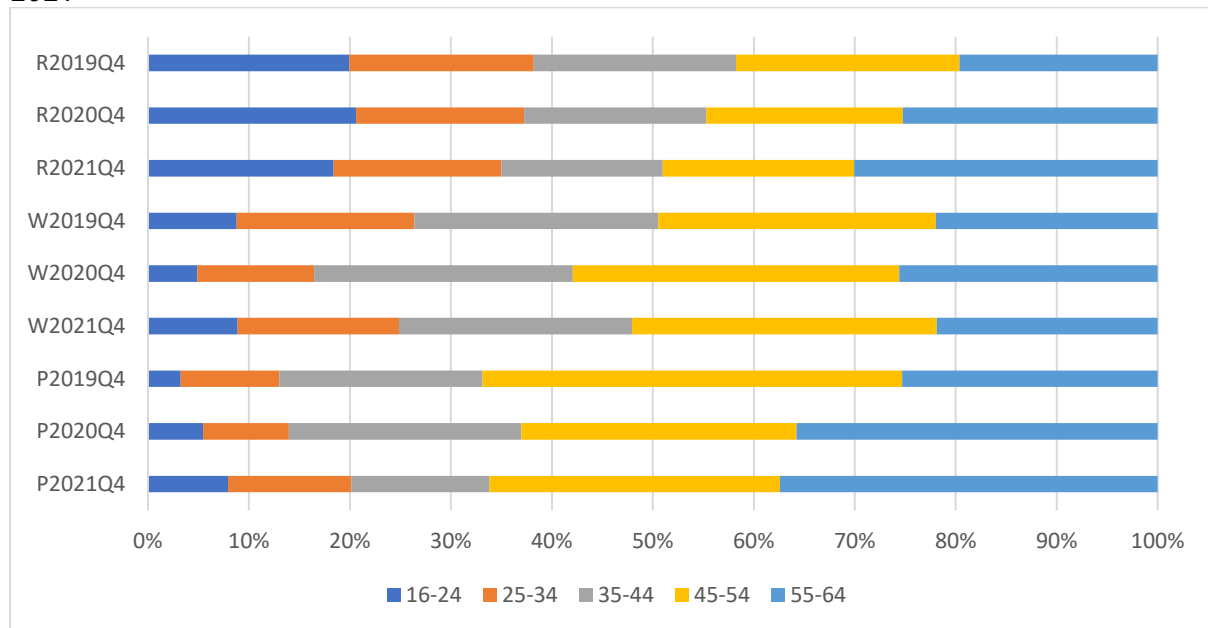


Source: Labour Force Survey two-quarter datasets, Quarter 4 2019, 2020, 2021

In terms of age Figure 24 shows that both retail and postal and courier activities appeared to attract an inflow of older workers, with increases of over 12 and 10 percentage points between the final quarters of 2021 and 2019. However, there was a very small outflow from warehousing and support for storage (0.1%). The impact of the pandemic on the 45-54 age group was different, with an outflow from retail and postal and courier activities (a decrease of over 2% and 12%) over the period. Warehousing and support for storage saw a small inflow of over two percentage points.

Both the postal and courier activities and warehousing and support for storage saw an inflow from younger workers aged 16-24 in the final quarter of 2021 compared to the same quarter in 2019, although the increase in the former (over four percentage points) is more substantial than the latter (lower than 0.1 percentage points). In contrast, retail saw an outflow in the final quarter of 2021 with a difference of over one percentage point compared to the same quarter in 2019.

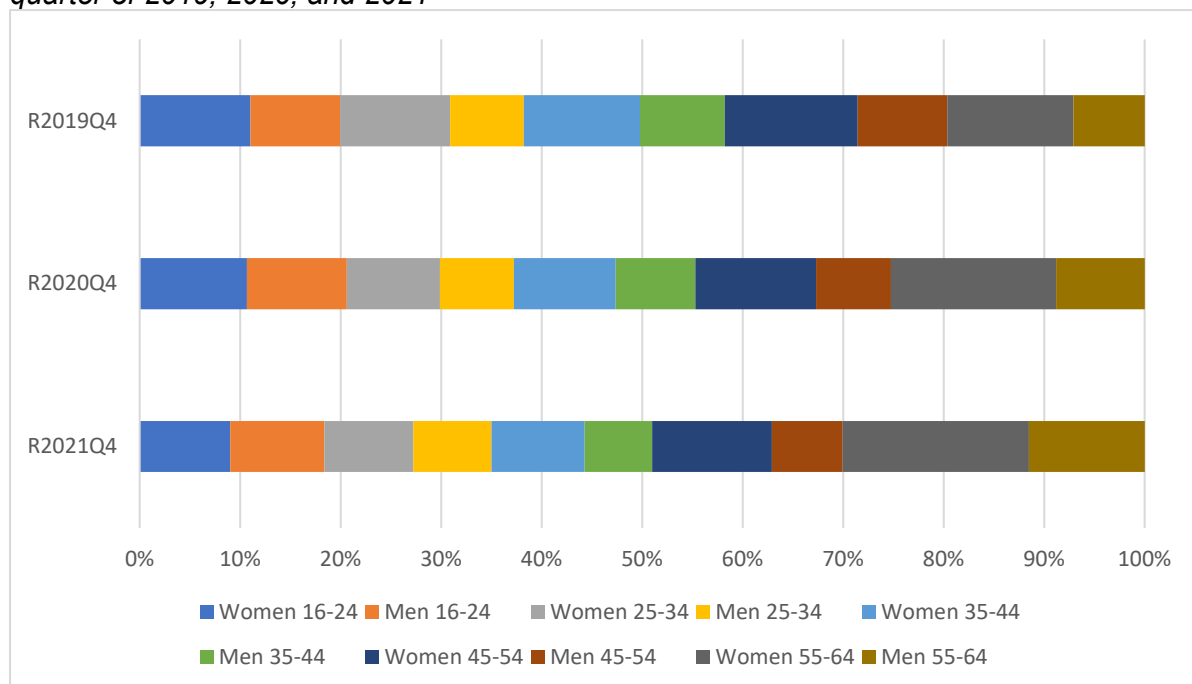
**Figure 24: Workforce by age (16-64) in retail (except vehicles) (R), warehousing and support for transport (W), and postal and courier activities (P), the final quarter of 2019, 2020, and 2021**



Source: Labour Force Survey two-quarter datasets, Quarter 4 2019, 2020, 2021

The age and gender divide of the workforce in these three sectors as shown in Figure 25 suggests that the outflow from the retail sector in the final quarter of 2021 predominantly affected women, especially in the 35-45, 25-34 and 16-24 age groups. Each of these groups reduced by two percentage points compared to the same quarter in 2019. The inflow into this sector primarily comprised older women and men aged 55-64 respectively by over six and over four percentage points.

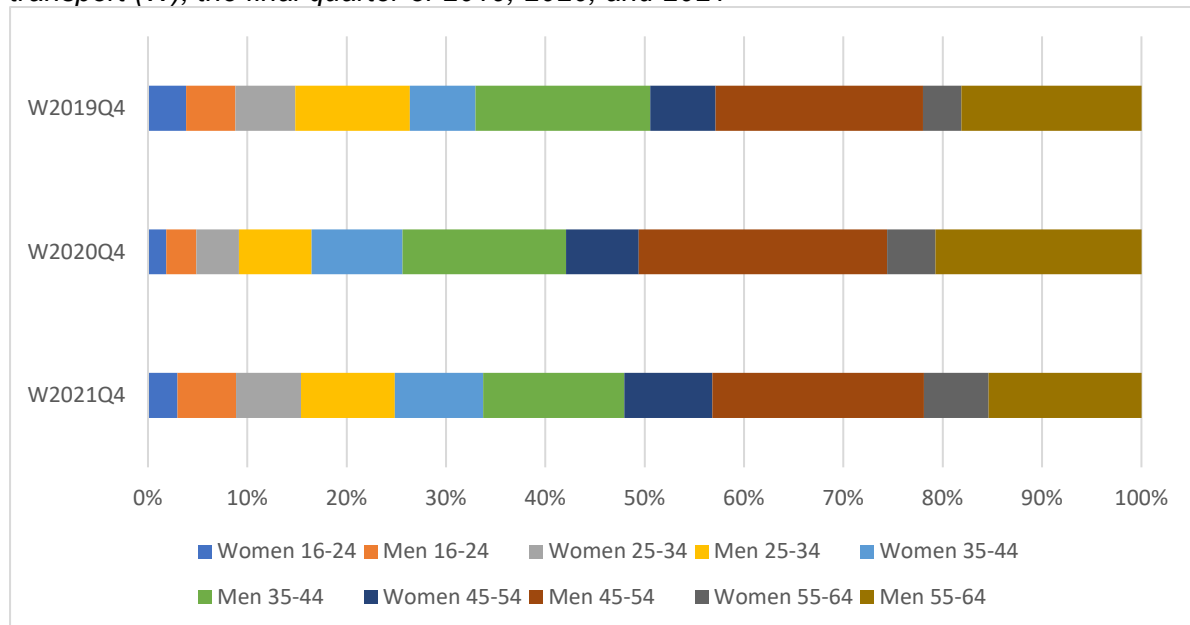
**Figure 25: Workforce by age and gender, aged 16-64, in retail (except vehicles) (R), the final quarter of 2019, 2020, and 2021**



Source: Labour Force Survey two-quarter datasets, Quarter 4 2019, 2020, 2021

In warehousing and support for storage outflows primarily involved men aged 35-44 with a decrease of over three percentage points in the final quarter of 2021 compared to the same quarter in 2019 (Figure 26). There was a similar trend among older men aged 55-64 (a decrease of over two percentage points). In contrast, women in this age group entered the sector (an increase of over two percentage points compared to the pre-pandemic level).

Figure 26: Workforce by age and gender, aged 16-64, in warehousing and support for transport (W), the final quarter of 2019, 2020, and 2021

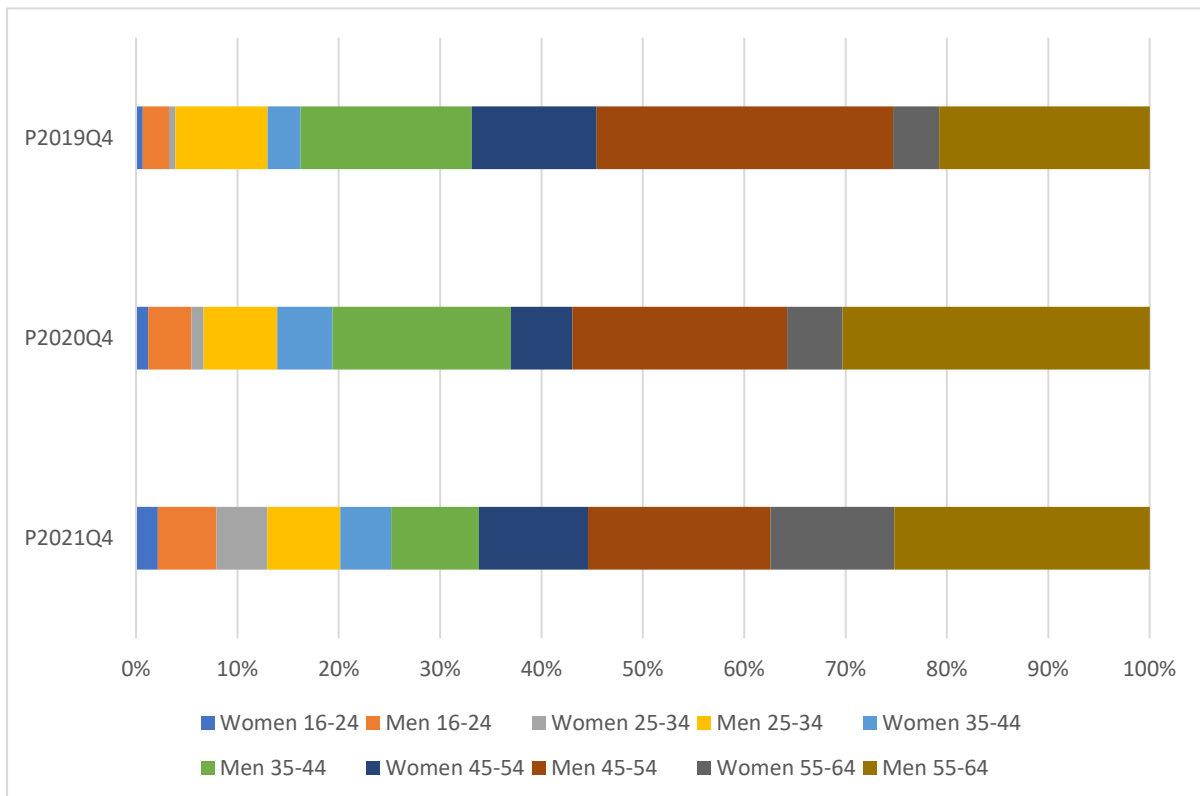


Source: Labour Force Survey two-quarter datasets, Quarter 4 2019, 2020, 2021

Both older women and men aged 55-65 contributed to the inflow into the sector of postal and courier activities in the final quarter of 2021 with an increase of over seven and over four percentage points compared to the pre-pandemic level. Similarly, younger women and men aged 16-24 also flowed into this sector with an increase of over one and over three percentage points. The outflow occurred primarily due to the substantial decrease of men aged 45-54 (by over 11 percentage points). Figure 27 details the composition of the sector by age and gender in this sector.



