

Impact of labour shortages: Appendices

A1 Methodology

This research took a food systems approach to examine the impact of labour supply shortages on key aspects of the food system. It provides insight into the consequences of labour shortages as reported in 2021, the complex processes that combined to create the shortages and the resultant impact on the FSA's ability to effectively do its job. The research also explored consumers' perceptions of food availability and food safety.

Two work packages were used to carry out key tasks within the project, with the research team working across packages, ensuring an integrated approach overall. **Quantitative data analysis, literature review, key informant interviews, secondary analysis and systems modelling** were used to define proxies for measuring labour shortages, map and scrutinise current conditions, assess risks across the UK meat sector, agriculture (especially horticulture) and to model future requirements. Ethical approval was granted by Newcastle University.

Research Questions:

Three key questions guided our research:

1. How do labour shortages impact on food availability and safety, now and in the future?
2. How do labour shortages impact the FSA's ability to execute their protocol, now and in the future?
3. What are consumers' perceptions of food safety and how does this relate to potential food risks arising due to labour shortages?

To answer these questions, we identified the key labour shortages in the food sector – food production, processing, and logistics – and the implications arising from these. We took a 'deep dive' into FSA operations to better understand the role of the FSA within the food system.

A comprehensive international literature and policy review was conducted to capture the state-of-the-art in relation to labour shortages in the food system. This review informed the themes that were explored within interviews. Quantitative and qualitative data analysis using data from the Labour Force Survey, FSA Consumer Insights Survey and other relevant sources was used to disentangle short versus longer term effects (Defra June surveys, ongoing research projects and relevant FSA data). Analysis of the FSA-commissioned consumer survey identified the main socio-demographic, family, household, and contextual factors influencing consumers' attitudes towards key elements of the food supply chain.

A1.1 Key informant interviews

Thirteen key informant interviews were held with 26 FSA staff to explore the impact of labour shortages within the food systems and the associated risks. Respondents were identified through our contact point within the FSA. Several follow-up interviews were held to ensure that we captured the breadth of data required. Interviews were held virtually using video conferencing, and with the consent of participants, they were recorded and transcribed. Data was analysed

through structured coding and thematic analysis. Discussions within the team validated and further explored those themes.

Interviewees were drawn from:

- Area Managers
- Field Operations Team
- Business Managers
- Operations Managers
- Inspection Team
- National Food Crime Unit

Eleven questions were identified and used as the basis for each interview, with these being altered according to the role of the interviewee. These are set out below:

1. Describe the factors that affect the recruitment and retention of the following categories of staff by the FSA and contract suppliers (Eville & Jones) for the meat processing sector?
 - a. Field operations staff (including area managers, export veterinarians, certification support officers, official vets-OVs, and meat hygiene inspectors-MHIs)
 - b. Office-based staff
 - c. Science Evidence and Research Division (SERD) staff
2. Reflecting on the delivery of official controls in meat processing plants, how have the recent labour shortages in the meat sector (butchers, drivers etc.,) impacted FSA staff capacity in terms of:
 - a. task prioritisation and collaboration
 - b. communication effectiveness
 - c. quality of service (expert scientific advice, risk assessments, research, sampling & surveillance)
 - d. timeliness of service delivery
3. Is there an ongoing MHI apprenticeship programme in place? Explain.
4. What strategies, policies, or practices are available or developed to support mid-to long-term MHI resource planning (for example, balancing short-term overseas recruitment policies with local capacity building)?
5. What are the existing or potential challenges/risks to workforce resilience and career pathways/prospects for FSA staff (itemised in question 1), as a result of the new Operational Transformation Programme (OTP) for proportionate risk-based engagement in the delivery of official controls?
6. Based on your expert opinion, what are the potential challenges/risks in managing the evolution of front-line MHIs and OVs roles to meet the new OTP priority of legislative compliance over manual inspections and oversight?
7. Describe any ongoing initiatives by the FSA, the veterinary community and trade unions to manage potential transformational risks and what kinds of (short-and mid-term) upskilling, recruitment, and retention plans are currently in place for front-line staff to meet the requirements of the OTP?
8. From the viewpoint of public and private sector MHIs on current job descriptions and conditions/provisions, what are the key factors that drive or mitigate job satisfaction, retention and professionalism?

9. From the viewpoint of public and private sector OVs on current job descriptions and working conditions/provisions, what are the key factors that drive or mitigate job satisfaction, retention and professionalism?
10. Do you think food safety, food crime and food authenticity have been affected following EU exit/pandemic and the subsequent shortages in the food supply chain? Explain.
11. What are the key challenges as you see them, for the FSA: i) in the next 12 months and ii) beyond 12 months?

A2 Types of Labour shortages in the food system

From the evidence reviewed, we identified three broad types of labour shortages that affect the UK food system and pose potential risks for the FSA: i) Weak seasonal labour shortages; ii) incentive-driven labour shortages and iii) skills underutilisation.

Type one: Weak Seasonal Labour shortages

Weak seasonal labour shortages result from the inability to recruit enough seasonal workers who are willing, able and qualified to fill the vacancies created by the sudden disruptions to labour demand and supply dynamics.

The food sector's reliance on migrants for seasonal labour such as poultry catchers, packers, pickers and other farmgate operatives has created a form of structural labour shortages, which arise from migration policies, and the ratio of workers on temporary contracts with less secure and less structured work arrangements.

Type two: Incentive-driven shortages

Incentive-driven shortages are underpinned by long-standing industry and regulatory constraints, which affect the ability to recruit and retain new labour to augment an ageing and experienced labour force due to non-competitive working conditions, incentives, wages and overall attractiveness ([footnote 1](#)). This form of labour shortage in the industry is characterised by high rate of voluntary redundancy, job switching, and retirement and a low rate of attracting, recruiting, training and retaining new employees at current work incentives (wages, ease of migration, welfare and working conditions) (Office for National Statistics, 2021a).

Increasing numbers of unfilled vacancies despite falling unemployment are indicators of tightening labour conditions in food production and processing (Office for National Statistics, 2021b) as the industry struggles with recruiting willing, able, or qualified candidates to fill available vacancies, resulting in over 60% of businesses across the UK having employees working longer hours (Office for National Statistics, 2021c).

Type three: Skills underutilisation

The third form of labour shortage arises when there is a viable pool of labour supply in the economy, but it remains underutilised due to structural (for example, technology or regulatory changes), regional (e.g., location or infrastructure-driven), or frictional unemployment (for example, COVID-19, furlough policies, Brexit). Underutilisation shortages are largely due to inability to access and match the skills, training and certification requirements of the existing labour pool, to the emerging skills and training required to carry out such roles. Underutilisation is typically associated with job categories where the pool of available skilled workers actively seeking employment, cannot be adequately matched to suitable and available vacancies. Effectively there is a mismatch between gaps in the labour market and the pool of workers (gaps currently exist in relation to seasonal workers, meat hygiene inspectors, official veterinarians,

technicians, and HGV drivers, areas where there have been persistent labour shortages).

A3 Categorisation of labour shortage risks

Figure 10: Scope of risk identification for this study

Source: Louis and Pagell 2019

A3.1 Casual loop diagram of FSA internal labour shortages

System dynamics is an analytical approach to identifying complex cause-and-effect interactions to understand how several factors interact to give rise to systemic shocks. The following causal loop diagram highlights some system interdependencies that underpin internal labour shortage risks to the FSA based on synthesis of interview findings.

1. [EFRA Evidence for shortages in Meat Hygiene inspectors and Official Veterinarians](#) by the British Veterinary Association.