



Independent Review into Labour Shortages in the Food Supply Chain

June 2023

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Chair's Foreword to the Review

I am honoured to present this extensive review, which focuses on the workforce within England's food supply chain. Understanding the current state of this vital sector is crucial in order to grasp the impacts of successive economic shocks on labour supply from new regulations, the COVID-19 pandemic, and the war in Ukraine. This review examines key challenges related to recruitment, retention, skills, automation, and the balance of trade, shedding light on the complexities faced by the industry.

The size of the food supply chain in the United Kingdom (UK) is remarkable, underscoring its importance to the country's economy. However, the industry currently faces difficulties in recruiting and retaining an adequate workforce. Factors such as low unemployment rates, changes in labour market dynamics, and reduced access to workers from the European Union (EU) have contributed to these challenges. Additionally, overly bureaucratic and slow administration of visa applications during periods of stress and conflict have had a substantial impact.

Access to migrant labour has been crucial for filling labour gaps in the food supply chain but acquiring migrant labour has become increasingly challenging. It is important to understand that this challenge is not unique to the UK; our international and European counterparts face similar obstacles as they expand their search for labour beyond local regions to ensure a stable workforce for domestic food production.

Productivity is a crucial aspect of the review, with a focus on enhancing efficiency and competitiveness within the food industry. Crucially, the sector's productivity growth has been slower and this is significantly contributing to food price inflation compared to other domestic sectors and international counterparts. There is an exciting future in automation and new technology, but it is in the future and much of it will take years to reach commercial viability.

Furthermore, the review highlights the impact of labour shortages on the balance of trade. The UK has become increasingly reliant on imports to meet its food needs in certain categories, highlighting the importance of addressing labour challenges for a robust domestic food supply chain. It should be noted that the Prime Minister has recently made a commitment to maintain production levels at broadly 60% by value of the food the UK needs.

The findings presented in this review are based on a rigorous methodology that includes a literature review, surveys, interviews, roundtable discussions, and site visits. These evidence-based insights have allowed us to identify four key themes: recruitment, retention, skills, and automation.

Building on these themes, the Expert Panel have developed a set of robust recommendations for the government, industry, and other stakeholders. These recommendations aim to address the critical issues identified in the review, and we urge all stakeholders to consider them carefully and take prompt action to drive positive change.

As part of this review, we have witnessed the sector and government undertaking commendable initiatives. However, there are notable issues of duplicating work and operating in silos, which hinder overall coordination. The food supply chain would greatly benefit from a coordinated approach among industry and government entities to maximise efficiency and avoid unnecessary duplication of efforts.

I would like to express my gratitude to the Expert Panel and stakeholder for their valuable contributions to this endeavour. I would also like to thank the Defra Secretariat team of Shak Shah, Jamie Murphy, Callum King, Elaine Akester, Morgan Simpson, Beth White and Grace Natusch, who have provided fantastic support over the timeline of this review. Their collective efforts have resulted in a comprehensive report that provides guidance for shaping the future of the food supply chain workforce in England.

Through collaboration and concerted efforts, we can overcome the challenges faced by the industry and create a resilient food supply chain that provides high quality and affordable food for British consumers. I trust that the findings and recommendations presented in this review will serve as a catalyst for meaningful change and support the continued growth and development of the food supply chain.

Expert Panel Foreword

As the Expert Panel, we are pleased to contribute to this timely and comprehensive review, and we repeat the Chair's sentiments about the immense importance and complexity of the workforce issues within England's food supply chain.

The need for recruitment and retention of a skilled workforce is not unique to the food supply chain, but the sector's challenges are particularly acute due to the impacts of regulatory change, global events, and the increasing pace of automation. It is clear that overcoming these hurdles requires a concerted effort from all stakeholders, coupled with innovative, long-term strategies.

The role of automation and new technology in addressing some of these issues cannot be overstated, as highlighted in the Chair's foreword. However, we should not underestimate the investment required, both in capital and human terms, to realise its potential. There is a real risk that over-reliance on the promise of technology can deflect attention from the pressing need for immediate, practical actions to address workforce challenges.

The themes identified in the review – recruitment, retention, skills and automation – reflect the key issues that need to be tackled. However, these themes are interconnected and should not be viewed in isolation. For example, a focus on recruitment without parallel investment in skills development and retention strategies will not result in sustainable solutions.

Our recommendations seek to provide a strategic, holistic approach to address the pressing issues. They highlight the need for policy and practice changes that span government departments, industry bodies, educational institutions, and the workforce itself. Crucially, they underscore the need for collaborative working, not only between these different stakeholder groups, but also across geographical boundaries and sectors.

We encourage all stakeholders to engage thoughtfully with these recommendations, considering not only their individual implications but also how they interact to create a comprehensive response to the workforce challenges in England's food supply chain.

Finally, we echo the Chair's gratitude to everyone who contributed to the review, and we back his call for concerted, collaborative efforts to drive positive change. The challenges are substantial, but so too is the collective capacity and determination to overcome them. We hope this review and its recommendations provide a solid foundation for action and inspire a collective commitment to a resilient and sustainable food supply chain for England.

Biographies

Chair

John Shropshire OBE



John Shropshire was CEO of G's Fresh Group until 2021 and is chairman of G's Fresh Limited. He joined the family farming and marketing business, which was founded by his father Guy Shropshire, after completing a BSc Hons in Agriculture at Newcastle University in 1976. G's Fresh Group is a major UK horticulture business which has won several national industry awards recognising its progress in technical and product innovation, exports and environmental management. He is also a Director and founding member of the Modern Slavery Intelligence Network (MSIN) a non-profit organisation created to share intelligence to aid in disrupting modern slavery and labour exploitation within the UK food industry.

Expert Panel Members

Fiona Dawson CBE



Fiona Dawson is a non-executive director at Marks and Spencer, the Lego Group, and Kerry Group. She was previously Global President of Mars Food and Multisales, served as President of the Institute of Grocery Distribution (IGD), and was Vice President of the Food and Drink Federation. In 2021 Fiona was awarded a CBE for services to women and the economy.

Martin Ford



Martin Ford is Technical & Sustainability Director at Greencore UK, a leading manufacturer of convenience foods. He has previously worked for a number of food businesses, including Northern Foods and Morrisons.

Mark Greet



Mark Greet has led Falfish (a Cornish wholesaler and processor of wild-caught fish and farmed fish), where he was a managing director until 2021. He Chairs the Western Fish Producers Organisation and is a Trustee of The Fishermen's Mission.

William Kendall



UK's largest fresh food manufacturers.

William Kendall is a food entrepreneur, and farms conventionally and organically in East Anglia. He led the development of embryonic brands New Covent Garden Soup Company, Green & Black's and latterly Cawston Press. William advises a number of family businesses: he is a Trustee of the Grosvenor Estate and of the Gascoyne Cecil Estate which both have substantial farming interests, and he is a director of Samworth Brothers, one of the

Dr David Llewellyn CBE



David Llewellyn is the former Vice-Chancellor of Harper Adams University, a position he held from 2009 until he retired in 2021. He was a founding member of the Skills Development Board which helped create the Institute for Agriculture and Horticulture (TIAH). He was awarded a CBE in the 2022 New Year Honours for his services to higher education, agriculture, and rural industries.

Helen Sisson



in the establishment of the Food Industry Intelligence Network (FIIN), of which she is a Director and Co-Chair. She also currently sits on several external panels, including membership of the BRCGS International Advisory Board, Modern Slavery Intelligence Network Board and IGD Technical Leadership Forum. Helen is a Trustee of the Food redistribution charity, FareShare and has recently retired from her role as Non-Executive Director of Campden BRI.

Helen Sisson has been in the food industry for over 30 years previously working for companies such as Greencore, Sutherlands, Hazelwood Foods and prior to this within the dairy sector. She joined Two Sisters Food Group in 2019 as Group Technical Director where she leads the Technical, Health & Safety, Sustainability and Agriculture functions. In this role Helen directs the strategy and governance for each of the functions. Helen was directly involved

The Story of the Review

1. The inception of this study can be traced back to the seminal work of Henry Dimbleby in 2019, encompassing the National Food Strategy.¹ Henry Dimbleby is a British entrepreneur and writer who co-founded the Leon restaurant chain and was appointed by the UK government to lead a review of the UK food system. The resulting report, the National Food Strategy, outlined a plan for transforming the UK food system to be healthier and more sustainable.²
2. Dimbleby's report highlighted a pressing issue: fewer people were entering the workforce, which posed a threat to the food industry. Many jobs in this sector were low-paid and didn't offer much room for career growth. In response, Dimbleby proposed the creation of a pathway to employment in the food supply chain in England. He believed that the food industry played a vital role in the UK economy and wanted to ensure better job opportunities and prospects for those working in the sector.
3. Dimbleby proposed that the government invest in training and education programmes to help people develop the skills needed to access higher-paying jobs in the food industry. This could include apprenticeships, vocational training, and support for further education. He also suggested that the government should work with the food industry to create clear career pathways and promote the benefits of working in the sector.
4. By creating a pipeline to jobs in the food supply chain, Dimbleby argued that the UK could address the skills gap in the industry and improve social mobility. He also noted that investing in the food industry could help to drive economic growth and support the transition to a more sustainable and healthy food system.
5. In response to the National Food Strategy, the government produced the Government Food Strategy in 2022.³ Within the Food Strategy, the government acknowledged the importance of the food industry to the UK economy and committed to transforming the food system to become healthier and more sustainable.
- 6. One of the key recommendations in the Government Food Strategy was the need for an independent review into labour shortages in the food supply chain. The government commissioned this review in recognition of the fact that the COVID-19 pandemic had highlighted the vulnerabilities of the food system and the importance of ensuring a secure and stable workforce.**
7. In August 2022, the Department for Environment, Food and Rural Affairs (Defra), then Secretary of State, the Rt Hon George Eustice, commissioned John Shropshire OBE to lead this review.⁴

¹ Henry Dimbleby, 'National Food Strategy' (2021): <https://www.nationalfoodstrategy.org/> [accessed 21 June 2023]

² Henry Dimbleby, 'National Food Strategy' (2021): <https://www.nationalfoodstrategy.org/> [accessed 21 June 2023]

³ Department for Environment, Food and Rural Affairs, 'Government food strategy' (2022): <https://www.gov.uk/government/publications/government-food-strategy> [accessed 21 June 2023]

⁴ Department for Environment, Food and Rural Affairs, Defra updates on Independent Review into Labour Shortages in the Food Supply Chain (2022): <https://www.gov.uk/government/news/defra-updates-on-independent-review-into-labour-shortages-in-the-food-supply-chain> [accessed 21 June 2023]

8. An expert panel that drew on industry and academic experience across the supply chain was created to support the Chair in delivering the review. Under the leadership of John Shropshire, they would investigate the workforce challenges confronting England's food supply chain and develop recommendations for government and industry to rectify those issues.

Current Picture

Introduction

9. In order to grasp the true importance of this review, it is vital to have a comprehensive understanding of the existing state of the food supply chain. Although the scope of this review is centred explicitly around England, it is important to recognise that much of the data regarding the scale and intricacy of the food supply chain is derived from nationwide statistics, making it challenging to separate the information exclusively for England. Where appropriate, this review will specifically state whether the data being presented is England-only or otherwise.

Size

10. The UK food supply chain is a complex and extensive system that encompasses various stakeholders, from farmers and processors to retailers and consumers. In 2021, the total consumer expenditure on food, drink, and catering reached £240 billion, indicating the substantial size and importance of the food supply chain to the UK economy.⁵
11. The significant size and employment opportunities provided by the UK's food supply chain make it a crucial contributor to the country's economy, although the industry is currently struggling to recruit enough workers to meet its demands.

Employment

12. In 2021, the UK agri-food supply chain employed 4 million people, which is equivalent to 13% of the total number of employees of the UK workforce. From 2000 to 2021, the number of employees in the agri-food supply chain (which includes agriculture, manufacturing, wholesale, retail, and catering) increased by 11%, or around 400,000 workers. However, there has been a contrasting trend in the different sectors during this period, with agriculture and manufacturing experiencing a significant decline in employment by 23% and 11%, respectively (128,000 and 54,000 workers) although these are up from 2010 levels. The overall increase in the workforce was predominantly down to the catering sector.⁶

⁵ Department for Environment, Food and Rural Affairs, 'Food statistics pocketbook' (2023): <https://www.gov.uk/government/statistics/food-statistics-pocketbook> [accessed 21 June 2023]

⁶ Department for Environment, Food and Rural Affairs, 'Agriculture in the United Kingdom data sets' (2022): <https://www.gov.uk/government/statistical-data-sets/agriculture-in-the-united-kingdom> [accessed 21 June 2023]

Figure 1 – Workforce numbers in the UK Agri-food chain (thousands of persons)

Sector	2000	2010	2021
Workforce in the Agri-food Chain	3,606	3,564	4,005
Agriculture (including fishing)	557	424	429
Food Manufacturing	481	375	427
Food Wholesaling	221	214	230
Food Retailing	1,089	1,148	1,164
Food Non-Residential Catering	1,258	1,403	1,756

13. From a domestic recruitment perspective, the challenges that are being seen within the food supply chain may be tied to broader macroeconomic changes. The UK is currently experiencing record-low unemployment, recording a rate of 3.7% in December 2022.
14. The low unemployment has coincided with a period where a number of individuals have left the labour market. In 2022, the Institute of Fiscal Studies (IFS) found that the number of people in their 50s and 60s who are economically inactive, meaning they are not in paid work and not seeking employment, had increased by 1.1% since Q1 2020 (the period just prior to the pandemic).
This marks a significant shift from the trend of decreasing economic inactivity among all age groups over the past few decades. In fact, economic inactivity has dropped from 47% in 2000 and 42% in 2010 to 35% in early 2020.⁷
15. This shortage of labour is not only due to competition from other sectors but also because of the impact of the UK leaving the EU, which has reduced the number of available EU workers.

Migrant Access

16. A 2016 report by the Agriculture and Horticulture Development Board (AHDB) suggests that in 2015, 20% of the permanent workforce in agriculture and horticulture were EU nationals. The same report indicates that in 2012, 95% of the Seasonal Agricultural Workers Scheme (SAWS) quota was taken up by workers from Romania and Bulgaria. In 2014, approximately 40% of the food manufacturing workforce was made up of EU nationals.⁸ Since 2016, there has been a steady reduction in the number of EU migrants working across the food supply chain.

⁷ Institute for Fiscal Studies, 'Is worsening health leading to more older workers quitting work, driving up rates of economic activity?' (26 October 2022): <https://ifs.org.uk/articles/worsening-health-leading-more-older-workers-quitting-work-driving-rates-economic> [accessed 21 June 2023]

⁸ Agriculture and Horticulture Development Board, 'The impact of Brexit on the UK agricultural workforce' (2016), page 6: https://projectblue.blob.core.windows.net/media/Default/Imported%20Publication%20Docs/Horizon_Brexit_Analysis_20September2016.pdf [accessed 21 June 2023]

17. The UK Government has attempted to support parts of the supply chain that have been heavily reliant on migrant labour in the past by putting in place visa schemes such as the Seasonal Worker visa route for the Horticulture sector.
18. It should be noted that access to EU workers is not only a concern for the UK but also for all European countries due to the fast-growing economies in Central Europe, who themselves are now in a position of having to recruit non-EU workers.
19. As a result, there has been a decrease in the number of people leaving Eastern Europe to work in other countries. For instance, the number of Polish national residents living in the UK fell by around 31% from 2017 to 2021.⁹ This could be correlated to the positive Gross Domestic Product (GDP) growth seen in Poland for 4 of the 5 years between 2017 and 2021. Romania has recently announced a scheme to recruit non-EU workers to fill labour shortages in their food and farming industries.¹⁰

Productivity

20. Defra uses Total Factor Productivity (TFP) as a measure of how efficiently and competitively the food industry in the UK is performing. When TFP increases, it means the industry is becoming more efficient. If TFP in the UK food industry increases faster than in other countries, it means the UK food industry is becoming more competitive than the food industries of other countries.
21. The productivity of the food chain in 2020 decreased by 1.5%, which was slightly more than the decrease of 1.1% in productivity across the wider economy. Over the 10-year period leading up to 2020, the average annual growth rate of the food chain was only 0.1%, while the wider economy's average annual growth rate was slightly higher at 0.2%.¹¹
22. When considering the entirety of the economy, it is apparent that the UK's labour productivity growth lags behind that of comparable developed economies such as those in the EU, the United States, and Japan.¹² Add to this the issue of food price inflation, caused, in part, by a shortage of labour, and the pressures are mounting on the food system to continue to produce food at prices that remain affordable to all parts of UK society, whilst also meeting the Prime Minister's ambition to maintain the proportion of food produced in the UK for home consumption.

⁹ Statista, 'Number of Polish nationals resident in the United Kingdom from 2008 to 2021' (2023), <https://www.statista.com/statistics/1061639/polish-population-in-united-kingdom/> [accessed 21 June 2023]

¹⁰ The Economist, 'Romania's hot economy is attracting foreign workers' (27 April 2023): <https://www.economist.com/europe/2023/04/27/romania-hot-economy-is-attracting-foreign-workers> [accessed 21 June 2023]

¹¹ Department for Environment, Food and Rural Affairs, 'Total Factor Productivity of the United Kingdom Food Chain 2020 – final release' (2023): <https://www.gov.uk/government/statistics/food-chain-productivity/total-factor-productivity-of-the-united-kingdom-food-chain-2020-final-release#benchmarking-the-uk-food-chain-against-the-wider-economy> [accessed 21 June 2023]

¹² Organisation for Economic Co-operation and Development, 'Labour productivity and utilisation' (2023): <https://data.oecd.org/lprdy/labour-productivity-and-utilisation.htm> [accessed 21 June 2023]

Balance of Trade

23. In 2021, based on the farm-gate value of unprocessed food, the UK supplied just 58% of the food consumed in-country, with the remaining 42% being imported. The leading overseas supplier of food consumed in the UK was the EU, which provided 23% of the total, followed by Africa, North America, Asia, and South America, each providing a smaller share.
24. In 2021, the value of imports was greater than the value of exports in every broad category of food, animal feed, and drink except for beverages, which had a trade surplus largely due to exports of Scotch Whisky.
25. The largest trade deficit is in the 'fruit and vegetables' category. In 2021, the UK imported £10.5 billion worth of fruit and vegetables, while exports were worth just £0.9 billion, resulting in a trade gap of £10 billion.¹³
26. The Prime Minister made a commitment in May 2023 to broadly maintain current production levels where the UK produces 60% of all the food it requires.

¹³ Department for Environment, Food and Rural Affairs, 'Food statistics pocketbook' (2023): <https://www.gov.uk/government/statistics/food-statistics-pocketbook/food-statistics-in-your-pocket#uk-trade-in-different-food-groups-2021chart34> [accessed 21 June 2023]

Executive Summary

Purpose and Scope

27. The independent review was commissioned to evaluate the quantity and quality of the food supply chain workforce in England, with a focus on assessing how automation, domestic employment, and migration routes have been used to resolve challenges caused by labour shortages. The review has now been completed, and its findings are presented within this report.
28. The primary objective of the review was to provide industry and government with recommendations to establish a more sustainable, equitable and innovative footing for the food supply chain. The insights gathered from the review will inform the ongoing policy work of the government, particularly in addressing labour shortages in the food and farming sector. The recommendations developed from the findings of the review aim to enable businesses to access the labour they require more effectively, facilitating continued growth and development of the sector.
29. The scope of the review was limited to the following sectors in England: Farming (including pigs, eggs, poultry, red meat, dairy, arable, and edible horticulture), primary processing (including meat processing and seafood processing), and food and drink manufacturing (excluding alcohol).

Methodology

30. This review was conducted between October 2022 and January 2023, and four main forms of evidence collection were employed to support it.

Literature review

31. A concise literature review was conducted, encompassing an analysis of 53 academic papers, grey literature, as well as official reports. These resources were shared with the secretariat by stakeholders and members of the panel.

Workforce survey

32. A quantitative survey of agri-food businesses. The survey covered themes related to labour requirements, vacancies and turnover, recruitment and retention, and skills and training. The survey ran from 24 October to 25 November 2022, and 472 responses were analysed, of which 353 were full responses.

Qualitative interviews with agri-food businesses

33. Qualitative interviews with agri-food businesses, aimed at providing additional insight on labour requirements, vacancies and turnover, recruitment and retention, and skills and training. 46 interviews were conducted, the businesses were selected based on recommendations from panel members and Defra food supply chain teams. Notes were verified with interview participants, and the material gathered was subsequently coded to facilitate analysis.

Roundtable discussions and site visits

34. To improve understanding of the challenges encountered by businesses, a series of roundtable discussions and site visits were conducted. These initiatives involved three site visits and 16 roundtable discussions, with the participation of 72 stakeholders. This achieved the primary aim to gain a deeper insight into the issues reported by businesses.

Quality assurance

35. Quality assurance measures were built into the data collection processes to ensure that they were relevant, objective, repeatable, and independent. These included involving a broad range of stakeholders in developing appropriate research questions, checking scripting and routing, validating interview notes with participants, excluding secondary evidence not deemed of sufficient strength, using systematic processes to record findings, and checking the accuracy and consistency of coding and evidence summaries. The accuracy of the evidence included in this report was checked against the sources.

Limitations of the evidence

36. For the workforce survey, it should be noted that respondents were mostly from farming businesses, and the survey results are therefore not representative of agri-food businesses as a whole.
37. For the qualitative interviews, the interview sample was mostly from large businesses, and the views should not be seen as representative of agri-food businesses overall.
38. For the roundtable discussions, the information gathered from these interactions is largely anecdotal and forms the basis for the case studies included in this report.

Citation in this report

39. Unless explicitly stated, all evidence gathered from stakeholder engagement in this report originates from the previously mentioned evidence collection process. Consequently, the report will not include individual citations for each stakeholder engagement conducted through these means. This decision is motivated by the imperative to uphold the anonymity and confidentiality associated with the data collection process.

Chapters

40. Following the collection of evidence as part of this review, four key themes emerged, which are reflected in the four chapters of this report.

Recruitment

41. Recruiting people is a challenge for sectors across the food supply chain in England, with implications for productivity and long-term skills gaps.
42. The evidence showed that challenges in the Food and Farming sector include negative perceptions of the sector, unappealing working conditions such as physical demands, unusual working hours, undesirable environments, and repetitive tasks.

43. The reliance on migrant labour and uncertainty around immigration policy has created significant challenges for the industry. Seasonal workers are also required in some sectors, such as edible horticulture and poultry.
44. Additionally, there are low rates of domestic recruitment, with businesses struggling to fill roles across the supply chain, including process, plant and machine operatives, engineers, farm managers, and elementary (unskilled) and semi-skilled roles. This is despite the talent of potential workers amongst harder-to-reach and disengaged groups, including those of age groups perceived to be untypical to the food supply chain's traditional workforce. There was no clear evidence of a large pool of unutilised domestic labour, but businesses could, and in some places are, putting in place more flexible recruitment and working practices to help workers overcome barriers to employment.

Retention

45. In a tight labour market where employees have more choices in the areas where they would like to work, the food supply chain struggles to retain staff.
46. The evidence showed that the emergence of a 'workers market' has made it necessary for employers in the Food and Farming sector to work harder on their offer and consider competing for a more diverse range of workers, including working parents, carers and older people.
47. Retention challenges in the sector include losing talented workers to other industries that offer better working conditions and financial incentives, such as the oil industry, renewable energy industry, online retailers, and major infrastructure projects.

Skills

48. There is a skills shortage within the food supply chain due to a lack of upskilling of current staff and a pipeline through further and higher education that is not strong enough to meet current and future demands.
49. The evidence showed criticisms of the inflexibility of the Apprenticeship Levy, particularly for Small and Medium Enterprises (SMEs), and the burden it places on larger employers.
50. Other evidence pointed to a lack of collaboration between government, industry, and education providers and that this also contributes to a mismatch between workforce needs and available training.
51. Additionally, shortages in specific skill sets, such as engineers, are exacerbated by a lack of data on future skills needs, making it uncertain whether gaps are being addressed in food production-related courses.

Automation

52. There is scope for further automation in the food supply chain to support productivity improvements. However, progress has been constrained by high costs and a complex landscape of incentives.
53. The evidence showed that the main challenge with automation in the Food and Farming sector is that some technology that could replace labour-intensive food production is not yet commercially available or viable.
54. There were also differing perceptions of the availability of technology between sectors, with 80% of manufacturing businesses agreeing that the technology is available compared to 69% in the farming sector.

55. Additionally, some businesses felt that if the technology existed, further automation would require large investments and incur additional risk as the technology is not always commercially tested and available. Investment decisions will depend on the medium and long-term prospects of the industry and availability of labour to operate and maintain the machines.

Recommendations

56. Drawing on the compelling evidence collected in this review, the Expert Panel has formulated a set of robust recommendations for the government, industry, and other key stakeholders. These recommendations are aimed at addressing the critical issues identified in the review, and we urge all stakeholders to take prompt action based on them.

57. The Expert Panel believes that the recommendations presented in this report have the potential to drive positive change, and we call on each stakeholder to carefully consider the evidence and insights we have gathered. By working together to implement these recommendations, we can make significant strides towards resolving the challenges faced by the industry and creating a more resilient food supply chain.

Recommendation 1 – Implement a Comprehensive Strategy to Enhance Sector Attractiveness

To reduce recruitment challenges and promote opportunities available in the food supply chain in England, we recommend implementing a comprehensive strategy to improve awareness of the opportunities in the sector. Led by the Food and Drink Sector Council (FDSC) because of its role in bringing together industry and government, in collaboration with key industry representatives such as The Institute of Grocery Distribution (IGD), the National Skills Academy for Food & Drink (NSAFD) and The Institute for Agriculture & Horticulture (TIAH), the strategy must include the following components:

- Communication campaigns targeted at changing public perception about the sector to demonstrate that it is vital to the economy and national food security. Such a campaign must highlight the importance of sector jobs, at all levels, which promote and improve environmental sustainability and contribute to the Government's Levelling Up and Green (Net Zero) agendas.
- Collaboration between industry, government and education institutions to develop and monitor careers advice provided by schools and education/training providers. This should highlight and promote the range of skills and roles on offer in the food supply chain, with a focus on their links to Science, Technology, Engineering and Mathematics (STEM) subjects to raise the aspirations of learners and create a resilient and future-proof domestic workforce. There should also be an opportunity to review the school curriculum to support skills development for the industry.
- A review, led by industry and coordinated by the government, to identify methods through which pay, staff benefits and conditions in the sector can be improved for food supply chain workers, with an emphasis on the regulation and enforcement of migrant labour schemes to eliminate exploitation in the sector.

- Recognition of the talent harder-to-reach and disengaged individuals can offer businesses in the food supply chain. Industry must be encouraged to provide concessions and flexibility in working conditions to accommodate workers and help them overcome barriers to employment.

Recommendation 2 – Access to Migrant Labour

Seasonal Worker route

The UK has long been reliant on seasonal agricultural workers from abroad. Recruiting seasonal workers from the domestic workforce is even more challenging today due to low unemployment rates and a high number of job vacancies in the UK labour market. As a short-term measure, it is vitally important that the replacement of the Seasonal Worker visa scheme pilot is announced by the end of 2023 to ensure industry has enough workers to maintain domestic food production levels. To give businesses the confidence to invest, the new scheme must be guaranteed for a minimum term of five years or until a time when, using Labour Market Intelligence (LMI), the government is confident seasonal workers can be sourced from the domestic workforce. Consideration must be given to lifting or removing the cap on the total number of visas. Visas need to last nine months to account for longer harvesting periods with a three-month ‘cooling off’ interval and apply an ‘employer pays’ principle in relation to the NHS health surcharge. The processing of visas needs to be more resilient to guarantee that workers are available at the start of the harvest season to prevent serious crop shortages as in 2022.

It is crucial that employers of sufficient size, expertise and capacity with a credible track record of operations have the ability to directly sponsor workers. Any new scheme must reduce labour exploitation risks by establishing an appropriate legal framework supported by a robust enforcement system managed by the GLAA that is sufficiently well-resourced to monitor exploitation risks.

Skilled Worker route

There are not enough skilled workers in the domestic workforce to fulfil the labour needs of the food supply chain therefore it is of vital importance that the government widens the eligibility criteria for the Skilled Worker visa route to include roles currently considered lower-skilled or reclassify those occupations so that they become eligible.

Reducing the high financial costs required to access workers through the Skilled Worker route is essential for businesses in the low-margin food supply chain to ensure they can compete with global markets.

To support this, a review of the Shortage Occupation List (SOL) should take place more frequently and there needs to be more flexibility around which roles are eligible. To reduce the geographical range in which employers are having to recruit, thereby decreasing potential worker exploitation, English language requirements must be relaxed with a commitment by businesses to ensure workers have passed a secure English language test (SELT) within 12

months of taking up employment. The Review supports the industry and Defra submissions made to the Migration Advisory Committee (MAC) as part of the current SOL review.

Recommendation 3 – Invest in Domestic Workers

To improve worker retention, businesses should provide clear training and career development plans for their UK-domiciled staff on the understanding it is an investment rather than simply an expenditure. Training and education should focus on skills that are flexible yet specific enough to the food supply chain sector to help improve retention within the sector. Managers and supervisors should take deliberate steps to improve their leadership abilities, coaching skills, and understanding of diversity and generational differences. By doing so, they will be better equipped to attract new talent to the industry and retain existing employees. TIAH and the National Skills Academy for Food & Drink (NSAFD) must collaborate to create a portal that businesses can access for information, support and signposting to appropriate training and development providers. The service could be utilised to gather data on returns on investment (ROI) from training and development activities. Government should consider providing businesses with access to professional HR support, to help develop and deliver a relevant strategic plan to support their employees. This service should be accessed through Local Enterprise Partnerships (LEPs). For retention interventions to be successful they must be guided by greater engagement with workers.

Recommendation 4 – Reform the Apprenticeship Levy

The importance of the Apprenticeship Levy has been highlighted as a means to improve the skills of the workforce. However, to address the skills shortage in the food supply chain, it must be completely overhauled to provide a highly skilled workforce capable of meeting the evolving needs of the sector and to protect that supply in the longer term. The Levy must be reformed through engagement with employers making it more flexible and enabling greater access for SMEs. A new name should be introduced to reflect this expanded scope: the Skills and Development Levy. To reform the Levy the government must, within the current model:

- Introduce a flexible approach that includes a wider range of training and education, a simplified application process, as well as adopting a Research & Development-style tax record system for incentivising training.
- Enable flexible use of funds to develop training materials and capital funding resources for future skills requirements such as those required for sophisticated agricultural equipment.
- Allow the funding to be used to support better welfare education and training schemes for seasonal workers (migrants) and for training employers on welfare management as well as the disruption and prevention of modern slavery.

- Provide greater clarity on the use of expired Levy funding and release those funds back for business investment in training, skills, and development.

Recommendation 5 – Build on Skills Supply Collaboration

There must be a better understanding of the skills required by the food supply chain to allow a clear and purposeful strategy to be developed between government, education providers and industry. Collaboration will enable improved data collection on the skills pipeline and on skills needs which is essential to meeting the changing requirements of the sector. Especially important in this is the need for collaborative planning to prepare for the skills requirements that can make tasks across the food supply chain more efficient. This coordination must focus on informing policymaking, and associated curriculum development, and should involve key skills providers such as the AUC, BASIS, Landex and Lantra.

Recommendation 6 – Support Food Career Curriculum Delivery

The provision of the next generation of entrants to the food supply chain must be seen as a matter of national importance in assisting with the security of the food supply chain and securing a domestic supply of skilled workers. To fulfil this objective, further and higher education funding bodies should review food supply chain-related subjects to ensure courses are well-resourced and that recurrent and capital funding, is enhanced and protected in the long term. This should include dedicated funding programmes to support students with tuition fees and maintenance assistance to incentivise recruitment in these subjects.

Recommendation 7 – Produce a Workforce Data Strategy

Defra, in partnership with the Office for National Statistics and the Department for Education's Unit for Future Skills, must set out a workforce data strategy aimed at improving the available data on labour and skills supply into the food supply chain to help businesses with workforce planning. The strategy should include commissioning real time LMI for the sector and improving existing datasets on the food supply chain workforce, as well as a national statistics level workforce survey to gather longitudinal data on workforce trends within the sector that enables accurate forecasting. This strategy must ensure there is a pipeline of future skills in key areas such as automation, robotics, data, leadership, change management and business skills.

Recommendation 8 – Incentivise Automation

As a productivity-enhancing measure, the government must improve access to funding that incentivises the uptake of automation among businesses in the food supply chain who reported struggling with the costs involved. Such financial incentives must focus specifically on enhancing productivity alongside boosting employment and achieving improved

environmental outcomes. The replacement of the Fruit and Vegetables Aid Scheme that will be introduced in 2026 must open grant aid to individual producers rather than through the system of producer organisations. There needs to be an equivalent grant aid scheme for businesses in the food and drink manufacturing and processing sectors. Funding must also be delivered on the condition that businesses use part of that financial support to develop the skills and management capacity of their workers to operate new productivity-enhancing technologies, in addition to professional change management skills.