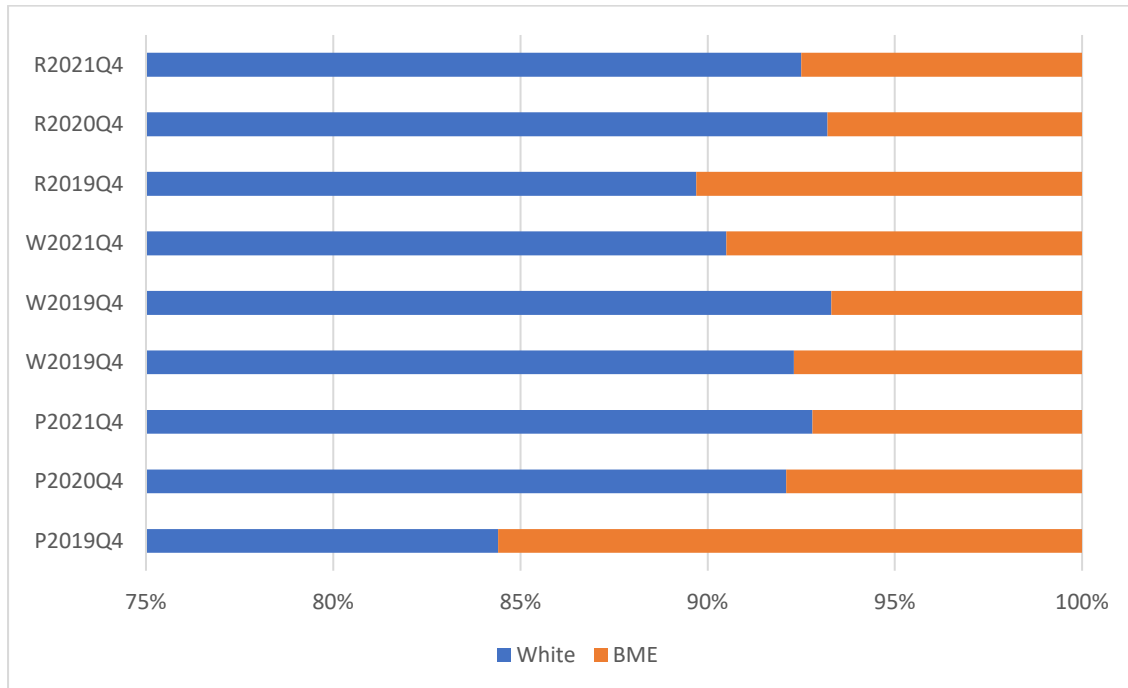
Figure 27: Workforce by age and gender, aged 16-64, in postal and courier activities (P), the final quarter of 2019, 2020, and 2021



Source: Labour Force Survey two-quarter datasets, Quarter 4 2019, 2020, 2021

Changes in the ethnicity of the workforce aged 16-64 in the three sectors occurred amid the pandemic as shown in Figure 28. The proportion of the BME workforce in the retail sector in the final quarter of 2021 was nearly three percentage points lower than that in the same quarter of 2019. Similarly, the proportion of the BME workforce in postal and courier activities declined in the final quarter of 2021, over eight percentage points below the same quarter of 2019. At the same time the comparatively high proportions of BME workers in the postal and courier sector should be noted. In contrast, the proportion of BME workers in warehousing and support for transport in the final quarter of 2021 increased by nearly two percentage points compared to the pre-pandemic level.

Figure 28: Workforce ethnicity (nine-digit categories, UK Level), aged 16-64, in retail except vehicles (R), warehousing and support for transport (W), and postal and courier activities (P), the final quarter of 2019, 2020, and 2021



Source: Labour Force Survey two-quarter datasets, Quarter 4 2019, 2020, 2021

### 6.3 Worker Experience

#### Distribution

Respondents from distribution reported that the direct workforce was largely male and older, but there were substantial proportions of migrant workers. These were generally Eastern Europeans, although it was reported that numbers had reduced since Brexit. Across distribution there were generally high proportions of agency workers, although there were variations in the use of agency workers between companies. At a kitchen supplier warehouse in the northeast, agency workers comprised half of the workforce. Where trade unions were recognised, collective agreements may regulate agency work. In Sainsburys the union has an agreement for an 80/20 split between directly employed and agency workers. The main differences in terms and conditions between direct and agency were over sick pay and representation – the recognised trade union is not allowed to represent agency workers. Sick pay became an issue during COVID-19; if agency staff were identified as vulnerable by the track and trace system, they would have to go off on Statutory Sick Pay (SSP), while permanent workers got full pay.

Complicating the statistical analysis above is evidence from the interview respondents who reported that agency workers might have multiple jobs. A number remarked reported that agency workers might have second jobs, while here were others that could not get work elsewhere, including graduates. A number said that agency workers are more likely than direct workers to be women, including students and women with children working shifts in the middle of the day around school hours. In one Sainsburys distribution centre on the outskirts of London it was estimated that 30 per cent of agency workers were women. In contrast at a

Tesco warehouse in South England women workers comprised only 5-6 per cent of the workforce, but this may reflect lesser reliance on agency workers. This detail regarding the relationship between agency work and gender may suggest that while women have increased their representation in distribution during the pandemic, they may also be on inferior and more precarious contracts. There is also evidence of a gendered division of labour within distribution. For example, pickers in a home-delivery depot were primarily women. In Amazon women were more likely to do scanning and labelling of parcels rather than loading, which involved heavy lifting, reflecting a division of labour within the warehouse labour process.

The interviews with warehouse workers suggest some transitions between warehouse and retail work amongst younger workers. One Amazon warehouse worker had decided to move to retail and had applied to Lidl. A worker at a kitchen supplier warehouse wanted a permanent job because as an agency worker he did not get holiday or sick pay. His preference was to return to Tesco stores, where he had previously worked, on a permanent contract with more stability as well as reduced travel time to the warehouse. At the same time, he cited customer abuse as a downside of retail work. In contrast, one Amazon warehouse worker had worked at JD Sports and moved to Amazon because the pay was better and she got paid overtime, which was not the case at JD Sports. However, she said that Amazon workers worked under strict conditions and were not supposed to talk to each other and she found working in Amazon repetitive:

*'It's just the same thing over and over again and say if I get a new job, it might not be the same as when I was working in JD. That's the one thing that kept me in JD was the people that I worked with because I got close with them and made friends with them. But in Amazon it was just weird that there were so many people, but I didn't really speak to people like that as well.'* (Marianne)

The testimonies demonstrate movement between retail and distribution, and, at least younger respondents, saw both sectors as offering jobs which they could move into. The interviewees oscillate between which sector is the most desirable, and why. Distribution work is physically demanding with possible limited interpersonal contact, yet better pay and more stability in terms of hours and contractual status. Finally, Marianne's comment regarding the importance of relationships within the workplace was something that others describe as an important dimension of their experience of work. The importance of colleagues was asserted at Sainsburys by a warehouse operative who, in contrast to Marianne, said that his work colleagues were the best thing about the job: that there was *'a lot of banter and humour. A lot of mick taking. So you can have a laugh'*. At the same time a young worker who had moved from London to the northeast was one of only two Black workers and said of his colleagues, *'not a lot of people know what to say to be politically correct most of the time. You just have to correct them, to make sure.'* At Amazon, workers also described workgroups based on ethnicity that extended into social spaces. The stronger social networks amongst older warehouse workers may reflect longer service, but also their unionised environments.

### *Retail*

Debenhams workers reported a largely female workforce, although managers were more likely to be male, reflecting what is already known about the sector (Pettigrew, 2005). Yet workforce composition also varies by type of retail environment. On the collapse of Debenhams one male, who described having been *'vastly outnumbered by females'* (Kenny), moved to PC World Curries with a '70/30' split in favour of men. Following the collapse of Debenhams participants did not describe sectoral mobility. They had ended up in other retail environments; largely other physical retail stores such as TKMaxx, CeX, Sofa furniture land, Carphone warehouse, and the major supermarkets. A number now worked for Dunelm who seemed to

have actively recruited Debenhams workers: *'Dunelm have taken on a lot of people' (June)*. Some of the older workers said that retail was the industry where they had developed their skills and for them it would be difficult to move into another sector. One participant who had worked in the men's suits department at Debenhams was about to start a new job at Slaters, where he felt that he could deploy his interpersonal skills and vocational knowledge:

*'I'm starting at Slater Menswear within a couple of weeks, and that's because of my experience. Nobody seems to hire on qualifications at the moment, do they? It's all about experience. So I had a trial day in there and they basically just gave me a tape measure and just said 'okay, go.' And I was able to measure everybody up correctly, find out what they wanted, have a little chat and laugh with them [customers], and I just fit right into it because it's what I've always done.'* (Charles).

For another former Debenhams's worker:

*'I think it's more a lot of us have gone towards roles that are still quite heavy on customer service, actual talking to customers and building up relationships [that's] more involved with the customers themselves. That's what the majority of us have ended up doing in one form or another.'* (Joseph)

The value these older respondents placed on interpersonal and customer service skills and experience in the context of the retail sector suggests a barrier to occupational or sectoral transitions. However, even those who remained in the retail sector found their experiences very different to Debenhams – a recurring theme in the interviews. For example, one talked about his former manager moving to the discount store B&M:

*'He's only ever really worked for Debenhams his entire life. And I think he has found it so difficult to go into another retail role. He did originally go to B&M and he left after two months because he said "I can't do it, it's completely – I think it's so different to Debenhams."'* (Kenny)

Another confirmed the emotional toll of moving on after Debenhams:

*'I got into a very dark place after I left – towards the end of leaving Debenhams. It really got me down so I left and went to Dunelm - but I think by then I'd fallen out of love with retail. I worked with some amazing people, there were some absolutely fantastic people at Debenhams, really, really were.'* (Pete)

The importance of colleagues in retail was confirmed by Debenhams workers, and again reflecting the testimonies above, respondents described close friendships that were the function of a stable workforce; with the stores *'pretty much a family.'* At the same time they noted a solidarity that had once existed in the company had been eroded after the 2003 Debenhams takeover: the *'camaraderie that we used to have in the 90s'* was gone. The divisions between employees and managers grew as targets sales increased. They reported a decline of social gatherings and parties that had once been encouraged by managers as a way of solidifying relationships and 'team building':

*'The Christmas parties stopped: "And you would have one or two members of staff that were just constantly looking to put other people down so that they could earn Brownie points with the boss or whatever.'* (Charles).