Recommendation 9 – Advance Automation Knowledge

To improve awareness of existing support, there needs to be a coordinated, cross-industry approach to knowledge-sharing and promoting the adoption of automation which eliminates existing barriers and simplifies access to new technologies. This must start with a more joined-up approach to food supply chain automation encouragement across government departments. The FDSC should act as the initial forum to establish the best way of bringing this project to life.

Recommendation 10 - Moonshot Approach to Innovation

In certain sectors, the technology to reduce reliance on workers in the food supply chain is not yet commercially available. There needs to be a moonshot approach to innovation funding with collaboration between the government, industry, universities and research funding bodies to help accelerate the development of new technologies. Together, they must identify opportunities for new technologies, provide new revenue streams to target specific innovation solutions and support the wider adoption of automation to improve food production, resolve longer-term aspects of labour shortages and help achieve net zero ambitions. The FDSC should lead in convening the key stakeholders and driving forward this consortium.

A full list of recommendations including who they should be led by and whether they are short, medium or long term can be found in Annex A.

Chapter 1 – Recruitment

Introduction

58. The food supply chain is a diverse sector, employing millions of people in a range of roles to grow, produce and process food.¹⁴ There were 4.1 million people employed in the agri-food supply chain in the first quarter of 2022, representing 13.4% of Great

¹⁴ Department for Environment, Food and Rural Affairs, 'Food statistics pocketbook' (2023): <https://www.gov.uk/government/statistics/food-statistics-pocketbook/food-statistics-in-your-pocket#agri-food-sector-employees-gb-q4-2022chart13> [accessed 21 June 2023]

Britain's (GB) workforce.¹⁵ Despite these figures, businesses across the breadth of the supply chain are struggling to fill vacancies in their organisations, with the Environment, Food and Rural Affairs Committee (EFRA) noting in 2021 that labour shortages had been the single biggest factor impacting the United Kingdom's (UK's) food supply chain.¹⁶ So, recruiting enough people with the right skills is vital to food security.

59. Although recent employment statistics indicate a softening of the tight labour market in the UK, survey evidence gathered for this report demonstrates¹⁷ Most open vacancies were to backfill existing positions, suggesting that businesses are finding it difficult to keep their organisations at the same size rather than growing, expanding, and planning for the future. Local Enterprise Partnerships (LEPs) reported that shrinking labour markets in their respective regions are now reaching a critical level in the food supply chain, with some businesses witnessing a 10-15% shortfall in workers.
60. The survey also found it was taking longer for businesses to recruit new workers to roles in the sector, with recruitment times more than doubling between 2019 and 2022. Interviews with regional labour providers found they are receiving far fewer applications than ever before, with the number of candidates available per vacancy decreasing from approximately 6 people per role in 2012, to around 1.6 in 2023.
61. Since freedom of movement ended on 31 December 2020 following the UK's withdrawal from the European Union (EU), a points-based immigration system has been in place. Although workers present in the UK by 1 January 2021 were eligible to continue working and living in the UK under the EU Settlement Scheme (EUSS), there is no general work route allowing low-skilled EU workers to enter and work in the UK. This, compounded with difficulties recruiting an adequate domestic workforce, has implications for food security by impacting future supply chain resilience and the UK's ability to produce the food it needs to meet consumer demand. This chapter will discuss the scale and nature of recruitment challenges that are contributing to labour shortages in the food supply chain.

Problem - Perceptions of the Food and Farming Sector

62. Issues with recruitment stem in part from negative perceptions about conditions, and lack of awareness of opportunities available within the sector. This section will explore these challenges.

¹⁵ Department for Environment, Food and Rural Affairs, 'Food statistics pocketbook' (2023): <https://www.gov.uk/government/statistics/food-statistics-pocketbook/food-statistics-in-your-pocket#agri-food-sector-employees-gb-q4-2022chart13> [accessed 21 June 2023]

NB. This figure includes the entire food supply chain, including agriculture, manufacturing, wholesale, retail, and catering.

¹⁶ Environment, Food and Rural Affairs Committee, 'Labour shortages in the food and farming sector' (2022), page 4: <https://publications.parliament.uk/pa/cm5802/cmselect/cmenvfru/713/report.html> [accessed 21 June 2023]

¹⁷ Office for National Statistics, Vacancies and jobs in the UK: June 2023 (2023): <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/jobsandvacanciesintheuk/june2023> [accessed 21 June 2023]

Working Conditions

63. Almost a third of businesses that we spoke to cite the physical and environmental conditions of workplaces as a factor contributing to recruitment problems. The food industry faces unique workplace challenges compared to other industries, with conditions varying by role and the nature of work. Some unappealing conditions reported by businesses include:

- **Physicality of work:** Roles in horticulture, livestock and dairy farming require physical fitness to keep up with the demands inherent in the role. Lone working may also be required.
- **Working hours:** Early starts, late finishes or weekend working may deter prospective workers. Parents or carers may need flexibility for childcare and caring responsibilities.
- **Undesirable work environments:** Businesses in the meat and fish processing industries reported that cold and “smelly” working environments deter potential candidates.
- **Dull or repetitive tasks:** Some roles involve doing the same repetitive task on a relentless production line.
- **Cost of travel to work:** food and farming businesses are frequently situated in remote locations with limited access to public transport. The associated expenses and the difficulties faced in reaching these distant sites compound the challenge of commuting, discouraging individuals from seeking employment in such establishments.

64. Businesses have adopted measures to mitigate these issues by making roles more enticing to recruits, such as reduced or different shift times and patterns to offer flexibility and investment into other benefits such as rewards schemes and transport support. However, other conditions and the nature of roles in the sector simply cannot change because unappealing working conditions are a core feature of the role. For example, the chilled food processing sector operates in cold conditions to maintain food safety and quality, so it cannot adapt. This is discussed in more depth in the retention chapter.

65. One large agriculture and horticulture association noted that despite implementing various work incentives such as increased wages, improved farm facilities, expanded automation, and flexible working options, there is insufficient evidence to suggest a significant increase in the recruitment of domestic workforce. Wage increases have, in certain cases, led to decreased productivity levels as workers no longer strive to meet performance bonuses, or have requested reduced working hours.

Wages

66. Businesses are finding it difficult to offer competitive wages to both existing staff and new recruits, with over a third of businesses interviewed citing pay as a challenge to filling vacancies. This is likely to be particularly burdensome for Small and Medium

Enterprises (SMEs), which report being less able to increase wages compared to their larger counterparts.¹⁸

67. The problem of wages is prevalent despite an overall increase over the past three years, which is an issue that has been noted in previous government reports into labour shortages.⁶ See figures 2 and 3 for further context. Due to the increase in the National Minimum Wage (NMW), wage bills are, on average, 19.5% higher than they were three years ago. According to Office for National Statistics (ONS) data, growth rates in average pay for employees in the food manufacturing sector increased by 14.1% from September to November 2022 when compared to the same period in 2021.¹⁹
68. Although this trend might suggest that businesses are prepared to continue to increase wages to attract or retain staff, many businesses may struggle to achieve this due to tight profit margins. Added to this, the government has increased the National Living Wage (NLW) for those aged 23 years and older from £9.50 in the year ending March 2023 to £10.42 in April 2023; an increase of approximately 9.7%.²⁰ Businesses using the Seasonal Workers visa route had to pay this sum as a minimum from 1 April 2023, in addition to recruitment fees. Over time this increase erodes the differentials between staff on minimum wage and higher-skilled workers, where workers in the same organisation might earn lower relative wages in comparison to their lower-skilled colleagues. This could pose a challenge for employers in rewarding workers who have greater experience, more responsibility, or have higher qualifications and who already receive wages above the NLW rate. Such circumstances may exert pressure on businesses to raise the salaries of higher-skilled workers in order to preserve pay differentials. Ultimately, this can have an impact on food price inflation, as increased labour costs contribute to rising prices in the food industry.
69. The Low Pay Commission (LPC), the body responsible for advising the government on NLW rates, reported that "pay for higher grades either stagnates or fails to increase at the same rate [as NLW] which reduces workers incentives for progression and has the potential to damage their morale."²¹ In relation to the care sector specifically, they found that NLW increases directly correlate with wage increases for senior roles and therefore follow the same trajectory. This may suggest "that firms have attempted to preserve wage structures within their organisation, [by] increasing the pay offered to more senior staff to maintain differentials with the lowest-paid workers".²² Although LPC's focus is exclusively on the care sector in this example, it can be assumed this is

¹⁸ Food and Drink Federation, 'State of Industry Report Q3 2022' (2022), page 4:

<https://www.fdf.org.uk/globalassets/business-insights-and-economics/fdf-state-of-industry-survey/state-of-the-industry-q3-2022.pdf> [accessed 21 June 2023]

¹⁹ Office for National Statistics, 'AWE: Agriculture, Forestry & Fishing Index: Non Seasonally Adjusted Regular Pay Including Arrears' (2023):

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/timeseries/k5a8/emp> [accessed 21 June 2023]

²⁰ Low Pay Commission, 'The National Minimum Wage in 2023' (2023):

<https://www.gov.uk/government/publications/the-national-minimum-wage-in-2023/the-national-minimum-wage-in-2023#introduction> [accessed 21 June 2023]

²¹ Low Pay Commission, 'Low Pay Commission summary of findings 2022' (2022):

<https://www.gov.uk/government/publications/minimum-wage-rates-for-2023/low-pay-commission-summary-of-findings-2022#employer-responses-to-the-nlw> [accessed 21 June 2023]

²² Low Pay Commission, 'Does a higher minimum wage affect hiring behaviour?' (2022):

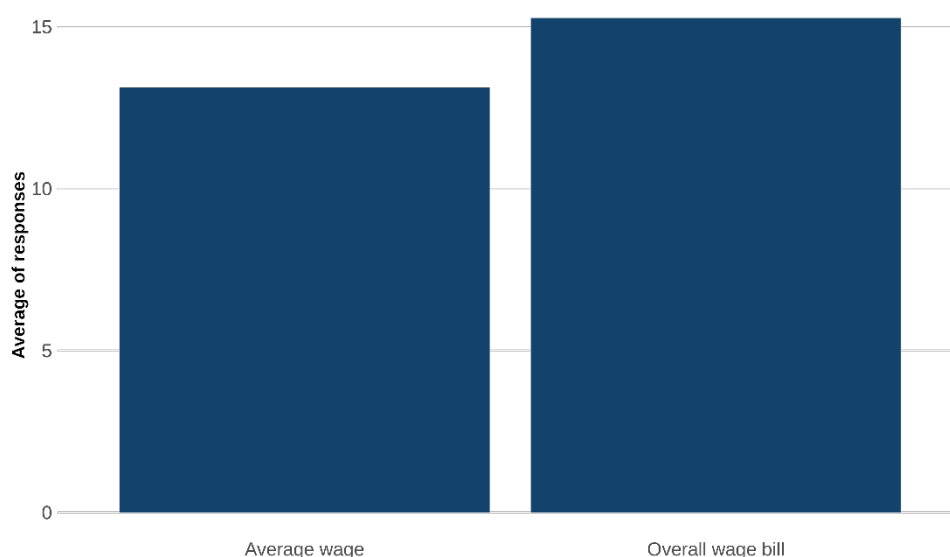
<https://minimumwage.blog.gov.uk/2022/02/08/does-a-higher-minimum-wage-affect-hiring-behaviour/> [accessed 21 June 2023]

applicable to the food supply chain, which also relies on low-cost labour. Compounding the issue is an analysis conducted by Frontier Economics suggesting that employment growth is slower in the firms most affected by minimum wage increases.²³

70. During roundtable discussions as part of the evidence gathering for this Review, it was suggested that increasing wages can sometimes be counterproductive. One business reported raising wages for poultry production following which workers decided to work fewer hours. The business struggled to recruit extra employees which therefore resulted in paying the same price for less completed work.

71. Furthermore, dramatic increases in price inflation for raw materials and energy across the supply chain have further complicated this issue. For example, seeking inflationary price increases for private-label retailer suppliers is challenging and is likely to constrain wage growth. The introduction of the Target Operating Model (TOM) in October 2023 may result in additional costs for food businesses as they adjust to new regulatory requirements and compliance measures.²⁴ These increased administrative burdens and costs are likely to impact supply chains and business operations.

Figure 2 – Percentage change reported by businesses to average wage bill and overall wage bill



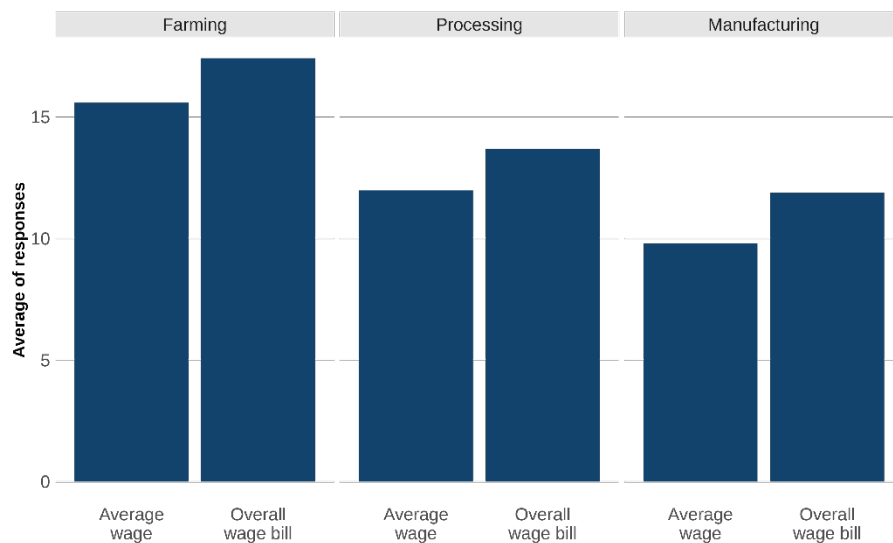
²³ Frontier Economics, 'Impact of National Living Wage on Businesses' (2020):

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/942448/Frontier - Impact of NLW on Businesses final 8 December 2020.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/942448/Frontier_-_Impact_of_NLW_on_Businesses_final_8_December_2020.pdf) [accessed on 21 June 2023]

²⁴ Cabinet Office, 'The Border Target Operating Model: Draft for Feedback' (2023):

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1148852/The Border Target Operating Model Draft for Feedback.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1148852/The_Border_Target_Operating_Model_Draft_for_Feedback.pdf) [accessed 21 June 2023]

Figure 3 – Number of businesses per sector that have experienced a percentage change in average wages and overall wages



Perceptions of the Sector

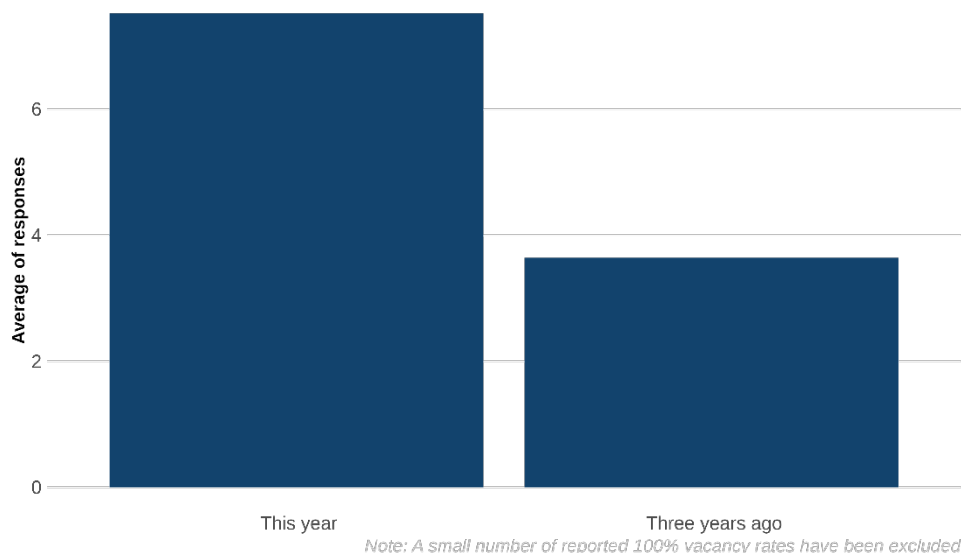
72. Prospective workers may hold negative views about the quality or "status" of jobs in the food supply chain in comparison to roles in other sectors. Anecdotally, businesses have witnessed a general shift in the aspirations of the domestic workforce, suggesting they seek more "important" work than can be found in the food and farming sector and that is year-round, permanent, and non-seasonal by nature, or work that is perceived by others as commanding more prestige.
73. Evidence from labour providers suggests that young people are less likely to consider employment in the food industry, despite historically being the largest pool of flexible workers. They reported that "culturally, [young people] do not see food and agriculture as a career." Anecdotally, negative perceptions are also reinforced by narratives in schools around careers in the food supply chain. One meat processor stated in an interview for the Review that school children are told, "If you don't work hard, you will end up working in the meat factory". Furthermore, businesses reported that young people and prospective workers may be unaware of career opportunities or the salaries on offer in the industry.
74. Another business reflected on the different attitudes between resident populations in different countries towards careers in horticulture, recommending Australia as an example of a country where agri-business and the roles therein are perceived positively by the domestic workforce. They noted that food industry employment in Australia is seen as a "badge of pride" in comparison to attitudes to the same industry in the UK. However, there are a number of initiatives being exploited elsewhere in the world that can be applied to England's agri-food supply chain to improve the sectors image and its recruitment figures. For example, Groenpact (Green Pact) in the Netherlands brings together institutions to collaborate on environmental challenges, one of the focus areas being the supply of labour and skills in green sectors, including the food supply chain as

will be explained later in the report.²⁵ These initiatives have helped to foster a positive perspective of the sector amongst younger generations by changing the dialogue from it being one of pollution and unsustainability. A similar, successful initiative in Ireland is explored in more depth in a case study later in the chapter. (See case study – Bord Bia)

Consequence – Low Rates of Domestic Recruitment

75. The UK is currently witnessing very low unemployment, recording a rate of 3.8% in April 2023.²⁶ The interviews with businesses found that vacancies in the food and farming sector are typically open for longer than ever before, and fewer applications are being made. One large business reported exploring a range of recruitment avenues, including agencies, school and college visits, advertising and employing an in-house recruitment manager, only to note that “a great deal of effort and dedicated time goes into recruitment efforts, but that effort does not always translate [into successful recruitment]”. The workforce survey found that businesses at all points of the supply chain were finding it difficult to recruit for roles across the board. Some hard-to-fill roles were more prominent and are explored in more depth later in this report. Businesses reported that low rates of domestic employment in the sector are having an impact on productivity and output

Figure 4 – Vacancy rates in businesses for non-seasonal staff compared to three years ago



²⁵ Groenpact, ‘About Groenpact’ (2023): <https://www.groenpact.nl/international-about-groenpact> [accessed 21 June 2023]

²⁶ Office for National Statistics, ‘Labour market overview, UK: June 2023’ (2023): <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/uklabourmarket/june2023#main-points> [accessed 21 June 2023]

Perception of the Sector in Comparison to Other Industries

76. The issues discussed above, relating to wages, conditions, and sector image, are exacerbated by labour competition from other sectors, in warehousing, distribution and care, for example, which has been noted in previous industry research.²⁷ Some businesses commented on the impact of easing Covid-19 restrictions when increased consumer demand for goods significantly increased labour competition from other sectors, such as hospitality and construction. For example, some meat processors told the Review they had lost skilled butchers who had moved into roles such as delivery driving where conditions were perceived to be better than in the food supply chain.
77. Some sectors have introduced bonus payments for new recruits, encouraging workers to leave existing employment. This poses challenges for an industry operating in already tight margins to compete with these sectors for labour. Bonus payments in other organisations subsequently increase the attractiveness of those industries, diverting employees from the food industry. Anecdotal evidence from labour providers suggested that companies from other sectors were specifically targeting workers in the food supply chain because they could offer them better working conditions in their businesses. For example, some tractor drivers have left the farming sector to take up roles in the distribution sector and other large projects such as the new British railway line, High Speed Two (HS2).

Local Geographic Barriers

78. Local geographic factors were the barriers most frequently cited by processing industries where a large number of businesses operate in rural areas. This can make recruitment more difficult due to the size of the local labour pool, tending to be relatively low compared to urban areas. In areas with limited or low-quality public transport networks, workers must drive to the business site, making it challenging to employ local workers who cannot drive and/or do not have access to a car. This, combined with a lack of local infrastructure makes it difficult for businesses to entice people to move close to their sites, which are often in “isolated” regions of the UK. Only one business considered relocating sites to attract workers, but many spoke about steps they have taken to overcome local geographic barriers, such as providing transport to their sites.
79. An additional challenge is the varying cost of living across regions, where house prices and rent tend to be more expensive in rural areas. This makes it difficult to recruit workers in areas with high living costs into the food supply chain industry, where housing tends to be scarce and expensive. In 2022, it was reported that “the lower-quartile house price in predominantly rural areas was 8.8 times higher than in lower-quartile earnings, compared with 7.5 times in predominantly urban areas outside of London”.²⁸ In addition, the availability of affordable and suitable housing in rural areas is regarded to be well below the housing need in those areas which may contribute to

²⁷ Food and Drink Federation, ‘Establishing the labour availability issue of the UK Food and Drink Sector’ (2021): <https://www.fdf.org.uk/globalassets/resources/publications/reports/establishing-the-labour-availability-issues-of-the-uk-food-and-drink-sector.pdf> [accessed 21 June 2023]

²⁸ House of Commons Library, ‘Rural housing: A reading list’ (2021), page 4: <https://researchbriefings.files.parliament.uk/documents/CBP-9312/CBP-9312.pdf> [accessed 21 June 2023]

recruitment issues.²⁹ Businesses highlighted Herefordshire and Cornwall as examples where this issue is prominent. Many abattoirs and dairy processing plants must be located in rural locations to be near the livestock.

80. A lack of planning permission for businesses to build suitable housing on-site intensifies this problem. One business noted that despite successfully obtaining planning permission for on-site accommodation, it can only be used for seasonal workers, not permanent employees. One large processing organisation reported that “rural infrastructure is not good enough to tempt people to move - transport links are poor, and accommodation can be in short supply and expensive”. Although this business increased their staff count in one site by 150 in one site, it noted the town is already overpopulated and a 20-mile commute that can take more than an hour makes accommodation and location a key barrier to recruiting in this particular site.
81. Location-based ageing workforce demographics is also a challenge to domestic recruitment. A business with a site in Dorset reported recruitment difficulties due to an ageing workforce, where 65% of those on the electoral register in the county are retired. This is also a challenge for businesses trying to retain their workforce, as discussed in the following chapter.
82. The presence of other businesses located in the surrounding area that compete for domestic workers with similar skill sets is another challenge for businesses. Local Enterprise Partnership (LEP) representatives reported that staffing food supply chain businesses is exceptionally difficult in Cumbria, where other well-paid employers in the nuclear and defence industries are competing with them for the same workers. Similar recruitment challenges were found in businesses near large warehousing and distribution centres, who source from the same pool of workers.

Figure 5 – Impact of labour shortages on businesses in 2022, according to Survey respondents



²⁹ House of Commons Library, ‘Rural housing: A reading list’ (2021), page 4: <https://researchbriefings.files.parliament.uk/documents/CBP-9312/CBP-9312.pdf> [accessed 21 June 2023]

Consequence - Economic Impact

83. For many growers, producers, and manufacturers, obtaining an adequate workforce has been extremely difficult. At a roundtable with labour providers during the evidence-gathering stage for the Review, one organisation reported having more vacancies available for permanent roles at that time than at any other point over the previous two to three years, with no clear pool of workers to fill them. They noted this lack of an adequate pool of labour was constraining economic growth. Some businesses reported scaling back operations due to:

- **Productivity Loss:** An increased number of unfilled vacancies reduces the efficiency of businesses, where additional resources are required to recruit workers, and more time spent on training less-experienced workers may also lead to a reduction in productivity levels. In addition, production lines are unable to operate to maximum performance standards. New recruits are understandably less productive due to the learning curve and the increased proficiency and efficiency that comes with having greater experience. One medium-sized horticulture business reported the difference in the cost of harvesting broccoli between experienced and inexperienced workers. The cost to harvest one head of broccoli by an experienced worker is 8p, increasing to almost double at 15p by a less experienced employee. One horticulture and dairy business estimated the cost in terms of productivity loss for training is between £500-£1,000 per worker. The mushroom industry estimate that it costs up to £2,000 to train a mushroom picker.
- **Reduced Profitability:** Businesses reported the rising cost of recruitment had impacted their profits. One large dairy business described spending large sums on agency workers to fill vacancies, paying a premium of up to £10,000 per week on agency costs alone.
- **Reduced Outputs:** Some businesses reported a strategic withdrawal from certain markets or stopping the production of some products, which in the longer term may see these domestic products replaced with increased imports from other countries. One medium horticulture business reported reducing the size of the land for growing vegetables because they do not believe they can source the necessary labour to harvest them.
- **Food Waste:** Reported labour shortages and the resultant lack of workers to pick and process crops, fruit and vegetables is leading to food wastage as products are rotting where they are grown. National Farmers Union (NFU) analysis estimates the value of food wasted directly due to labour shortages in the first half of 2022 alone accumulates to £60m.³⁰

84. To overcome these hurdles and aid recruitment attempts, several businesses mentioned a need for additional initiatives to improve the image of the sector. Some of the

³⁰ National Farmers Union, 'Millions of pounds of fruit and veg wasted due to workforce shortages' (15 August 2022): <https://www.nfonline.com/media-centre/releases/millions-of-pounds-of-fruit-and-veg-wasted-due-to-workforce-shortages/#:~:text=The%20survey%20results%20show%20that,more%20than%20%C2%A360%20million.> [accessed 21 June 2023]

initiatives are already in place though they need to be better co-ordinated, as discussed below.

Consequence - Security of Food Supply

85. Given the scale of the domestic recruitment issue, it is unsurprising that the food supply chain is under immense pressure and has insufficient capacity. Previous government assessments have noted that "it is unlikely that there would ever be an overall shortage of food" due to a lack of labour within the food supply chain.³¹ With this in mind, despite the governments' assessment that in 'exceptional circumstances [...] this could result in reduced supply availability', there is a high risk that the impact of reduced labour could lead to supply shortages for certain essential foods in the future. As discussed in the 2021 Food Security Report, food security as a definition is multidimensional and as a topic "encompasses the state of global markets on which the UK is reliant; the sources of raw materials and foodstuffs in the UK and abroad; the manufacturing, wholesale, and retail industries that ultimately bring food to the shelves and plates and their complex supply chains of inputs and logistics; and the systems of inspection that allow consumers to be confident their food sold is safe, authentic, and of a high standard".³²
86. Businesses provided clear evidence that domestic labour shortages have seriously impacted the food and farming industry – which may ultimately threaten food security. To meet consumer demand in the UK, some businesses described having already relocated their production overseas, and others outlined future plans to offshore their production to maintain food supplies, reducing the value of UK production. For example, the UK area of fresh vegetables grown in the open fell to 112,000 hectares in 2021, down from 121,142 hectares in 2010, the lowest area of recent years.³³ Moreover, in 2020, the UK imported 46% of the food it consumed, evidencing an increased dependency on imports.³⁴ This is an issue that has been noted in previous government reports.³⁵ One processor described leaving some vacancies unfilled because the increasing cost of labour would eventually make their business unviable. Instead, they were looking to move production overseas, providing further uncertainty to UK food security.
87. Furthermore, a lack of labour consequentially impacts future investment and heavily impacts future supply chain resilience in the UK. This has led to a reduction, or for some companies, halting of product innovation and development. Food innovation is vital to improving national food security, improving diets, and increasing sustainability in the

³¹ Department for Environment, Food and Rural Affairs, 'UK Food Security Report' (2021), page 197:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1077015/United_Kingdom_Food_Security_Report_2021_19may2022.pdf [accessed 21 June 2023]

³² Department for Environment, Food and Rural Affairs, 'UK Food Security Report' (2021), page 7:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1077015/United_Kingdom_Food_Security_Report_2021_19may2022.pdf [accessed 21 June 2023]

³³ Department for Environment, Food and Rural Affairs, 'Horticulture statistics – dataset (Excel)' (2023), table 11, row 44: <https://www.gov.uk/government/statistics/latest-horticulture-statistics> [accessed 21 June 2023]

³⁴ Department for Environment, Food and Rural Affairs, 'United Kingdom Food Security Report 2021: Theme 2: UK Food Supply Sources (2021): <https://www.gov.uk/government/statistics/united-kingdom-food-security-report-2021/united-kingdom-food-security-report-2021-theme-2-uk-food-supply-sources#united-kingdom-food-security-report-2021-theme2-indicator-2-1-3> [accessed 21 June 2023]

³⁵ Environment, Food and Rural Affairs Committee, 'Labour shortages in the food and farming sector' (2022): <https://committees.parliament.uk/publications/9580/documents/162177/default/> [accessed 22 June 2023]

food supply chain. To increase the UK's level of self-sufficiency, the food supply chain's chronic domestic labour shortages need to be addressed. There are a range of industry initiatives ongoing to boost domestic recruitment, which are discussed below.

Current Initiatives

Industry Efforts

88. Evidence collected for the Review suggested that businesses are using various methods to overcome domestic recruitment barriers, including increased marketing efforts, referral bonuses, partnering with education institutions, and initiatives such as open days. These industry projects include an initiative led by the Prince's Countryside Fund in conjunction with Aldi called 'Opening the Gate'. The programme focuses on several key barriers and challenges to employment within the sector, helping young people and new entrants to enter, and succeed in, the agricultural industry. They invited young farmers as well as new entrants considering a career in the industry to take part.³⁶
89. In addition, a non-profit organisation, Lantra, works closely with industry bodies, employers, governments, and educators to provide training, career guidance and partnership opportunities, giving employers and learners skills to work safely and productively in the food supply chain.³⁷ Lantra, recently launched a career service supporting those interested in the industry to find opportunities. Similarly, The Institute for Agriculture and Horticulture (TIAH) was established, as an industry professional body to coordinate and support the various stakeholders within the sector to become more competitive through providing support for businesses and staff as well as careers advice and signposting training and up-to-date information.³⁸ TIAH is currently developing a workforce model that will help predict labour needs in the future.
90. The Institute of Grocery Distribution (IGD) offers a 'People' programme that has a number of activities to improve the industry's attractiveness to school children. This includes a school visit programme and free learning opportunities for people already employed in the industry, helping them to build skills and develop networks.³⁹
91. Finally, the Food and Drink Sector Council (FDSC) is a formal industry partnership with government seeking to “address those strategic issues and seize opportunities facing the agri-food chain”.⁴⁰ The FDSC has the potential to play a key role in bringing together industry and government to address current recruitment challenges in the food supply chain.
92. Although these initiatives, and others, go some way to address the problem, the Review found that there needs to be greater cohesion throughout the industry rather than

³⁶ The Prince's Countryside Fund, 'Opening the Gate' (2023):

<https://www.princescountrysidefund.org.uk/how-we-help/young-people/opening-the-gate/#:~:text=Opening%20the%20Gate%20consists%20of,networks%20to%20succeed%20in%20farming>. [accessed 21 June 2023]

³⁷ Lantra, 'About Lantra' (2023): <https://www.lantra.co.uk/about/about-lantra> [accessed 21 June 2023]

³⁸ The Institute for Agriculture and Horticulture, 'About us' (2023): <https://beta.tiah.org/about-tiah> [accessed 21 June 2023]

³⁹ The Institute of Grocery Distribution, 'People' (2023): <https://www.igd.com/social-impact/people> [accessed 21 June 2023]

⁴⁰ Food and Drink Sector Council, 'Food and Drink Sector Council' (2023): <https://www.gov.uk/government/groups/food-and-drink-sector-council> [accessed 21 June 2023]

concentrated pockets of effort. Perceptions of the food supply chain were contrasted with recruitment tactics for the military, who advertise career opportunities on TV, portraying the sector as attractive, long-term, and fulfilling employment. It was suggested that similar recruitment initiatives could be useful to boost recruitment to the food supply chain.

Increased Use of Agency Workers

93. Over half of businesses cited the use of agency workers as a temporary solution to recruitment issues. Although short-term staffing provides a flexible fix to labour shortfalls that allows production to continue, agency workers tend to be more expensive, less experienced, and less loyal. Agency workers are increasingly used to backfill core roles, where historically they would be used to give flexibility, for seasonal uplifts and promotions for example. This is a problem because less experienced staff are less efficient and productive, potentially impacting productivity for an industry that operates with low margins. Reliability may also be an issue, where the flexible nature of agency work may lead to workers not returning. In addition, businesses reported that agency workers are not often employed in the same business regularly enough to buy into company values. Some businesses reported employing much higher numbers of agency workers than intended to overcome domestic labour shortages, with one large organisation reporting 50% of their workforce in one site are agency workers. The above issues are likely to impact the organisation's cost base and profitability because hiring and training agency workers to cover labour shortfalls costs the business more than permanent recruits.

Recruitment Initiatives for Expanding the Pool of Available Labour

94. As a result of labour shortages businesses have increasingly turned towards populations of people who, despite wanting to work, have previously been overlooked by employers. Harder-to-reach groups of workers may require assistance to overcome barriers in recruitment processes or within the workplace. These groups can include prisoners, prison leavers, care leavers, people with special educational needs, people with neurodiversity, working parents, and military veterans. Some businesses noted their attempts to attract workers from these groups, with one organisation reporting working with the Salvation Army to fund an employability coordinator to increase recruitment from these groups.

95. One initiative is the New Futures Network (NFN) in HM Prison and Probation Service (HMPPS) which forms partnerships between employers and prisoners. They help find eligible prisoners' employment either inside the prison or in the community.⁴¹ Those prisoners working in the community must be eligible for the Release on Temporary Licence (ROTL) scheme, which allows risk-assessed prisoners who are within two years of release to work while on day release from prison. Department for Work and Pensions (DWP) Jobcentre Plus have dedicated Work Coaches in prisons and NFN works closely with them to establish a connection with employers. Whilst providing a pool of workers to employers, NFN helps prisoners gain skills with qualifications to increase the

⁴¹ HM Prison & Probation Service, 'New Futures Network' (2023): <https://newfuturesnetwork.gov.uk/> [accessed 21 June 2023]

likelihood of finding employment upon release.⁴² Agri-food is one of the NFN's major career paths but encouraging prisoners into agricultural work that could fill labour shortages is challenging due to negative perceptions of the food supply chain and large distances between urban-based prison populations and rural work.

96. Some businesses reported working with prison services to bring in prison leavers, with one noting this is a current recruitment focus for their business. Despite this, there was mixed feedback and success reported by businesses. A food manufacturing business reported their attempts to recruit prison leavers were largely unsuccessful due to the bureaucracy of the scheme, where substantial amounts of "red tape" required to access it has deterred them because of its drain on resources. Another large food manufacturing company noted that there are many organisations trying to help businesses access this group, although as they are "not really connected with each other" it is difficult to know where to start.
97. In part, difficulties accessing prisoners may be due to competition from other sectors to employ workers from this group as well as the negative perceptions of the sector and the location of the work. There may also be a discrepancy between the number of prisoners believed to be available to undertake work and the real amount of those eligible for ROTL.
98. There are also organisations dedicated to breaking down barriers to employment for young adults and the over 50s among other groups.⁴³ In roundtable discussions with these organisations it was made clear that 16–24-year-olds may struggle to find employment due to lack of confidence, poor career guidance from schools, and limited understanding of career pathways. For the over 50s it was pointed out that there was a large group of unemployed individuals who are not engaging with the welfare system and are not entitled to employment support. They are often keen to work but have limited recent experience with job applications and identifying transferable skills that are suitable for sectors in which they may not have worked previously. Lacking confidence, both groups would benefit from a supportive employer who might be flexible in how they could contribute to the business.
99. When asked about the extent of engagement these organisations had experienced with businesses in the food supply chain, they suggested that there had been limited interactions as the onus was often on businesses to reach out to them for their services. Despite this there appears to be a lot of good work happening with other sectors that businesses in the food supply chain could use as best practice inspiration. For example, employer pledges can help those seeking employment identify which businesses use more open and inclusive recruitment and in-work practices. Breaking down financial barriers related to transport, relocation and accommodation can also help encourage people to apply for roles in new industries. Roundtable participants felt that in the case

⁴² Ministry of Justice, 'Employing prisoners and ex-offenders' (2023):

<https://www.gov.uk/government/publications/unlock-opportunity-employer-information-pack-and-case-studies/employing-prisoners-and-ex-offenders#hmp-academies> [accessed 21 June 2023]

⁴³ Association of Labour Providers, 'Open Recruitment' (2023): <https://www.labourproviders.org.uk/open-to-opportunity/> [accessed 21 June 2023]

Youth Employment UK, 'About Youth Employment UK' (2023): <https://www.youthemployment.org.uk/about-us/> [accessed 21 June 2023]

Centre for Ageing Better, 'About us' (2023): <https://ageing-better.org.uk/about-us> [accessed 21 June 2023]

of the food supply chain, there was a real need to make the sector appear more interesting and exciting to make it appealing to people of all ages and backgrounds.

100. The government recently announced a 'returnerships' initiative to encourage adults over 50 to embark on new careers.⁴⁴ These initiatives include Apprenticeships, Skills Bootcamps, and Sector-Based Work Academy Programmes (SWAPs). This could be an invaluable tool for the food supply chain to engage with a new pool of workers to fill labour gaps.

101. Whilst businesses often note the challenges involved with recruiting harder-to-reach groups, there is a real opportunity for both workers and employers to benefit from a flexible approach to recruitment and employment practices. For businesses in particular, recognising this pool of untapped labour could help them overcome some of the immediate labour supply challenges they have faced in recent years. For those keen to work but struggling with confidence, a demonstrable interest from employers could help encourage others to make job applications they would otherwise refrain from.

Recruitment Experiences and Challenges through Jobcentre Plus

102. DWP offer recruitment support through Jobcentre Plus. Some of the services it offers are set out below:

- **Recruitment advice:** On the recruitment process, e.g., writing job descriptions.⁴⁵
- **Recruitment support:** Advertising roles in local job centres, helping select and arrange interviews with candidates, and using space in the Job Centres to host interviews.
- **Work Trials:** Employers can take on workers for a 'trial period' of no more than 30 days to decide whether they are right for the role. The worker will continue receiving benefits, and the employer does not have to pay a wage. In the end, the employer can decide whether to take on the worker on an ongoing basis.
- **Sector-based Work Academy Programmes (SWAPs):** A training scheme designed to give jobseekers the skills to take up roles within certain industries, including relevant training, a work experience placement, and a guaranteed interview.⁴⁶
- **Signposting to skills offers:** Jobcentre Work Coaches provide one-to-one support to claimants seeking work and will consider the range of provision available locally when suggesting appropriate opportunities to improve skills and employability.
- **Work Experience:** Organised by Jobcentre Plus with employers, enables young unemployed people to volunteer for placements lasting between 2 and 8 weeks, or longer (up to 3 months) for some young people. It is open to those aged 16 to 24 years old and, in some cases, people aged 25 and over who do not have any recent work history.

⁴⁴ Department for Education, 'Budget 2023: What are 'returnerships' and who are they for?' (2023): <https://educationhub.blog.gov.uk/2023/03/17/budget-2023-what-are-returnerships-and-who-are-they-for/> [accessed 21 June 2023]

⁴⁵ Gov.uk 'Jobcentre Plus help for recruiters': <https://www.gov.uk/jobcentre-plus-help-for-recruiters/recruitment-advice-and-support> (viewed 21 June 2023)

⁴⁶ Department for Work and Pensions, 'Jobcentre Plus help for recruiters' (2023): <https://www.gov.uk/jobcentre-plus-help-for-recruiters/work-experience-apprenticeships> [accessed 21 June 2023]

- **Support for young jobseekers:** Young jobseekers receive a 13-week programme of intensive work coach support focused on finding work and accessing work-related support. Signposting is also provided to Youth Hubs, which support the transition of young people into work by collaborating with external partners who have an in-depth understanding of the local skills gaps and the shape of the labour market in the surrounding area.

103. Given the range of available services, the broad geographic spread of Jobcentres, and the free-of-charge support, they have the potential to be a powerful tool for recruitment into the sector. DWP engages with employers locally and nationally to understand their recruitment needs and offer a bespoke, tailored solution. For example, in 2020, DWP worked closely with the agriculture sector extensively during the 'Pick for Britain' campaign to provide a routeway for agri-food growers to advertise and promote their vacancies through Jobcentres. This scheme ended in 2021.
104. In recent history the food sector largely relied on migrant labour to fill their roles, from working in the fields to food processing. When access to migrant labour changed and employers had vacancies to fill it became apparent there wasn't an effective relationship with the domestic workforce or the jobcentres in their locality. DWP Jobcentre Plus has a local and national team that supports employers across all sectors to fill their vacancies, but this disconnect with the food sector highlighted that employers don't know about DWP services and DWP Employer Advisers don't know the employers and where the vacancies are. It has been shown in case studies that where there is an effective relationship between the employer and their local jobcentre, there have been positive outcomes.
105. Many businesses interviewed during the Review's evidence-gathering phase reported engaging with their local Jobcentre for support. However, their experiences were largely negative, with businesses across sectors reporting that Jobcentres had not been a useful tool for filling vacancies. Businesses cited a poor understanding of the sector, a lack of resources and a lack of promotion of existing schemes.
106. Certain challenges have been observed with local Jobcentres, primarily because they follow national policies set by government that may not always align with the unique needs of the regions they serve. Jobcentres may struggle to formulate bespoke recruitment strategies due to a central government push for programmes that aren't attuned to local circumstances, proving difficult for food supply chain businesses which may require a more tailored approach.
107. Trade associations noted that Jobcentres do not always communicate the reality of the jobs nor send applicants with the right skills, leading people to apply and subsequently drop out. A fish processing business recalled a jobseeker who quit shortly after starting their role because the conditions were too cold and wet. Moreover, the NFU reported working with the DWP to promote the sector. However, they tended to shift away from this approach because work coaches prioritised placing people in permanent roles and described educating the DWP on labour requirements within the sector as a "long slog".
108. Anecdotally, a few businesses suggested that some applicants were applying to roles which they have little intention of pursuing to prove that applications are being made and their benefits could continue. This has the impact of reducing resources for businesses to support employee training, because the process must be restarted once they leave.

109. Despite this, some businesses reported a degree of success in working with Jobcentres. For example, in East Anglia and Shropshire. In East Anglia, The Food Army is an initiative initially between DWP, ACE Project and Norfolk Community Foundation to support the recruitment needs of the farming industry by encouraging them to utilise the skills and abilities of individuals with neurodiverse health conditions, such as autism, as well as prison leavers for their recruitment needs. One of the first employers to work on the pilot was a Poultry business. Separately, DWP have an established employment programme with another Poultry business who regularly interview and employ candidates direct from custody on release, therefore also giving prison leavers the opportunity of a second chance. Another organisation in the region champions neurodiversity and go the extra mile to understand the needs of people with health conditions. They continuously review their recruitment process along with the needs of the people they look to employ, matching the job to the person for the best fit. They understand the wellbeing of their employees, in the main, it works better if their employees are working with colleagues who they can communicate with, so they now have dedicated factory lines where people speak the same language and if necessary, jobs in quiet areas of the factory. They also supply ear defenders for those employees who find environments where loud noise is difficult for them.
110. One processing business noted that the Jobcentre Plus in Shropshire had been the exception to their otherwise poor experiences. Where businesses reported positive experiences, they often noted the role of Work Coaches in understanding their business needs.

Case Study: Shropshire Jobcentre

111. During the business interviews, a large meat processing organisation highlighted Shropshire Jobcentre Plus as the exception to their otherwise unsuccessful experiences when recruiting via a Jobcentre. Shropshire Jobcentre Plus were consulted as part of the evidence gathering for the Review to understand how they collaborate with the food and farming sector. Two out of their six Shropshire-based Jobcentre sites employ staff in food and farming-related support roles. It is important to note that the careers support provided by DWP and Jobcentres are standardised nationally and across all sectors.
112. The relationship between Shropshire Jobcentre Plus and food supply chain organisations has developed over time, where their two specialist employer advisors have worked on their team for over ten years. During this time, they have developed and maintained a strong working relationship with key industry contacts in the food supply chain. One of the main challenges was getting customers to understand the working environment, such as working conditions and noise levels. To overcome this, Shropshire Jobcentre Plus aim to debunk negative perceptions surrounding the industry and help customers better understand the nature of the roles on offer. Work coaches from the Jobcentre Plus attend manufacturing sites to better understand what the role entails allowing them to sell the roles on offer more accurately to customers.
113. In addition, nationally run SWAPs help prepare those receiving unemployment benefits to apply for jobs in a different area of work. The use of sector-based work academies has helped Shropshire Jobcentre Plus promote agri-food roles by finding work experience

opportunities, developing soft skills in preparation for employment in the sector and offering guaranteed interviews to customers once they are aware of what agri-food roles entail. Additionally, they offer job fairs and on-site interviews. They reported that for agri-food, this was particularly effective because potential candidates can have face-to-face discussions about the roles directly with the employer, developing a better grasp of the working environment, the shift patterns and what the job entails on a practical level. This example demonstrates that where there is a good relationship with the Jobcentre, it has been shown to have positive outcomes for the employer. It is also essential for industry to engage with local Jobcentres, in a more structured way, to access this level of support.

Case study: Bord Bia in Ireland

114. The Irish Food Board, Bord Bia, contributed evidence to the Review. Bord Bia is semi-state public body which supports the national and international ambitions of Irish food, drink and horticulture industry.⁴⁷
115. They are bringing the Irish food industry together under their Origin Green initiative to create a unified message that promotes, and importantly verifies, the positive image and credentials of the food supply chain. For example, by promoting a sustainability narrative around the production of Irish food, farmers are provided with a fresh opportunity to set out their sustainability credentials and encourage young people to consider employment by framing food, farming, and agriculture through a sustainability lens.
116. A core element of Bord Bia's strategy focuses on nurturing and attracting industry talent. It has a dedicated talent academy to create specific skills around business development, marketing, and sustainability, consisting of four individual talent programmes. Working with Ireland's leading business schools and universities, each participant receives a fully funded master's degree, combined with practical work experience working with key global customers, or on behalf of exporting businesses. The ultimate goal is to retain this talent in the sector. At any given time, Bord Bia has 80 postgraduates across the different courses. The scheme has been operating for approximately ten years and has a 72% retention rate in the sector.
117. Bord Bia is a founding member of AgriAware, a non-governmental organisation that focuses on education, advocacy, and engagement. AgriAware provides a number of Primary and Secondary level educational programmes that are interlinked with the national school curriculum. Bord Bia, through AgriAware, aims to promote the agriculture industry as a high-tech industry in need of all skills from engineers to agronomists. By collaborating to create a national awareness of the value of modern agriculture and farming, the stewardship of the rural environment, animal welfare and the benefits of nutritious Irish food, they are significantly contributing to the promotion of the sector's image.

⁴⁷ Bord Bia, 'About Bord Bia' (2023): <https://www.bordbia.ie/about/about-bord-bia/> [accessed 21 June 2023]

Recommendation: Implement a Comprehensive Strategy to Enhance Sector Attractiveness

To reduce recruitment challenges and promote opportunities available in the food supply chain in England, we recommend implementing a comprehensive strategy to improve awareness of the opportunities in the sector. Led by the Food and Drink Sector Council (FDSC) because of its role in bringing together industry and government in collaboration with key industry representatives such as The Institute of Grocery Distribution (IGD), the National Skills Academy for Food & Drink (NSAFD) and The Institute for Agriculture & Horticulture (TIAH), the strategy must include the following components:

- Communication campaigns targeted at changing public perception about the sector to demonstrate that it is vital to the economy and national food security. Such a campaign must highlight the importance of sector jobs, at all levels, which promote and improve environmental sustainability and contribute to the Government's Levelling Up and Green (Net Zero) agendas.
- Collaboration between industry, government and education institutions to develop and monitor careers advice provided by schools and education/training providers. This should highlight and promote the range of skills and roles on offer in the food supply chain, with a focus on their links to Science, Technology, Engineering and Mathematics (STEM) subjects to raise the aspirations of learners and create a resilient and future-proof domestic workforce. There should also be an opportunity to review the school curriculum to support skills development for the industry.
- A review, led by industry and coordinated by the government, to identify methods through which pay, staff benefits and conditions in the sector can be improved for food supply chain workers, with an emphasis on the regulation and enforcement of migrant labour schemes to eliminate exploitation in the sector.
- Recognition of the talent harder-to-reach and disengaged individuals can offer businesses in the food supply chain. Industry must be encouraged to provide concessions and flexibility in working conditions to accommodate workers and help them overcome barriers to employment.

Problem – Insufficient Domestic Labour

118. As discussed, businesses in the food and farming sector have struggled to find enough domestic workers, amid high employment levels in the UK.⁴⁸ In a context of insufficient numbers available within the domestic workforce to undertake roles within the sector, the UK, together with the rest of the developed world, depends on migrant labour to support the food supply chain.

119. When freedom of movement ended on 31 December 2020, workers from the EU, Switzerland, Norway, Iceland, or Liechtenstein who were living in the UK on or before 31 December 2020 and had settled or pre-settled status, could apply for a right of residency

⁴⁸ Office for National Statistics, 'Employment in the UK: June 2023' (2023): <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/employmentintheuk/june2023> [accessed 21 June 2023]

in the UK (either settled or pre-settled status) under the EU Settlement Scheme (EUSS). Workers who do not have a right to reside via settled or pre-settled status will now have to apply for leave to enter and remain under various visas determined by the points-based immigration system. Of greatest relevance to the food supply chain are the Seasonal Worker visa and the Skilled Worker visa. The challenges associated with each route differ. This section will explore the challenges with each of the routes in more depth.

120. It is important to note that, in the following section, the focus is largely on horticulture because the vast majority of seasonal visas are allocated for this part of the industry. By comparison, the poultry sector has a lower allocation of visas, explained later in the report.

Challenges to Recruiting Seasonal Workers

121. There are some sectors that are reliant on a large seasonal workforce to operate during peak production and seasonal periods, which demand more temporary and short-term jobs. This includes:

- **Edible Horticulture:** The horticulture sector is reliant on seasonal workers to bring in the harvest each year.
- **Poultry:** The poultry sector expands its seasonal workforce in the lead-up to Christmas to cope with the increased demand for turkey and other poultry. The sector also relies on migrant labour for handling disease outbreaks, for catching and culling birds, and cleaning sheds, which can be hampered by a lack of poultry catchers.

122. Seasonal work in the food supply chain tends to be overwhelmingly undertaken by EU and non-EU migrant workers. The vast majority of migrant workers seek employment in the UK because they can earn much higher salaries by comparison to their home country, so there is a clear financial benefit for migrants accessing the Seasonal Worker scheme.

123. Previous Department for the Environment, Food and Rural Affairs (Defra) estimates suggest over 95% of seasonal horticultural workers come from outside the UK each season. This reliance on migrant workers has been steadily growing and is driven by key changes to the domestic labour pool and operation of the sector itself. The NFU has estimated that a total of 70,000 seasonal workers are needed each year, while previous Defra estimates were closer to 50,000-60,000 per year.⁴⁹

124. Until recently, most seasonal workers travelled to the UK from European Economic Area (EEA) countries under freedom of movement.⁵⁰ Since this was revoked at the end of 2020, there has been no general work route allowing low-skilled EU workers to enter and work in the UK and the sector has become increasingly reliant on sourcing labour

⁴⁹ National Farmers Union, 'Labour shortages cost millions in fruit and veg waste' (15 August 2022): <https://www.nfuonline.com/updates-and-information/nfu-horticulture-mid-season-labour-survey-results/> [accessed 21 June 2023]

⁵⁰ Independent Chief Inspector of Borders and Immigration, 'An inspection of the immigration system as it relates to the agricultural sector' (2022), page 11: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1125411/An_inspection_of_the_immigration_system_as_it_relates_to_the_agricultural_sector_May_to_August_2022.pdf [accessed 21 June 2023]

from further afield. Although not a recent phenomenon, the labour shortage problem in the sector has been exacerbated by EU-Exit because it has led to a huge decrease in the amount of non-UK worker available to businesses. The pandemic further contributed to these issues.

125. It is important to note that the seasonal workforce is partly made up of migrant workers on family or dependent visas, refugee protection routes, Youth Mobility Schemes, the Graduate immigration path, amongst others. However, this section will focus exclusively on the Seasonal Worker visa route. Over half of all temporary work routes (55%) were from the Seasonal Worker route in March 2022, whereas all other temporary routes saw a net decrease of workers since 2019 of 40%.⁵¹
126. Organisations recruiting seasonal workers are reliant on two primary sources of migrants. Firstly, businesses can draw on a pool of workers with EUSS who can travel freely to the UK to work in seasonal roles. There are currently over six million people with EUSS settled, or pre-settled status and it is estimated that approximately a fifth of these work in the food and drink supply chain.⁵² The NFU estimated that 99% of horticultural seasonal labour was provided by workers' from the EU in 2017.⁵³ Businesses reported there are many EUSS workers who are ageing out of itinerant labour. One organisation noted that falling numbers are also largely due to an ageing workforce who left during the Covid-19 pandemic. An ageing workforce, combined with an average turnover rate of permanent workers in the food and drink manufacturing industry of 15% per annum, means some businesses have voiced concerns about the continued operation of their companies.⁵⁴ Previously people coming to the UK for work are now obtaining permanent jobs in the booming economies of their home countries. This point is discussed in more depth in later chapters.
127. Secondly, the horticulture and poultry sectors can access the Seasonal Worker visa route, which is currently capped at 47,000 visas, with a further 10,000 additional visas for horticulture if demand requires. This was formerly referred to as the Seasonal Workers Pilot, and prior to 2013 edible horticulture flowers and mushroom businesses also had access to seasonal workers through the Seasonal Agricultural Workers Scheme (SAWs). One horticultural business claimed the Seasonal Worker visa route is "essential" and another explained how operations would be "catastrophic" without seasonal workers. Eastern European workers were previously a large pool of workers, but over the last few years, as Eastern European economies have increased, opportunities for workers in these countries have also grown, resulting in more workers staying in their home countries rather than travelling to the UK. Businesses engaged with for the Review noted a shift in countries of origin for their workforce and reported sourcing labour from further afield from countries including Indonesia, Nepal, Botswana, and the Philippines.

⁵¹ Home Office, 'Why do people come to the UK? To work' (2022):

<https://www.gov.uk/government/statistics/immigration-statistics-year-ending-december-2021/why-do-people-come-to-the-uk-to-work#immigration-for-work> [accessed 21 June 2023]

⁵² Home Office, 'EU Settlement Scheme quarterly statistics, December 2022' (2023):

<https://www.gov.uk/government/statistics/eu-settlement-scheme-quarterly-statistics-december-2022/eu-settlement-scheme-quarterly-statistics-december-2022> [accessed 21 June 2023]

⁵³ House of Commons, 'Seasonal Worker visas and UK agriculture' (2022), page 12:

<https://researchbriefings.files.parliament.uk/documents/CBP-9665/CBP-9665.pdf> [accessed 21 June 2023]

⁵⁴ Food and Drink Federation, 'Breaking the chain: Key workforce considerations for the UK food and drink supply chain as we leave the EU' (2016), page 10:

<https://www.fdf.org.uk/globalassets/resources/publications/breaking-the-chain.pdf> [accessed 21 June 2023]

As the pool of EUSS and domestic workers decline in number, more workers from the Seasonal Worker visa route are required.

128. Several businesses raised concerns on how the visa route operates in practice. One concern relates to the timing of decisions around the future of the route which is currently only guaranteed to the end of 2024. This issue, compounded with late decision-making on the number of available visas each year, has been disruptive for businesses by impacting on their ability to forward plan and make key capital investment decisions. For example, planting decisions in the horticulture sector are usually made between 6-months to a year in advance and late decision-making may impact the number of crops planted. In the longer term, this is likely to lead to increased reliance on imported food and offshoring production. Reliance on imports and diminished domestic food production may reduce the resilience of the UK food system in the long run whilst simultaneously increasing UK food miles. Similar concerns have been raised in other government reports on the challenges faced by the sector. Businesses have requested early confirmation about the future of the visa route to give confidence to the sector and allow them to plan more effectively.
129. The number of visas available each year was also raised by businesses. The visa allocation has risen steadily since the 2,500 visas available in the pilot year, but the annual rate of increase failed to match what the sector needed in 2020-2022. On the topic of an ageing workforce, one business reported this might partly be due to "people with settled status who are now ageing out of seasonal labour", signalling a potential drop in the number of returning EUSS workers. As mentioned, global events such as the world recovery from the Covid-19 pandemic and international events such as the war in Ukraine, along with policy changes introduced as part of the Points Based Immigration System and the end of EU freedom of movement, have all had an impact on migration. For 2023 the government agreed on a significant increase in the visa allocation for the horticulture sector of 45,000 visas, with scope for an additional 10,000 visas if demand requires. The government has recently announced that the number of seasonal workers for horticulture available in 2024 will again be 45,000, plus 2,000 for poultry, an uplift of 15,000 compared to what was available to businesses at the start of 2022, with the potential for a further 10,000 visas should the demand be proven.⁵⁵ Despite this, businesses have recommended keeping the number of visas available flexible each year rather than setting an arbitrary cap to help the sector access the necessary amount of labour.
130. Over the last two years, visa quotas have been announced at the last minute, leaving businesses less time to recruit workers and increasing the potential to delay the arrival of workers into the UK. Given the Seasonal Worker visa is for six months with a six-month "cooling-off" period, it can be challenging to bring in workers at the same time the following year. As the workers may not be able to return in time for the start of the season, they might instead go to other countries to earn an income. The Migration Advisory Committee (MAC) has suggested the Home Office should consider shortening the cooling-off period for the Seasonal Worker visa route to make it easier to encourage

⁵⁵ Department for Environment, Food and Rural Affairs & Prime Minister's Office, 10 Downing Street, 'An update following the UK Farm to Fork summit held at 10 Downing Street on 16 May 2023' (2023): <https://www.gov.uk/government/publications/outcomes-from-the-uk-farm-to-fork-summit/an-update-following-the-uk-farm-to-fork-summit-held-at-10-downing-street-on-16-may-2023#skills-and-sufficient-labour> [accessed 21 June 2023]

returnee workers who have been valuable to maintaining business stability. Competent returnee labour is fundamental to maintaining business confidence in relation to seasonal workers, as discussed in later chapters. Horticulture businesses noted the value of returnee seasonal staff, who are familiar with business processes, operations, and products. Having workers who can return each year and be trained to higher skill levels reduces business costs related to training and high staff turnover rates. During a roundtable discussion, a major trade body commented that training new workers each year is estimated to cost some industries as much as £2,000 per person.

131. The six months on, six months off design of the route also does not necessarily reflect the length of seasons for some crops and produce. For example, tomato and soft fruit seasons are eight to nine months long, meaning the same seasonal workers to fill longer seasonal positions could not be used. This may deny employers the opportunity to maximise productivity through decreasing worker availability for a portion of the season, causing businesses to downscale their operations. Businesses have questioned whether any flexibility is possible, potentially by shortening the cooling-off period.
132. Reducing barriers to enable those who wish to return to do so would also allow migrants the time to become more informed about their rights in the UK and increase their opportunities to learn English. Furthermore, developing this pool of informed workers might facilitate the spread of information in source countries about what seasonal workers should expect from a work placement in the UK in a positive light, which could boost recruitment efforts.
133. It is important to note that any increased cost of bringing seasonal workers to the UK will have an impact on food inflation, primarily due to the narrow profit margins that farmers operate within. Farmers face a dilemma as they need an adequate workforce for timely and efficient harvesting, but tight profit margins make it difficult to absorb increased labour costs without passing them on. If farmers are unable to pay the additional costs, some organisations may opt to import produce from countries with lower labour costs. This can result in additional costs being passed on to consumers, further impacting prices. By employing seasonal workers domestically, farmers can reduce their dependence on imported produce. This contributes to a more sustainable and self-sufficient food system, enhancing the country's food security.
134. The MAC is launching an inquiry into the Seasonal Worker visa route and providing advice to the Home Office on the route. This is likely to include consideration of 'the rules under which the scheme operates, the size and costs of the scheme, the potential for exploitation and poor labour market practice, evidence from international comparisons and the long-run need for such a scheme'.⁵⁶ The MAC will provide further details in due course.
135. The delays in processing visas in 2022 contributed to food wasted in the fields and cost the industry £60m according to NFU estimates.⁵⁷ This product was replaced in the UK

⁵⁶ Migration Advisory Committee, 'Letter to Immigration Minister regarding MAC inquiry into Seasonal Worker visa (accessible)' (2023): <https://www.gov.uk/government/publications/letter-to-immigration-minister-on-seasonal-worker-visa-inquiry/letter-to-immigration-minister-regarding-mac-inquiry-into-seasonal-worker-visa-accessible> [accessed 21 June 2023]

⁵⁷ National Farmers Union, 'Labour shortages cost millions in fruit and veg waste' (15 August 2022): <https://www.nfuonline.com/updates-and-information/nfu-horticulture-mid-season-labour-survey-results/> [accessed 21 June 2023]

market by imports from countries including Germany who processed their visas in under 2 weeks, rather than 6 – 8 weeks in UK.

136. The Frontier Permit Scheme is another Government policy which provides UK businesses with access to workers based in the EU. One large meat processor shared their experience with the Review, highlighting the costs involved and the lack of interest from overseas workers. Working through a recruitment partner based in Central and Eastern Europe they estimated that the cost for recruiting approximately 100 people would be £74,200. The permit would last for five years and would enable those recruited to work in the UK for a 180-day period, provided they had previously worked in the UK. The recruitment agency was unable to find overseas individuals who were interested in returning to the UK on those terms, so the initiative was scrapped.

Consequence - Worker Welfare and Exploitation in the Seasonal Workers Visa Route

137. The practical operation of the Seasonal Workers visa route has created conditions that may increase the risk of labour exploitation. This is crucial to discussions surrounding labour shortages, partially as it overlaps with the negative image of the sector as discussed previously. The charity Focus on Labour Exploitation notes the following as examples of worker exploitation:

- Costly recruitment.
- Work and life under duress.
- Impossibility of leaving an employer.⁵⁸

138. Worker exploitation is a notable concern for the horticulture sector given its dependency on migrant workers. The 2019 review of the seasonal workers pilot noted there were "areas for improvement" on worker welfare.⁵⁹ The Home Office reported that in 2022, a total of 16,938 potential victims of modern slavery had been referred to them. It is important to highlight that this is all referrals, from a range of sectors including the food and farming sector. However, it represents a 33% increase compared to the preceding year (12,706) and the highest number since the National Referral Mechanism (NRM) began in 2009.⁶⁰ The Independent Chief Inspector of Borders and

⁵⁸ Focus on Labour Exploitation, 'Assessment of the risks of human trafficking for forced labour on the UK seasonal workers pilot' (2021), page 5: https://labourexploitation.org/app/uploads/2021/03/FLEX_human_trafficking_EXEC_V3_WEB.pdf [accessed 21 June 2023]

⁵⁹ Department for Environment, Food and Rural Affairs & Home Office, 'Seasonal workers pilot review 2019' (2021): <https://www.gov.uk/government/publications/seasonal-workers-pilot-review/seasonal-workers-pilot-review-2019#objectives-and-methodology> [accessed 21 June 2023]

⁶⁰ Home Office, 'Modern Slavery: National Referral Mechanism and Duty to Notify statistics UK, end of year summary 2022' (2023): <https://www.gov.uk/government/statistics/modern-slavery-national-referral-mechanism-and-duty-to-notify-statistics-uk-end-of-year-summary-2022/modern-slavery-national-referral-mechanism-and-duty-to-notify-statistics-uk-end-of-year-summary-2022#key-results> [accessed 21 June 2023]

Immigration quoted reports by Home Office (HO) inspectors on welfare issues including discrimination, unfair treatment, and poor accommodation on some farms.⁶¹

139. Understanding the ways in which the Seasonal Worker visa route and international recruitment practices might enable exploitation is crucial to this discussion. Several factors that might increase the risk of exploitation include:

- **Migration status:** Workers without a valid visa could be threatened with the possibility of deportation making them highly vulnerable.
- **Migrating over longer distances:** Seasonal workers are increasingly coming from further afield and they may take irregular routes and rely on people smugglers to get to the UK. The former Independent Anti-Slavery Commissioner, Dame Sara Thornton, stated that "workers migrating over longer distances are at greater risk of exploitation", particularly due to "recruitment fees, bogus recruitment, and debt bondage".⁶² Labour suppliers based further afield may also have less accountability for labour exploitation.
- **A lack of understanding of rights:** Modern slavery experts reported that workers with a stronger understanding of their rights are less likely to be exploited.
- **Temporary nature of the visa:** There are risks associated with the short-term nature of employment and the limited rights afforded to workers participating in this type of work. This "provide[s] less time for workers to develop language skills, knowledge of rights and networks that can increase their ability to protect themselves from exploitation."⁶³ Workers with stronger English can seek support and advocate for themselves.
- **Economic status of source countries:** Increased recruitment from developing countries with fewer internal controls has increased the risk of debt bondage. Operators may be pooling from countries they have little experience dealing with.

140. Initiatives to tackle worker exploitation within the food supply chain already exist, including:

- **Industry collaboration efforts:** Non-Government Organisations (NGOs) such as the recently established Modern Slavery Intelligence Network (MSIN) uses industry collaboration to gather intelligence on modern slavery and uses this insight to support their members to investigate and disrupt worker

⁶¹ Independent Chief Inspector of Borders and Immigration, 'An inspection of the immigration system as it relates to the agricultural sector' (2022), page 44:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1125411/An_inspection_of_the_immigration_system_as_it_relates_to_the_agricultural_sector_May_to_August_2022.pdf [accessed 21 June 2023]

⁶² Independent Anti-Slavery Commissioner, 'IASC raises concerns over labour exploitation risk for migration agricultural workers' (25 January 2022): <https://www.antislaverycommissioner.co.uk/news-insights/iasc-raises-concerns-over-labour-exploitation-risk-for-migrant-agricultural-workers/> [accessed 21 June 2023]

⁶³ The Migration Observatory, 'How is the End of Free Movement Affecting the Low-wage Labour Force in the UK?' (15 August 2022), page 17: <https://migrationobservatory.ox.ac.uk/wp-content/uploads/2022/08/MigObs-Report-How-is-the-End-of-Free-Movement-Affecting-the-Low-wage-Labour-Force-in-the-UK.pdf> [accessed 21 June 2023]

exploitation.⁶⁴ This organisation needs widespread industry support particularly from the Retailers and it needs government encouragement and collaboration for it to be completely effective.