### *Delivery*

In Tesco driving HGV lorries was male dominated with three of 220 drivers in one depot women. In terms of ethnicity, recently recruited drivers are *'a pretty good broad mix of the*

*typical UK Brit and the guys that have come over from Europe and they've settled here. So there's a good broad mix really'. (Peter)* However, among home delivery workers it was reported that there was an increasing number of women, in one depot around seven per cent of 600 drivers, from a range of ages. In another example home delivery was attached to a store it was estimated that three of 28 drivers were female. Two drivers in different parts of the country highlighted the inflow into delivery during COVID-19 by those on furlough, including airport workers - pilots, baggage handlers and cabin crew - and Uber and Black Cab drivers, who have since returned to these jobs:

*'The demand shot up, we had loads of new customers, yeah, and then that's where we needed to take on...we did take on a lot of new drivers in that initial stage, like I said, and people were getting laid off, well, not laid off, what was the term, furloughed, and so we had loads of people trying to top up their furlough money, I suppose, and we had a hell of a wide range of people working there, but they were fine. The demand has shot up, but of course, the other side of the coin is, like I said, once people were...the furlough ended, then they left, didn't they, to go back to their jobs, and I can't blame them, because obviously our money's not very good, and then I think it seemed actually to catch the company out, because all of a sudden, it was, like, "Oh, we need drivers."' (Billy)*

Another Tesco delivery driver, Ken, who was also a driving assessor described training pilots:

*'The main people that I came across, obviously doing the assessments, the biggest influx of staff were coming from the airports. I even took out pilots for driving assessments. So I think I took out two pilots for driving assessments. I took out cabin crew, and I'm talking about cabin crew that have done nearly 30 years' service. And they thought they were going to end their careers within the flight industry and they found themselves at Tesco's going for a driving assessment to do a delivery driver's job. So we had massive influx of black cab drivers, Uber drivers and from the airport industry, baggage holders, the flight crew, even to the top crew, as in the pilots. So yes, amazing really. I can imagine, they never actually said, they thought they were taking a step down. But I should imagine if you're a pilot of a Boeing 747 and you're in a 3 ½ ton van, you've kind of taken a step down. So they never said that and they was all fine, I never found anybody that was too big for their boots or thought they were better than me. If anything, I had a pilot sitting next to me that was nervous because I was taking him out for a driving assessment! Hopefully he was going to pass!'*

These home delivery drivers noted that increased demand had been sustained after furloughed workers went back to their original jobs, reflecting Labour Force Survey analysis. A Hermes courier also reported that COVID-19 and furlough had brought a more varied workforce into delivery, although turnover was high:

*'I think going into Covid there was definitely a push to those who were on furlough. Especially ex pub staff, restaurant staff, hairdressers, beauty salon workers, those types of businesses that were shut entirely. That was a big thing, we had quite a lot of people coming in for that. A lot of them didn't make it past day two ... It's not quite what people think, it's a bit more pressured to get them out. And some of them delivered 25 parcels and they worked for three hours and they're only getting £12 for that. They go "I can't keep this up". Ironically, on day four they find that they will be delivering 30 parcels an hour and they will be earning £15-£20 an hour. So we have had a lot of those type of people come in. People who've lost their jobs and didn't have any job security and they were told to lockdown. A lot of people who had moved jobs*

*just before lockdown and then were furloughed or told “sorry we’re going to have to let you go.”(Tim)*

He reported that more women had come into the job, but that many had gone back into previous jobs, including care work.

## **7. Findings: Terms and conditions and the nature of work**

While retail, warehousing, and to a lesser extent distribution, are sectors characterised by low pay there are differences in contractual status and terms and conditions that impinge on job security and the predictability of working hours. This section looks at the variation between sectors and then captures worker perceptions of the factors that may affect their choices and decisions to move between sectors, including the nature of work.

### **7.1 Sectoral Context**

Pre-Covid, warehouse workers reportedly faced employment rights breaches most commonly in relation to a lack of breaks (especially when on insecure contracts), pay (not being paid for all hours worked or not on time) and health & safety (Kik et al., 2019). These breaches are associated with the use of agencies, non-standard contracts and worker’s lack of awareness of rights and routes to challenge non-compliance (Kik et al., 2019). Working arrangements may include annualised hours contracts (6.8%), flexi-time (5.9%) and zero-hours contracts (2.7%).

Retail has been particularly dependent upon Minimum Hours Contracts, that can be ‘flexed up’ when employers require (USDAW, 2014), with sick pay and holiday pay often reflecting contractual rather than actual hours. A report by the Work Foundation proposes that during the COVID-19 crisis, there is evidence that retail employees faced increasingly precarious conditions, low pay, temporary contracts, irregular hours and limited opportunities for career progression (Gable et al. 2020). According to the Work Foundation’s analysis, 128,000 employees in the retail sector were on temporary contracts at risk of changes to their working hours or losing their job (Gable et al. 2020). Overall, the retail sector had more workers furloughed through the crisis with 1.9 million than any other sector (Gable et al. 2020).

The Union of Shop, Distributive and Allied Workers (USDAW) recognises the cumulative impact of online shopping trends and the pandemic on physical non-food stores and its workforce, facing either job losses or working conditions characterised by low pay and pressures on working hours. To support the retail sector, USDAW has developed a set of recommendations to be implemented immediately and a longer-term recovery plan (USDAW, 2021). Immediate recommendations concern reduced business rates and rent relief and an extension of the job retention scheme. Long-term demands go further to address the need for skills investment, particularly in the context of automation, and improvement of pay and working conditions not just for retail workers but also distribution and home delivery workers.

Research on delivery has testified to the use of so-called ‘self-employed’ workers paid by delivery. Self-employment removes employment rights and social protection in the form of sick and holiday pay and pensions. The 24/7 nature of delivery is paid for at flat piece rates with no notion of unsocial hours for workers, while accommodating the work-life balance of consumers. Under Covid-19, dependent self-employment represents the ultimate transfer of risk to the individual worker, with no organisational responsibility for health and safety, while the absence of sick pay discourages workers from taking time out when they or their households are symptomatic (Moore and Newsome, 2018).

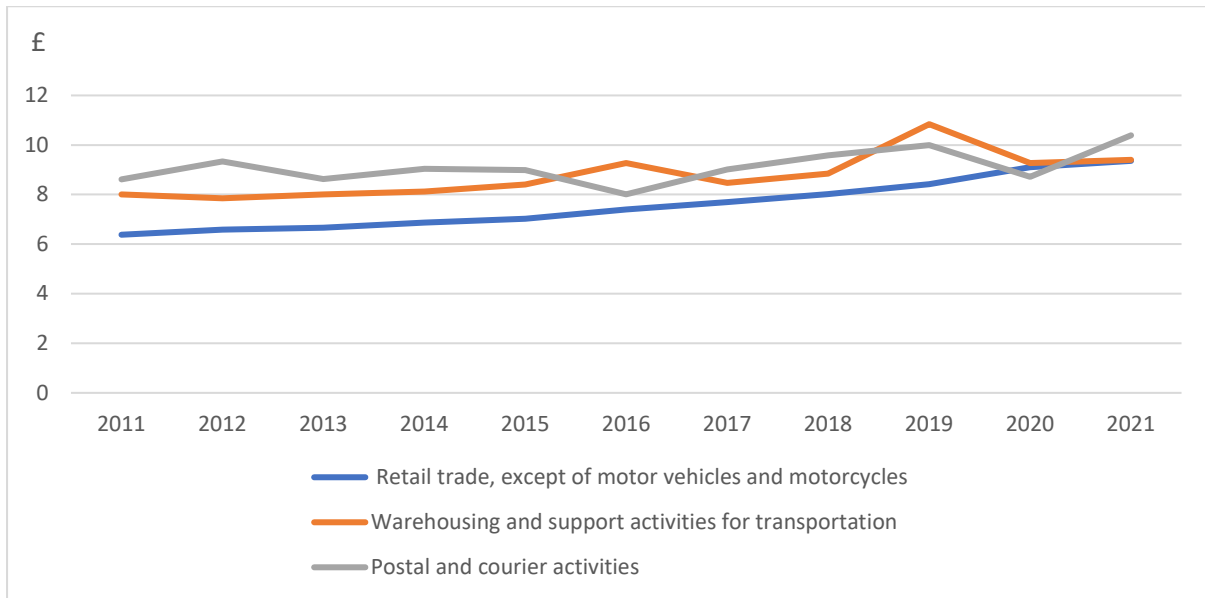
Several court cases have seen claimants successfully argue to be considered workers rather than self-employed. *Dewhurst v CitySprint* (2016) saw a CitySprint bicycle courier win the right to holiday pay in line with what is afforded to those with worker status, whilst in the case of *Pimlico Plumbers v Smith* (2018) the judgement concluded that the claimant was a worker rather than independent contractor. The concept of worker's preference for flexibility was central to Uber's unsuccessful attempt, in October 2018, to overturn the Employment Tribunal decision (*Uber B.V. & Ors v Aslam & Ors* (2018) that confirmed drivers' status as workers. The company stated that defining drivers as workers could deprive them of the 'personal flexibility they value' (*The Guardian* 18.03.21) – the preference of the Uber drivers was for worker's rights. In 2021 Uber formally recognised the GMB, with a collective bargaining agreement covering up to 70,000 workers and drivers guaranteed at least the National Living Wage, holiday pay and a pension plan. As discussed below in 2019 the GMB signed a collective bargaining agreement with Hermes.

## 7.2 Statistical Analysis – Pay

Figure 29 shows median gross hourly pay rates for the three sectors prior to and during the pandemic and reflects the relative increases in distribution. Logistics UK reports LFS figures showing mean pay for elementary storage at £9.78 and median £9.68 per hour. However, it also uses Adzuna vacancies to note an increase of 8.2 per cent in forklift truck driver pay and 8.6 per cent for warehouse operatives between 2020 and 2021, with vacancy rates for the former increasing by 143 per cent and the latter by 169 per cent. Other sources suggest that labour shortages have driven an increase in pay of 20-30 per cent in attempts to attract staff (Reuters, 2021). 'Indeed Flex', an agency supplying workers to sectors, including warehouse and distribution, stated that wages for warehouse shifts had increased to £22.18 an hour in London in 2021 (McCulloh, 2021).

ONS figures show that hourly earnings in transport and storage were below the national average in 2021 (£14.76 compared with £15.65), although only seven per cent of transport and storage workers were considered low paid (earning below £9.40 per hour), compared with an all-industry rate of 14 per cent. Vacancy rates mean that the nine months to the end of quarter 3 2021 average gross driver pay awards increased by around 18 per cent, with some classes of HGV drivers averaging 29 per cent increases in advertised salaries. Median hourly HGV driver pay was between £13.08 and £13.51 per hour. Average hourly gross pay for drivers overall was £14.00, with variations between regions (London £15.35 and the northeast £13.21). Average weekly hours were just under 49.

Figure 29: Median gross hourly earnings for jobs in retail (except vehicles), warehouse, and postal and courier activities, 2011 and 2021



Source: Office for National Statistics – Annual Survey of Hours and Earnings (ASHE)

## 7.3 Worker Experience

### 7.3.1 Terms and Conditions

#### *Distribution*

At Amazon a warehouse worker on a nightshift was working 40-50 hours per week from 9.30 pm to 8am, with a maximum 60 hour week; after 40 hours night shift rates increased from £13.67 to £16 an hour and after 50 hours to £23 an hour. She also received two bonuses of £1000, reflecting the need to retain staff. Holiday pay was calculated at one hour per every ten hours worked, although she thought that as she was an agency worker she was not entitled. Another worker who was also a student worked part-time ten hours each on Saturday and Sunday.

At Sainsburys there are two warehouse contracts, one for a 60 hour week and one for 70 hours, although there are part time hours as well. Shifts are eight hours, 6am till 2pm, 2pm to 10pm or 10pm to 6am plus a separate night shift. There is an eight-week rolling rota, so shift patterns are repeated eight weeks. Warehouse workers get two ten-minute breaks and a 30-minute break per eight hour shift. Pickers were reportedly paid between £10 and £11 an hour; workers get night shift premia and overtime at time and a half.