- **Auditing processes:** Supply chain audits such as the Sedex Members Ethical Trade Audit (SMETA) are being used by businesses to monitor and tackle worker exploitation.⁶⁵ The NFU noted some farms are part of schemes such as the Red Tractor Assurance Scheme, which includes annual auditing of standards around accommodation, health and safety, and use of Personal Protective Equipment (PPE).⁶⁶
- **Seasonal workers taskforce:** The risk of exploitation led the British Retail Consortium (BRC) and Association of Labour Providers (ALP) to initiate two multi-stakeholder workshops in 2022, and a follow-up cross-industry and government multi-stakeholder 'Task Force' emerged to focus on eliminating worker welfare issues.
- **Stronger Together** provides businesses with practical training, resources, business services and collaborative programmes to help businesses recruit responsibly.⁶⁷

141. Although legislative changes have been made to the route to reduce worker exploitation risks, including the introduction of minimum hours, the design of the route could be improved to reduce these risks further. Suggestions discussed at a modern slavery roundtable conducted as part of the evidence gathering work of this report included:

- **Length of visas:** The six-month temporary visa could be revised to provide more time to earn money and offset incurred costs. However, it is worth noting that increasing the visa length past six months would also increase the costs for workers, who must pay a health surcharge for visas longer than six months. This could be paid for by employers.
- **Facilitating Returnees:** This group are less likely to face exploitation risks due to their existing knowledge of the system and their rights. Re-designing the scheme to better encourage returnee workers could thus offset some worker exploitation risks.
- **Certainty on the future of the scheme:** Which may encourage returnees.
- **Clarity of cross-government responsibilities:** A lack of clarity on which government departments are responsible for monitoring and oversight of the Seasonal Worker visa route was mentioned by the Independent Chief Inspector

⁶⁴ Modern Slavery Intelligence Network, 'Modern Slavery Intelligence Network' (2023): www.msin.org.uk [accessed 21 June 2023]

⁶⁵ Sedex, 'SMETA, the world's leading audit' (2023): <https://www.sedex.com/solutions/smeta-audit/> [accessed 21 June 2023]

⁶⁶ Red Tractor Assurance, 'About Red Tractor Assurance' (2023): <https://redtractorassurance.org.uk/about-red-tractor/> [accessed 21 June 2023]

⁶⁷ Stronger Together, 'About us' (2023): <https://www.stronger2gether.org/about-us/> [accessed 21 June 2023]

of Borders and Migration.⁶⁸ Greater clarity would improve oversight and ensure timely and efficient administration of the process.

- **Standards, accreditation, and enforcement:** The modern slavery roundtable suggested universal strengthening of standards for labour providers through the Gangmasters and Labour Abuse Authority (GLAA).⁶⁹ Participants noted the need for an "appropriate legal framework" by a robust enforcement system that is sufficiently well resourced to monitor exploitation risks. The GLAA regulates businesses subject to the licensing scheme, including sectors that provide workers to the fresh produce supply chain and horticulture industry, covering a workforce of around 500,000 individuals. They also investigate all acts of labour exploitation act against labour abuse within the wider labour market in England and Wales, consisting of approximately 30 million people. They employ 119 people.⁷⁰ Without adequate funding for enforcement, the relevant bodies will not be able to audit businesses using the Seasonal Workers visa route. Without enforcement, there is limited incentive for businesses to ensure labour exploitation is eradicated.
- **Coordination of intelligence sharing:** There is a need to improve intelligence by facilitating the industry to share information more easily, or the government should provide capability, so that better intelligence sharing can result in more targeted measures to crack down on exploitation.

Challenges with Recruiting Skilled Workers

142. The ending of EEA free movement has made it harder for the food supply chain to recruit overseas workers, particularly to fill low-skilled roles. This issue has been well documented in other government reports, including the 2021 UK Food Security Report.⁷¹

143. For roles requiring a higher skillset, the primary route to bring in overseas workers is the Skilled Worker visa route. Introduced in 2020, the route allows workers to come to the UK to work for a specific employer. The employer cannot be changed without an application to update the visa. The worker must also meet several eligibility requirements.

144. Recruiting staff on a Skilled Worker visa requires them to be paid a minimum of £25,600 and the role must pass a minimum skills threshold Regulated Qualification Framework Level 3. To obtain a Skilled Worker visa, a worker must be able to speak

⁶⁸ Independent Chief Inspector of Borders and Immigration, 'An inspection of the immigration system as it relates to the agricultural sector' (2022), page 51:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1125411/An_inspection_of_the_immigration_system_as_it_relates_to_the_agricultural_sector_May_to_August_2022.pdf [accessed 21 June 2023]

⁶⁹ Gangmasters & Labour Abuse Authority, 'What we do' (2023): <https://www.gla.gov.uk/who-we-are/what-we-do/> [accessed 21 June 2023]

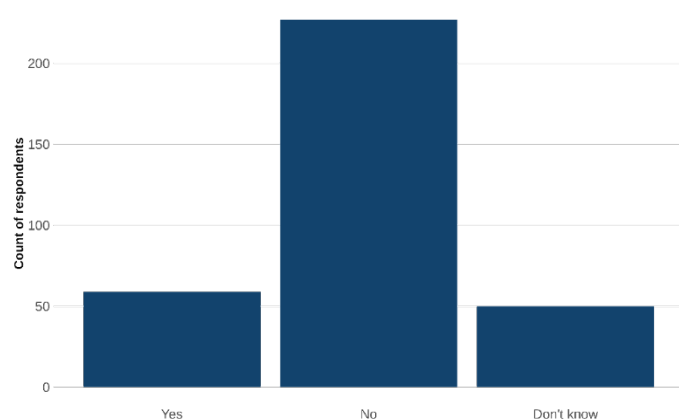
⁷⁰ Gangmasters & Labour Abuse Authority, 'Business Plan 2022/23' (2022), page 10: <https://www.gla.gov.uk/media/8691/business-plan-20223.pdf> [accessed 22 June 2023]

⁷¹ Department for Environment, Food and Rural Affairs, 'United Kingdom Food Security Report 2021: Theme 3: Food Supply Chain Resilience' (2021): <https://www.gov.uk/government/statistics/united-kingdom-food-security-report-2021/united-kingdom-food-security-report-2021-theme-3-food-supply-chain-resilience#united-kingdom-food-security-report-2021-theme3-indicator-3-1-9> [accessed 22 June 2023]

English to a level of B1 according to the Common European Framework of Reference for languages (CEFR). One large processing businesses reported that this level of English speaking is “too high” for some roles. In addition, some businesses noted that high English language requirements were limiting businesses' ability to bring in sufficiently skilled staff from abroad. Despite this, it is important to note that the restrictive nature of the English Language requirement is designed to help workers avoid exploitation in the workplace, as mentioned earlier in this chapter.⁷²

145. Despite the availability of this route, there has been a relatively low uptake of these visas in the food supply chain since it was introduced. The Independent Chief Inspector of Borders and Immigration noted that "a total of 2,389 certificates of sponsorship had been assigned for roles within the agricultural sector" since its introduction.⁷³ The survey conducted for this report found that only 59 out of 336 respondents to this question are licensed to sponsor Skilled Worker visas, see Figure 6. The overwhelming majority are not licensed as sponsors making it difficult for businesses to recruit workers with the necessary skills.

Figure 6 – Businesses who are licensed to sponsor Skilled Worker visas



146. Anecdotally, it appears that some parts of the food supply chain are making greater use of the Skilled Worker visa route than others. Several major meat and fish processors interviewed as part of the evidence gathering described using the route to recruit for skilled roles that are in shortage, notably butchers and slaughter roles.

147. However, where roles are eligible for this route, businesses raised concerns about the associated bureaucracy and costs. Some noted that when they were successful in sourcing overseas workers, they had to pay high costs to access the scheme. These costs include fees charged by the government, including the application fee to obtain a sponsorship licence and the health surcharge. Businesses also end up paying additional

⁷² Environment, Food and Rural Affairs Committee, 'Labour shortages in the food and farming sector: Government Response to the Committee's Fourth Report of Session 2021-22' (2022), page 5: <https://committees.parliament.uk/publications/22775/documents/167354/default/> [accessed 22 June 2023]

⁷³ Independent Chief Inspector of Borders and Immigration, 'An inspection of the immigration system as it relates to the agricultural sector' (2022), page 5: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1125411/An_inspection_of_the_immigration_system_as_it_relates_to_the_agricultural_sector_May_to_August_2022.pdf [accessed 22 June 2023]

costs, including hiring immigration solicitors, paying for flights, and paying for English language tests⁴⁶. When considering costs in relation to margins, it was suggested that perhaps the funds might be used to pay domestic workers better to undertake non-seasonal roles. These costs may be particularly burdensome for SMEs, which typically have fewer resources to navigate immigration paths. Inefficiencies in the application process can cause additional work or time pressures when employees are diverted to onboard new staff. One fish processing business complained they were repeatedly asked for the same information during the application process.

148. Many of the roles that were mentioned in interviews as being in shortage are currently classified as 'unskilled work' and fall out of the scope of the Skilled Worker Visa. However, many of these roles require rigorous training and therefore are skilled by nature. The benefit of being added to the Skilled Worker visa eligibility list will mean that overseas workers will be given dispensations within the immigration rules and would allow businesses to easier access the labour they are in short supply of.

Shortage Occupation List (SOL)

149. The SOL lists occupations where there is a shortage of suitable skilled labour in the UK, and where it is sensible to fill those shortages with migrant workers through a Skilled Worker visa. These occupations are in high demand and, therefore, exempt from some of the usual immigration requirements to make it easier for employers to access migrant labour to fill vacancies in those areas. The Migration Advisory Committee advises the government which roles should be included in the list.
150. If an occupation is on the SOL, employers do not have to meet the full salary threshold that other jobs on the Skilled Worker visa must meet. This means businesses can bring in workers at 80% of the "going rate" salary. Current roles must be within Regulated Qualification Framework (RQF) level 3 and above, which many businesses argued was too narrow. During the evidence-gathering for the Review, businesses listed a range of roles that could be added to the SOL to increase supply of labour to these roles and aid recruitment, such as pickers, harvesters and drivers. However, the route currently excludes many of these roles reported by businesses, making it difficult to find staff due to the inflexibility of the scheme. Organisations must instead fill skilled roles via the Skilled Worker Visa route as explained above, which comes with many complications, restrictions and costs as outlined earlier in the chapter. The Institute for Agriculture and Horticulture (TIAH) recommended in their 2022 summary report that government should consider "adding the food and farming roles recommended by the [MAC] in 2020' to the SOL.⁷⁴
151. The MAC recently launched a call for evidence to begin its latest review of the SOL. The MAC's previous review of the SOL was concluded in September 2020, however given a rapidly changing global environment, for example Covid-19 and the conflict in Ukraine, the food supply chain has witnessed dramatic changes and shortages since the last SOL review. Infrequent reviews of the SOL therefore may present a situation which is far from the reality of what is happening in the labour market. A trade association that represents a large proportion of the farming sector requested that reviews of the SOL take place more frequently. In a roundtable they noted that as the list is only reviewed

⁷⁴ The Institute for Agriculture and Horticulture, 'Labour and skills in the horticulture and agriculture sectors in England, 2022: Summary report' (2022), page 11: <https://beta.tiah.org/lmi-research> [accessed 22 June 2023]

every three years, a lot can change in this time period. Annual reviews of the SOL may make it more relevant and adaptive to global and national events.

152. Furthermore, the government has asked the MAC to consider roles below RQF3 in their review, loosening the criteria somewhat. Although, the current SOL review will not be considering roles where the going rate is above the £26,200 threshold. This means that occupations eligible for the Skilled Worker visa route but are above this salary threshold will not be taken into consideration. These include engineers and farm managers, which were frequently raised during business interviews. This may impact labour shortages even further for more skilled roles.

Case study: International Comparison of Seasonal Workers Schemes in Other Countries

153. Almost all Organisation for Economic Co-operation and Development (OECD) countries have temporary migration programmes in place, with seasonal workers usually comprising the largest category. New Zealand's Recognised Seasonal Employer (RSE) scheme allows seasonal workers from eligible Pacific countries to stay in New Zealand for up to seven months during an 11-month period. The cap on the number of RSE places varies per year and was 19,000 in 2022/23. Employers contribute to travel, accommodation, and healthcare during employment.

154. In Australia, the Pacific Australia Labour Mobility (PALM) scheme, implemented in 2022, allows eligible Australian businesses to source workers from nine Pacific islands and Timor-Leste when there are not enough domestic workers. Eligible businesses can recruit workers for up to nine months, or for longer-term roles of between one and four years. Recruitment caps are only set for employers who are new to the scheme. Employers must seek approval from the Australian government to recruit foreign workers and must demonstrate attempts to recruit local job seekers in order to participate in the scheme.

155. The US has a dedicated seasonal route via its H-2A Temporary Agricultural Program, which supplies seasonal workers from over 80 countries. The H-2A program allows employers to hire workers for up to three years for seasonal work. The program has no annual caps on the number of visas, and in 2021 more than 250,000 H-2A visas were issued. The scheme operates on an 'employer pays' principle and must provide H-2A workers with benefits, including transport to and from their home at the beginning and end of the contract, housing, daily transportation, and three meals per day or access to adequate kitchen facilities.

156. Labour shortages in agriculture are also a significant issue in Denmark. However, there is no seasonal visa scheme for food in Denmark. Instead, employers look to universities to supply labour. Europeans will come and do the work in the event of labour shortages. The agricultural sector in Denmark has special arrangements in place where foreign agricultural students can work in the country. They can recruit from all countries worldwide, provided that the students are paid the same rate as Danish agricultural students.

For further detail on seasonal worker schemes in the UK, Germany, USA, Australia and New Zealand please see Annex B.

Case Study: Meat Processors Using the Skilled Worker Route

157. To support the evidence included within this report, four leading meat processing organisations were interviewed about their experiences using the Skilled Worker visa route. The meat processing and preserving sector employs approximately 140,000⁴⁷ people in Scotland, Wales and England and plays a vital link between farmers, retailers, and manufacturing industries. Organisations that were interviewed were generally unsupportive of the Skilled Worker visa route. Despite their preference to source domestic labour due to the sheer cost associated with the Skilled Worker visa route, the industry has had to source workers outside the country due to not being able to access the required numbers of domestic skilled workers, costing them extra thousands of pounds. One business stated that unless the scheme was dramatically changed, they would not welcome the continuation of the Skilled Worker visa route.
158. One meat-processing organisation commented that the Skilled Worker visa route was too bureaucratic and inflexible. They noted that sourcing skilled butchers is one of their main recruitment challenges, where many potential employees do not speak the required standard of English needed to be able to apply to work in the UK. To find a temporary solution to fill these significant skill gaps, two organisations reported bringing workers in from the Philippines. However, this comes at a considerable cost of £10,000-£12,000 per employee. In total, the business noted the price tag associated with this approach has cost £3 million pounds to recruit between 200-300 workers through the route since October 2021. One organisation commented that there was a five-month delay until their sponsorship license was granted (in order to allow them to sponsor visas for workers). They also had to get approval from the Philippines embassy to recruit skilled workers, which took an additional four months. Once they started recruiting, they had to show that workers can perform to their roles' requirements and prove that they met the English language requirement. It then took a further eight weeks to get the Certificates of Sponsorship from the Home Office. Additionally, they use an agency to help recruit people from abroad and it took five months for the agency to be approved by GLAA for the business to be able to use it for overseas recruitment.

Recommendation: Access to Migrant Labour

Seasonal worker route

The UK has long been reliant on seasonal agricultural workers from abroad. Recruiting seasonal workers from the domestic workforce is even more challenging today due to low unemployment rates and a high number of job vacancies in the UK labour market. As short-term measure, it is vitally important that the replacement of the Seasonal Worker visa scheme pilot is announced by the end of 2023 to ensure industry has enough workers to maintain domestic food production levels. To give businesses the confidence to invest, the new scheme must be guaranteed for a minimum term of five years or until a time when, using Labour Market Intelligence (LMI), the government is confident seasonal workers can be sourced from the domestic workforce. Consideration must be given to lifting or removing the cap on the total number of visas. Visas need to last nine months to account for longer harvesting periods with a three-month 'cooling off' interval and apply an 'employer pays' principle in relation to the NHS health surcharge. The processing of visas needs to be more

resilient to guarantee that workers are available at the start of the harvest season to prevent serious crop shortages as in 2022.

It is crucial that employers of sufficient size, expertise and capacity with a credible track record of operations have the ability to directly sponsor workers. A new scheme must reduce labour exploitation risks by establishing an appropriate legal framework supported by a robust enforcement system managed by the GLAA that is sufficiently well-resourced to monitor exploitation risks.

Routes for skilled workers

There are not enough skilled workers in the domestic workforce to fulfil the labour needs of the food supply chain therefore it is of vital importance that the government widens the eligibility criteria for the Skilled Worker visa route to include roles currently considered lower-skilled or reclassify those occupations so that they become eligible.

Reducing the high financial costs required to access workers through the Skilled Worker route is essential for businesses in the low-margin food supply chain to ensure they can compete with global markets.

To support this, a review of the Shortage Occupation List (SOL) must take place more frequently and there needs to be more flexibility around which roles are eligible. To reduce the geographical range in which employers are having to recruit, thereby decreasing potential worker exploitation, English language requirements must also be relaxed with a commitment by businesses to ensure workers have passed a secure English language test (SELT) within 12 months of taking up employment. The Review supports the industry and Defra submissions made to the Migration Advisory Committee (MAC) as part of the current SOL review.

Chapter 2 - Retention

Introduction

159. This chapter will focus on the ability of organisations in England's food supply chain to successfully retain staff members; that is, their ability to keep their employees working within the organisation and reduce turnover of staff (the percentage of employees who leave an organisation and are replaced by new ones over a given period).

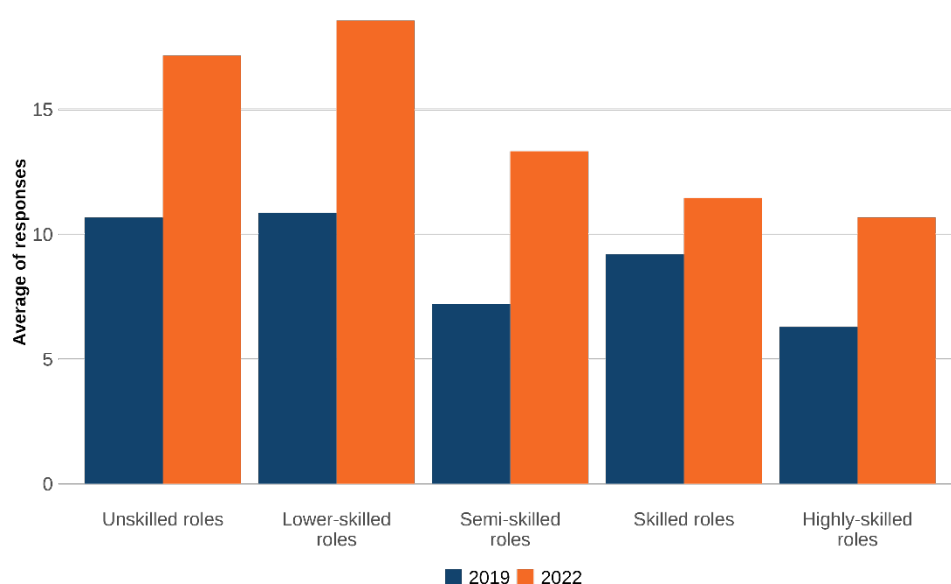
160. Evidence gathered for the Independent Review suggests that a significant proportion of businesses in the food supply chain have experienced a period of high staff turnover in the three years prior to the publication of this report (2019-2022). These dates loosely correspond with the COVID-19 pandemic and the UK's departure from the EU. However, this might be coincidental as the issue is being witnessed internationally with other countries, such as the USA and all EU countries, similarly struggling to recruit and retain staff in the food and farming sectors.⁷⁵

⁷⁵ European Parliament, 'Migrant seasonal workers in the European agricultural sector' (2021), page 8: [https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/689347/EPRS_BRI\(2021\)689347_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/689347/EPRS_BRI(2021)689347_EN.pdf) [accessed 22 June 2023]

161. The challenge of retaining a skilled, willing and productive, workforce is demonstrated in data derived from a number of businesses in the sector. For instance, one large meat processor noted in an internal review that their turnover of butchers in the 12 months prior to the Review’s development was 29.4%. This high ‘churn’ of staff is particularly problematic in the food sector, where training workers to the standard required to perform their role is a process that typically takes months or even years. To train a staff member only for them to leave shortly afterwards is a waste of time and money if staff have to train another new recruit to maintain the necessary headcount to meet tightly scheduled orders.

162. The data provided by respondents to the Review’s workforce survey revealed alarming trends developing throughout the sector. For example, as illustrated in Figure 7, responses demonstrated that turnover rates in November 2022 were higher for all skill levels across all sectors compared to three years earlier in November 2019. ‘Unskilled’ and ‘semi-skilled’ roles had the highest turnover rate in 2019 and 2022. According to these findings, turnover for these roles had increased by 6.5% and ‘lower’ skilled roles had increased by 7.7%, the largest increase across all roles.⁷⁶

Figure 7 – The seasonal staff turnover rate (%) in food supply chain businesses in England for 2019 and 2022, according to Survey respondents



⁷⁶ ‘Lower-skilled’: Requiring some training/experience e.g. Process operative, skilled field worker (RQF 2); ‘Unskilled’: Requiring minimal training/experience, e.g. Elementary roles, picking, packing etc. (below RQF 2)

163. Businesses interviewed as part of the Review cited operational roles as being particularly difficult to retain. About 30% of respondents to the Review’s workforce survey said that, on average non-seasonal new recruits remained in the company for less than a year (see Figure 8). Of those businesses who spoke about ‘hard-to-retain’ groups in their interview, more than half made references to operational roles (see Figure 9). Together, these figures represent a worrying drain on food supply chain employees who either move from business to business in search of better opportunities or desert the food supply chain entirely to work in other professions, including as warehouse operatives and delivery drivers. As mentioned in the Recruitment chapter of this report, returnee seasonal staff are also a valuable commodity to businesses in the food supply chain. They are ‘competent labour’ as they are likely to already have basic skills and, given their familiarity with business processes, will require less time and money to be spent on training. They also might have proven themselves reliable enough to continue to perform their previous roles whilst also being trained to higher levels.

Figure 8 – How long non-seasonal new recruits remain in food supply chain businesses in England, according to Survey respondents

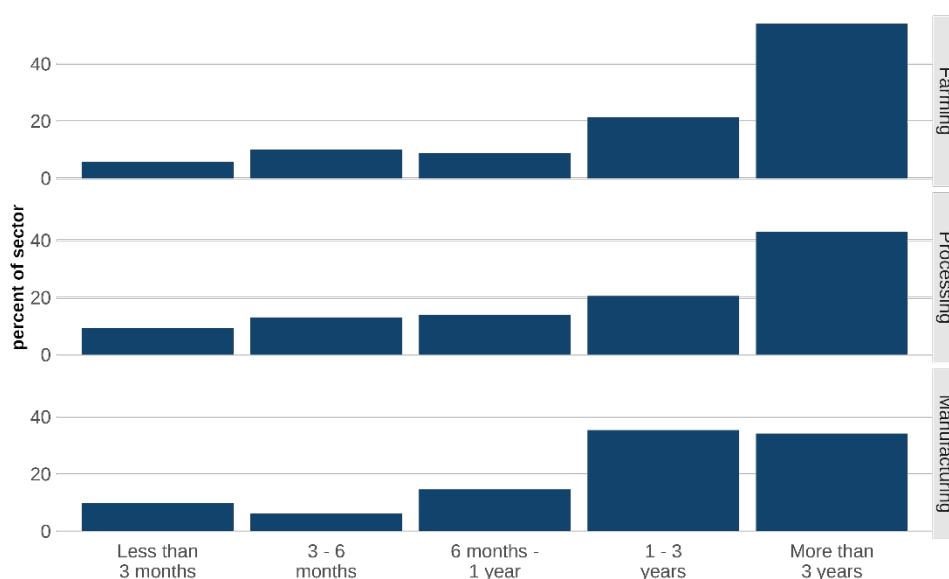
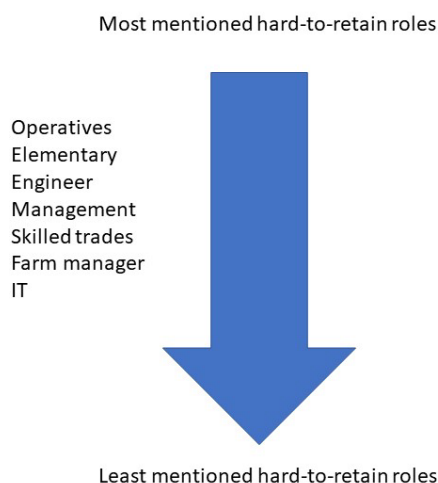


Figure 9 – Hard-to-retain groups, in descending order of times mentioned in the Review’s business interview series



164. A cross-sector message reported by businesses in the food supply chain that is reflected in these figures, is that over the three years prior to this Review’s publication (2019-2022) there was a shift in the labour market. Traditionally, the market was led by employers who had their choice of a labour force competing for work. In recent years, this situation has changed from an employers’ market to a ‘workers’ market’, a state in which workers have more options for where they can work as vacancies outnumber the people willing to fill them.
165. In a tight labour market, where employees have more choice for where they would like to work, the food supply chain is struggling to retain staff. Businesses suggest that the causes of this ‘workers’ market’ lie in a number of variables in roles both inside and outside the sector. These include working conditions in the agri-food sector and, according to businesses, the younger generation not being as attracted, or as predisposed as previous generations, to work in the food supply chain. The impact of this ‘aspiration change’ amongst younger generations is keenly felt by businesses who take on staff, only for those staff to become disinterested and either fail to perform to the necessary standard or to simply leave.
166. Because workers are increasingly difficult to source and keep in post, businesses are being forced to consider how they might make their offering more attractive to retain staff and avoid ‘poaching’ by competition within and outside the food supply chain, the latter being a real and much more recent threat. Crucially, this includes providing comprehensive training plans to illustrate and enable career progression. The provision of training plans highlights a compelling, industry-led opportunity to tackle labour shortages, as will be discussed at the end of this chapter. The design and application of appropriate training has been highlighted by the Institute for Agriculture and

Horticulture (TIAH) as a promising method through which businesses can tackle their retention issues.⁷⁷

167. The lure of other companies, particularly those outside the food and drink sector, who can offer higher wages, greater wellbeing support and flexibility in their shifts and work, is drawing a previously traditional base of workers away from the sector and into employment in retail, energy, and infrastructure professions instead.
168. A less tangible shift in preferences and willingness amongst younger generations has also impacted businesses' ability to retain staff. These businesses suggest that younger generations might test a job in a seafood processing plant, or in food manufacturing, but that the conditions, the nature of the work, or the perceived lack of a clear career path in those organisations mean they leave the industry early. The natural result of an ageing workforce who retire and take their skills with them is also taking a toll.
169. Against this context, one meat processor interviewed for the Review expressed that their staff are either "literally here for 10 minutes, or [...] stay for 40 years".

Problem – The Food Supply Chain is Unable to Retain Staff

Given the desire to rationalise the length of this document, and to avoid repetition, it should be noted that many of the barriers to recruitment, their impacts and their potential solutions, are also applicable to the retention of staff in the workplace, so have been excluded from or discussed only briefly in this chapter. Readers can refer to Chapter 1 – Recruitment for these points.

Worker Choice

170. As mentioned in the introduction to this chapter, a key theme throughout the Independent Review's evidence-gathering was that a 'workers' market' has been emerging in recent years. A consequence is that employers must work harder on their offer, think differently about how their operation runs, and consider competing for a more diverse range of workers than before, including, for instance, working mothers and older people.
171. For example, one food processor noted "We've lost at least two really bright stars for the future to the oil industry and the renewable energy industry now over the past 6 months". As businesses at a Food and Drink Federation (FDF) Roundtable noted, other industries, including online retailers and major infrastructure projects, can often offer better working conditions, such as warmer work environments and financial incentives because they have lower operating costs. For many workers, delivery driving is more attractive than working on a production line. With Pick for Britain, (a Defra-led Covid-19 pandemic initiative that encouraged UK citizens to help harvest crops), despite promising initial numbers of new recruits, it was reported anecdotally to the Review that when roles in other sectors (notably hospitality) became available again the Pick for Britain workforce dwindled as many of them preferred to work elsewhere other than in the food supply chain.

⁷⁷ The Institute for Agriculture and Horticulture, 'Labour and skills in the horticulture and agriculture sectors in England, 2022: Summary report' (2022), page 8: <https://beta.tiah.org/lmi-research> [accessed 22 June 2023]

Pay and Conditions

172. From the evidence collected for the Review, challenges around pay were particularly commonplace in organisations that operated in the manufacturing and processing sectors, despite a significant increase in hourly rates to compete for local labour in the previous 12 to 18 months. A number of businesses stated that those workers in the sector who do not leave it entirely may move between employers wherever they might find more favourable pay and conditions. Anecdotal evidence indicates that workers are enticed to leave and move jobs when the difference in pay can be a matter of a few pence more per hour, thanks to the number of lower-skilled roles available in this ‘workers’ market’.
173. After pay, the second most frequently reported retention challenge was the conditions in the food sector, with around half of the businesses interviewed reporting it as an issue. Businesses argued that the often difficult working conditions of the food supply chain, in which work is sometimes in undesirable surroundings or in inclement weather, results in low participation by the domestic workforce.⁷⁸
174. Difficult working conditions were described in the context of the dairy industry by one processor who noted that “in dairy it is really humid, you have to wear full PPE and visors, and this is a tough environment to work in”. Similarly, an investigation led by a business in the food supply chain revealed that domestic workers in their organisation did not like the fast-paced environment and cold temperatures that came with working in butchery and, as a result, dropout figures were high.⁷⁹
175. It was suggested that the culture of the workplace is another issue relating to the working environment of the food supply chain that can pose challenges to retaining workers. For example, during evidence gathering for the Review, language barriers were mentioned as being problematic for integrating new workers to the business. More information on conditions can be found in the Recruitment chapter.

Nature of Work

176. The nature of the work, in contrast to the conditions of the work which refers to the environment the job is conducted in, concerns the actual tasks related to roles in the food sector where work is often manual, relying on bodily strength.⁸⁰ The nature of the work in the food supply chain impacts retention in a similar way to recruitment. Businesses interviewed for the Independent Review, for instance, noted that many

⁷⁸ Independent Chief Inspector of Borders and Immigration, ‘An inspection of the immigration system as it relates to the agricultural sector’ (2022), page 22:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1125411/An_inspection_of_the_immigration_system_as_it_relates_to_the_agricultural_sector_May_to_August_2022.pdf [accessed 22 June 2023]

⁷⁹ This evidence is drawn from an internal investigation from a business in the meat processing sector. To preserve their anonymity, their investigation is not referenced by name in this report.

⁸⁰ Independent Chief Inspector of Borders and Immigration, ‘An inspection of the immigration system as it relates to the agricultural sector’ (2022), page 22:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1125411/An_inspection_of_the_immigration_system_as_it_relates_to_the_agricultural_sector_May_to_August_2022.pdf [accessed 22 June 2023]

entrants would attend introductory shifts only to leave the company after a short period due to the physicality of the work.

177. For example, an arable processing business reported that operational staff often struggle to adapt to what can be very physically intensive work that involves handling heavy machinery, performing repetitive tasks and working 12-hour shifts. A poultry processor also mentioned that “some people just don’t like the sector, one apprentice just left and didn’t turn up today”.
178. On this point, a group of higher education providers in a roundtable explained that businesses are looking for recruits who have the right attitude for the work. In the agriculture sector specifically, they noted that businesses want people who can commit the time and the effort to being in the industry. But, attendees suggested, agricultural students are increasingly interested in taking on roles that conform to the office “standard” of a 9-5 workday, rather than the longer hours often required in agricultural roles. Anecdotally, students have different expectations compared to their peers in older generations – they want lifestyles similar to those outside farming and field roles, with more time off, additional flexibility, and a greater emphasis on wellbeing. Higher education representatives suggested that this desire for a change in work-life balance in agri-food businesses was common across the sector and included people running their own businesses and directors of companies. As a result, this likely contributes to retention issues in the sector.

Staff Performance

179. A number of interviewed businesses reported that the performance of staff has been a barrier to retention. For example, one large arable business noted that many members of staff were dismissed due to maintaining a poor attitude at work or failing to attend shifts. A large food manufacturer also mentioned that around half of their employee attrition was the result of staff not fulfilling functions (the other half were pay-related). More problematically, a number of businesses reported staff sometimes simply stopped showing up to work.