The stock replenishment workers do four 12 hour shifts and then get three shifts off. Workers can be flexed up or down by 1-2 hours depending on demand, although directly employed staff are paid their normal pay if they are flexed down. A loader worked 169.5 hours a month, but reported that since COVID-19 work had been 'virtually relentless', and he had been flexed up to 12 hour shifts from 6pm to 6am and was working 50-60 hours per week. For a 10-hour shift, workers get 62.5 minutes in breaks.

At Tesco warehouse workers work a double day's shift system, 8am to 4pm, and then 4pm to midnight with a permanent nightshift working from 12pm to 8am. Delivery and warehouse



workers were entitled to occupational sick pay after six months. A union rep perceived that labour shortages were a result of inadequate hourly rates and the working environment:

*'Because unfortunately the hourly rates just aren't sitting where they need to be because it's not a particularly pleasant environment to work in. We work at a chill distribution centre, so it's extremely cold. It's pretty mundane work and effectively if you're not paying the sufficient pay, people will just tend to go to other roles.'* (Peter)

The physically demanding, yet mundane, nature of work meant that Peter believed that workers preferred to move back into retail or warehouse work with standard hours - 8am to 5pm, Monday to Friday. At a kitchen supplier warehouse there were three 8-hour shifts; 6am to 2pm, 2pm to 10am, 10am to 6pm. The hourly rate is £13.49 plus allowances reflecting the extent of damage to stock, taking pay up to £15 per hour. Breaks had just been cut down to 30 minutes for new starters, with existing staff getting 45 minutes.

### *Retail*

The long-term Debenhams employees commented that when they started working (in the 1990s) pay in Debenhams was considered good and above minimum wage. However, over the years had become eroded:

*'My attitude [in 1996] was "great, I've got a job in Debenham which is like the king of retail stores. [...] other places where I worked it was just flat-out minimum wage. And it wasn't badly paid in the beginning, it was only really after 2010s that the wages just stagnated"'* (Charles)

Two participants described taking on supervisory/managerial responsibilities, but that eventually the pay differential between customer assistant and manager became so small that it wasn't worth the extra responsibility:

*'I was promoted to supervisor at one point and I was on £1 extra an hour. I didn't really enjoy that very much because the amount of extra responsibility I felt wasn't worth it. So I stood down again. That was probably about 2009, something like that. By the time I left Debenhams in 2016 supervisors I knew for a fact were getting paid 20p extra an hour, which I thought was definitely not worth it.'* (Charles)

In supermarkets there was extensive use of 'minimum-hours contracts, where part-time contractual hours (usually 12-18 hours) could be flexed up in line with labour demand. In so doing risk is shifted from the organisation onto the individual employee with implications for sick and holiday pay which may be based on contractual hours only. In Sainsburys/Argos store workers were on 15-16 hour contracts, including students. An USDAW rep said Tesco's gave store workers seven and a half hour contracts, but they probably ended up doing 45 hours per week. Sick and holiday pay were calculated on an average of the previous six weeks' earnings. An Asda worker concurred that in practice their working hours were always greater than their contracted hours:

*'They put everyone on to a 16 hour contract where you can only work four days. It's how they do it – people are working a lot more. The second Head just said it's for the paper, no one has actually complied by that – it's just for the paperwork.'* (Catriona)

She said that workers started on temporary contracts and then later moved onto permanent contracts, in one case without the knowledge of the worker or with any official contract.

*'When I started I was on a temporary contract and then after six months – I haven't even updated by contract – I'm now a permanent staff member. I do know they do keep quite a few people on temporary contracts so they can let them go – it's easier. I am aware that quite a few people have been let go.'* (Catriona)

This respondent clearly felt that such contracts gave the supermarket flexibility over labour, as another Asda worker said:

*'When I first started I was on a temporary contract and after three months of working there, there was a review and they offered me a permanent role and I accepted it. Every colleague that starts normally starts on a temporary contract and after three months they analyse and check how well you are doing, and progressed. How hard you work, and if you are able to continue the job full time, and then they offer you a permanent role.'* (Tahmid)

In another part of the retail sector a student working part-time as a 'client advisor' for a designer fashion flagship store in central London worked regular hours over the same three days between 10.30 to 7.30pm with a one-hour break. She stated that staff started at £25,000 per annum with the potential for £5000 commission.

#### *Drivers*

At Sainsburys it was reported that drivers are on a 12 to 15 hours rolling rota covering a 24/7 period 50-60 hours for a five-day week and earning £50,000-£60,000 a year. At Tesco drivers worked a 10-12-hour day, and were on three different contracts, with one tier based on annualised hours with 17 shifts and then 15 shifts on an eight week cycle. Older and longer-serving workers valued the option to bank additional working hours:

*'Well the first tier we work a system called annualised hours. And it's a system that we've done really well and essentially we've bastardised it for want of a better word. And it works extremely well for the colleagues. So we can bank hours to have time off and the site is 26 years old now so back in my younger days it was all about the money, when you had a mortgage to pay and everything. But now, for the fellahs around my age, it's the time off that is the valued asset of annualised hours. So that's what we tend to do. So the availability of having time off and annualised hours is extremely good.'* (Peter)

A second contract had been introduced around 2004 and a third in around 2011 with workers worked rostered five days in seven. On the second tier contract the hourly rate is higher, but premia are not the same as for those on the first-tier contract where there is a consolidated rate. Those on the third-tier contract are on a lower hourly rate, but they get a premium of time and a half. All contracts are based on 42.5 hours per week. Drivers start on 29 days leave, with service-related leave after five, ten and fifteen years when there is entitlement to two additional weeks of leave.

As above the company was trying to attract home (dot.com) delivery drivers, who are directly employed, to depot delivery on the basis of 'significantly better terms and conditions. In the depots, following threatened industrial action, lorry drivers had secured one of the *'best pay rises we've had on site for 26 years'* (Peter) with a six per cent uplift to £14.30 an hour. The pay rate for dot.com delivery was £11 an hour although overtime is at a flat rate, with the exception of Sunday when the supermarket paid time and a quarter. It also paid occupational

sick pay, with one week per year per year of service followed by SSP, the company paid from day one during COVID-19 and drivers get 25 days paid holiday plus bank holidays.

While drivers serving supermarkets were directly employed, in wider home delivery work drivers were self-employed. A manager from an Amazon delivery station reported working with seven contractors providing self-employed delivery workers. A Hermes courier reflected on the legal case where Hermes workers were initially deemed not to be employees and describes how he has to find a worker to cover for him if he cannot work:

*'if you don't deliver on the day you have to make sure someone covers it or you lose your work. Which to me, makes me an employee essentially. I think in all but the legal tax sense, we are employees. But they took the case to court and the court willed that we weren't employees, we were self-employed contractors, subcontracting to Hermes. But I have to be there six days. If I was self-employed I would pick and choose what I wanted to do'. (Tim)*

A Hermes courier worked for four hours a day for £110-120, he got 54 pence per parcel, although across the company rates varied according to location and geography. He felt that those delivering in rural areas should get premia since they would not deliver as many as a driver in a city centre. He was self-employed, but said that if he was directly employed by Hermes:

*'It would probably be a minimum wage job and you'd probably end up with more parcels than that and have less pay overall. And I very highly doubt whether they would compensate correctly for fuel, wear and tear of vehicles. They might even be like Amazon and DPD so you have to hire a vehicle from them to use, which comes out of your pay.'* (Tim)

At the same time, he conceded that he would like the benefits of being employed, including sick pay and pension contributions. He worked over six days, but was not permitted to work Monday to Friday and had to work Saturdays. He noted that those working Sunday-only deliveries got higher rates.

### **7.3.2 The nature of work**

*Distribution – 'the job is not human'*

Amazon workers noted the physical and intensive nature of work and 'fast, fast, fast pace', particularly for those on the nightshift:

*'The job is not human, I'll be honest. It's not human to last that long, because it's just mentally stressful because you just are working, working, working constantly. Literally you have no social life. Even the night shift manager says "there is no life for us, we just come here every night and just work." The workload it can get crazy at times.'* (Ajin)

As at Amazon, respondents from Sainsbury's distribution commented on the physically intensive nature of warehouse work, which can be a 'shock' for those who have not done it before:

*'I think it's the actual work that's involved. The heavy lifting side of things. It's a very physical demanding job and if you've never been in that situation before, it either makes you or breaks you to be honest. It's one of them. There's options of working in different departments but it's all about picking so unless you're fit enough to get through*

*the pain barriers, if you've never done distribution work before and you come through on the other side, the job is clearly not for yourself.'* (Freddie)

In food retail working in the chilled sections is particularly onerous, although in non-food warehouses doors were continually open for loading leading to exposure to cold.

A warehouse operative reported that relations with managers was the aspect of his job he liked least. Managers did not seem to communicate with people or 'care enough' and he linked this to high staff turnover or, as he put it, 'a leaky bucket'. He felt that managers spent too much time in offices on computers and not enough time on the warehouse floor making sure things were working as they should do. Another commented that *'a lot of management sort of feel like the bully boy tactics works easily then actually being nice to people.'* (Paul)

### *Retail*

Longstanding Debenhams workers talked about what they perceived as the decline of Debenhams, particularly following its takeover the Baroness Retail consortium, but also of high street retail more generally, with an increasing focus on sales over customer satisfaction and engagement:

*'If I go back to the 90s, I would say that it was more like Butlin's redcoat [...]: they're always very smiley, well put together and all very groomed [...], chirpy and friendly, ensuring that their guests are having a good time. So too in the 90s that was sort of how we were trained in Debenhams. You walked into Debenhams and there's somebody there going 'oh hello, how are you going this morning? We've got a new fragrance, would you like to try it? Come over here and look at this. Have you found everything you wanted' [...]. Then the consortium, I think that was in 2003. From that point you could see that all of that was being eroded. You couldn't see it there and there, standing there at the time, but looking back I could definitely pinpoint that as the beginning of the end of that kind of service. Talking about that Butlin's redcoat service, gone, from then on it was "sales, sales, sales". I remember one of the managers said 'what is our job here?' And someone put their hand up and said "customer service?" and this guy said "no, it's not customer service, it's sales." That's it in a nutshell. When I first pointed it was about customer service, it wasn't about sales. Of course, sales was part of it, but not your primary motivator for your job.'* (Charles).

Charles describes retail as a service, orientated around interpersonal relationships with the customer, and a good knowledge of the products. He proposes self-presentation as being akin to a 'Butlin's redcoat', and later of staff as *"the face of the company."* Another likened them to 'flight attendants' in terms of self-presentation and customer orientation. In the 1990s, staff wore suits, then light blazers, and by the end just polo-shirts with their own black trousers. Another respondent who had formerly worked for Debenhams emphasised the importance placed on customer-service:

*'On the shopfloor it is a lot more about spending time with the customers, picking out what they liked, helping them sort what it is that they like, what sizes they are: a lot more geared towards the customers.'* (Joseph)

Retailers were responding to competition from online shopping through two strategies: a emphasis on customer service represented by an increase in emotional labour for staff, or a focus on sales and productivity represented by more physical labour. For some workers who moved into premium retailers there was an increased focus on 'customer service', with an associated increase in the emotional labour invested in dealing with customers in high-end luxury stores. Such retailers addressed the challenge of online retail by offering a level of service that could not be replicated online:

*'I think for luxury brands it [online retail] is not a big problem, it's a big difference because they [customers] have "an experience"; we offer a glass of champagne. They come in for the human touch. Everything is online [but] I would say just the human touch is the key. They [the clients] really want this part that, obviously, they cannot have it online.'* (Nico)

On the other hand a number of the participants suggested that the challenge of online shopping had led non-premium brands to focus on 'sales' and reduced labour costs, a shift from customer satisfaction and engagement towards sales Key Performance Indicators (KPIs see below). The participant who worked in the men's suit department at Debenhams told a younger colleague that while there were two members of staff working in the department before the store closed, there used to be eight:

*'And I said "There's you and me working here, when I joined Debenhams in the mid-90s, an area this size would have eight members of staff". And she was gobsmacked "eight members of staff!" I said "well yea, but that was in the days before the internet so the only way to buy something was to come into a shop like this."* (Charles)

By contrast, a former Debenhams worker now working in a budget retail store commented that competing with online stores meant using a smaller workforce to do more:

*'[We are] expected to go and load the lorry, go and unpack the pallets, put the stock out.'* (June).