Workforce Retirement

180. An ageing workforce, i.e. the natural churn of staff as generations leave, is another, albeit unavoidable, barrier to retention. A large dairy producer interviewed for the Review stated they currently rely on a number of highly skilled older engineers, but as they are likely to retire, or to at least reduce their hours in coming years, there is an unmet need for younger engineers to replace them. But, even when that next generation have completed their initial retraining and qualified as engineers, it can still take a number of years in the role for them to develop the skills and understanding necessary to deliver the innovative solutions that the more experienced engineers can design and implement. Similarly, representatives at a roundtable engagement with members of the FDF noted the worrying trend of an ageing population leaving the industry to retire, contributing to a skills ‘drop-off’ at the same time as interest from new entrants to the sector wanes. A large horticulture business also noted in an interview for the Review that a cohort of workers with settled status are ageing out of

seasonal labour work and so are deciding to not necessarily return to the UK, meaning settled status returnee workers are also a “dwindling resource” for food supply businesses.

181. It is worth noting that retirement and a reduction in hours need not be only the result of old age. It could be due to several factors or other life issues, such as caring for a family member, a parent or a child for example, which might demand more time than before. It may also be a lifestyle choice. With pension benefits available and house prices high, anecdotal evidence suggests many people have left the workforce in order to enjoy their later years with fewer demands on their time. This trend has been assessed in other government publications due to its prominence across the UK’s domestic workforce more generally as the result of a combination of forces, including flexible pension schemes and private pensions.⁸¹

182. A Bank of England projection referenced in one of these government publications suggests that population ageing has been reducing participation in England’s workforce (not limited to the food supply chain) and that this trend is likely to continue.⁸² The government publication noted that ‘until recently the effects of ageing have been counterbalanced by increases to the state pension age and education attainment. When people attain higher levels of education, they tend to have more work opportunities and higher levels of pay, which provides an incentive to stay in the workforce. However, these factors are not projected to grow at sufficient pace compared with population ageing, which means participation would decline over the next decade’.⁸³

⁸¹ Economic Affairs Committee, ‘Where have all the workers gone?’ (2022), page 27:

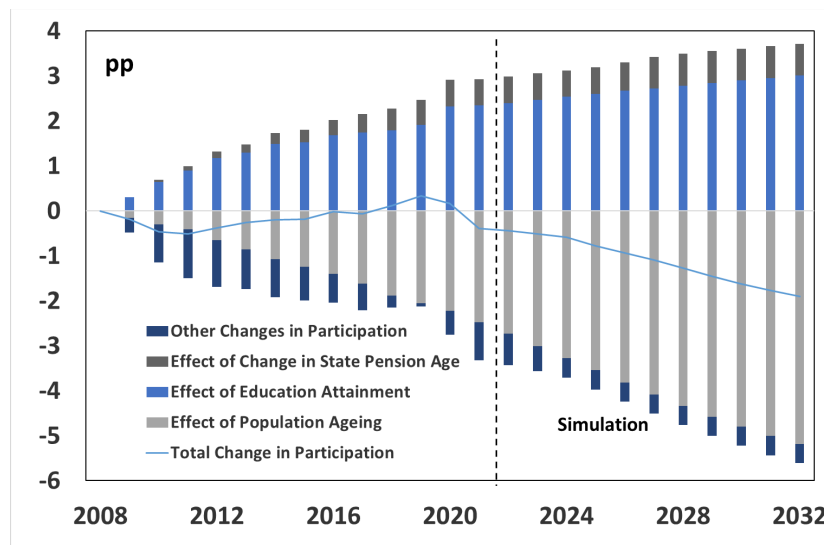
<https://committees.parliament.uk/publications/33305/documents/180390/default/> [accessed 22 June 2023]

⁸² Bank of England, ‘Some reflections on Monetary Policy past, present and future: speech by Michael Saunders’ (18 July 2022): <https://www.bankofengland.co.uk/speech/2022/july/michael-saunders-speech-at-the-resolution-foundation> [accessed 22 June 2023]

⁸³ Economic Affairs Committee, ‘Where have all the workers gone?’ (2022), page 33:

<https://committees.parliament.uk/publications/33305/documents/180390/default/> [accessed 22 June 2023]

Figure 10: Decomposition of changes in the workforce participation rate (for the 16+ population) since 2008, and simulation to 2032⁸⁴



*Where 'pp' means 'percentage points'

Consequence – Poor Retention

183. The ramifications of high staff turnover can be felt throughout the food supply chain beyond what might seem like the typical expected impact on productivity.

184. Business testimonies and other evidence analysed as part of this Review found that many organisations have been forced to pay substantially higher wages to retain staff who might otherwise have left for more lucrative opportunities or better working conditions elsewhere. Other businesses noted that in some cases remaining staff have worked harder to compensate for the depleted workforce, with one small meat processor stating that “business impact is difficult to assess as the impacts are covered up by people doing more”, while others mentioned that the overtime costs they were having to pay were an indicator of how workers were being forced to work for longer to compensate for staff shortages. However, remaining staff working more to compensate for the ‘churn’ was not the norm in the food sector. Instead, some businesses reported that low staff retention was impacting the morale and productivity of the remaining team. Managers and colleagues responsible for recruitment noted feeling an additional strain due to constantly having to organise interviews, particularly where applicants sometimes fail to turn up or prove to be unsuitable for the role.

185. One drinks manufacturer reported in an interview that, due to the staff attrition rate doubling over the previous three years, the recruitment process had become a burdensome “always-on” process when it had previously been periodic. This constant onboarding and recruiting drains training and management resources that could profitably and productively be used elsewhere in the business.

⁸⁴ Bank of England, ‘Some reflections on Monetary Policy past, present and future: speech by Michael Saunders’ (18 July 2022): <https://www.bankofengland.co.uk/speech/2022/july/michael-saunders-speech-at-the-resolution-foundation> [accessed 22 June 2023]

Case study – SME Food Manufacturer

186. A micro-sized food manufacturing business reported to the Review that, having operated for a decade, they have seen vacancies substantially increase over the years, leaving only around one third of the staff required.
187. This turnover has resulted in significant business impacts. Fulfilling orders has become increasingly challenging by creating a mounting backlog, curtailing business growth, and resulting in the owners/founders assuming additional operational responsibilities.
188. The business reported that new and potential staff would attend for several trial shifts but almost invariably did not stay for long. The business also reported less tangible obstacles to retention, including a relatively recent expectation or aspirational change in much of the workforce that the work doesn't match what they thought it would be like, and that staff are now more willing to try different jobs sectors than they previously had been. The interviewee also suggested that younger workers demonstrated less resilience at work compared to previous generations, including that they seem to focus on short-term rather than long-term ambitions – recruitment incentives such as sign-on bonuses provided by some competitors being a lure in such cases.
189. More fundamentally, the physicality, early starting times and long shifts were reported as obstacles to staff retention. It was also noted that the location of the site made it difficult for people to attend without using personal transport.
190. Their high attrition rates are in spite of the business making several attempts to improve staff retention, including increasing salaries by 10-15% (though the business said they felt this still did not make them competitive in the area) introducing cash-back schemes to support health and wellbeing and providing access to financial and counselling services. As a result, the owners are considering moving their business to a more easily reached location in a bid to make their company more appealing to potential staff (for most businesses this would mean moving to a less rural, more urban area).

Current Initiatives

191. Survey and interview evidence, as well as the literature assessed for this Review, has noted a variety of means through which the food supply industry has tried to stem and reverse staff attrition. Many employers in the food sector are diversifying from rigid patterns of full-time shifts towards part-time and flexible working to maintain a steady workforce. Other organisational and financial changes, such as rearranging pay structures and simply paying higher wages, is also occurring throughout England's food supply chain as businesses fight to keep their staff from leaving them and the food sector more generally. Many organisations have stressed that the efforts made to implement such measures to retain their staff have been strenuous or wide-reaching, with one food processor stating, “[w]e have twisted the business” in order to appeal to workers. It is worth noting that large businesses are disproportionately capable of implementing measures that may stem staff turnover and improve retention rates when compared to smaller enterprises. This is usually due to their ability to call upon greater resources, both financial and human, in the form of additional reward packages and training programmes to address the issues contributing to staff departures.

192. It should be noted that the food sector is successfully using similar methods to improve the retention of other professions in their employment, including in the logistics industry. For example, one dairy business increased the wages of their delivery workforce, improved awareness of the benefits of working in an organisation with a high credit rating and good pensions, and made shift allocation more flexible. These initiatives improved the retention rate for the business's delivery workers, and though not directly applicable to the workforce in scope of this Review, are indicative of some of the successful initiatives already being implemented to retain workers in other industries, including the food supply chain more broadly.

Pay and Cash Incentives

193. One large manufacturer reported they had been forced to adapt their pay model in order to retain staff and that despite not being a seasonal business, they have been affected by the seasonal pull in the market. This included events such as the annual recruitment for distribution and warehouse staff in the area, which exerted a draw on local workforces. As a result, in recent years and for the first time in their history, they have been forced to introduce a seasonal pay rate and increase the overtime rate for permanent staff who are doubling up on roles. In the case of this manufacturer, additional incentives have been offered to persuade staff to stay with them, such as providing an on-site canteen.

194. Cash incentives beyond wage increases have also been reported as mechanisms through which businesses have tried to retain staff. For example, a food manufacturer noted that they had introduced a 'refer a friend' offer whereby serving staff are rewarded through both financial and non-financial incentives for bringing people into the organisation's workforce. One dairy business has begun utilising a bonus scheme to reward staff based on their productivity; and another manufacturer mentioned they had introduced paid breaks to their offer.

195. Businesses had mixed views when it came to using wage increases to retain staff. Some noted that paying higher wages was having a positive effect on staff retention, while others noted that increasing wages for their staff was an unsustainable solution. One reason businesses might be reluctant to increase wages is that doing so has been shown to potentially lead to higher food prices, a phenomenon that in turn contributes to higher rates of inflation. As noted in the UK Food Security Report, "Food prices can be impacted by a range of factors, including international food commodity and oil prices, exchange rates, transportation, domestic agricultural prices, and labour costs. Significant increases in these areas create upward pressures on UK consumer food prices."⁸⁵

Working Conditions

196. Given that working conditions were listed as one of the primary causes of staff turnover by many businesses who participated in the interview series of this Review, it is unsurprising that a significant number of businesses reported investing in improving site conditions and exploring avenues to improve working culture and values within the organisation. One large food manufacturer that was severely hit by the Covid-19

⁸⁵ Department for Environment, Food and Rural Affairs, 'United Kingdom Food Security Report 2021: Theme 4: Food Security at Household Level' (2021): <https://www.gov.uk/government/statistics/united-kingdom-food-security-report-2021/united-kingdom-food-security-report-2021-theme-4-food-security-at-household-level#united-kingdom-food-security-report-2021-theme4-indicator-4-1-1> [accessed 22 June 2023]

pandemic in terms of staff retention commented that they had conducted internal engagement surveys to understand the needs of their staff. The feedback in those surveys resulted in the manufacturer upgrading its facilities, including canteens, changing rooms and creating a prayer room and mothers' room.

Wellbeing

197. Wellbeing was another target area for some businesses seeking to reduce staff attrition. For example, an arable processor interviewed for the Review noted they had provided a mobile app to their workforce to help them with GP appointments and introduced a mental health programme and an annual leave purchase policy that they said had been positively received by staff.
198. Adapting working patterns and hours was another initiative, with some businesses stating that incorporating a flexible approach to work was one of their retention strategies. A seafood processor, for example, explained during an interview how they had tried to accommodate parents by arranging shift patterns around the school run (e.g. 10am to 2pm) and offered reduced hours and part-time roles to enable people to retain their government-related benefits. Similar initiatives are being implemented across the range of sectors in the food supply chain, with a horticulture organisation noting it had introduced buddy and mentor networks to encourage a greater sense of community and support at work.

Career Pathways

199. Training provision and illustrating a clear progression pathway through the hierarchy of careers in the sector were reported as retention strategies by around a third of the businesses interviewed. They believed that an increased emphasis on development (potentially with increased spending on it) has helped or would help with keeping employees in the organisation. Such initiatives might have been implemented in order to combat the apparent aspirational change and negative perception of the industry, as mentioned in the Recruitment chapter and in the first case study in this chapter.
200. By way of an example, one horticulture organisation told the Independent Review that they had begun creating structured training plans, while a dairy business described the different levels of iterative training and assessments they provide employees to help them progress through pay levels within the business. Similarly, a farming organisation described how staff "start here on minimum wage and we can't afford to pay any more. We try and progress them [staff] as quickly as possible, to get them to the next level so that they're a skilled person you can reimburse."
201. Systematically upskilling and nurturing the professional growth of workers presents a compelling opportunity to address labour shortages in the food supply chain. Not only would the clear illustration of career development attract more people into the sector, but it could also create a more talented workforce. This shall be explored at the end of this chapter.

Case Study – Large Horticulture Business

202. Speaking to a large horticulture business specifically about retention measures, training and development was listed as one of the primary means through which they sought to retain staff.
203. They purchased a learning management system to track staff training needs and hired two full-time trainers for each of the major arms of their operation. These trainers not only ensure staff can perform their role but also that, when new opportunities arise, employees are encouraged to apply to facilitate progression in the company. Over the previous calendar year, this has proven especially helpful with agency workers who demonstrate an interest in development and who will receive in-house training to support them to do so. This structured training programme focuses on developing staff in winter, giving them training and refresher courses in that quieter period so they can focus on ensuring their temporary seasonal workers are adequately trained in the busier summer months.
204. In annual one-to-one reviews, management discuss employees' development needs and career aspirations, including any opportunities for upwards progression in the company. To facilitate this latter option and the business's focus on identifying 'home-grown' talent, vacancies are initially advertised internally with management seeking out promising workers, empowering them to move up through the ranks even if it requires an element of additional training. In the production area of the work, where there is a hierarchy of grades, workers advance based on skills, competency and behaviours, so the training of staff can help them through these ranks.
205. A separate staff empowerment initiative is being facilitated through investment in diversity and equality training, which it is hoped will help employees feel like they belong in the company. They host listening groups to explore workers' experiences and, as part of their people strategy, will focus on physical, emotional, and financial health provisions for their staff. This includes partnering with the charity Grocery Aid, which offers counselling sessions that are open to staff and their families. Grocery Aid also operates a translation service to support staff who do not have English as their first language. This is part of the business development strategy to help workers feel part of the company regardless of their experience, and to make sure they can achieve their maximum potential within their role.
206. The business told the Review that they are starting to see improvements in staff retention. Comparing the number of agency colleagues in the business over the same two-month period last year, there has been a significant reduction in the number of staff leaving. Based on employee engagement surveys, a business representative attributed this reduction in turnover partially to the fact that, due to training and inclusivity initiatives, workers stay, at least in part, because they feel valued, understand their role in the company as a whole, know how they can contribute to business objectives and have felt invested in through the training they have received. Given the variety of retention initiatives the business implemented, it is not certain what the impact of training or inclusivity efforts has had in isolation, but business representatives feel confident that they are contributing to improved retention rates.

Case study – Large Food Manufacturer

207. Larger businesses that could afford to utilise UK Government schemes to hire workers from overseas reported the UK's withdrawal from the European Union (EU) and the Covid-19 pandemic as significant factors impacting staff retention. As touched upon in the introduction and the Recruitment chapter, Eastern European countries, which the UK's seasonal workforce has largely been drawn from, have also seen recent sustained economic growth. As a result, the lure of jobs closer to home, as well as the ramifications of EU Exit, are both likely to be dissuading some workers from those countries taking up jobs in the UK.
208. For example, a large food manufacturing business reported that prior to these events, their experience working with EU staff had been positive and that the workers had been productive with that cohort forming 70% of their staff. EU Exit was directly cited as a primary factor that led to many of these staff members leaving their employment. A cause of this was that when the currency value of the pound was higher it was easier for EU staff to send money home, but as a result of the currency value dropping after EU Exit the UK was a less attractive place to work. Also, the process through which EU workers applied for settled status to remain in the UK became more difficult due to Covid-19. However, the business reported that EU staff were more likely to stay in post for longer periods of time compared to UK staff who were more likely to leave if they were disappointed in their role, so EU Exit represented a critical obstacle to the food manufacturer's retention of its workforce.
209. This business also mentioned age as a factor for retention rates. Following the business's purchase by another company and the relocation of the factory to a site that was harder to access, many of the longer-serving, older staff decided to take early retirement rather than follow the factory move.
210. Opportunities presented by competitors who can offer better salaries and bonus schemes that many food businesses cannot were also cited as a challenge to staff retention. The food manufacturer stated that to successfully recruit and retain staff in their area of the country where there is a high degree of competition from other food businesses and other sectors, companies need to go above and beyond to offer attractive packages and rates.
211. However, this food manufacturer successfully lowered vacancies through increasing wages in a 'staggered' model. In this approach, anyone earning under £35,000 got a 10% pay uplift. As hierarchical salary bands went up the proportion of pay increase reduced, which still meant that everyone in the business got a pay rise to help meet increased rates of inflation. In all, the business spent an additional £800,000 on salaries, but stated that this made a significant difference in terms of retention, and the quality of the staff who were hired also improved. Confirming this sentiment, in an internal survey the business in this case study found that money was the most important factor when it came to staff retention.
212. Despite these increases, however, due to continued increases in the rate of inflation these higher wages were seen as falling behind the cost of living again, contributing to worries within the business that wages will need to be increased even further in order to retain staff. This should be weighed up with the fact that the manufacturer was, at the time of the interview, still recovering from the initial investment in salaries.

International Comparison

213. As part of the evidence gathering phase of the Independent Review, the Review team spoke to members of the Danish Agriculture and Food Council about initiatives to recruit people to the food supply chain and to retain them.
214. Similar to the emphasis on training and progression mentioned by interviewed businesses with a base in England, the Danish Agriculture and Food Council mentioned their medvirker til at udvikle arbejdsmarkedsuddannelser (AMU, translated to ‘labour market training courses’) Skills scheme, which provides funding for individuals to participate in courses and training programmes to improve their skills. They noted that the scheme is open to both employed and unemployed people and covers a diverse range of tuition areas, including technology, business, communication, and languages.
215. The Danish Government also emphasised the importance they place on continued, life-long learning alongside other programmes to keep the sector attractive, to reduce the likelihood of accidents, and to provide better leadership and motivation to staff. These initiatives, they explained, were devised and implemented alongside trade unions to ensure such programmes were developed with the employees in mind and in a way that allowed their opinions to be heard and acted upon.

Recommendation – Investment in Domestic Workers

Turnover of domestic staff in English food supply chain businesses is the result of many causes, some of which are internal to the sector, such as pay and conditions, and external, such as the lure of other industries.

Improving workers’ sense of purpose, attending to their ambitions and supporting their development and progression through the business hierarchy is one way staff turnover could be reduced. To this end, businesses should provide clear training and career development plans for their UK-domiciled staff on the understanding it is an investment rather than simply an expenditure. As outlined in this chapter, providing clear initiatives for development that make workers feel valued and invested in could improve retention rates by making workers feel valued.

To create a positive culture in the workplace that fosters staff loyalty, businesses should develop strategic plans to promote inclusive and welcoming environments. To support this, government should provide businesses with access to professional HR support, to develop and deliver a relevant strategic people plan. Local Enterprise Partnerships (LEPs) could be a useful vehicle through which this provision could be accessed, potentially through their local skills improvement plans (LSIPs) which will have been rolled out across the country by summer 2023.⁸⁶

Creating clear career pathways that demonstrate how workers can progress through the business should be part of the initiative to invest in staff. In order to facilitate the

⁸⁶ Department for Education, ‘Local skills improvement plans (LSIPs) and strategic development funding (SDF)’ (2022): <https://www.gov.uk/government/publications/identifying-and-meeting-local-skills-needs-to-support-growth/local-skills-improvement-plans-lsips-and-strategic-development-funding-sdf#local-skills-improvement-plans> [accessed 22 June 2023]

professional growth of workers, businesses should show the routes workers could take to progress through roles in-house and provide necessary support to help them achieve this. The training and education delivered through these plans should focus on skills that are flexible yet specific enough to the food supply chain sector to help improve retention within the sector. The Institute for Agriculture & Horticulture (TIAH) and the National Skills Academy for Food and Drink (NSAFD) must collaborate and be resourced to create a portal that businesses can access for information, support and signposting to appropriate training and development providers. The service portal could be utilised to gather data on returns on investment (ROI) from training and development initiatives.

A workforce that feels valued and supported to develop professionally could be more likely to stay with their employer for longer, reducing the costs of onboarding staff who leave after a short amount of time. The costs of investing in staff development would likely be offset by the improved efficiency, productivity and innovation of upskilled staff.

Chapter 3 – Skills and Training

Introduction

216. Previous chapters in this report explored the difficulties businesses face in attracting and retaining workers and included examples of the improvement measures the industry has put in place, such as higher pay and more flexible working arrangements. However, alongside concerted efforts to recruit and retain workers, industry must also effectively attract and train a new generation of workers, as well as its current workforce.
217. Businesses that engaged with the Review reported a moderate or high requirement for training. However, they also found it challenging to access the training needed, particularly for specialised roles. The cost and availability of appropriate training provision is a key barrier to adequately upskilling England's food supply chain workforce. This chapter will explore the challenges businesses face in accessing appropriate training and a sufficient supply of labour through education institutions, the impacts of these challenges on the industry and the current initiatives being taken to address these issues.
218. The food supply chain is not always attractive to new talent, and existing workers are not always being upskilled to meet the changing demands of the industry because of a range of significant skills issues. For instance, some further education providers can struggle to attract students, and the existing workforce is not always accessing available training, such as apprenticeships. Businesses in the sector want government support to address these challenges, including reform of the Apprenticeship Levy, efforts to increase awareness of available training, increased funding for training, and improved quality and accessibility of training provision tailored to their industry.
219. These requests include for the government to create a clear link with key stakeholders to ensure better understanding and coordination between these respective bodies. This would allow Defra (the Department for Environment, Food and Rural Affairs) greater insight into what is happening to support the future pool of available labour, not least in

key areas such as those that will support automation and the adoption of other new technologies.

220. By investing in training and education, businesses can develop a clear career pathway to attract and retain skilled employees, increase productivity and efficiency and remain competitive in an ever-changing and global market. The wider industry can benefit from a skilled workforce, which can lead to innovation, growth and a more sustainable future.

Problem - The Apprenticeship Levy is Not Fit for Purpose

221. The Apprenticeship Levy was introduced in the UK in April 2017 to increase the number of apprenticeships offered by businesses. Apprenticeships are the combination of practical training in a job with studying related to that particular role amounting to at least 20% of the apprentices' normal working hours. They can be awarded to new or current employees aged 16 or over who live in England and are not in full-time education.⁸⁷

222. Employers with a payroll of more than £3 million per year pay the Apprenticeship Levy at a rate of 0.5% of their annual pay bill.⁸⁸ The collected funds are placed into an apprenticeship service account, which employers can use to pay for apprenticeship training and assessment. The aim is to address the skills gap in the UK workforce and increase the number of people in training and employment.

223. Of the businesses who mentioned the Apprenticeship Levy as a training opportunity, the majority concluded that the system needs to be reformed to address the urgent skills needs of the food supply chain. This Review builds on that conviction to argue that reformation of the Levy should also work towards supporting a highly skilled workforce capable of meeting the evolving needs of the sector, protecting both it and domestic food security in the long term. However, though the Apprenticeship Levy is vital for the training needs of the food processing and manufacturing sectors, evidence suggests its effectiveness is not fully realised due to challenges in accessing its funding. For example, many businesses who participated in the Review's business interview series made criticisms of the Levy's inflexibility. They stated they are unable to use the funding scheme to meet their specific training needs because the parameters for drawing upon the Levy are too narrow. This has led to concerns that employers may not always be able to make use of the Levy, despite paying into the system.

224. Small and Medium-sized Enterprises (SMEs), in particular, stated in business interviews that additional support and resources are needed to help them make use of the apprenticeship scheme, highlighting the need for better guidance to support companies who lack dedicated Human Resources (HR) staff. Similarly, smaller employers noted that, for the same reason, they often struggle to access apprenticeship funding because the application process is so demanding and complex, whilst the apprenticeships themselves can be very resource-intensive to administer. There are also concerns that the Levy

⁸⁷ HM Government, 'Employing an apprentice' (2023): <https://www.gov.uk/employing-an-apprentice> [accessed 22 June 2023]

HM Government, 'Become an apprentice' (2023): <https://www.gov.uk/become-apprentice> [accessed 22 June 2023]

⁸⁸ Department for Education, 'Key facts you should know about the apprenticeship levy' (2019): <https://www.gov.uk/government/news/key-facts-you-should-know-about-the-apprenticeship-levy> [accessed 22 June 2023]

places a disproportionate burden on larger employers, with businesses of all sizes arguing the Levy acts more as a tax than a benefit. This is especially so for those businesses with a large seasonal workforce which cannot use the Levy fund to train employees in this category.

225. Some businesses criticised the Levy for being inefficient, inappropriately targeted, not transparent in the way its funds are used, and costly. It was noted that training programmes need to be tailored to the current and future demands of businesses to make apprenticeships more attractive to the workforce and useful to employers. This lack of knowledge and awareness amongst businesses demonstrates the importance of ensuring that they have greater access to information about available training, the Apprenticeship Levy and associated funding schemes.
226. In summary, the discussion with businesses and training providers has highlighted the importance of the Apprenticeship Levy in increasing the number of apprenticeships and improving the skills and employment prospects of the UK workforce. However, there are significant challenges that need to be addressed, which include the Levy's inflexibility and the need to ensure that training programmes are tailored to the needs of the industry.

Consequences – Skills Gap and Underspend of Levy Funds

227. The Apprenticeship Levy is not fit for purpose and training costs are too high. This predicament has the potential to threaten the skills development of the workforce and lead to ongoing and future skills shortages.
228. Organisations reported in business interviews a reduction in the number of skilled workers in their sites, which could be attributed to a lack of training. Additionally, businesses reported that they have reduced the quality of training they are able to provide due to a lack of appropriate and accessible training, especially for what would be considered specialist roles. These compromises further exacerbate the shortage of skilled workers in the supply chain.
229. Such barriers to training staff have a significant impact on the food supply chain, creating skills shortages in the sector by reducing the quality of training and negatively impacting the future sustainability of the sector. It is worth noting that labour shortages can also make it difficult to backfill people who need to be released for training which can both impact on the skills development of workers and result in a loss of productivity.
230. Since 2017, the Apprenticeship Levy fund has formed part of the annual budget allocated by His Majesty's Treasury (HMT) to the Department for Education (DfE). The apprenticeship funding given to the DfE is ring-fenced, meaning it is earmarked solely for its original purpose and cannot be diverted to alternative uses. Therefore, any leftover amount at the end of each financial year must be repatriated to HMT.
231. The Apprenticeship Levy underspend pertains to the proportion of the levy pot that employers do not use for apprenticeship schemes, which is subsequently returned to the Treasury. Over the five years since the introduction of the levy in 2017, an underspend of just over £2 billion, equating to 17.8% of the total budget, was returned to the Treasury. This indicates a consistent trend of substantial underspending by employers, primarily as a result of the narrow parameters according to which they are

allowed to utilise the annual budget, and due to the complexity of accessing the available funds.

Figure 11: Levels of Apprenticeship Levy fund underspend by year, by millions of pounds⁸⁹

Apprenticeship Levy	Financial Year (FY) 17/18 £ million (m)	FY 18/19 £m	FY 19/20 £m	FY 20/21 £m	FY 21/22 £m
DfE Ring-fence Apprenticeships Budget	2,010	2,231	2,469	2,467	2,466
Total Ring-fence Apprenticeships Spend	1,586	1,738	1,919	1,863	2,455
Returned	424	493	550	604	11

In-Focus – Current Government Initiatives

232. In recent years, the government has implemented initiatives to address the barriers businesses have experienced when accessing and using the Apprenticeship Levy.

233. DfE acknowledges that the traditional apprenticeship model, whereby participants work with their employer for four days and attend college or a training provider for one day of any given week, does not suit all industries. This includes the food and drink sector, which involves non-typical working patterns and shift work. To support these sectors, they have helped to adapt training delivery. This includes flexible training, where employers can “work with their training providers to agree on a different delivery model, such as blocks of training” rather than following the traditional method of employer/training provider or college time distribution.⁹⁰

234. To tackle industry complaints about the narrow parameters of the Levy, the government introduced ‘flexi-job apprenticeships’ for employers in all sectors to help provide for their individual skills needs. These “have been designed to ensure that those sectors and occupations where short-term contracts or other non-standard employment

⁸⁹ UK Parliament, ‘Apprentices: Taxation. Question for Department for Education’ (23 November 2022): <https://questions-statements.parliament.uk/written-questions/detail/2022-11-23/94830> [accessed 22 June 2023]

⁹⁰ Department for Education, ‘How can apprenticeships be delivered for your business?’ (2022): <https://www.gov.uk/guidance/how-can-apprenticeships-be-delivered-for-your-business#flexible-training> [accessed 22 June 2023]

models are the norm can access the benefits of apprenticeships”.⁹¹ Flexi-job apprenticeships can be accessed through the Register of Flexi-Job Apprenticeship Agencies.⁹² These agencies support employers through ‘structural barriers’ to make the most of apprenticeships and facilitate sustainable investment in the skills necessary for them to develop “a diverse talent pipeline for the future”.⁹³ As of early 2022 the Department for Education (DfE) has awarded £5m in grant funding to a number of the organisations on this Register.⁹⁴

235. Increased flexibility has also been extended to the duration of apprenticeships.

Apprentices who have prior experience in their apprenticeship’s area of work can complete an ‘accelerated apprenticeship’ which has material they are already familiar with removed from the training plan. GOV.UK guidance notes that “those likely to be able to accelerate their apprenticeships include existing employees using apprenticeships to upskill into more senior roles, and those who’ve completed a related qualification” because they are likely to have relevant prior knowledge and skills.⁹⁵

236. Skills Bootcamps are another initiative through which the Government aims to make training more accessible to domestic workers. These flexible courses allow participants to acquire skills valued by employers and can be delivered through a variety of methods, including on-the-job training, classroom teaching or online instruction, lasting up to 16 weeks. Participants will also receive a job interview upon completion of the course.⁹⁶ However, for these to be useful to the food sector, their course offering will need to expand, as their current roster does not address the specific needs highlighted in this report, being dominated instead by disciplines including construction, digital, and health and social care.⁹⁷ Skills Bootcamps can be a valuable route to quickly upskilling workers, but their availability is very much dependent on where individual businesses are in England and the industry sector they address.

237. Some Government initiatives have also sought to help SMEs specifically. This includes removing the cap on a maximum of 10 new apprenticeship starts for small employers

⁹¹ Cogent Skills, ‘Flexi-job Apprenticeships: A beginner’s guide’ (27 April 2023): <https://cogentskills.com/news/flexi-job-apprenticeships-a-beginners-guide/#:~:text=In%202021%2C%20the%20government%20introduced,access%20the%20benefits%20of%20ap%20apprenticeships>. [accessed 22 June 2023]

⁹² Department for Education, ‘Flexi-job apprenticeships’ (2023): <https://www.gov.uk/government/publications/flexi-job-apprenticeships#flexi-job-apprenticeships> [accessed 22 June 2023]

⁹³ Department for Education, ‘Flexi-Job Apprenticeship Agencies: A response to our consultation’ (2021): [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1008151/Flexi-Job Apprenticeship Agencies - A response to our consultation.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1008151/Flexi-Job_Apprenticeship_Agencies_-_A_response_to_our_consultation.pdf) [accessed 22 June 2023]

⁹⁴ FE News, ‘Flexi-job apprenticeships scheme to boost recruitment in key sectors’ (10 February 2022): <https://www.fenews.co.uk/skills/flexible-apprenticeship-announcement-naw2022/#:~:text=List%20of%2015%20Registered%20Flexi-Job%20Apprenticeship%20Agencies%20of,boost%20the%20number%20of%20apprentices%20they%20can%20Recruit>. [accessed 22 June 2023]

⁹⁵ Department for Education, ‘How can apprenticeships be delivered for your business?’ (2022): <https://www.gov.uk/guidance/how-can-apprenticeships-be-delivered-for-your-business#accelerated-apprenticeships> [accessed 22 June 2023]

⁹⁶ HM Government, ‘Skills Bootcamps’ (2023): <https://skillsforlife.campaign.gov.uk/courses/skills-bootcamps/> [accessed 22 June 2023]

⁹⁷ Department for Education, ‘Find a Skills Bootcamp’ (2023): <https://www.gov.uk/guidance/find-a-skills-bootcamp> [accessed 22 June 2023]

who do not pay the Apprenticeship Levy.⁹⁸ It should also be noted that, to support smaller employers with a pay bill of less than £ 3 million, the government pays for 95% of the cost of their apprenticeship training.⁹⁹

Case Study – Horticulture Business

238. One small horticulture business called the Apprenticeship Levy a “heinous tax” during an interview for the Review. At one point, they had eight apprentices on their staff and one Institute for Leadership and Management (ILM) level 7 apprentice who gave “pretty average” feedback on their experience of the apprenticeship as a whole.
239. The business suffered a significant drop-out rate from their apprenticeship programme, with only three of the initial eight fulfilling their course, a result that the business suggested might have been due to the poor quality of teaching and the disappointing standard of programme that was run by their partner college. In a context where smaller businesses particularly seem to struggle with accessing and utilising opportunities, the business noted that apprenticeships as a concept seem to be designed for bigger corporations with HR departments, making them unsuitable for smaller businesses. Taken as a whole, the business stated that they feel they get “0%” from the Apprenticeship Levy as it is currently established.

Recommendation – Reform the Apprenticeship Levy

The importance of the Apprenticeship Levy has been highlighted by businesses as a means to improve the skills of the food supply chain’s workforce. Despite some success stories, however, during engagement with the Review, businesses have made it clear that the way the Apprenticeship Levy is currently arranged confronts them with a range of issues. These complaints include the Levy being too narrow in the way its funds can be applied to support training, too difficult and complex to access, particularly for those without a dedicated HR function, and too costly for the value it delivers. This is contributing to significant skills gaps and reduced productivity.

The government must be more responsive to the needs of food supply chain businesses, their introduction of certain flexibilities and improved access for some businesses not representing a significant enough change to the Levy. To provide a highly skilled workforce capable of meeting the evolving needs of the sector, to protect that provision in the longer term, and to address the urgent skills shortage in the food supply chain, the Apprenticeship Levy must be completely overhauled.

⁹⁸ Education and Skills Funding Agency, ‘How to register and use the apprenticeship service as an employer’ (2023): <https://www.gov.uk/guidance/manage-apprenticeship-funds#full-publication-update-history> [accessed 22 June 2023]

⁹⁹ HM Government, ‘Employing an apprentice’ (2023): <https://www.gov.uk/employing-an-apprentice/get-funding> [accessed 22 June 2023]

The Levy must be further developed with employers and enable greater access for SMEs. A new name should be introduced to reflect this expanded scope: the Skills and Development Levy. To reform the Levy the government must, within the current model:

- Introduce a flexible approach that includes a wider range of training and education, a simplified application process, as well as adopting a Research & Development-style tax record system for incentivising training:
- Enable flexible use of funds to develop training materials and capital funding resources for future skills requirements such as sophisticated agricultural equipment.
- Allow the funding to be used to support better welfare education and training schemes for seasonal workers (migrants) and for training employers on welfare management as well as the disruption and prevention of modern slavery.
- Provide greater clarity on the use of expired Levy funding and release those funds back for business investment in training, skills, and development.

Problem – Policymaking is Not Delivering the Domestic Skills

Required for the Food Supply Chain

240. Beyond the Apprenticeship Levy, government policy is not sufficiently supporting the supply of skills into the food supply chain. One of the main challenges in ensuring the right skills are being cultivated in the domestic workforce is the wide range of roles required in the industry. As highlighted in the previous chapters, workers who possess the necessary skills to fill these roles are often drawn to other sectors because they are seen as more 'attractive' or are able to offer higher wages, for example. Having to work with a smaller pool of available labour means the government will need to be more attentive to the challenges facing both education and training providers to ensure a secure supply of future domestic labour into the food supply chain.

241. The current shortage of skills is not a new phenomenon resulting solely from EU Exit and the economic consequences of Covid-19. The Food and Drink Sector Council (FDSC) reported in 2019 the need for businesses across the food supply chain to “fill roles across all skill levels”.¹⁰⁰ The publication also noted that management and leadership skills were already in short supply throughout the sector, and this was related to negative perceptions of the industry as outlined in earlier chapters of this Review. The fact that skills shortages are a challenge pre-dating the economic disruption of recent years suggests that there has not been sufficient dialogue between the suppliers of domestic skills and the government.

242. The lack of available skills was apparent throughout business interviews and the workforce survey, with companies noting retention challenges across all skills levels (see Figure 7). One business pointed out that “a shortage in labour has made it increasingly difficult to retain staff which has caused a skill shortage”. Business responses suggested that recruitment is likely to be challenging for every single skill level.

¹⁰⁰ Food and Drink Sector Council, 'Preparing [for a changing workforce: A food and drink supply chain approach to skills](https://www.fdf.org.uk/globalassets/resources/publications/fdsc-workforce-skills-report.pdf)' (2019), pages 33-37: <https://www.fdf.org.uk/globalassets/resources/publications/fdsc-workforce-skills-report.pdf> [accessed 22 June 2023]

243. Businesses are also finding it difficult to upskill workers at all levels. When identifying roles that were the target of training investment, interviewed businesses most commonly mentioned operatives and, to a lesser extent, engineers, elementary workers, and management roles. Across all forms of evidence collection, a series of barriers were identified that are preventing businesses from upskilling the domestic workforce. One of the most substantial barriers is cost. Businesses interviewed reported that the price of courses, for specialised training in particular, was too high. Elevated costs made it difficult for businesses to invest in training, with one business reporting that training contributed to 10% of overall labour costs.
244. The time-intensive nature of training also impacts business productivity by taking workers away from their day job. There is a balance between upskilling staff and maintaining production levels which can make it challenging for businesses to invest more time in training. Businesses need to ensure that they have sufficient workers to cover those who are undertaking training courses. Roundtable participants noted this can result in a situation where businesses are only willing to invest in training when they are forced to by government policy, rather than proactively as part of their business strategy.
245. Some businesses feel that investing in individual staff may not be cost-effective if they are shortly going to leave the company. This makes it difficult for businesses to justify investing in training, particularly for specialised training that requires a considerable commitment of time and energy. This can create a situation where employees feel that they are not being invested in which, in turn, contributes to increased turnover of workers as they feel they are not being valued.
246. Businesses face difficulties accessing training that is tailored to the needs of their company. For example, some businesses that were interviewed mentioned requiring specialised training which is not available through local skills providers. It was also noted that the location of a business could affect their access to high-quality training providers. This was highlighted as being a considerable issue for food manufacturers who are based all over the country. Other sectors and industries sometimes benefit from being concentrated in clusters which makes suitable training more accessible because providers have sufficient demand to deliver cost-effective programmes in regional hubs.
247. Awareness of the benefits related to upskilling employees is also a considerable challenge. The Institute for Agriculture & Horticulture (TIAH) has reported that the lack of management training was one of the leading factors causing recruitment and retention challenges.¹⁰¹ They have also highlighted the need to promote the value of such training which can help increase productivity and efficiency within businesses. Only 10% of respondents surveyed by TIAH suggested they were considering undertaking formal leadership training in the next few years. This demonstrates the need for greater awareness of the benefits of increasing management capabilities in the food supply chain.

¹⁰¹ The Institute for Agriculture and Horticulture, 'Labour and skills in the horticulture and agriculture sectors in England, 2022: Summary report' (2022), pages 7-8: <https://beta.tiah.org/lmi-research> [accessed 22 June 2023]

Consequences – Increased Costs and Recourse to Immigration

248. The domestic workforce is not large enough and does not have the required skills to make the English food supply chain self-sufficient in terms of labour supply.
249. As reported in the Recruitment chapter, some businesses in the food supply chain are having to explore alternative sources of labour from abroad through recruitment schemes such as the Skilled Worker visa route, the Frontier Permit Scheme and the Temporary Worker Scheme. The Case study earlier in this report about meat processors using the Skilled Worker visa route highlighted that the lack of available skills among the domestic workforce is leading to employers recruiting overseas at a substantial cost to the business. Government data shows a significant increase in the use of Skilled Worker visas, even accounting for the change to a points-based immigration system on 1st January 2021.¹⁰² Whilst not specific to the food supply chain, this rise in skilled immigration demonstrates the skills shortage being experienced in the UK.
250. This struggle to permanently recruit domestic staff to plug skills gaps is increasing business costs. As outlined in the Recruitment chapter and above, businesses face considerable costs when attempting to recruit labour from overseas. Only 7% of respondents to an Association of Labour Providers (ALP) survey in November 2022 had “established a service to recruit workers for the Skilled Worker visa route”.¹⁰³ Not having the skills available in their permanent workforce leads businesses to hire temporary agency workers to ensure orders can be met. The higher costs and lower productivity associated with agency labour, as well as the decreased availability outlined earlier, are leading to additional financial pressures on businesses already stretched by inflation and tight margins, as touched upon in earlier chapters.
251. As TIAH have pointed out, a lack of “effective management skills” further exacerbates the profitability of businesses if employee wellbeing is undervalued and leads to problems with worker retention.¹⁰⁴ The lack of available domestic skills is therefore leading to an increased financial burden on businesses and higher rates of immigration.

Current Initiatives

252. In the long term, the skills shortage facing the food supply chain requires a change in the way people perceive the sector and the occupations that are on offer. This was outlined in the first chapter and reiterated through the discussion of retention challenges. In 2020 the Government launched T-Levels, which are two-year courses created in partnership with employers to ensure students are learning the skills needed

¹⁰² Home Office, ‘Why do people come to the UK? To work’ (2022):

<https://www.gov.uk/government/statistics/immigration-statistics-year-ending-december-2021/why-do-people-come-to-the-uk-to-work#immigration-for-work> [accessed 22 June 2023]

¹⁰³ Association of Labour Providers, ‘November 2022. UK Food supply chain survey results’ (2022):

<https://www.labourproviders.org.uk/resources/alp-food-supply-chain-labour-survey-results-november-2022/> [accessed 22 June 2023]

¹⁰⁴ The Institute for Agriculture and Horticulture, ‘Labour and skills in the horticulture and agriculture sectors in England, 2022: Summary report’ (2022), pages 7-8: <https://beta.tiah.org/lmi-research> [accessed 22 June 2023]

by industry.¹⁰⁵ An alternative to apprenticeships and A Levels, T Levels offer 16 to 19-year-olds classroom learning alongside a 45-day placement designed to give students the opportunity to pick up skills that businesses desire.

253. Although these qualifications are new, there is already a T Level in Agriculture which gives learners the opportunity to specialise in crop, plant, or livestock production. Whilst the Agriculture T Level is one of the 18 visible pathways currently on offer, a food science specialisation is concealed within the Science T Level pathway therefore limiting awareness.¹⁰⁶ Nor is it made clear that T Levels in Engineering and Manufacturing could present employment opportunities within the food supply chain. Roundtable discussions pointed out that if such specialisations are hidden away then it becomes difficult for students to identify potential career pathways. Working with industry to develop new qualifications is important and welcomed. Future discussions should also involve education and training providers to ensure a joined-up approach that communicates the opportunities available in the food supply chain.
254. As an example of the more practical steps being taken by industry to increase the numbers of people entering roles in the food supply chain, the IGD have been delivering employability workshops in secondary schools nationwide, reaching 15,000 young people annually. Workshops, supported by industry volunteers, develop employability skills and inspire students about future careers in food. These are shown to be effective - before a workshop 43% of students would consider working in food, this rises to 73% after a workshop. IGD is also working with the national careers platform, Unifrog, to showcase technical, digital and engineering roles in food. Unifrog's website provides careers advice to 1.2million students and 50% of secondary schools.
255. Throughout our research, interviewees highlighted Dutch Government policy as an example of successful collaboration between industry, government, and education providers in addressing labour shortages and changing the perception of the sector. While a shift in the Dutch labour market makes it more difficult to recruit for lower-skilled jobs, high-skilled jobs in fields such as IT, technology, food technology and climate change still require international students and workers to fill gaps left by the Dutch domestic workforce.
256. Interacting directly with Dutch colleagues, this Review sought to understand how collaboration between stakeholders in the food supply chain could support effective policymaking. The Dutch education system operates a range of programmes in higher and further education designed to prepare students for work in the food supply chain. For example, the HAS University of Applied Sciences (HAS) supports the school curriculum and is actively promoting the attractiveness of the food sector to potential students.¹⁰⁷ As in the UK, there is fierce competition for students and the food sector is

¹⁰⁵ Department for Education, 'Introduction of T Levels' (2023): <https://www.gov.uk/government/publications/introduction-of-t-levels/introduction-of-t-levels#t-levels-what-they-are> [accessed 22 June 2023]

¹⁰⁶ HM Government, 'T Level Subjects' (2023): <https://www.tlevels.gov.uk/students/subjects> [accessed 22 June 2023]

¹⁰⁷ HAS University of Applied Sciences, 'HAS Green Academy' (2023): <https://www.has.nl/en/> [accessed 22 June 2023]

not always seen as an attractive option. Once encouraged onto suitable courses, HAS focuses on developing students' soft skills to ensure the progression of students into the workplace.

257. The Dutch Government has recognised the importance of green skills for societal priorities and labour supply resilience.¹⁰⁸ Recognition comes in the form of schemes such as the Green Pact (Groen Pact) which was launched in 2016. This initiative is a unique network organisation bringing together institutions from civil society, education, business, and the government to collaborate on major contemporary challenges related to the environment. One of the focus areas is food security, with efforts being made to "invest in the enrolment of pupils and students in Dutch green education programmes".¹⁰⁹ The labour market acceleration programme is a core pillar of the Green Pact and focuses on ensuring Dutch businesses have enough workers with the right skills. In addition to acting as a space for networking and collaboration, the Green Pact supports skills development and provides a pipeline of workers to the Dutch agri-food industry through a series of initiatives:

- The Green Monitor: A new classification of the Dutch green sectors based on existing and new research which ensures that stakeholders can access labour and skills market data to help with workforce planning and policy development.
- Green Think Tank: A collaboration between 15 cross-industry experts in labour markets, education, innovation, and green systems, which explores future labour and skills requirements within the Dutch green industry.
- Green Worlds: A tool to help improve the image of the green industry and therefore encourage new entrants into the sector.
- Green Learner Personae: an instrument for lifelong learning and development from the perspective of workers which focuses on drivers for upskilling, the interventions that work for employees, and which learning approaches best suit their needs.

258. By acknowledging green sectors as a key priority, the Dutch Government contributes to improving the image of the food supply chain. Inclusion as part of high-profile government priorities raises awareness of the opportunities available and can help improve the attractiveness of the sector to young adults considering their careers. Making explicit the links between food supply chain jobs and improving our environmental sustainability is a key component of any campaign to broaden the sector's appeal, as pointed out in the Bord Bia case study in the Recruitment chapter. Highlighting the role of the food supply chain in the Green agenda is a powerful means of attracting a new generation of workers to the sector. This need to reframe the

¹⁰⁸ Green skills, that is, skills needed in a low-carbon economy, will be required in all sectors and at all levels in the workforce as emerging economic activities create new (or renewed) occupations. (OECD definition, available: <https://www.oecd.org/greengrowth/greener-skills-and-jobs-9789264208704-en.htm> [accessed 22 June 2023])

¹⁰⁹ Groenpact, 'About Groenpact' (2023): <https://www.groenpact.nl/international-about-groenpact> [accessed 21 June 2023]

dialogue around “landbased sectors” and to improve learning pathways has been effectively stressed in the Scottish Government’s recent ‘Commission for the land-based learning review: report to Scottish Ministers’ which presents valuable recommendations that His Majesty’s Government should also consider for application in England.¹¹⁰

Recommendation – Formalise Collaboration Between Government Industry and Skills Providers

There is a need for greater and more wide-ranging collaboration between government, education providers and industry. In particular, the link between Defra, further and higher education institutions, and skills providers, should be strengthened through formalised engagement. This will ensure better understanding and coordination between these respective bodies so that Defra has greater insight into what is happening to support the future pool of available labour, not least in key areas such as those that support automation and the adoption of other new technologies.

There must be a better understanding of the skills required by the food supply chain to allow a clear and purposeful strategy to be developed between government, education providers and industry. Collaboration will enable improved data collection on the skills pipeline and on skills needs which is essential to meeting the changing requirements of the sector. Especially important in this is the need for collaborative planning to prepare for the skills requirements that can make tasks across the food supply chain more efficient. This coordination must focus on informing policymaking, and associated curriculum development, and should involve key skills providers such as the AUC, BASIS, Landex and Lantra.

Businesses are currently using overseas labour to plug the skills gaps in the domestic workforce. The government must improve collaboration with the organisations that provide those skills to ensure that policymaking is also effective in the longer term so that businesses can rely on a sufficiently skilled domestic workforce for their business needs. Through such a collaborative approach to training, businesses could improve the rates of retention of skilled employees, increase productivity and efficiency, and remain a competitive export industry. A more skilled workforce that is developed according to the specific needs of the sector would also lead to greater innovation, economic growth, and a more sustainable future if green jobs and skills are successfully incorporated into the upskilling agenda of the food supply chain.

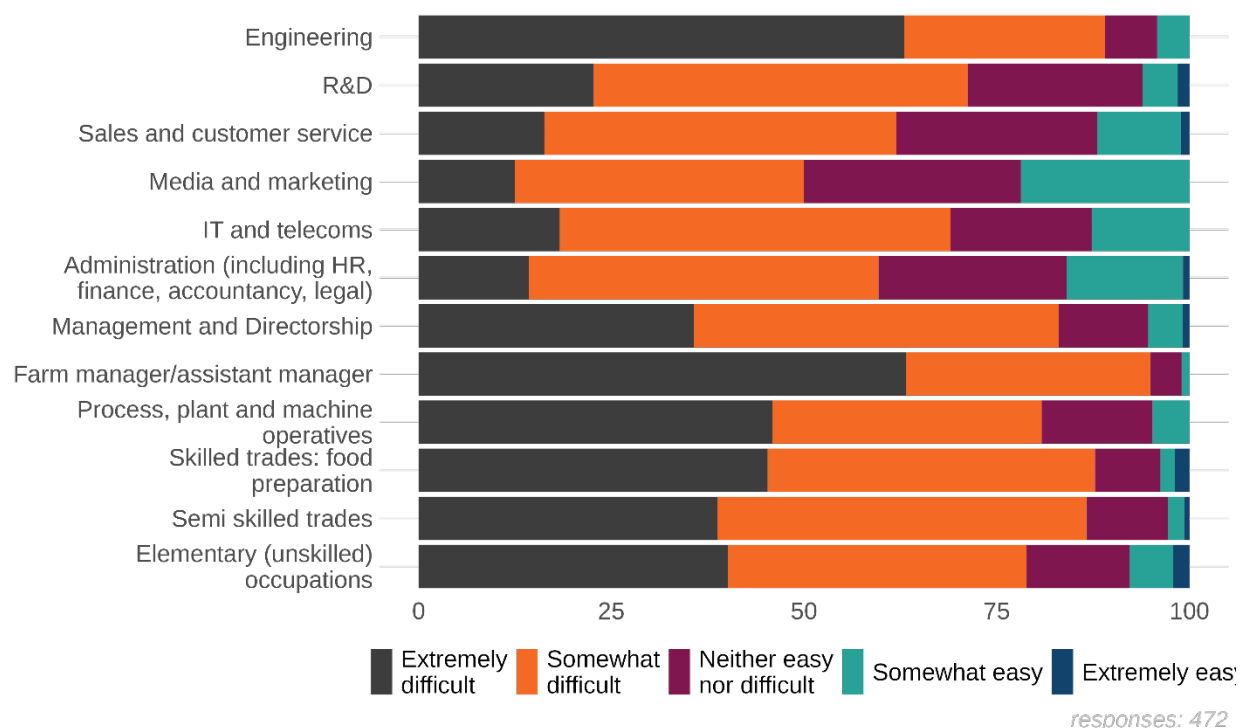
¹¹⁰ Scottish Government, ‘Commission for the Land-Based Learning Review: Report to Scottish Ministers’ (2023), pages 5-7: <https://www.gov.scot/binaries/content/documents/govscot/publications/independent-report/2023/01/commission-land-based-learning-review-report-scottish-ministers/documents/commission-land-based-learning-review-report-scottish-ministers/commission-land-based-learning-review-report-scottish-ministers/govscot%3Adocument/commission-land-based-learning-review-report-scottish-ministers.pdf> [accessed 22 June 2023]

Problem – Uncertainty of Domestic Skills Supply

259. Labour shortages are being exacerbated by the uncertainty about future domestic skills supply. The lack of accessible skills and data on forecasted needs and availability in the food supply chain is impacting business confidence. Skills shortages for roles such as engineers are already apparent, and it is not evident whether these gaps are being catered for in the number of students enrolling in food production-related courses (see higher education case study). The Office for National Statistics (ONS) data, whilst helpful in some respects, does not currently offer policymakers or skills providers the ability to determine vacancy rates at a disaggregated level.

260. Businesses are already facing challenges in the recruitment of certain skilled roles. Responses to the workforce survey suggested that businesses found it most difficult to fill engineer and livestock farm management roles, with over 50% of respondents reporting extreme difficulty. Other vacancies in management, machine operatives, skilled trades, semi-skilled trades and elementary occupations were also highlighted by more than 75% of businesses as being at least somewhat difficult to recruit for.

Figure 12 – Level of difficulty in filling non-seasonal roles in food supply chain businesses in England, according to Survey respondents



261. The agricultural and horticultural sectors are experiencing a skills "crisis" according to industry experts and farmers.¹¹¹ And responses to the workforce survey, industry data and business interviews suggest this can be extended to food and drink processors and

¹¹¹ The Institute for Agriculture and Horticulture, 'Labour and skills in the horticulture and agriculture sectors in England, 2022: Summary report' (2022), page 2: <https://beta.tiah.org/lmi-research> [accessed 22 June 2023]

manufacturers where there are also shortages of workers across all skills levels.¹¹² Even before the economic upheaval of recent years, businesses were already reporting a lack of available talent, with skills shortages the second most frequently cited impediment to improving productivity.¹¹³ This suggests that some of the current skills shortages are part of a longer-term structural issue in the attractiveness of the sector (as noted earlier in the Review), as well as the availability of individuals with the requisite skills.

In focus – The Further and Higher Education Skills Pipeline

262. Short-term university enrolment trends indicate a mixed picture for student numbers on food production-related courses.¹¹⁴ On the one hand, overall student numbers on graduate and post-graduate courses are trending upwards with growth of 18% across relevant subjects as depicted in Figure 13 (where these courses are taken as a first subject).

¹¹² Food and Drink Federation, 'State of Industry Report Q4 2022' (2023), page 4:

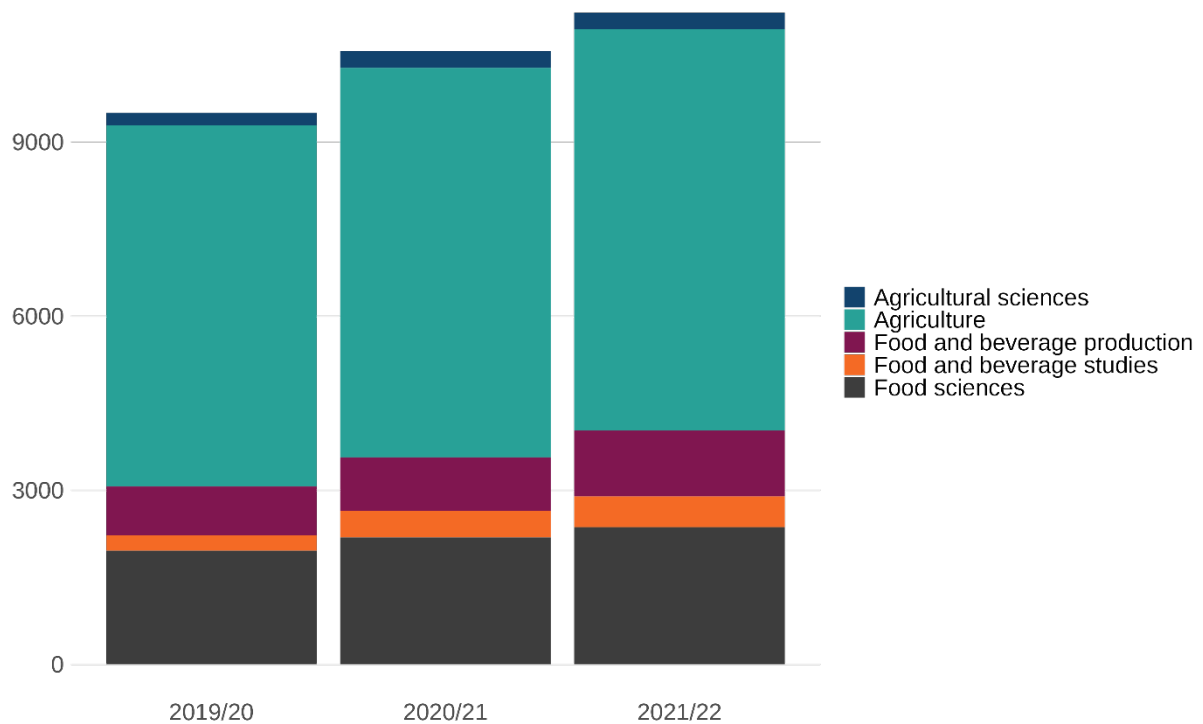
<https://www.fdf.org.uk/globalassets/business-insights-and-economics/fdf-state-of-industry-survey/si-q4-2022.pdf> [accessed 22 June 2023]

¹¹³ Food and Drink Sector Council, 'Preparing for a Changing Workforce: A Food and Drink Supply Chain Approach to Skills' (2019), pages 30-35: <https://www.fdf.org.uk/globalassets/resources/publications/fdsc-workforce-skills-report.pdf> [accessed 22 June 2023]

National Skills Academy, 'Skills Insights and Labour Market Focus – UK Food and Drink Manufacturing and Processing Industry' (2022), pages 20-26: <https://nsafd.co.uk/national-skills-academy-for-food-drink-lays-bare-skills-challenge-and-double-whammy-of-staff-shortages-and-rising-costs-facing-uk-food-manufacturing/> [accessed 22 June 2023]

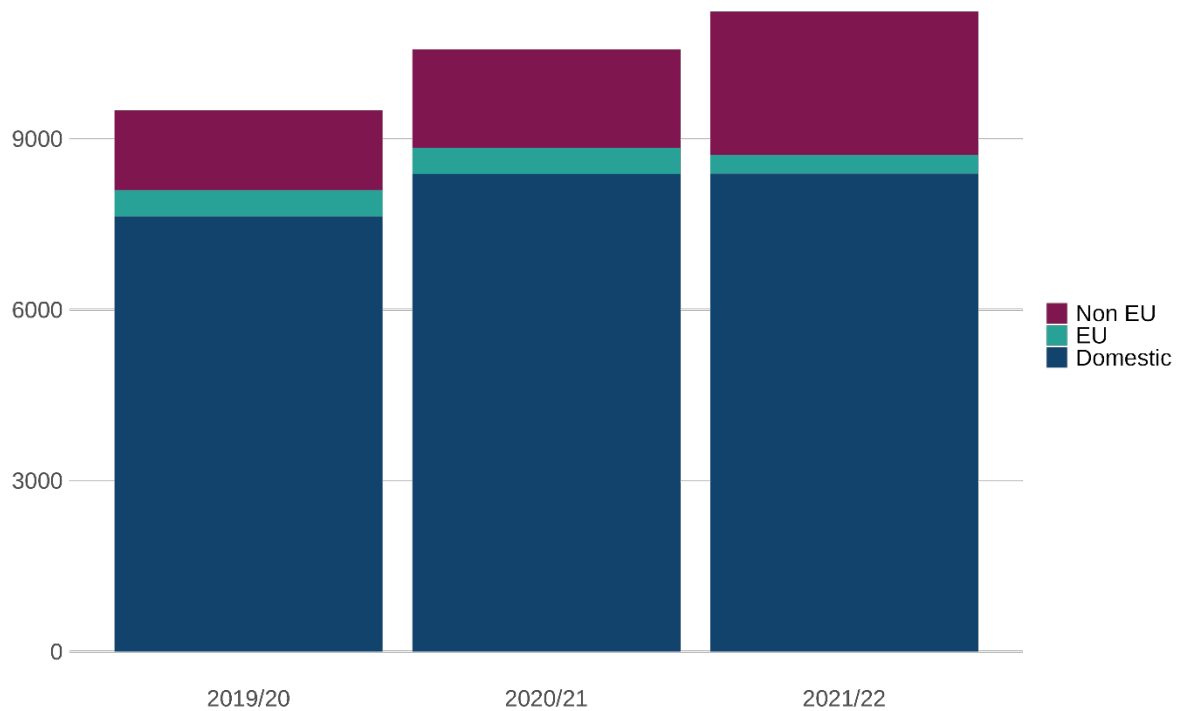
¹¹⁴ 5 principal subjects were identified where graduate outcomes were tailored towards food production: Agricultural sciences, Agriculture, Food and beverage production, Food and beverage studies, and Food sciences. This data must be interpreted with the caveat that it may include courses such as rural estate management where employment in food production is unlikely to be the intended career destination

Figure 13 – Students in food production courses



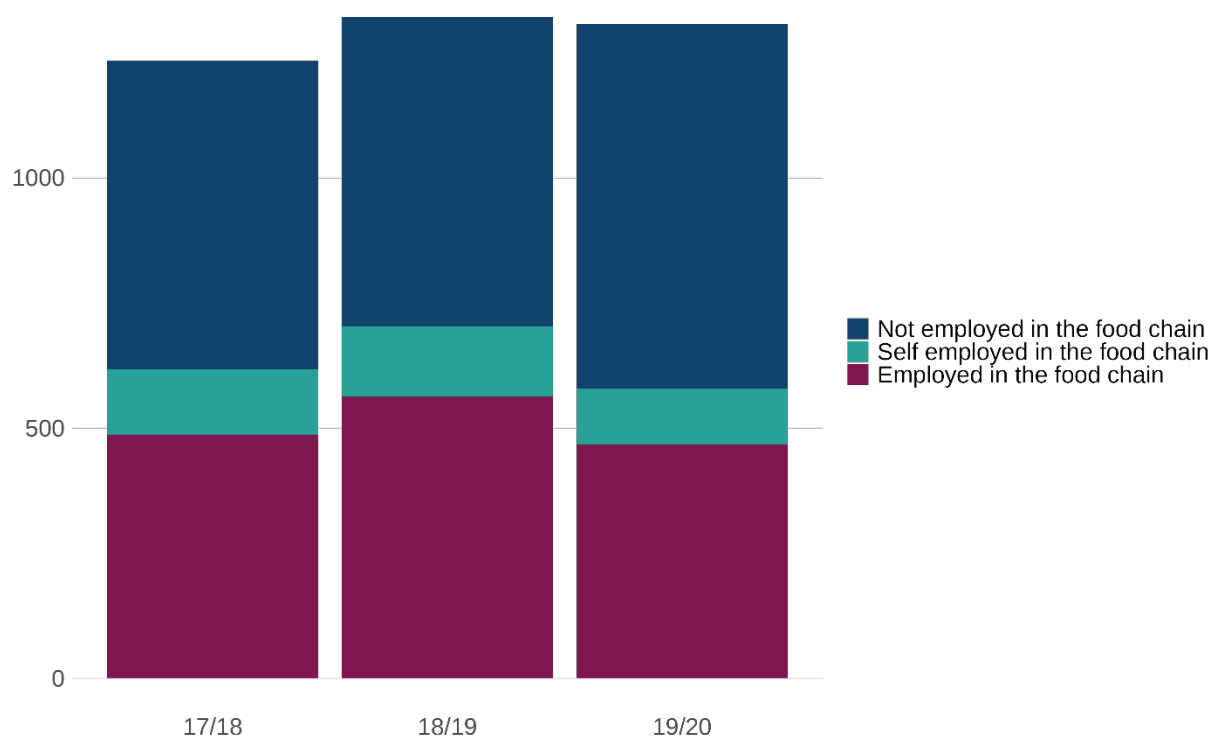
263. On the other hand, 64% of that growth has been driven by a surge in the enrolment of non-EU overseas students as universities seek to improve revenue streams in the face of tuition fee freezes (see Figure 14). It is not clear how many of those students will remain in the UK and seek work in the English food supply chain. There has been a 10% increase in domestic student numbers which suggests there has been some success in promoting the food supply chain as a viable career choice. It should be noted, however, that this could also be related to a post-pandemic surge in university applications or the increase in the number of young people of university-entry age currently being experienced within the UK's demography.

Figure 14 – Non-EU, EU and domestic student numbers



264. Recent graduate outcome data paints a less positive picture when it comes to encouraging individuals on food production-related courses to work within the food supply chain. Figure 15 shows that roughly one in two students move into food supply chain-related employment after graduation (including roles in retail and wholesale). Due to a change in the way such data is collected, it is not possible to determine longer-term trends. However, numbers from the past three years suggest that whilst overall student numbers may be increasing, a lower percentage of those students are finding work in the food supply chain.