#### *Drivers*

Home delivery drivers for Tesco dot.com said deliveries started at six am and finished at 11pm at night and there were a wide range of full-time and part-time shifts during this period. One driver worked 8am to 6pm Monday to Thursday, but there was another day shift of 9am to 7pm and then evening shifts, 6pm to 10pm and 7pm to 11pm. Shifts are split into two and drivers generally returned to the depot for a one-hour unpaid break (between 12 and 1pm if on days). One had been doing the job for 26 years and conceded *'it has a toll on your body after a while'*. During COVID-19 had been working six days a week from 5.30am to 15.45pm and talked about the mental stress he experienced:

*'Obviously the pressure was there not because they made us work longer hours, the pressure was there because it was a busy time, it was hard work, the orders have increased in size and weight... There was a pressure... a mental pressure. Because everybody was worried about where you caught, how you caught it. I can only think it was similar to the time when AIDS came out. Remember, no one knew nothing about it. It was a similar sort of mental pressure. But work side of it, we were not under pressure to get the job done all costs, it was get out and do your best.'* (Ken)

A self-employed home delivery driver reported that despite formally having apparent autonomy over working time, pressure was put on drivers to state when they would deliver by and to complete delivery by the end of the working day. As with delivery drivers working for other companies, he had to work between an hour and an hour and a half per day unpaid collecting and organising parcels at the depot and this could be longer if he had to wait for parcel deliveries. He noted that at Amazon drivers pick up bags of prepacked labelled parcels which the click on to assign a round with an order of delivery and timeframe. Hermes did not have the technological capacity to do this, resulting in unpaid manual sorting.

## 8. Findings: Automation, Monitoring and Surveillance

The extent of labour shortages suggests that automation is not currently a threat to jobs, although the ONS predicted that in retail, shelf fillers and elementary sales occupations were at risk (ONS, 2019). More prevalent is the impact of 'algorithmic management' reliant on data collection and the surveillance of workers to monitor and manage performance and behaviour. This section focuses on automation, monitoring and surveillance in each of the key sectors and then worker experiences of each.

### 8.1 Context

Holland and Pickers (2021: 5) define warehouse work as 'socially complex, increasingly mechanised and highly digitised', a new form of degraded labour which is physically demanding, alienating and repetitive (Delfanti, 2021). Use of technology in warehouses includes finger scanners or wrist computers supporting manual tasks like picking (Kik et al., 2019). These technologies track the speed with which staff work to the extent that 'technology enables an invasive form of surveillance and labour control, which may be manifest in work intensification – which in turn has raised health and safety concerns' (Kik et al., 2019, p. 20). Similarly, Dorflinger et al. (2021) highlight that technology creates more capacity than ever to monitor performance, including algorithmic control through datafication of work by central software systems, sensory tools, robotics and Artificial Intelligence (AI). He suggests that worker's capacity to contest these approaches to monitoring is arguably low (ibid.). Delfanti (2021:43) emphasises 'the human work hidden behind algorithmic systems' when defining forms of labour control and management in warehouses or fulfilment centres.

One example of the increasing usage of data-driven algorithms is the widely used supply chain management system Blue Yonder (previously known as Red Prairie). Retail companies, particularly e-commerce businesses invest in supply chain management systems to manage the complexity of demand forecasting (Ge et al., 2019; Alicke et al., 2016). Such systems provide real time transaction processing using AI and robotics enabled technology, as well as labour and task management (Blue Yonder, 2021). Mahroof (2019) emphasises that barriers to the adoption of AI exist, including a lack of AI technology acceptance by operational managers.

In retail technological developments such as the introduction of self-checkouts and 'scan-and-go apps' has led to the displacement of certain retail staff (e.g. cashiers, sales assistants) (Gable et al., 2020; Wallace- Stephens and Lockey, 2019). Research conducted pre-pandemic in February 2019 via two focus groups with current and former retail workers (n=20) suggested that reductions in headcounts in stores was not being adequately offset by increased automation with consequences for the perceived quality of work and clear indications of work intensification (Gardiner and Tomlinson, 2019).

Digital technologies in the logistics sector provide the necessary coherence to a business model based upon fragmented supply chains, subcontracted relationships, and fissured workplaces with an array of associated employment practices and contracts (Cowen 2014, Sowers 2017). For parcel delivery workers, the introduction of hand-held Personal Digital Assistants (PDA) renders the last-mile of delivery more transparent by providing senders and their recipients 'sight' of an item's real-time progress and expected delivery time. The routing software incorporated into the devices which dictates predetermined routes for delivery, effectively removes driver autonomy and discretion. Research on delivery workers reports increasing levels of monitoring and surveillance, with the micro-management of how and when they delivered their parcels. Growing levels of monitoring and surveillance allied to punitive

performance measures are seemingly at odds with their supposed self-employed status (Moore and Newsome 2018).

## 8.2 Worker experiences

### 8.2.1 Automation

An operations manager from Amazon recounted her experiences of working at three different distribution companies and highlighted that labour is the most cost intensive aspect of these businesses. She emphasised the importance of time maximisation and the attraction and implications of automation, suggesting that robotisation may increase expectations of human productivity with risk to physical and mental health:

*'The targets might be too constrained for human labour, oftentimes and it becomes work, work, work, work, 30 hours, 30 minutes break. From a human perspective it's not efficient for the health. It's not advisable. I wouldn't advise a friend of mine to be a level 1, to be a warehouse operative for a long period of time. Healthwise it's not advisable, psychologically wise it's not advisable because at some point warehouses will be expecting efficiency of robots from humans so to speak. So that's my major concern in the warehousing industry in general. This has nothing to do with a particular warehouse or a particular company. It's just a general knowledge that I have experienced, and knowledge that I have gathered over time. And this is why potentially it might be a problem to get the workforce.'* (Danielle)

She described how picking operations in the warehouse were done by robots, but she anticipated further automation in transferring packages to delivery locations and labelling parcels for delivery.

However, in national food retail distribution centres it was reported that automated production lines had been ripped out on the basis that they were not fit for purpose, had become obsolete, and too costly – particularly in terms of energy costs. Savings had consequently been made on the engineering workforce. Here, at least in the chilled sections, the organisations had returned to manual picking on the basis that labour is cheaper, although the weight of products being moved was reported to cause back injuries for workers.

In Sainsburys warehouses it was reported that the HR department had been replaced by online systems, which was problematic for those who were not computer literate. As a result, the workload had been shifted to warehouse managers which was keeping them off the floor where it was felt that they were needed.

A Sainsbury's/Argos USDAW representative reflected on automation and how it extended remaining worker's skills:

*'In Argos you don't need someone to pay, you do everything on the computer or online. You don't need a stock manager anymore, even a kid can do this. We have Trading Stock Managers (TSM) now. Everything is on the system. They have more understanding of the system, TSMs. So you don't need more people. Automation has changed the way we do things. 'Work has been redefined, you need to be multiskilled to deal with this technology. Fashion might be different but food retail is based on automation.'* (Phillip).

He predicted the introduction of driverless delivery, something contested by a Tesco home delivery driver:

*'I think one of the safest jobs at the moment is to be a driver of any type of transport. Because, going back to dot com deliveries to the customers' door, there are loads of things they can use. They can use these drones etc to deliver stuff, it's happened. But you're never going to get something that's going to get out of the van and take the shopping to the customers' door. You can have a van designed today that will drive from point A to point B but how is it going to get to the door? The customer ain't gonna want to come and get it, they might as well go shopping. So you're never going to get something that's going to get out of the van and take the shopping to the door. I think if it happens, which it probably will, but it won't be in our lifetime, I don't think.'* (Ken)

He did, however, discuss the introduction of Tesco Urban Fulfilment Centres where the demand for online delivery was being met by transforming excess space in larger stores to fulfil online orders using automated technology with faster picking rates.

## **8.2.2 Management and Performance**

### *Distribution*

An operations manager characterised *'Amazon is like a process of targets.'* (Danielle). Warehouse workers had a target of putting 400 packages into containers an hour. They scanned packages with the scanner tracking the speed of work, allowing the organisation to calculate a rate for the job akin to time and motion. A computer screen displays how many items are scanned and time taken, although one Amazon worker said that targets were written on a whiteboard:

*'So it's closely monitored like what and when you are doing it. And you have a timeframe I think to complete certain actions.'* (Marianne)

Workers described that if they were behind on targets managers would come and talk to them. However, targets were also competitive so even if workers were meeting targets the top and bottom ten per cent were publicised on a screen and managers would still talk to those in the bottom ten per cent.

*'So whatever is on the screen that is what the manager will see so that's what they go for. That's how they monitor people, through the computer and not through themselves.'* (Marianne)

One worker reflected that while she was also monitored at JD Sports, it was less through data and more through interactions with management, since she considered management to be poor, she felt that there was more favouritism than at Amazon where data could be objective.

Sainsburys use the Red Prairie supply chain platform, described as similar to a satellite navigation system mapping the warehouse, with workers given the quickest route to a destination and a goal time attached to each job. In the ambient section a voice-controlled headset provides instructions for pickers, who have to confirm commands by voice and give code numbers to ensure accuracy of picking – if correct codes are not recorded workers cannot progress further. However, there is still paperwork to complete to record completion and any issues that have arisen.

In the chilled section performance is calculated in terms of cases per minute. Workers use a watch, about the size of a mobile phone, that gives them locations on the screen that they follow, they have a finger scan button that uses a red laser to scan barcodes. Once the bar code has been scanned it then tells workers how many they need to pick, they tap the quantity and put the product in the cage or case and are then sent to the next location. Information is



transferred from the watch onto a system that records what has been loaded and who loaded it. The system calculates the weight of the products, the amount of times cases are handled, the distance travelled, building in personal fatigue, delays and personal needs. It then works out a goal time for the completion of tasks.

The union has an agreement that the company want everyone to achieve 100%, but with a ten per cent buffer. Those achieving below 90 per cent cases per minute are flagged up as red on the system and can be investigated and potentially disciplined for substandard performance. If targets are missed managers may speak to workers and if it reaches a formal meeting about performance will be asked if they want union representation. However, it was reported that the focus is on coaching and training to the required standards rather than disciplinary action. The interviews describe how not only do distribution companies set specific targets, but also specify methods they must use to meet those targets (e.g., the route within the warehouse). Yet interviewees also suggested a disjuncture between achievable targets and methods used to meet those targets. Several described unsanctioned methods used to achieve organisational targets borne out of necessity because the realities of the labour process were not reflected in the algorithms. For one union rep performance targets had 'killed the job':

*'You're not robots, you're humans. So if you defer away from the route it gives you, let's say you get additional travelling time but when you work in distribution it's all about the products you pick. And if you're picking the wrong product at the wrong time it's hard to say which pallet takes longer. Take into consideration if you've got a colleague in front of you that works a lot slower than yourself, then obviously that's going to have an impact on your performance as well. So there's many obstacles that can be in your way and unless you pause that clock -. And I think the other thing is what it does, it forces colleagues to not work to 'preferred methods'. So 'preferred methods', is what they say is the way that you're trained, but people will look to cut corners because the goal times that are set are just clearly not achievable. So to keep yourself out of trouble, people will work to ways that they shouldn't be'. (Freddie)*

Another warehouse operative said that there are ways of gaming the system to boost performance, incentivised by performance bonuses promoting competition between workers. However quicker performance led to reductions in standard times for jobs and increased targets for all. He described that there were a group of men who had been in the warehouse for 10-15 plus and who were in the union who were relaxed about targets and then newer recruits 'who have jumped through all the hoops' to maximise the bonus:

*'And some of the older guys will say look there's no point trying to get the bonus, and as long as you've got the bonus, they will revise the targets anyway to make it harder for you to get the bonus the next time. And some guys will say "well actually, I take 130 per cent, 140 per cent every week and it's worth me getting the bonus because I get an extra £150, an extra £200 a week". So there's a different way of looking at it for everyone'. (Connell)*

Another worker described the loading of lorries for supermarkets:

*'Everything is timed. So if you go to MC328 - it's a marshalling line - and you're on dock 138, they've already timed how long it will take you. And if it takes you five or ten minutes longer you may get questioned, "why has it taken so long"'. (Alan)*

He reported representing loaders at disciplinaries for non-performance, including where they had been questioned for time taken in toilets. There were cameras in the toilets, but not in the actual cubicles and not in the back of the lorries.