Figure 15 – Graduates in food related subjects



265. Analysis of Further Education learner enrolment numbers across agricultural courses in all settings have shown growth (2018-2022). Providers have worked hard to promote the sectors supported by the impact of high-profile influencers and the environmental agenda. Within agriculture, for 16-18 learners, between 2019/20 and 2021/22, registrations increased by 26.5% overall, with an 18% increase on large programmes. It will now be important to work to match the level and skills profile with the forecasted labour demand within the industry and take into account any skills shortages. It is also of note that the largest percentage of enrolments are at level 3 (A level equivalent). In agriculture 16-18 enrolments 77% of large programme provision is at level 3 and 23% at level 2 and within agricultural engineering 16-18, 60% of large provision is at level 3 and 40% at level 2, as per Figure 16.¹¹⁵

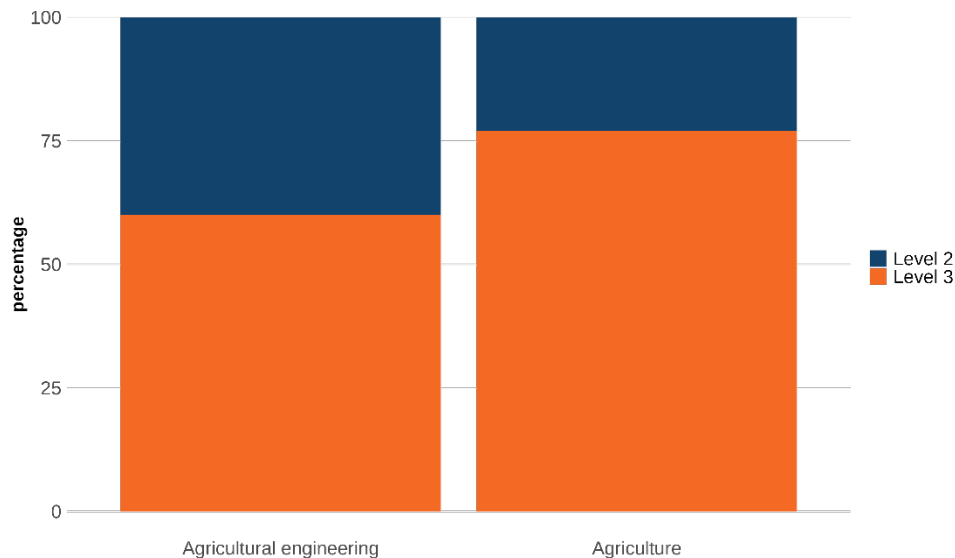
266. Over 99.85 % of all 16-18 enrolments in agriculture and agricultural engineering are at DfE designated specialist land-based colleges. This demonstrates the value that is placed by learners and employers on these specialist providers and recognises the impact of the investment that consecutive governments have made in the high-quality resources supporting 15,000 hectares of land and 7000 residential beds within designated specialist providers.¹¹⁶

¹¹⁵ Evidence sourced from the Individualised Learner Record and provided by stakeholders directly to the Independent Review Secretariat

¹¹⁶ Evidence sourced from the Individualised Learner Record and provided by stakeholders directly to the Independent Review Secretariat

267. Whilst full time agricultural engineering numbers are relatively low and have seen a slight fall, there is significant provision within apprenticeships, with a 123% increase between 2018-2022.¹¹⁷

Figure 16 – Enrolment numbers in agricultural courses (age 16-18) with large provision, 2021/22



268. Despite the recent progress in student recruitment noted above, businesses are already having to resort to the Skilled Worker visa route to source workers with suitable skills.¹¹⁸ This underscores a continuing lack of available labour in the domestic workforce. As has been mentioned earlier in this report, interviewees noted that business competitors often poached those with transferrable skills, even if they were in an unrelated industry. To avoid the need to hire overseas workers in the future there must be a secure pipeline of domestic talent that businesses are able to access. And businesses need to know where to access such talent and skills to adequately plan workforce requirements.

269. Labour shortages in food supply chain adjacent roles are also affecting the ability of the sector to predict the availability of workers and training provision. In a roundtable with further education providers, colleges noted that they were struggling to retain lecturers who were being poached by private sector businesses who can offer higher wages. There are also student capacity challenges related to funding and accommodation, which means colleges are unable to significantly expand their potential reach.

270. For training providers, the lack of available trainers, instructors and assessors is leading to challenges in delivering end of apprenticeship assessments and other qualifications. Freelancers often undertake these roles and the availability of more secure forms of work in different industries has led to a decline in their availability. This is making the delivery of certain types of training increasingly challenging, with businesses noting that

¹¹⁷ Evidence sourced from the Individualised Learner Record and provided by stakeholders directly to the Independent Review Secretariat

¹¹⁸ HM Government, 'Skilled Worker visa' (2023): <https://www.gov.uk/skilled-worker-visa> [accessed 22 June 2023]

in some areas of the country it is difficult to access the training their workers need to improve business productivity. Labour shortages beyond the food supply chain are, therefore, also affecting the ability of businesses to source the skills required for food production.

Consequences

271. The lack of clarity around what skills will be accessible in the future is damaging to businesses. They reported being unable to make long-term labour plans due to the uncertainty over what workers they will be able to hire. Workforce planning is fundamental to ensure that businesses have the right talent with the right expertise to pursue the company's strategic goals. If the uncertainty around skills availability continues, and businesses, government and education institutions cannot access suitable data on skills supply, then the profitability of UK businesses could be greatly affected. If businesses are not confident that they can source workers with the necessary skills this could limit investment. Productivity could be hampered, and industry could miss out on opportunities for growth and exports.
272. Businesses pointed out that Government actions in recent years had not been conducive to long-term decision-making. One business noted that "food businesses are adaptive and reactive, but Government policy in the last couple of years has not been helpful". With businesses needing confidence and clarity it has been a real challenge for them to justify investments when they are unsure there will be a sufficient pool of available workers with the right skills. This includes upskilling their own workforce on the assumption that those lower-skilled roles will need backfilling.
273. Instead of risking crop waste or animal culling, some businesses have decided to scale back production. Concerns around the availability of workers with the right skills has led some companies to reduce the amount they produce in line with the number of suitably skilled workers they are confident they will have available to them. One business interviewed noted that despite having the commercial opportunity to double their sales, they had refrained from expanding due to concerns about skills availability and hiring less productive workers. This would lead to additional unit production costs and potential wastage.

Current Initiatives

274. The future skills requirements of the food supply chain have been mapped out by previous analysis. For example, the Working Futures report included a series of projections that considered the future skills demands of sectors across the UK labour market.¹¹⁹ Between 2017 and 2027, the report envisaged an increased need for

¹¹⁹ Department for Education, 'Working Futures 2017-2027: Long-run labour market and skills projections for the UK' (2020): https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/863506/Working_Futures_Main_Report.pdf [accessed 22 June 2023]

managers, professional occupations, technical roles, sales staff and workers in elementary occupations for food and drink manufacturing businesses. Such forecasting models are helpful, but they need to include the whole food supply chain with more granular data accessible to all relevant stakeholders within the industry. Improving accessibility would help sectors that are struggling to identify and meet their skills needs.

275. The National Foundation for Educational Research (NFER) is also leading a partnership aimed at forecasting the skills needs of businesses in 2035.¹²⁰ Using publicly available ONS data and in conjunction with the Department for Education (DfE), the NFER has been exploring the future layout of the UK labour market and the skills workers will need.¹²¹ Having completed the first wave of insights in 2023, the next phases of work will seek to identify skills gaps and those vulnerable to changing skills demand before looking at the role of the education sector.

276. The Unit for Future Skills (UFS) is a research unit established in 2022 by DfE to “improve the quality and availability of data on skills and jobs”.¹²² It has already worked closely with the NFER and other stakeholders on the Skills Imperative 2035 project noted above. Through their online portal, the UFS offers dashboards on career pathways, education employment outcomes, and local skills availability. For 2023, the UFS noted that priority work would focus on improving the accessibility of data on local skills demand and career pathways which would help support regional labour markets. There would also be an emphasis on forecasting skills demand and engaging with stakeholders using UFS data to outline priorities for future workstreams.

277. The food supply chain is a diverse sector with a wide range of skills needed and this makes classification of skills suitable for employment in the industry a real challenge. As the UFS is a new initiative, it is hard to know how useful the skills and graduate outcome dashboards will be in ensuring the food supply chain is informed about emerging skills needs and equipped with workers who have the required skillsets.

Recommendation – Support Food Career Curriculum Delivery

Food supply chain businesses are struggling to recruit workers with the necessary skills to maintain production, drive growth and improve productivity. Recent further and higher education data suggests increases in student numbers, but not necessarily in the total

National Skills Academy, ‘Skills Insights and Labour Market Focus – UK Food and Drink Manufacturing and Processing Industry’ (2022), pages 20-23: <https://nsafd.co.uk/national-skills-academy-for-food-drink-lays-bare-skills-challenge-and-double-whammy-of-staff-shortages-and-rising-costs-facing-uk-food-manufacturing/> [accessed 22 June 2023]

¹²⁰ National Foundation for Educational Research, ‘The Skills Imperative 2035: Essential skills for tomorrow’s workforce’ (2023): <https://www.nfer.ac.uk/key-topics-expertise/education-to-employment/the-skills-imperative-2035/> [accessed 22 June 2023]

¹²¹ Department for Education, ‘Labour market and skills projections: 2020 to 2035’ (2023): <https://www.gov.uk/government/publications/labour-market-and-skills-projections-2020-to-2035> [accessed 22 June 2023]

¹²² Unit for Future Skills, ‘Unit for Future Skills’ (2023): <https://www.gov.uk/government/groups/unit-for-future-skills> [accessed 22 June 2023]

number of students entering roles within the food supply chain. Consequently, businesses are losing confidence in their ability to source the skills required now and in the future. To allay business fears and encourage new entrants into careers within the food supply chain, the Government needs to take steps to protect and promote the delivery of courses that aim to provide students with the skills for successful careers in the sector.

The provision of the next generation of entrants to the food supply chain (i.e., those already committed to working in the industry) must be seen as a matter of national importance in assisting with the security of the food supply chain. To fulfil this objective, further and higher education funding bodies should review food supply chain-related subjects to ensure courses are well-resourced and that recurrent and capital funding is enhanced and protected in the long term. To fulfil this objective, further and higher education funding bodies should review food supply chain-related subjects to ensure courses are well-resourced and that recurrent and capital funding is enhanced and protected in the long term. This should include dedicated funding programmes to support students with tuition fees and maintenance assistance to incentivise recruitment in these subjects.

Recommendation – Produce a Workforce Data Strategy

Alongside targeted support aimed at encouraging new entrants into careers within the food supply chain, the Government must look at improving Labour Market Intelligence (LMI) to help businesses prepare their own workforce strategies.

Defra, in partnership with the ONS and the UFS, must set out a workforce data strategy aimed at improving the available data on labour and skills supply into the food supply chain. The strategy should include improving existing datasets on the food supply chain workforce, as well as a national statistics level workforce survey to gather longitudinal data on workforce trends within the sector. This strategy must ensure there is a pipeline of future skills in key areas such as automation, robotics, data, leadership, change management and business skills.

Improvements in data are a welcome first step towards enabling robust workforce planning across sectors to avoid unnecessary skills shortages. As a strategically important sector, the food supply chain should be prioritised in this endeavour. This report has highlighted the widespread shortage of skills across all levels in the food supply chain. The UFS must act now to ensure future skills needs and gaps in the food supply chain are identified so that government and education institutions can put in place measures that guarantee a pipeline of skilled workers.

By doing so, the government will empower businesses to make long-term planning decisions that could encourage further investment in domestic food production. Increased confidence in the availability of suitable skills can help de-risk investments in digital technologies and new machinery, thus encouraging businesses to automate processes further. Failure to do so could act as another powerful brake on investment and productivity improvements,

leaving businesses without the skilled workforce they will need, and further running the risk of offshoring more food production.

Chapter 4 - Automation

Introduction

278. Automation is understood, in this context, as the technology that helps businesses optimise productivity by either helping employees become more productive, or to produce at a higher rate than currently possible with manual labour. When processes are successfully automated, the result in many cases is a reduced cost per unit of production, either by replacing the need for manual labour, or by enhancing the capabilities of that manual labour.
279. Automation can help overcome some recruitment and retention challenges highlighted in the previous chapters. Investment in new equipment has enabled businesses to upskill their workforce, increase productivity and reduce labour requirements. One interviewee pointed out that if their business "had not invested in automation, the demand for labour would be even worse." Other interviewees expected further investment in machinery, digitalisation, and data collection to help reduce total labour requirements by up to a quarter.
280. Automation will also increase demand for a higher-skilled workforce. This will be a challenge for some roles which are already in short supply, such as engineers. Roundtable participants warned that labour shortages could turn into skills shortages if further automation is undertaken without ensuring the availability of skilled workers. A good example of the capacity for automation to reduce, but not eliminate labour needs, is the UK dairy sector. Dairy producer numbers have dropped considerably since the 1990s, with significantly fewer farmers now able to produce more milk from fewer cows.¹²³
281. There are many benefits from increased automation. The Made Smarter Review highlighted the financial opportunities available to the food and drink manufacturing sector through increased adoption of automation (see Figure 17).¹²⁴ Roundtable participants also noted that further automation would encourage "export growth, employment opportunities, reaching net-zero, levelling-up, and reshoring investments", thus feeding into long-term government commitments. Other roundtable evidence suggested businesses in a particular region that had invested in automation had

¹²³ House of Commons Library, 'UK dairy industry statistics' (2021), pages 6-8: <https://researchbriefings.files.parliament.uk/documents/SN02721/SN02721.pdf> [accessed 22 June 2023]
Department for Environment, Food and Rural Affairs, 'Structure of the agricultural industry in England and the UK at June' (2023): <https://www.gov.uk/government/statistical-data-sets/structure-of-the-agricultural-industry-in-england-and-the-uk-at-june> [accessed 22 June 2023]

¹²⁴ Department for Business, Energy and Industrial Strategy, 'Made Smarter Review' (2017), pages 39-40: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/655570/20171027_MadeSmarter_FINAL_DIGITAL.pdf [accessed 22 June 2023]

increased output by 300% on some crops without requiring any increase in the workforce.

282. Government publications have outlined the benefits of automation in driving the UK's sustainability ambitions.¹²⁵ One roundtable participant noted that "automation is a pre-requisite to achieve net-zero". This has been recognised by the allocation of public funding to innovation projects such as the Transforming food production challenge, which aims to develop "new ways to produce food that reduces emissions and pollution," as well as minimising food wastage.¹²⁶ By reducing the unit price of production, automation could also help reduce the overall cost of food production by minimising input costs. Encouraging automation in the food supply chain therefore supports the delivery of other government priorities.

Figure 17 – Potential value stake for food supply chain between 2017-2027

VALUE LEVER DESCRIPTION	VALUE TO INDUSTRY (£ BN)
Revenue growth through new revenue streams	£3.2
Cost reduction through digitally enabled R&D	£0.5
Cost reduction through digitally enabled manufacturing and asset maintenance	£13.2
Cost reduction through digitally enabled supply chain management	£1.1
Cost reduction through automation of labour	£24.7
Cost reduction due to increase in resource efficiency	£13.2
Total value to industry	£55.8

283. Automation will reduce the requirement for labour-intensive roles in the future. This is particularly relevant for the agriculture and horticulture sectors and their need for

¹²⁵ HM Government, 'Net Zero Strategy: Build Back Greener' (2021): https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1033990/net-zero-strategy-beis.pdf [accessed 22 June 2023]

Department for Environment, Food and Rural Affairs, 'Government Food Strategy' (2022): <https://www.gov.uk/government/publications/government-food-strategy/government-food-strategy#food-security-and-sustainable-production> [accessed 22 June 2023]

¹²⁶ UK Research and Innovation, 'Transforming food production challenge' (2023): <https://www.ukri.org/what-we-offer/browse-our-areas-of-investment-and-support/transforming-food-production-challenge/> [accessed 22 June 2023]

seasonal labour in roles deemed undesirable by the domestic workforce. As mentioned in earlier chapters, roundtable discussions highlighted how challenging work conditions coupled with part-time or temporary work contracts made seasonal roles less appealing to domestic workers who often seek permanent employment. Such deterring factors are exacerbated when vacancy rates remain high and unemployment low across the UK economy.¹²⁷ There will be opportunities in the future to increase business resilience by transforming labour-intensive roles into technology-intensive processes.

284. As noted by the Business, Energy and Industrial Strategy (BEIS) Committee, "a more automated British workplace should make businesses more productive, improve the supply of high-quality jobs, and support working people to have more leisure time".¹²⁸ These benefits are clear to many food supply chain businesses who have already embraced such technology according to workforce survey responses. The data from the survey indicates that 74% of companies are not waiting to invest in new equipment but have started automating parts of their business.

285. Business size is also a crucial factor to consider when exploring uptake in automation.¹²⁹ When it comes to the availability and uptake of automation, the experiences of businesses in the food supply chain vary considerably. For example, it has been recognised that UK Small or Medium Sized Enterprises (SMEs) may lack the resources, knowledge, and confidence to automate their business.¹³⁰ Yet the benefits of automation are clear, and evidence suggests that companies have embraced technology where possible. Discussions with industry suggest that there are three main factors preventing food supply chain businesses from reaping the benefits that automation has to offer: automation is expensive, support is complex, and in some cases, the technology is not yet commercially available.

Problem - Automation is Expensive

286. Automation is expensive, and not all businesses have the capital to invest in productivity-enhancing measures. Investment in automation is hampered by a series of obstacles attributed to prohibitive costs and financial risks.¹³¹

287. Businesses highlighted financial challenges as the most significant barrier to the adoption of automation in food production processes (see Figure 18). One business noted that whilst automation may be essential for its survival, finding the capital to

¹²⁷ Office for National Statistics, 'Vacancies and jobs in the UK: June 2023' (2023):

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/jobsandvacanciesintheuk/june2023> [accessed 22 June 2023]

¹²⁸ Business, Energy and Industrial Strategy Committee, 'Automation and the future of work' (2019), page 44: <https://publications.parliament.uk/pa/cm201719/cmselect/cmbeis/1093/1093.pdf> [accessed 22 June 2023]

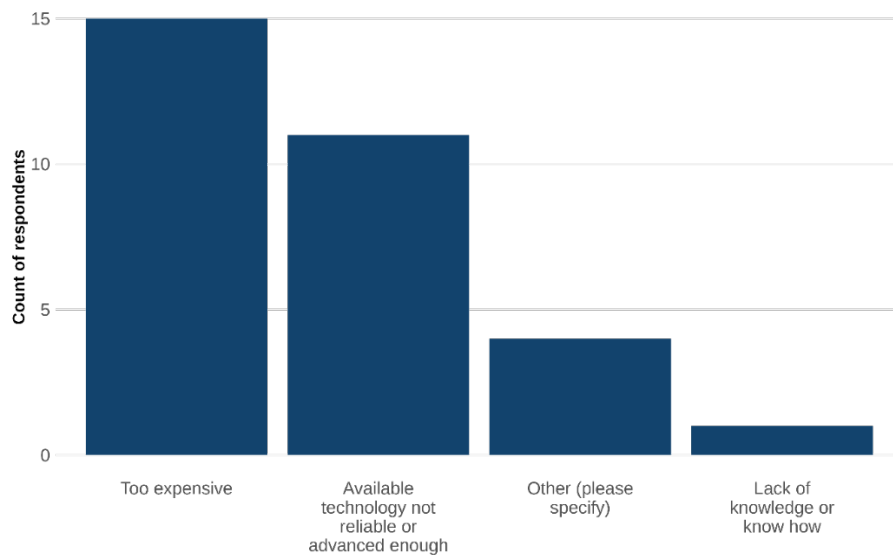
¹²⁹ Food and Drink Sector Council, 'Preparing for a Changing Workforce: A Food and Drink Supply Chain Approach to Skills' (2019), page 19: <https://www.fdf.org.uk/globalassets/resources/publications/fdsc-workforce-skills-report.pdf> [accessed 22 June 2023]

¹³⁰ Department for Business, Energy and Industrial Strategy, 'Made Smarter Review' (2017), page 72: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/655570/20171027_MadeSmarter_FINAL_DIGITAL.pdf [accessed 22 June 2023]

¹³¹ Business, Energy and Industrial Strategy Committee, 'Automation and the future of work' (2019), page 14: <https://publications.parliament.uk/pa/cm201719/cmselect/cmbeis/1093/1093.pdf> [accessed 22 June 2023]
Department for Environment, Food and Rural Affairs, 'Automation in Horticulture Review' (2022): <https://www.gov.uk/government/publications/defra-led-review-of-automation-in-horticulture/automation-in-horticulture-review> [accessed 22 June 2023]

invest in new production lines was challenging. This was particularly salient in an environment where profitability was already under pressure from increased operating costs and economic uncertainty.

Figure 18 – Reasons for not using automation, according to Survey respondents



288. Investing in automation presents a considerable financial risk. Several businesses interviewed suggested the risk of adopting or trialling innovative technology represented a barrier to utilising available automation. Tight margins and short-term contracts with retailers make it difficult for businesses to justify the risk of financing automation. An interviewee suggested that investing may also be risky if retailers respond to supply chain automation by pushing for lower prices. One participant pointed out that "businesses are paralysed by fear of making a wrong or costly decision about automation."
289. Businesses have been impacted by the successive structural shocks of Covid-19, EU Exit, the war in Ukraine, and increasing interest rates. Many businesses have depleted cash reserves and perceive investment in automation as too risky which may reduce any appetite for additional expenditure. The existence of 'machinery graveyards', new equipment installed by businesses that has failed to perform to expectation and, as a result, been abandoned, underscores the inherent risk associated with investment. Yet, businesses are still keen to pursue automation under the right conditions, with one suggesting "there is real value to automation if it can be de-risked".
290. The risk of investment in automation is compounded by a perceived slow return on capital expenditure. Dependence on imported machinery results in longer lead-in times for new automated lines. This is made worse by shortages of mechanical components and a fluctuating exchange rate for English businesses in recent years, as well as difficulty in sourcing workers for machinery implementation and maintenance. Post-EU Exit processes have made the UK a less attractive market for EU-based suppliers of machinery who benefit from frictionless trade with businesses across the EU's single market.
291. Limited financial margins and short-term contracts with retailers mean businesses need to guarantee quicker returns on investment. One SME food manufacturer

suggested that the return on investment (ROI) for a new production line would take between 10 and 15 years. Other industries may be able to take a longer-term perspective on ROI. Regardless of perceived timeframes, financial obstacles continue to dissuade businesses from investing in automation.

292. Rising labour costs may make investment in automation more attractive. One business suggested that costs had recently "swung in automation's favour" due to increasing financial pressures associated with wage increases and employing agency staff to cover job vacancies. This would reflect the Danish experience, where high labour costs have encouraged businesses to invest in technology as a way of reducing overall expenditure. However, plant and machinery costs are also rising, and this will limit investment in automation to overcome labour shortages.

293. Automation will not be the silver bullet that resolves labour shortage challenges. This was underlined in interviews and site visits where businesses are already struggling to recruit across all skill levels, including those that will be required to implement and maintain new technology in the workplace. These challenges will become more acute for highly skilled roles as automation becomes more widely deployed in the food supply chain. Competition from other industries for individuals with similar skill sets will further exacerbate the situation. No matter the level of automation, businesses will still require skilled workers to manage and optimise the production process.

Consequence – Productivity and Labour Shortages

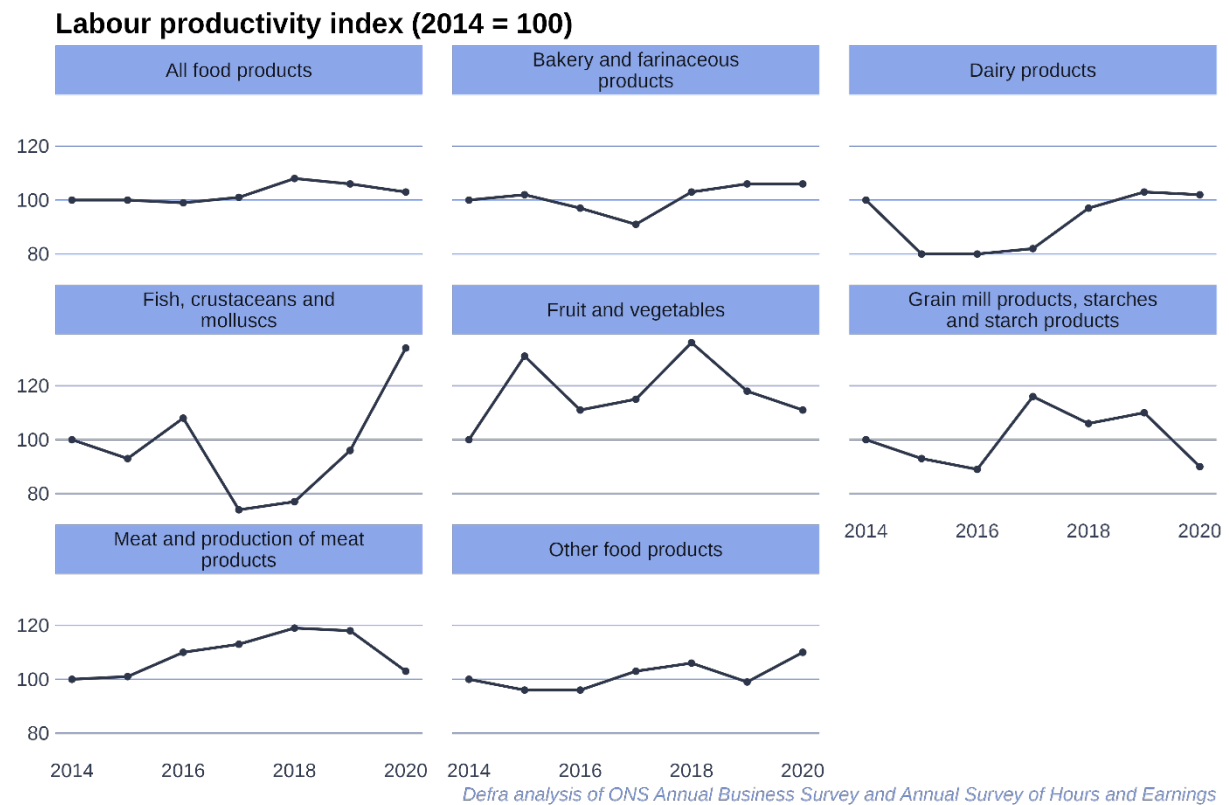
294. Prohibitive costs and other financial barriers are limiting the ability of businesses to invest in automation. Potential business growth is being hampered, and companies may miss new opportunities that arise from free trade agreements such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). International data suggest that UK productivity gains are not keeping pace with global competitors, with limited UK productivity growth in the past decade.¹³² The lack of progress in UK food processing and manufacturing efficiency since 2014 underscores this persistent productivity challenge (see Figure 19). If the government fails to boost domestic investment in productivity-enhancing automation, then the UK's productivity deficit with international counterparts may continue to widen.

¹³² Eurostat, 'Labour Productivity and Unit Labour Costs' (2023): https://ec.europa.eu/eurostat/web/products-datasets/-/namq_10_lp_ulc [accessed 22 June 2023]

The Office for National Statistics, 'International comparisons of UK productivity (ICP), final estimates: 2021' (2023):

<https://www.ons.gov.uk/economy/economicoutputandproductivity/productivitymeasures/bulletins/internationalcomparisonsofproductivityfinalestimates/2021#:~:text=Average%20output%20per%20worker%20in,%2C%20and%200.4%25%20in%20Italy.> [accessed 22 June 2023]

Figure 19 – UK Labour productivity levels in food manufacturing and processing



295. One large meat processing business explained how investing in ground-breaking technology had enabled them to reduce the number of butchers needed. The new machinery also helped de-skill the role, which meant the company could move butchers to other areas of the plant whilst employing individuals with less experience, such as apprentices, to work alongside the new technology. Consequently, fewer employees with less experience could produce more food in an improved working environment. Such productivity gains require large-scale investment, which is not feasible for all businesses. Significant automation costs are preventing more companies from making similar investments.
296. An interviewee from the horticulture sector stressed that the use of automation would help them overcome productivity problems related to diverse pick-rates among workers. Their most productive pickers can harvest up to 50 kilograms of fruit per hour. New entrants and those less suited to the physical demands of the role will only be able to pick around 10 kilograms in the same timeframe. The advance of automation will enable the business to replace the least productive workers and benefit from improved yields. However, it is unlikely that technology will be able to replace the most productive pickers in the foreseeable future.
297. Automation helps businesses circumvent issues related to labour shortages. Despite struggling to recruit new workers, some interviewed businesses discussed how they were able to keep up with orders and reduce overall labour demand and costs. Reducing barriers to investment in automation enables businesses to increase productivity and

decrease reliance on workers. It can also improve the yield rates of the existing workforce. If businesses are unable to automate, they depend on a capable workforce being available. Unfortunately, this has not been the case in recent years.

Current Initiatives

298. The government has recognised the need to support businesses with the implementation of automation through an array of financial incentives and funding initiatives. Financial incentives, driven by His Majesty's Treasury (HMT), have largely focused on reducing the tax burden on businesses wishing to invest in new machinery. The main initiative was the super-deduction which was recently replaced with full expensing (see in-focus – Full Expensing).¹³³ The government has also encouraged investment in automation through the distribution of funding to successful initiatives such as the Made Smarter programme (see Case Study - SME Manufacturer). Funding focuses on either fostering innovation through research and development or encouraging the adoption of off-the-shelf technologies.

299. In order for automation to effectively permeate across industries and regions, it is essential that rural areas have reliable access to and coverage of broadband internet. The implementation of Project Gigabit constitutes a pivotal milestone towards achieving this objective, as it is designed to significantly enhance the broadband infrastructure in underserved regions. However, whilst it represents an appreciable start, there remains a clear need for further concerted effort in this space. It is crucial that government and private sector initiatives alike continue to focus on bolstering rural broadband accessibility. This will ensure that the full potential of automation is unlocked across the country, contributing to economic growth, efficiency gains, and improvements in quality of life, particularly in rural communities.¹³⁴

In Focus – Full Expensing

300. From 1 April 2023, HMT introduced 'full expensing' for an initial three years until 31 March 2026. As an overview, this capital allowance enables taxpayers to deduct 100% of the cost of certain plant and machinery from their profits before tax.¹³⁵ Unlike the super-deduction, full expensing lets businesses deduct the cost of investments from their profits immediately, as opposed to over the lifetime of the asset.

301. The Office for Budget Responsibility (OBR) has estimated that this measure will increase business investment by approximately 3% per year.¹³⁶ As a productivity-

¹³³ HM Treasury, 'Super-deduction' (2023): <https://www.gov.uk/guidance/super-deduction> [accessed 22 June 2023]

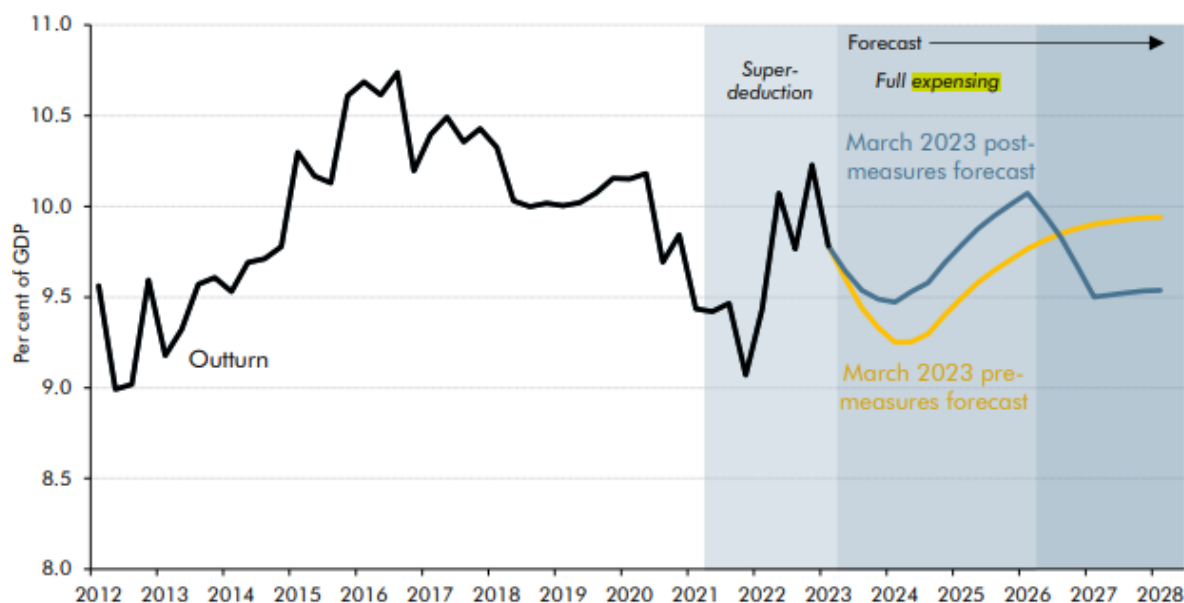
¹³⁴ Building Digital UK, 'Detailed Overview of the Gigabit Infrastructure Subsidy Scheme v0.7' (2023): https://www.gov.uk/government/publications/project-gigabit-uk-subsidy-advice/gigabit_infrastructure_detailed_overview_v06 [accessed 22 June 2023]

¹³⁸ HM Treasury, 'Spring Budget 2023 – Full expensing' (2023): <https://www.gov.uk/government/publications/full-expensing/spring-budget-2023-full-expensing> [accessed 22 June 2023]

¹³⁶ Office for Budget Responsibility, 'Economic and Fiscal Outlook: March 2023' (2023), page 63: https://obr.uk/docs/dlm_uploads/OBR-EFO-March-2023_Web_Accessible.pdf [accessed 22 June 2023]

enhancing initiative, full expensing is forecast to bring forward investment in new plant and machinery whilst providing greater tax receipts overall due to the increased amount of capital being spent by businesses. Figure 20 highlights the expected boost to capital spending as a direct result of full expensing.

Figure 20: Three-year full expensing: impact on business investment



Recommendation – Incentivise Automation

The costs of automation are considerable and the financial risks substantial. Drawn out lead-in times for delivering machinery and short-term contracts with retailers make investment less appealing. Many businesses will not have the disposable capital needed to finance productivity-enhancing technology. Justifying investment is also a significant challenge when businesses are not confident they will be able to recruit the skills required to effectively manage the production process. Nevertheless, automation has a range of benefits for businesses as highlighted previously, particularly in the face of labour shortages. The Government must therefore support businesses now to help overcome the UK's productivity puzzle and reduce reliance on overseas workers.

As a productivity-enhancing measure, the government must improve access to funding that incentivises the uptake of automation among businesses in the food supply chain who reported struggling with the costs involved. Such financial incentives must focus specifically on enhancing productivity alongside boosting employment and achieving improved environmental outcomes. The replacement for the Fruit and Vegetables Aid Scheme that will be introduced in 2026 must open grant aid to individual producers rather than through the system of producer organisations.¹³⁷ There needs to be an equivalent grant aid scheme

¹³⁷ Department for Environment, Food and Rural Affairs & Prime Minister's Office, 10 Downing Street, 'An update following the UK Farm to Fork summit held at 10 Downing Street on 16 May 2023' (2023): <https://www.gov.uk/government/publications/outcomes-from-the-uk-farm-to-fork-summit/an-update->

for businesses in the food and drink manufacturing and processing sectors. Funding must also be delivered on the condition that businesses use part of that funding to develop the skills and management capacity of their workers to operate new productivity-enhancing technologies, in addition to professional change management skills.

Problem - Automation Support is Complex

302. As outlined above, the Government and industry have established initiatives that support the adoption of automation. Another example is the network of Agri-Tech Centres for Innovation which were created by the UK agricultural technologies strategy.¹³⁸ Evidence collected suggests, however, that businesses are not taking full advantage of the support on offer and are therefore missing out on automation-related benefits. This may be because they are unaware of the support mechanisms that exist and this would suggest there is a need to make such initiatives more accessible through greater awareness.
303. Many businesses lack the individual support that will help drive automation. Such tailored support, whether it be financial or through knowledge-sharing, helps businesses understand what technology is available and how it can improve their productivity. One SME manufacturer stated "Government has a significant role to play in getting businesses to embrace automation. There needs to be a drive to incentivise those that run factories to move to automation as a means of production."
304. Access to funding is also a challenge, with responsibility distributed across multiple Government departments. Defra focuses on pre-farmgate as well as food and drink manufacturing, while the Department for Business and Trade (DBT) concentrates on advanced manufacturing. HMT leads on capital incentives. Roundtable participants said that food manufacturing, "one of the most diverse, most competitive, and high-employing sectors in the United Kingdom, falls into a gap" when it comes to funding. Many SMEs struggle to access funding due to a lack of knowledge and resources. Government funding might not work for the smallest businesses that are unable to raise enough capital for matched funding investment schemes.
305. Navigating funding and knowledge support mechanisms is a challenge in a complex landscape where there are many initiatives but also numerous accessibility criteria. One seafood processor noted that their competitors had received government innovation funding and questioned why they were unable to access similar schemes. Following a discussion with government representatives, they discovered that they were also eligible to apply for the initiative. The business was unaware of the grant aid scheme, and this underscores the challenges of raising awareness in a way that is accessible to all businesses.

[following-the-uk-farm-to-fork-summit-held-at-10-downing-street-on-16-may-2023#skills-and-sufficient-labour](#) [accessed 22 June 2023]

Rural Payments Agency, 'Fruit and Vegetables Aid Scheme Guide' (2022): <https://www.gov.uk/guidance/fruit-and-vegetables-aid-scheme-guide#:~:text=The%20RPA%20%2C%20in%20collaboration%20with,Centre%20on%2003000%2000%20301.> [accessed 22 June 2023]

¹³⁸ HM Government, 'A UK Strategy for Agricultural Technologies' (2013): https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/227259/9643-BIS-UK_Agri_Tech_Strategy_Accessible.pdf [accessed 22 June 2023]

306. Some businesses also reported that these challenges are magnified when a business does not have a team of workers dedicated to driving operational efficiency. Businesses need to know what automation they can adopt and which parts of the business would benefit from this most, before exposing themselves to the financial risk of investment. Similarly, specialist skills are required to run such systems, and businesses need to be confident they can attract and retain the right people.
307. With SMEs making up 97% of food and drink manufacturers, a key challenge in the sector is to improve access to technology and skills so that businesses can drive sustainable economic growth.¹³⁹ Access to funding is too complicated for many SMEs who have limited human resource capacity, according to business interviews. The technical language involved and a lack of previous experience in composing a funding bid represent barriers to the uninitiated, whereas, as one organisation noted, for some universities and larger businesses, automation funding applications are routine. The time it takes to navigate current automation enhancement opportunities means that many SMEs interviewed for the Review had limited knowledge of the support that was available to them, even when they knew that the technology they needed already existed.

Consequences – Economic Impacts

308. A lack of awareness around the support available to businesses acts as a brake on economic growth (see Figure 18). Some potential benefits were highlighted as part of the Made Smarter review, with the missing economic opportunity from reduced labour costs alone totalling £24.7 billion in 2017. One SME manufacturer pointed out the time and cost-saving incentives that automation would bring to their business. They currently use manual spreadsheets to monitor stock levels, whereas an automated process would enable them to spend time growing other parts of the business. They knew that automation was available but had not figured out how to gain access to such technology. Another business pointed out that successful packaging automation had reduced the business production costs per unit from 13p to 6p.
309. Workers are missing out on upskilling opportunities as businesses are not taking advantage of existing support. Automation will be key to the creation of a highly skilled domestic workforce. If businesses are forced to rely on labour-intensive production processes due to a lack of awareness around existing schemes, then employees may not be exposed to progression opportunities. This could further exacerbate retention challenges as workers seek clear career pathways, improved pay, and better working conditions, potentially in businesses outside the food supply chain.

Current Initiatives

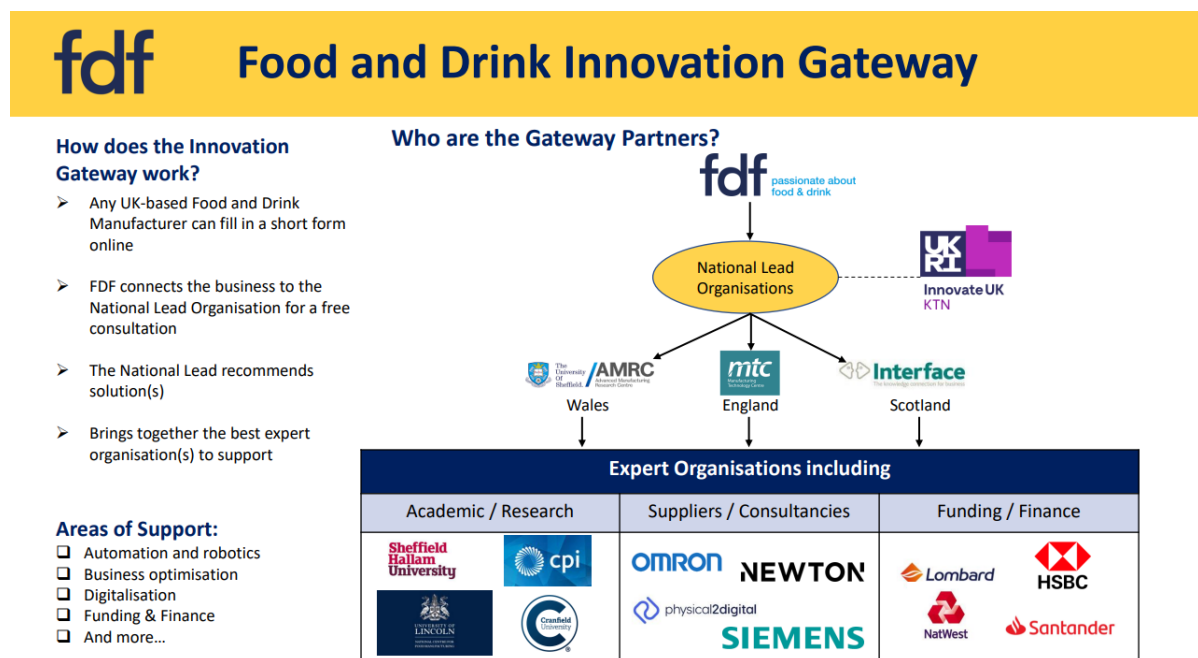
- ³¹⁰. The industry is leading many projects aimed at encouraging the adoption of automation. One example is the Food and Drink Innovation Gateway, launched recently by the Food

¹³⁹ Department for Environment, Food and Rural Affairs, 'Food statistics pocketbook' (2023): <https://www.gov.uk/government/statistics/food-statistics-pocketbook/food-statistics-in-your-pocket#number-of-uk-food-and-drink-manufacturers-in-2022---smes-and-large-businesseschart14> [accessed 22 June 2023]

and Drink Federation (FDF) in collaboration with UK centres of expertise on automation (see in focus – Food and Drink Innovation Gateway). The online portal connects businesses with UK-based, world-leading experts on digital, robotics and autonomous systems technologies who can support them with the technical challenges they are facing. It was designed to help food and drink manufacturers navigate the complex network of support that is currently offered by the UK Catapult Network and universities.¹⁴⁰ This is just one sector-specific example of the work undertaken by industry to encourage automation adoption.¹⁴¹

In focus – Food and Drink Innovation Gateway

Figure 21 – Food and Drink Innovation Gateway infographic



Case study - SME Food Manufacturer

311. Made Smarter is an Industrial Strategy Challenge Fund delivered by UK Research and Innovation (UKRI). It aims to empower the growth of UK manufacturing businesses by enhancing digital skills. The organisation was allocated Government funding to support the growth and development of SMEs in the Northwest of England through a pilot

¹⁴⁰ The Catapult Network, 'About the Catapult Network' (2023): <https://catapult.org.uk/about-us/why-the-catapult-network/> [accessed 22 June 2023]

¹⁴¹ Food and Drink Federation, 'Food and Drink Innovation Gateway' (2023): <https://www.fdf.org.uk/fdf/resources/toolkits/innovation/innovation-gateway/> [accessed 22 June 2023]

project to increase digital innovation.¹⁴² With the assistance of Made Smarter, one SME food manufacturing business has rolled out a new IT system that enables better stock control and account management. The company had previously operated manual paper systems, which were laborious and disorganised. Through a digital transformation workshop with Made Smarter, the business pinpointed operational inefficiencies and identified opportunities where the implementation of digital services could improve business management.

312. Having successfully implemented this new software system, the business feels the foundations have been laid for future expansion opportunities. But the benefits are already being felt in the company through labour-saving gains and more efficient communication. In addition, the owners purchased the company in 2019 and made the most of the super-deduction capital allowance, which was introduced in 2021. The company invested heavily in automation to support growth and improve productivity. The owners have suggested that the scheme arrived at the right time for the company and enabled them to seize market opportunities. Through a successful partnership with Made Smarter and taking advantage of government capital allowances, this SME has been able to successfully build a platform for future growth. The achievements of Made Smarter in the manufacturing sector provide inspiration for the development of similar initiatives in other areas of the food supply chain.

Recommendation – Advance Automation Knowledge

Many businesses have not been able to take advantage of schemes that incentivise the adoption of automation due to a lack of awareness and understanding of the technology available and how it can specifically improve their production process. This missing knowledge is not helped by a complex landscape of support mechanisms and a siloed government approach to the food supply chain. The result is a dent on economic progress and means workers may not be benefitting from opportunities to upskill, creating additional retention challenges. Whilst there are numerous examples of good practice and successful initiatives taking place within industry and government, such projects are often limited to specific sectors rather than considering the whole food supply chain.

To improve awareness of existing support, there needs to be a coordinated, cross-industry approach to knowledge-sharing and promoting the adoption of automation, which eliminates existing barriers and simplifies access to support. This must start with a more joined-up approach to food supply chain automation encouragement across Government departments. The Food and Drink Sector Council (FDSC) should act as the initial forum to establish the best way of bringing this project to life because of its role in bringing together industry and Government to address strategic challenges in the food supply chain.

This could be combined with the proposed ‘What Work Centres’ focusing on skills required to deliver automation in agriculture and horticulture and resultant capabilities required for

¹⁴² Made Smarter, ‘Made Smarter: Technology Adoption Pilot Report’ (2022): The Catapult Network, ‘About the Catapult Network’ (2023): <https://catapult.org.uk/about-us/why-the-catapult-network/> [accessed 22 June 2023]

the future. These centres could gather and analyse existing research, conduct evaluations, and provide guidance to policymakers, practitioners, and employers about what approaches are most effective in achieving desired outcomes. This would build upon the work of the Automation in Horticulture review which recommended that the horticulture sector “should identify, develop, and share automation infrastructure best practice”.¹⁴³ Expanding this to the wider food supply chain would accelerate the development and dissemination of technology, helping increase UK productivity.

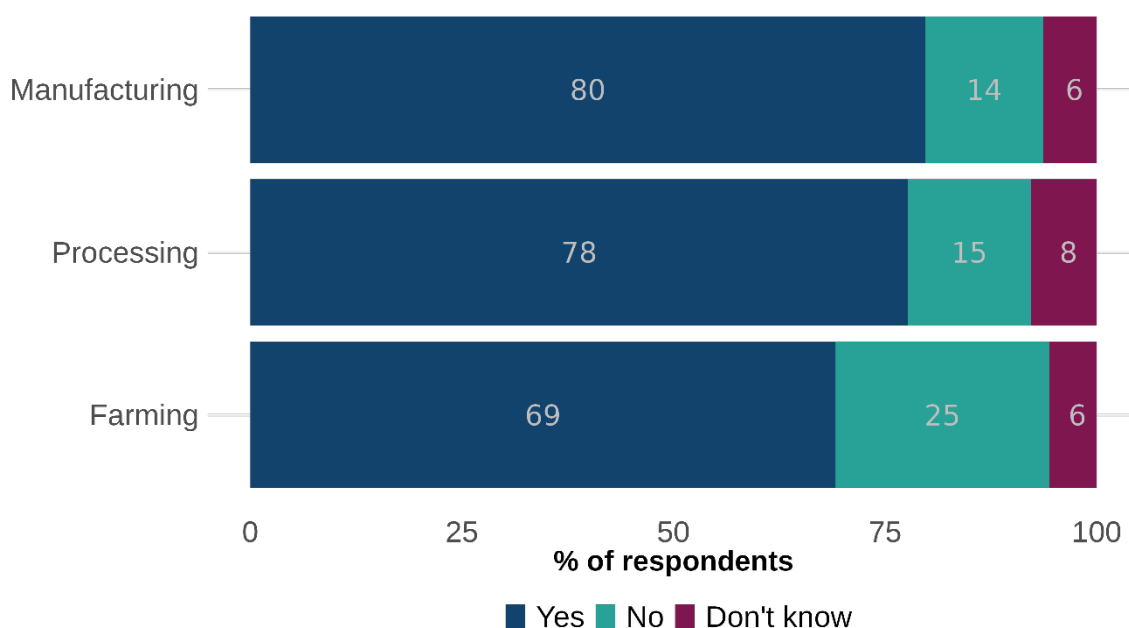
¹⁴³ Department for Environment, Food and Rural Affairs, ‘Automation in Horticulture Review’ (2022): <https://www.gov.uk/government/publications/defra-led-review-of-automation-in-horticulture/automation-in-horticulture-review#recommendations> [accessed 22 June 2023]

Problem – Not All Automation is Commercially Available

313. Some technology that could replace labour-intensive food production does not yet exist at a commercially viable scale. This was clearly outlined in the Automation in Horticulture review and is relevant for certain elements of food and drink processing and manufacturing.¹⁴⁴ It was also the second most frequent response to the workforce survey when businesses were asked why they did not use automation technology. In some sectors, automation exists to remove 'mundane tasks' but not to 'replace labour'.¹⁴⁵

314. It was clear from the workforce survey that perceptions of availability differed between sectors (see Figure 22). 80% of manufacturing businesses agreed that the technology was available compared to 69% of respondents in the farming sector. Many interviewees suggested that if the technology existed, they would have adopted it. They added that further automation would require significant investment and incur additional risk as the technology was not commercially available.

Figure 22 – Survey responses to the question 'Is automation technology available, or being developed, in your sector?'



315. The lack of commercially available technology is preventing businesses from investing in automation. One in three of those surveyed suggested they had not invested in

¹⁴⁴ Department for Environment, Food and Rural Affairs, 'Automation in Horticulture Review' (2022): <https://www.gov.uk/government/publications/defra-led-review-of-automation-in-horticulture/automation-in-horticulture-review> [accessed 22 June 2023]

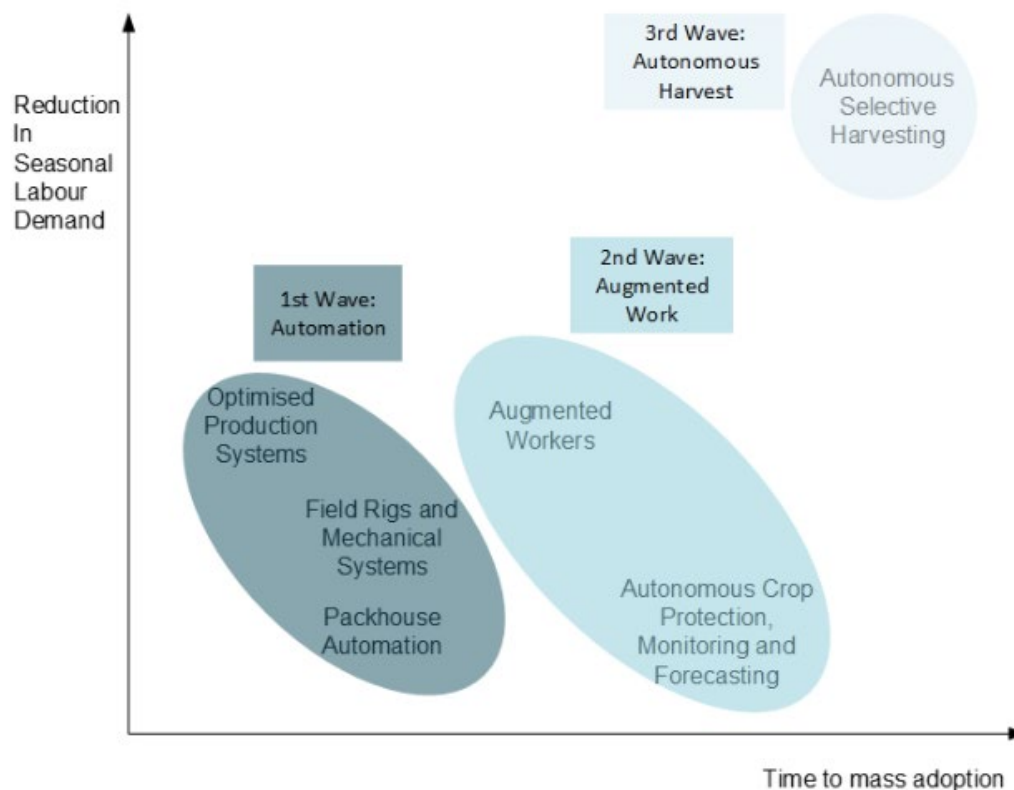
¹⁴⁵ Royal Association of British Dairy Farmers, 'Report into reliance on overseas workers within the dairy industry' (2021) https://static1.squarespace.com/static/55115f04e4b0f4baa9ed963c/t/60e56c77068f05622b6d7602/1625648247836/RABDF+Report+into+reliance+on+overseas+workers+within+the+Dairy+Industry_.pdf [accessed 22 June 2023]

automation because the technology was not available. A similar ratio of interviewees supported this view. Industry expectations on the availability of suitable technology ranged from 5 years in some cases up to 15 years in others. The lack of immediately available technology was recognised in the Automation in Horticulture review, which noted the three waves of automation that will transform the horticulture sector over the short, medium, and long-term (see Figure 23).¹⁴⁶

316. Challenges unique to the food supply chain need to be considered when developing new technologies. Maintaining animal welfare standards is one key consideration that existing technology may not be able to guarantee. Similarly, the variation in food products and animal size means off-the-shelf technology is often not available to process differing sizes of meat and is a challenge to develop. Likewise, automated systems often cannot yet replicate the level of quality in the product that a person can. The use of such systems could devalue a premium product and impact demand as well as the onward sale price.
317. In some sectors, certain roles cannot be automated, and it may never be commercially viable or technically feasible to entirely replace human labour. Slaughter lines can be challenging to automate due to machines not being sufficiently dextrous to adapt and carve the varied sizes of animals such as lamb, cattle, and pigs. One business had to remove technology from the production process as it had resulted in a 2% yield loss compared to using human labour. Such losses are 'unacceptably high' and impact business viability as these sectors operate on small margins.

¹⁴⁶ Department for Environment, Food and Rural Affairs, 'Automation in Horticulture Review' (2022): <https://www.gov.uk/government/publications/defra-led-review-of-automation-in-horticulture/automation-in-horticulture-review#section-2-opportunities-to-increase-adoption-and-accelerate-development-of-automation> [accessed 22 June 2023]

Figure 23 – Analysis of technology clusters and impact over time on seasonal labour demand



318. The demands of consumers also determine the extent to which automation is possible with existing technologies. Some products may find success through a unique selling point based on being hand-made. To automate production would risk undermining the original reason customers chose to purchase a certain food item and could incur significant costs relating to rebranding the product. Similarly, English consumer demand for premium products has led to increased demand for outdoor-reared meat. Such production is far more labour-intensive as, for example, the technology to feed outdoor sows is not yet commercially available. Until the technology is available, English pork producers will need to continue using less productive methods for feeding pigs due to the choices customers are making.

Consequence – Increased Reliance on Workers

319. If technology is not yet commercially available, automation will not be possible. There will always be a need for a certain amount of permanent and seasonal labour to manage automation. The scope remains for further automation in the food supply chain, and policymakers need to take this into account when designing future policy. Continued blockages to automation uptake will lead to continued reliance on workers, limited productivity gains, hampered economic growth, reduced profitability and risk other countries becoming world leaders in a space where the UK has all necessary attributes to lead.

320. The labour-saving gains of such technologies are still a long way off. The Automation in Horticulture review noted how autonomous selective harvesting robotics had the greatest potential to make the biggest reductions in demand for seasonal workers.¹⁴⁷ Yet it is also horticulture technology that is furthest away from being commercially available. This highlights the potential for future automation to reduce labour requirements if such technology can be developed. And whilst the automated technology is in development, businesses will continue to rely to a large extent on manual seasonal labour or will be forced to reduce their output as highlighted in earlier chapters.

Current Initiatives

321. There is already considerable work being undertaken by the Government to incentivise the development of new technologies which can help reduce overall reliance on labour. HMT has put in place a series of financial incentives where businesses can claim research and development tax credits for innovative automation projects. For SMEs this could mean up to 186% tax relief on qualifying costs from yearly profits.¹⁴⁸

322. The government has also encouraged investment in automation through a series of funding schemes via Defra and DBT.¹⁴⁹ Many of these initiatives are delivered by UKRI, the national funding agency tasked with investing in UK science and research and sponsored by the Department for Science, Innovation and Technology (DSIT).¹⁵⁰ Businesses can bid for funding through a range of schemes that aim to support automation innovation and adoption projects that can help businesses improve productivity and resilience.

323. The industry has also built partnerships to foster innovation and the development of new technologies. Agri-TechE is the UK's longest-established innovation ecosystem for agri-tech, comprising farm businesses, technology companies, researchers and technical and commercial service providers. This membership organisation catalyses the interests of business, innovation, and entrepreneurship around shared innovation opportunities aimed at boosting the productivity, profitability and sustainability of agriculture.¹⁵¹ This cluster of stakeholders with similar drivers has helped members access funding to develop and adopt automation, trial emerging technologies with farmers, and drive economic growth.

¹⁴⁷ Department for Environment, Food and Rural Affairs, 'Automation in Horticulture Review' (2022): <https://www.gov.uk/government/publications/defra-led-review-of-automation-in-horticulture/automation-in-horticulture-review#section-2-opportunities-to-increase-adoption-and-accelerate-development-of-automation> [accessed 22 June 2023]

¹⁴⁸ His Majesty's Revenue & Customs, 'Claiming Research and Development (R&D) tax reliefs' (2023): <https://www.gov.uk/guidance/corporation-tax-research-and-development-rd-relief> [accessed 22 June 2023]

¹⁴⁹ UK Research and Innovation, 'Farming Innovation: find out about funding' (2023): <https://farminginnovation.ukri.org/> [accessed 22 June 2023]

Innovate UK, 'Innovation competitions' (2023): https://apply-for-innovation-funding.service.gov.uk/competition/search?_ga=2.115922113.69145477.1678708509-439475379.1677576518 [accessed 22 June 2023]

¹⁵⁰ UK Research and Innovation, 'Who we are' (2023): <https://www.ukri.org/about-us/who-we-are/> [accessed 22 June 2023]

¹⁵¹ Agri-TechE, 'About Agri-TechE' (2023): <https://www.agri-tech-e.co.uk/about-agri-teche/> [accessed 22 June 2023]

324. As noted in the Government's UK Innovation Strategy, "innovation does not flow neatly in one direction from research to application; it is unpredictable and serendipitous, involving constant cycles of learning, testing, refining and discovery".¹⁵² It is important that initiatives to support business innovation recognise this uncertainty by creating a fertile environment for the UK's expertise, to resolve those technological challenges that are preventing further automation in the food supply chain. Funding for scaling up and commercialising emerging technologies would help bridge the gap between the UK's world leading scientific research and deploying new equipment onto farms and into factories.

Recommendation – Adopt a Moonshot Approach to Innovation

As identified in the Automation in Horticulture review, many of the labour-saving gains to be made from automation are yet to be realised as the technology is not yet commercially available. While this is not the case for all sectors, with those production processes handling uniform products particularly advanced in the automation journey, it is clear support is needed to accelerate the development of new technologies if UK businesses are to reduce their reliance on overseas workers.

A moonshot refers to an ambitious and audacious endeavour that aims to achieve pioneering or transformative results. Inspired by the iconic goal set by the Apollo missions to land humans on the moon, a moonshot approach involves setting seemingly unattainable objectives, pushing the boundaries of what is currently possible, and embracing innovative and unconventional solutions.

In certain sectors, the technology to reduce reliance on workers in the food supply chain is not yet commercially available. There needs to be a moonshot approach to innovation funding where collaboration between the Government, industry, universities, and research funding bodies to help accelerate the development of new technologies. Together, they must identify opportunities for new technologies, provide new revenue streams to target specific innovation solutions and support the wider adoption of automation to improve food production, resolve longer-term aspects of labour shortages and help address net zero ambitions. The FDSC should lead in convening the key stakeholders and driving this consortium forward.

Echoing the suggestion of the Automation in horticulture review that Defra should consider initiatives to 'fast-track innovative research and development', a consortium of shared interest would help hasten the move towards the advanced adoption of automation across the wider food supply chain.¹⁵³ It could also put the UK at the forefront of automated technologies, particularly in horticulture.

¹⁵² Department for Business, Energy and Industrial Strategy, 'UK Innovation Strategy: Leading the future by creating it' (2021), page 17:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1009577/uk-innovation-strategy.pdf [accessed 22 June 2023]

¹⁵³ Department for Environment, Food and Rural Affairs, 'Automation in Horticulture Review' (2022):

<https://www.gov.uk/government/publications/defra-led-review-of-automation-in-horticulture/automation-in-horticulture-review#recommendations> [accessed 22 June 2023]

Glossary

- **Apprenticeship Levy** - A tax on employers that is used to fund apprenticeships and improve skills training
- **Automation** - Automation is where an operational system performs tasks with little or no human input. Automation can be achieved through purely mechanical components performing low variation tasks at speed, or via computation and robotics enabling automation of more varied and complex tasks
- **Capital** - The financial resources that an organisation uses to invest in its operations and growth
- **Career pathways** - The different opportunities available for workers to advance their careers and develop new skills
- **Conditions** - The physical and environmental factors that affect a worker's well-being and safety at work
- **Disengaged** - Refers to individuals in the job market who display a lack of active involvement or enthusiasm in seeking employment. These individuals often face challenges in securing work due to their minimal effort, reduced motivation, or disinterest in actively pursuing job opportunities
- **EFRA Committee** - Stands for the Environment, Food and Rural Affairs Committee, a Select Committee of the British House of Commons. Its role is to scrutinise the expenditure, policy, and administration of the Department for Environment, Food and Rural Affairs (Defra) along with its affiliated public bodies
- **Employers' market** - A situation in the job market where employers have sufficiently more power than those looking for work to be capable of dictating the various features of employment, such as salary negotiations, benefits, the employment process and contracts.
- **EUSS** - Stands for the EU Settlement Scheme, a programme established by the UK government. Its purpose is to ensure the rights of European Union, European Economic Area, and Swiss citizens (and their families) residing in the UK following EU Exit. Those eligible must apply under this scheme to continue living, working, and accessing public services in the UK after 30 June 2021
- **Flexible working** - The ability of workers to adjust their working hours, location, or schedule to suit their personal needs or circumstances
- **Food supply chain** - A way of describing the group of actors involved in getting food from its source to the point of consumption
- **Future-proofing** - Preparing an organisation for future challenges and uncertainties by investing in new technologies, skills, and strategies
- **Green jobs** - Employment in an activity that contributes to protecting or restoring the environment, including those that mitigate or adapt to climate change
- **Hard-to-reach** - Refers to groups or individuals who are challenging for employers and agencies to engage in the process of recruitment and employment due to various barriers. These barriers could be geographical (e.g. they live in remote or rural locations), demographic (e.g. their age, language proficiency or cultural background makes it difficult for them to be an effective part of the workforce),

socio-economic (e.g. they have a low income or lack the ability to transport themselves to the worksite), or personal circumstance (e.g. they have a disability or are long-term unemployed)

- **Higher education (HE)** - Refers to education and training that is provided at universities and other higher education institutions. HE includes undergraduate and postgraduate degree programmes, as well as research-based qualifications such as PhDs
- **Highly-skilled** - Degree level and above e.g. Engineers, Directors etc. (RQF level 6 and above)
- **Investment** - The allocation of resources to improve an organisation's performance or achieve its goals
- **Land based** - Collectively describes the range of different industries which use land and the marine environment to produce food and renewable resources [source: Scottish Government. '[Commission for the land-based learning review: report to Scottish Ministers](#)'. Accessed June 12, 2023.]
- **Local Enterprise Partnerships (LEPs)** - LEPs are partnerships between local authorities and businesses. They decide what the priorities should be for investment in roads, buildings and facilities in the area [source: UK Government. '[Local Enterprise Partnerships: map](#)'. Accessed June 21, 2023.]
- **Lower-skilled** – This refers to entry-level roles. It is not the opinion of John Shropshire or the Review that any job in the food supply chain is low skilled – all roles demand aptitude and application. The phrase 'low-skilled' has been used in this report in order to reflect the established language used by the government
- **Migrant labour** - Workers who move from one country or region to another in order to find employment
- **Modern slavery** - The UK government defines modern slavery as encompassing "the offences of human trafficking, slavery, and forced labour" [source: [UK Government. 'Modern Slavery'](#). Accessed March 13, 2023.]
- **Moonshot** - A 'moonshot' refers to an ambitious and audacious endeavour that aims to achieve ground breaking or transformative results. Inspired by the iconic goal set by the Apollo missions to land humans on the moon, a moonshot approach involves setting seemingly unattainable objectives, pushing the boundaries of what is currently possible, and embracing innovative and unconventional solutions
- **Non-seasonal workers** - Workers who are employed on a permanent or long-term basis
- **Plant and machinery** [source: UK Government. '[Claim capital allowances](#)'. Accessed June 21, 2023]:
 - items that you keep using in your business, including cars.
 - costs of demolishing plant and machinery.
 - parts of a building considered integral, known as 'integral features'.
 - some fixtures, for example fitted kitchens or bathroom suites.
 - alterations to a building to install plant and machinery - this does not include repairs.
- **Productivity** - The efficiency of a worker or system in producing goods or services

- **Retention** - The act of an organisation keeping its employees in its employment
- **Seasonal workers** - Workers who are employed for a specific period of time during a particular season or peak period
- **Semi-skilled** - Requiring experience and training e.g. skilled trades (RQF 3-5)
- **Skilled** - Requiring a degree and experience e.g. production / operations / HR managers, (RQF level 6)
- **Small and Medium-sized Enterprises (SMEs)** - Small and medium-sized enterprises, typically defined as businesses with fewer than 250 employees
- **Supply chain fairness** - Fair treatment of all parties involved in the food supply chain, from farmers to retailers. It involves ensuring that farmers and food businesses receive fair prices for their products, and that they are not exploited by other parties in the supply chain
- **Supply chain resilience** - Refers to the ability of a food supply chain to prepare for, respond to, and recover from unexpected disruptions or 'shocks'. These shocks can stem from various sources such as natural disasters, political instability, disease outbreaks, or economic crises
- **T-levels** - A new technical qualification in the UK that is designed to provide practical skills and work experience for young people in specific industries
- **Turnover rate** - The percentage of employees who leave an organisation and are replaced by new ones over a given period
- **Unskilled** - Requiring minimal training/experience, e.g. elementary roles, picking, packing etc (below RQF 2).
- **Vacancy rate** - The percentage of job positions that are currently unfilled in an organisation
- **Worker exploitation** - Where someone benefits unfairly from another person or group, often their work, or from a situation, especially where the power dynamics are unequal
- **Worker welfare** - The wellbeing and safety of workers
- **Workers' market** - A state in which workers have more options for where they can work as vacancies outnumber the people willing to fill them
- **Workforce needs** - The number and types of workers required by an organisation to achieve its goals and objectives