A worker in a kitchen supplier warehouse described a more team-based approach to picking, based on the size and weight of the components. Here a picker worked with a forklift truck driver with 17 targets a day and a bonus if these were met – it was reported that targets were generally exceeded. Here locations were communicated by paper, but there was also an electronic board in each section that informed workers if they had the order correct, the extent of damage to stock, any injuries and bonus targets.

### *Retail*

As in distribution, those in retail also had competitive KPIs which were linked to pay and reward. All the participants described KPIs, from selling customers credit cards, to converting returns into 'exchanges' rather than 'refunds', upselling (encouraging customers to buy more, or more expensive versions of what they had intended), sales targets, and scanning targets. These KPIs were part of objectives set by the company ('*you'd get told what your objectives were*') and were then linked to appraisals which were in-turn linked to pay and reward:

*'You would go to the pay review meeting [appraisal] and you'd get told what your objectives are for the year and how you can improve this, that, or the other, which was usually a way for them to impose sales targets onto you [...]. They would then send you a letter afterwards announcing what they have decided to pay you, and it was always just in-step with minimum wage.'* (Charles)

As in distribution if staff seen to be meeting targets, they were then viewed as 'manageable' and increased. In one store which took on a round of younger, temporary staff, it was reported that they treated such KPIs as a 'game', and as in the warehouse competition resulted in increased targets for everyone:

*"[KPIs] constantly goes up, they never go down. And when they took on all the temps, all the younger staff they thought it was a game and a challenge trying to beat each other's score. So because their [KPI] was going up and up and up, then they increase it. So a lot of the older staff are not as fit as a 20 year old, were basically in tears because they couldn't keep up with the rate they were setting. The company set it to begin with and then once everyone goes over the score then they will raise it because it's manageable. What I do say is 'don't go over your target', but the younger ones are encouraging this behaviour because they think it's a game.'* (Pete)

In both distribution and retail, age was an underlying feature of those who would attempt to constantly meet targets to secure bonuses, and older staff who recognised the consequences for work in the longer-term, but also could be on better terms and conditions and were not so reliant on bonuses.

Along with an increasingly target-focused culture, retail workers also described a narrowing of autonomy at work. This process began in Debenhams with the takeover by the Baroness Retail Consortium in 2003 and continued on to the collapse of the company. One participant observed that disciplinary processes became increasingly common and could disqualify employees from annual incremental pay increases, meaning that perceived poor performance was sanctioned with financial penalties:

*"I noticed that disciplinaries became much more common. Suddenly everyone you knew was in trouble for something or another. I noticed a handmade poster in the managers' office that said 'be less accepting of poor performance!'. I noted that they all the same robotic word choices when evaluating work that been done around the store – suddenly everything was described as 'unacceptable'. Clearly this was an*

*initiative from Head Office. A disciplinary, of course, would freeze your wages and prevent you from obtaining any pay raises or rewards for long-term service.” (Charles)*

One participant relayed the experience of a colleague who moved to a budget retailer after being made redundant at Debenhams: she described her new employer as ‘a very cutthroat business’:

*‘So if you’re not hitting your KPIs then your shift is taken off you as well. And he said: ‘I’ve had to tell people that they can’t have their shift next week because they haven’t met their KPIs this week.’” (June)*

June’s experience suggests the allocation of hours and shifts as coercion that is common for those on zero or minimal hours contracts (Moore et al, 2018).

### *Delivery*

At Amazon, as elsewhere, driver performance is based on successful delivery and DNRs – did not receive or undelivered parcels – The number of DNRs is used to measure performance. Delivery times calculate the time when the driver leaves for the next delivery point and the time they get there, the time they knock, the time delivered, and then departure for the next one. At Hermes delivery workers were required to set estimated times of arrival (ETAs) for parcels; if three are failed there is no monthly bonus. Similarly, drivers can only change ten per cent of ETAs for their drops, any above that level leads to the removal of the bonus. Customer service scores based on complaints also affect bonuses.

In Tesco home delivery drivers had handheld devices that provided their routes. In one location a driver said they were expected to take two to three minutes per delivery and in another a driver said six minutes, with estimated times for each delivery although customers only get given an hour slots. COVID-19 had changed delivery times since drivers did not carry shopping into the house and customers no longer expected them to do so.

## **8.2.3 Surveillance**

### *Distribution*

An operations manager in Amazon reported that within delivery stations everything was captured on camera, with managers located in a top office area where they could look down on the workers. She monitored deliveries in real time so that she could see where drivers were at any particular moment and if they were delivering on time. Monitoring started when drivers left the station with parcels to when they returned to the depot with non-deliveries. She saw monitoring in terms of driver safety as well as customer service. Managers also send out ‘fake shipments’, particularly if a driver has had a number of missing high value parcels; if these are not returned to the delivery station the company assumes that the driver is responsible. Deviation from planned routes also generates suspicion.

At Sainsburys there was CCTV throughout the depot, and as with Amazon managers are located in a control room overlooking the whole warehouse. One warehouse worker thought that his workplace was characterised by trust and monitoring was light touch and as much for worker health and safety, but he also conceded that surveillance influenced worker behaviour:

*‘Well definitely you’re conscious of the fact that you can’t abuse it, because at the end of the day, the kind of work that I do, I have a lot of freedom. Basically you know what you need to do and you just want to get on with it. So the trust is to take your breaks responsibly. There are things you can do that would be gaming the system if I can put*

*it that way. And so there's a lot of trust, but at the same time, you need to know that there's monitoring, but it's there to stop or prevent abuses'. (Connell)*

In contrast a union rep at Sainsburys described how the work had changed, particularly with regard to surveillance:

*'I honestly don't believe it's about the colleagues any more. I think years ago funnily enough, we just had a colleague that left today, that's done 17 years here. And we were reminiscing and his comment to me today was that, "it's like you've had the guts ripped out of it all ... it was all about colleagues, all about getting the job done, recognised for doing a good job. And now you're being scrutinised for every second of your day. And that's to do with having the watch on. That's to do with the system we use". I think every company is feeling the pinch and they want a pound of flesh. Once I'm in it's like anything, the clock doesn't stop unless you pause it, it's like a stopwatch. Once it starts ticking unless you put it on pause, it doesn't stop. So it creates a profile and then can look at your profile at any time. And normally the following day when you come in, if there's anomalies then you will be spoken to.'* (Freddie)

Where there were union reps on the shopfloor they appeared to play a key role in mediating the technology and when workers needed it to be paused:

*'So when you go to the toilet there is no scan for that. That's all built in with your timings supposedly, fatigue, personal needs, there's an allowance. I just say to colleagues 'you need to go to the toilet, you go regardless. And if they come and question, just come and call me or go and speak to a rep'. Because you shouldn't have to be writing down or – if you need to go to the toilet, you go, it's as simple as that. Absolutely, I challenge all the processes and policies.'* (Freddie)

A warehouse said that workers could be pulled up for 'downtime' or for 'break abuse' where workers were deemed to be taking too long on breaks or had scanned 'into a meeting' to get a bit of respite –such behaviour was picked up by managers or would lead to questions.

At Howdens Kitchens there was CCTV throughout the warehouse while a tracking device on the forklift truck alerts managers on their iPad screens when the truck had not moved for more than five minutes. Managers may then check how far pauses are due to picking and lifting activity. The worker did not perceive management as closely controlling the workforce. He felt that the level of surveillance was only the same as he had experienced when working in a Tesco store and he saw it as protecting workers:

*'That's not a problem because in Tesco it will be the same thing as well because there will be cameras everywhere. So it's not a problem for me because I believe every job should have CCTV just in case anything happens, it's for their liability as well isn't it? Yes, it protects me if anything does happen, if a forklift does hit me, there's evidence to say if I was in the right or in the wrong. So it's beneficial'.* (Sean)

### **Drivers**

In Tesco digital tachographs track driving time versus 'periods of availability' where drivers may be waiting to load up. Periods of availability are not counted as part of working time under the Working Time Directive – 48 hours over a fixed 26 week reference period as agreed by the trade union. The company has invested into telematics that record vehicle speed and other aspects of driving, monitored by 20 team managers under a Transport Manager. Satellite tracking means the company knows where the driver is at any time. They are managed against performance with drivers encouraged to meet estimated times of arrival. Here the

union plays a key role in ensuring technology is not used for disciplinary purposes, but also works to ensure drivers take breaks:

*'Oh no, we wouldn't let it happen. Well we wouldn't allow them to abuse it. There's almost like a holy grail of a sin for a driver to do. And that would be if you're recording the break as though you were having rest but you're physically working. Or if you're recording a period of availability when you're physically working. If the company produce evidence that those type of offences were being committed and it was clear and apparent, then absolutely that driver needs to be disciplined and held accountable. But what we wouldn't put up with is where it's micromanaged and we certainly had it in the past where certain team managers will have certain people within their targets, rather than concentrate on their whole team of drivers, they would just solely focus one or two on a daily basis. And that's not their parameter to do, they're meant to be looking at everybody equally.'* (Peter)

The rep felt that workers did not feel they were under surveillance, but that was because the manager on site

*'But he's a really genuine guy and he's certainly not like managers we have had in the past where they just seem to hound people. I think there's an understanding that – as long as you don't take the Michael, you will be fine.'* (Peter)

Home delivery drivers at Tesco are tracked by a system called Lightfoot, which promises 'driver behaviour monitoring'. Drivers said that it tracked real time locations, harsh braking, harsh cornering, and particularly speeding. A union rep was positive about the system:

*'If you're going a couple of mile over the speed limit, it'll jump straight on you. Yeah, to be fair, it's quite a good little thing that you've got, because they've got...there's an app you can download for Lightfoot, and depending on your driving stats, if you drive good, you get benefits, you get entered into certain raffles.'* (Billy)

Transgressions would result in a 'Let's Talk' discussion with managers. There is a built-in ten per cent tolerance with regard to speed, before drivers were checked, but speeding could be classed as misconduct or gross misconduct. Billy did not feel 'watched', and, again, as an older worker did not understand why other drivers felt the need to rush:

*'I think they feel obliged to try and get their job done as best as they can as quick as they can sometimes. The thing is, you don't have to be as fast as you can, you don't have to be speeding to do your job the best that you can, you just do your job and things happen, nothing's always going to be on time, you get your good days and you get your bad days. Most of the time, if anything, most of the drivers are always early to deliveries, they're never really much late. The only reason why you'd be late is if you were stuck in traffic, because there shouldn't be any reason really, or there's an accident or an incident, or you know, something like that.'* (Billy)

It was also reported that there are cameras all around the van, that monitor driving and a dashcom at the front centre of the windscreen focussed on the road that it was thought recorded any bump or judder that might indicate and then film an accident. One respondent felt that this gave protection to drivers who attracted abuse:

*'Well, with Tesco's, we've now got cameras on board and they're focused on the road, yes, we've got that, that's a good idea. And if you do have a sort of, well, I don't know why, but as Tesco drivers, for some reason, we do seem to attract a bit of abuse, I*

*don't know why, probably because we drive around keeping the speed limits. But the fact that we've got cameras, I know quite a few drivers that have had, like, somebody come to them, you know, the window, and start mouthing you off and all that business, and they just say, "Well, you can carry on because it's all on tape," and quite a few people then back off". (Richard)*

He also reported that Ocado's vans have cameras in the vehicle focused on the driver, but again responded fairly positively:

*'Well, I suppose it's the whole thing isn't, if you don't have anything to hide, you shouldn't...it shouldn't bother you really, but I mean, yeah, I don't know, you can't stop it really, can you?' (Richard)*

Unlike Tesco home delivery workers who were directly employed and hourly paid, a self-employed Hermes courier felt more aggrieved by monitoring through his own technology. He reported that drivers had to use an app on their own phones, which he said accessed his internal storage, phone calls, call history and text messages. The app uses the camera to photograph letterboxes or doors, which is then sent to Hermes, but also has a GPS system to track the delivery address. It was seen as dysfunctional and erroneously recording failed deliveries. The photos were proof of delivery that safeguarded drivers against customer complaints. While he was theoretically tracked he commented:

*'I feel that they've got the capability to watch me. I suppose if I was one of the poorer couriers that might have delivery issues and queries and claims made against them, then I would be considered that I was being watched. I'm not because I know that there are no claims against me or very rare cases there would be a claim. I don't get queries because my customers come to me direct, simply because they can never get through to Hermes. So I have no real concerns on that side of things. However, when I finish the app and I log out, I want that app off my phone entirely. I would uninstall it and reinstall it every day if it was physically feasible.'* (Tim)

## **9. Findings: Union representation**

The report concludes by looking at union representation in retail, distribution and delivery sectors and the role unions play in the workplace. It considers the impact of tight labour markets and staff shortages on worker confidence and highlights opportunities and gains that recent labour market trends present.

### **9.1 Context**

Government statistics indicate that one third of employees in transportation and storage were union members (33.1%) in 2020, compared to only 13.7 per cent of those in the wholesale and retail, trade repair of motor vehicles and motorcycles' sector (BEIS, 2021). Union density for male employees is higher than for females in the former sector (male: 34.9%; female: 27.1%) but similar in the latter sector (male: 13.4%; female: 14.0%). In 2020 over a third of employees in the transportation and storage sector were covered by a collective agreement (39%) while only 14.9 per cent were covered in the wholesale and retail, trade repair of motor vehicles sector (ibid.).

Just over one in ten (13.7%) of retail workers are members of a trade union (BEIS, 2021). Across the UK the retail trade union, USDAW, has UK collective bargaining agreements with the Co-op, Morrisons, Tesco and Sainsburys and also negotiates pay with Argos, Next Distribution and Poundland and, in Northern Ireland, Primark.

The most important issue potentially impacting workers in the retail sector is the Equal Pay Case taken by mostly female checkout workers against Asda – the biggest-ever equal pay claim in the private sector in the UK. The Supreme Court has ruled that the pay of 35,000 mostly women store checkout workers can be directly compared with that of mainly male depot staff in its distribution operation<sup>3</sup>. The case is likely to go to an Employment Tribunal to prove that the roles performed are of equal value. It is reported that Asda could be facing backdated pay claims totalling £8 billion.

According to the *Financial Times* (04.01.2022) workers are starting to ‘wake up’ in the context of the pandemic and labour shortages, with feelings of disempowerment for those managed by algorithms evident in increases in union membership levels in the UK. In a recent ballot of 5,000 USDAW members across nine Tesco distribution centres drivers and warehouse workers voted in favour of strike action which led to the agreement for an improved pay deal (USDAW, 2021a).

## 9.2 Worker Experience

### *Distribution*

Both Sainsburys and Tesco warehouses were unionised and as above collective agreements moderated the use of agency workers, with workplace reps monitoring the disciplinary implications of technology. The reps had also played a key role in risk assessment and the implementation of health and safety during COVID-19. Interestingly tight labour markets constrained disciplinary measures with disincentives for managers to get rid of people. In Amazon, formally warehouse workers are given three chances if they were underperforming and dismissed on the third instance. However, it was reported that they were often re-employed and the knowledge that there was labour scarcity meant workers were less scared of the consequences of under-performance and monitoring.

### *Retail*

Only two participants from retail, ex-Debenhams workers, talked about unions. One argued that he never felt the need to join and even when the company started to deteriorate and was becoming more adversarial, he claimed that if his working conditions became intolerable he would move job.

*‘I don’t think we ever felt like we needed [a union] because I never felt oppositional to the company. I never felt like the company was trying to take advantage of me. I kind of did perhaps towards the end of the noughties, I probably felt a bit like it then. But I wasn’t thinking well I’m gonna go and join a union, I was thinking well I’ll probably just get another job. Because by then it was the same sort of wages as everywhere else anyway.’ (Charles)*

Another was a member of Unite and described the union as ‘doing everything they could, but they couldn’t really stop what was happening’ and that ‘they did stick up for the union members’ (Joseph).

### *Drivers*

At Tesco the threat of strike action in a very tight labour market produced a pay increase for Tesco workers before Christmas 2021, but also paid breaks for the first time. The confidence

---

<sup>3</sup> Asda Stores Ltd (Appellant) v. Brierley and others (Respondents) Judgement given on 26 March 2021 Available at: <https://www.supremecourt.uk/cases/docs/uksc-2019-0039-judgment.pdf>. Accessed 30.6.21.

that this success had generated also meant that the union was pushing hard to amalgamate the three different contracts and uplift the two and three-tier conditions. A union representative described the context for the ballot:

*'It was around the poor offers that were coming on the table. And there's the fundamental change in the labour market and that was the key player to be perfectly frank. We have come to close to calling industrial action but it's never actually gone to the wire like it has on this occasion. And it was a combination of the ridiculously low offers that were coming across the table. And the real recognition and understanding, both from the drivers and the warehouse that the labour market, they could turn it on and off like a tap where agency just didn't exist. And it isn't now and it's not going to change in the foreseeable future. And that was the key confidence builder I guess'. (Peter)*

The GMB had won an agreement with Hermes for a 'self-employed plus' status, where they earn holiday accruals equivalent to average daily earnings across the previous three months in exchange for an 11 per cent pay cut. Perhaps more importantly if workers give one month's notice the company takes responsibility for providing cover and will also provide cover for emergency, bereavement or sick leave rather than remove delivery rounds – although this is only for twice a year to a maximum three days. The union had also negotiated an administrative fee for drivers who had to code parcel measurements and weights to determine that drivers were paid the correct rate. The fee was £1 per amendment up to a maximum of £10 a day. Subsequently Hermes amended their scanning hub capabilities so they do not have to pay the administrative fee to workers.

*'And I'm assuming it's all, everything with Hermes is through a courier, everything seems to be money motivated. So they don't fix any problems that arise unless it starts to cost them money. So it seems to be a financial incentive if Hermes realised that they were going to actually lose money because of it, they will fix the problem but only if it's financially beneficial. So I don't think Hermes will change the system or even invest in a system because it will cost money'. (Tim)*

The union rep reported that most of his time was spent challenging management over individual payments owed to drivers. The union is considering representing the so-called 'lifestyle couriers' who provide cover with no guaranteed hours, but select rounds on the online system. He felt that the union was making a difference:

*'Definitely. Don't get me wrong, a lot of people have said 'oh the unions should be doing so much more'. But actually the union has really no weight because we're not employees. So to tell Hermes you need to do something like this, this, this, this, Hermes can just go 'no, they're not employees, we'll do what we want.' And we don't really have any legal rights on that side of things. So it is very much baby steps. A little bit here, a little bit there, we push a bit, we push a bit, we try and push, persuade, change and try and change the culture by saying look, just work with us. You wanted the couriers to do what we want, we want it to be done fairly'. (Tim)*



## 10. Conclusion

COVID-19 has seen labour market flux. While furlough meant transient shifts in economic activity and across sectors and occupations, there is also evidence of more sustained transitions. The longer-term rise in economic activity has led to labour shortages, in particular in distribution. Here there is evidence of an inflow of women into traditionally male enclaves, possibly due to the high hourly pay rates and (in some cases) more stable contracts than in many predominantly female jobs. Perceptions of the relative value of work in retail and in distribution/warehousing has been brought into sharp focus by the recent ASDA equal pay judgement. This wider context may also see some reconfiguration of gender divisions.

The predominance of BME workers in delivery also appears to have shifted with an apparent exodus into warehouse work, again this may be explained by the prospect of an employment contract and more stable higher pay rates. The retail sector shows fluidity in terms of inflows and outflows and this may reflect the restructuring of the sector towards online retail. There appears to be a generational element whereby older retail workers mourned the loss of customer-focussed roles in favour of those dominated by sales targets. They felt that younger workers did not put up with such degraded conditions and the interview data suggested that younger workers were more likely to move between sectors. The exit of younger workers from delivery may reflect their relocation to parental homes during the pandemic, again more recent figures suggest an inflow into warehouse work, higher amongst young women. The influx of older workers into delivery may reflect the opportunity for part-time self-employment.

At the same time the gruelling conditions of warehouse work led one operations manager to advocate automation on the basis that the work is not human and underlies high turnover. There is a dynamic between automation and labour costs and in some distribution centres labour appeared to be more cost effective. The electronic monitoring of workers in delivery and distribution is widespread and there is some ambivalence in worker responses, with some feeling that it provides protection to their health and safety and against customer abuse and potential allegations of misconduct. However, such monitoring clearly plays a role in policing worker behaviour. Workplace trade union representation is key in maintaining a frontier of control and policing the limits of surveillance, particularly for disciplinary purposes. The frontier of control may be upheld by an older unionised section of the workforce, who do not feel the need or desire to push performance targets. Finally, there is evidence that tight labour markets constrain disciplinary measures and give workers more confidence, but also that trade unions are making gains in terms of pay and terms and conditions.

## Appendix

*Table 2: List of Participants (pseudonyms)*

| No. | Initials | Pseudonym | Sex | Job Role              | Sector / Company          |
|-----|----------|-----------|-----|-----------------------|---------------------------|
| 1   | A.S.N.   | Brianna   | F   | Warehouse Operative   | Distribution / Amazon     |
| 2   | C.O.     | Danielle  | F   | Operations Specialist | Distribution / Amazon     |
| 3   | H.J.     | Marianne  | F   | Warehouse Operative   | Distribution / Amazon     |
| 4   | S.C.     | Steve     | M   | Warehouse Operative   | Distribution/Amazon       |
| 5   | M.M.     | Ajin      | M   | Warehouse Operative   | Distribution / Amazon     |
| 6   | R.A.     | Sean      | M   | Warehouse Operative*  | Distribution / Howdens    |
| 7   | V.A.     | Connell   | M   | Warehouse Operative*  | Distribution / Other      |
| 8   | A.G.     | Alan      | M   | Warehouse Operative*  | Distribution / Sainsburys |
| 9   | I.A.     | Freddy    | M   | Warehouse Operative*  | Distribution / Sainsburys |
| 10  | T.C.     | George    | M   | Warehouse Operative*  | Distribution / Sainsburys |
| 11  | T.E.     | Paul      | M   | Warehouse Operative*  | Distribution / Sainsburys |
| 12  | C.W.     | Peter     | M   | Delivery Driver*      | Delivery / Tesco          |
| 13  | H.M.     | Tim       | M   | Delivery Driver       | Delivery / Hermes         |
| 14  | J.P.     | Ken       | M   | Delivery Driver*      | Delivery/ Tesco           |
| 15  | B.C.     | Billy     | M   | Delivery Driver*      | Deliver/ Tesco            |
| 16  | K.V.     | Richard   | M   | Delivery Driver*      | Delivery/ Tesco           |
| 17  | P.G.     | Phillip   | M   | USDAW*                | Distribution/ Argos       |
| 18  | C.M.     | Rob       | M   | USDAW*                | Distribution / Union      |
| 19  | A.J.     | Catriona  | F   | Retail Worker*        | Retail / ASDA             |
| 20  | A.E.     | Tahmid    | M   | Retail Worker*        | Retail / ASDA             |
| 21  | M.H.     | Derek     | M   | GMB*                  | Retail /ASDA              |
| 22  | S.W.     | William   | M   | Retail Manager*       | Retail / ASDA             |
| 23  | B.E.     | Charles   | M   | Retail Worker         | Retail / (ex) Debenhams   |
| 24  | C.W.     | Pete      | M   | Retail Worker         | Retail / (ex) Debenhams   |
| 25  | J.D.     | Kenny     | M   | Retail Worker         | Retail / (ex) Debenhams   |
| 26  | L.P.     | June      | F   | Retail Worker         | Retail / (ex) Debenhams   |
| 27  | M.R.     | Nico      | M   | Retail Worker         | Retail / (ex) Debenhams   |
| 28  | S.M.N.   | Joseph    | M   | Retail Worker         | Retail / (ex) Debenhams   |
| 29  | A.B.     | Sue       | M   | Retail Worker*        | Retail / Sainsburys       |
| 30  | D.G.     | Donald    | M   | USDAW*                | Retail / Sainsburys       |

\*Union representative or union activist.

## References

- Adams-Prassl, A., Boneva, T., Golin, M. and Rauh, C. (2020), 'Inequality in the impact of the coronavirus shock: evidence from real time surveys', Institute of Labor Economics (IZA), Discussion Paper no. 13183, <http://ftp.iza.org/dp13183.pdf>.
- Alicke, K., Glatzel, C., Hoberg, K. and Karlsson P.M. (2016), Big Data and Supply Chain: The big supply chain analytics landscape, <https://www.mckinsey.com/~media/McKinsey/Business%20Functions/Operations/Our%20Insights/Big%20data%20and%20the%20supply%20chain%20The%20big%20supply%20chain%20analytics%20landscape%20Part%201/cee032a2b5cb6d2e22c3ec7ea02159a0.pdf>
- Andruetta, C., Bin, E., Susilo, Y., Pernestal, A. (2021), Transition from Physical to Online Shopping Alternatives due to the COVID-19 Pandemic, <https://arxiv.org/abs/2104.04061>
- Balchandani, A., Hancock, B., Phillips, S. and Wachinger, T. (2020), Rebooting Retail: How Technology will Shape the Future of Retail, McKinsey& Company, <https://www.mckinsey.com/industries/retail/our-insights/rebooting-retail-how-technology-will-shape-the-future-of-retail>
- Blundell, R., Cribb, J., McNally, S., Warwick, R., & Xu, X. (2021), Inequalities in education, skills, and incomes in the UK: The implications of the COVID-19 pandemic. Institute for Fiscal Studies.
- Blundell, J., Machin, S. and Ventura, M. (2020) Covid-19 and the self-employed: Six months into the crisis Jack, No. 012 November 2020, Centre for Economic Performance, <https://cep.lse.ac.uk/pubs/download/cepcovid-19-012.pdf>
- Blue Yonder (2021), Warehouse Management, <https://blueyonder.com/solutions/warehouse-management>.
- Bozkurt, O and Grugulis, I. (2011), 'Why Retail Work Demands a Closer Look', in Retail Work (eds. Irena Grugulis and Odul Bozkurt, Basingstoke: Palgrave Macmillan.
- BRC (2021) Economic Briefing Report, British Retail Consortium available at <https://brc.org.uk/media/677493/ebr202104.pdf>
- BRC (2021b) Retail job report 2021, British Retail Consortium available at <https://brc.org.uk/media/677875/rjr2021.pdf>
- Brewer, M., McCurdy, C. and Slaughter, H. (2021) Begin again?: Assessing the permanent implications of Covid-19 for the UK's labour market, The Economy 2030 Inquiry.
- Brewer, M. and McCurdy, C (2021) Post-furlough blues- What happened to furloughed workers after the end of the Job Retention Scheme?, available at <https://www.resolutionfoundation.org/publications/post-furlough-blues/>
- Burns, N., Follis, L., Follis, K. and Morley, J. (2021) Moving target, moving parts: The multiple mobilities of the COVID-19 pandemic, in Lupton, D. and Willis, K. (eds.) The COVID-19 Crisis: Social Perspectives, London: Routledge.
- Carrillo-Tudela, C., Comunello, C., Clymo, A., Jäckle, A., Visschers, L. and Zentler-Munro, D. (2021), Search and Reallocation in the COVID-19 Pandemic: Evidence from the UK, No 14582, IZA Discussion Papers, Institute of Labor Economics (IZA).
- Clark, P. (2020), The new in-demand jobs: delivery drivers and tax specialists, <https://www.ft.com/content/6bd2feb3-39af-4f6e-9875-c9be0bdd0474>.
- Costa Dias, M., Joyce, R., Postel-Vinay, F., Xu, X. (2020). The Challenges for Labour Market Policy during the COVID-19 Pandemic. Fiscal Studies, 41(2): 371-382.

Cribb, J. and Salisbury, A. (2021) Londoners face quadruple whammy of labour market challenges as furlough scheme ends, Institute for Fiscal Studies, Press Release, available at <https://ifs.org.uk/publications/15646>

Delfanti A. (2021) Machinic dispossession and augmented despotism: Digital work in an Amazon warehouse. *New Media & Society*, 23(1):39-55.

Department for Business, Energy & Industrial Strategy (May 2021) Trade union statistics 2020. Available at: <https://www.gov.uk/government/statistics/trade-union-statistics-2020>.

Dorflinger, N. Pulignano, V. and Vallas, S. (2021) Production Regimes and Class Compromise Among European Warehouse Workers, *Work and Occupations*, 48(2) 111–145

Egdell, V. and Beck, V. (2020) A Capability Approach to Understand the Scarring Effects of Unemployment and Job Insecurity: Developing the Research Agenda, *Work Employment and Society*, 34 (5) 937-948

Eley, J. (2021) Asos and Boohoo rip up centuries of British retail heritage, *Financial Times*, 7<sup>th</sup> February. Available at: <https://www.ft.com/content/db4109db-2a03-446e-9b66-90dca1ce1176>

Eley, J. and Wright, R. (2019) How the crisis in UK retailing is reshaping employment, *Financial Times*, 29<sup>th</sup> September. Available at: <https://www.ft.com/content/48b20304-7660-11e9-bbad-7c18c0ea0201>

Financial Times (2022) Coronavirus has provided a wake-up call for workers, available at <https://www.ft.com/content/0b68ece7-76be-4b61-ba94-f1a02b99553f>

Gable, O., Florisson, R., Walker, T., and Wilkes, M., (2020), 'No Returns: a new direction to tackle insecurity in retail following COVID-19', Work Foundation, <https://www.lancaster.ac.uk/media/lancaster-university/content-assets/documents/lums/work-foundation/NoReturns-final2ndSept.pdf>

Gardiner, L. and Tomlinson, D. (2019) Sorry, we're closed: understanding the impact of retail's decline on people and places, Resolution Foundation (<https://www.resolutionfoundation.org/app/uploads/2019/02/Sorry-were-closed-report.pdf>).

Ge, D., Pan, Y., Shen, ZJ. Wu, D., Yuan, R. and Zhang, C. (2019), Retail supply chain management: a review of theories and practices. *Journal of Data, Information and Management* 1, 45–64.

The Guardian (2020) UK coronavirus job losses: the latest data on redundancies and furloughs, available at: [UK coronavirus job losses: the latest data on redundancies and furloughs | Coronavirus | The Guardian](https://www.theguardian.com/uk-news/2020/apr/23/uk-coronavirus-job-losses-the-latest-data-on-redundancies-and-furloughs)

Helps, L. (2021) Prologis lets former Arcadia warehouse to Boohoo after snapping up warehouse in 'best bid' deal, *Logistics Manager*, <https://www.logisticsmanager.com/prologis-lets-former-arcadia-warehouse-to-boohoo-after-snapping-up-warehouse-in-best-bid-deal/>.

Hutton, G. (2021) Retail sector in the UK, Briefing Paper Number SN06186, House of Commons Library

Iddenden, G. (2021) Number of temporary delivery drivers fall over 25% as restrictions ease, available at <https://www.chargedretail.co.uk/2021/07/30/number-of-temporary-delivery-drivers-fall-over-25-as-restrictions-ease/>

Jackson, B. (2020) Women at higher risk of job loss as retail moves to warehouses, *HR Magazine*, available at [HR Magazine - Women at higher risk of job loss as retail moves to warehouses](https://www.hr-magazine.com/n447272-women-at-higher-risk-of-job-loss-as-retail-moves-to-warehouses)

Jahshan, E. (2021) Aldi creates 4000 jobs, urges Arcadia & Debenhams staff to apply, *Retail Gazette*, <https://www.retailgazette.co.uk/blog/2021/02/aldi-creates-4000-jobs-urges-arcadia-debenhams-staff-to-apply/>



Powell, A. and Francis-Devine, B. (2021) Coronavirus: Impact on the labour market, House of Commons Library, available at <https://researchbriefings.files.parliament.uk/documents/CBP-8898/CBP-8898.pdf>

Rani, U., Dhir, R.K. Platform Work and the COVID-19 Pandemic. *Ind. J. Labour Econ.* **63**, 163–171 (2020). <https://doi.org/10.1007/s41027-020-00273-y>

Reuters (2021) British warehouse worker shortage triggers up to 30% pay spike, available at [British warehouse worker shortage triggers up to 30% pay spike | Reuters](#)

Smith, S., Wilson, J. and Curtis, J. (2021) UK job losses: retail redundancies grow as Asos buys Topshop, *The Telegraph*, 1 February. Available at: <https://www.telegraph.co.uk/business/0/job-losses-uk-coronavirus-covid-asos-topshop-arcadia/> (Accessed: 11 May 2021).

Thomas, D. (2022), Amazon adds 25,000 workers in UK to handle Covid sales boom, <https://www.ft.com/content/354328ff-e8a1-48b0-8594-0633de1e149d?segmentId=bf7fa2fd-67ee-cdfa-8261-b2a3edbf916>

Turley Economics (2020) The increased importance of logistics during Covid-19 and beyond, Tritax Symmetry

USDAW (2021a) USDAW - Tesco distribution strikes suspended, available at <http://www.usdaw.org.uk/About-Us/News/2021/Dec/Tesco-distribution-strikes-suspended-Usdaw-to-ball>

USDAW (2021) The crisis in retail: Usdaw's Case for a Retail Recovery Plan, Union of Shop, Distributive and Allied Workers, available at: <https://www.usdaw.org.uk/CMSPages/GetFile.aspx?guid=175de93b-59bc-427d-a262-75ee23db7639>

Wallace- Stephens, F. and Lockey, A. (2019) Retail therapy - Towards a future of good work in retail, London: RSA, <https://www.thersa.org/reports/retail-therapy-future-good-work>

Winton, A. (2021), Gender and food retailing, [https://www.alliancembs.manchester.ac.uk/original-thinking-applied/original-thinkers/gender-and-food-retailing/?utm\\_campaign=news-events&utm\\_medium=social&utm\\_source=twitter-post&utm\\_content=original-thinking-blog-gender-and-food-retailing](https://www.alliancembs.manchester.ac.uk/original-thinking-applied/original-thinkers/gender-and-food-retailing/?utm_campaign=news-events&utm_medium=social&utm_source=twitter-post&utm_content=original-thinking-blog-gender-and-food-retailing)

Webber, A. (2021) Ex-Arcadia Group staff seek pay-out for alleged redundancy failings. *Personnel Today*. Available at: <https://www.personneltoday.com/hr/ex-arcadia-group-staff-pursuing-compensation-over-alleged-redundancy-failings/> -accessed: 11/11/21).

UK Logistics (2021) Skills and Employment Report 2021. Available at <https://logistics.org.uk/CMSPages/GetFile.aspx?guid=24a6a7cd-351e-471b-bc7a-8550a8264537&lang=en-GB> - accessed 04/05/22)