AMION
CONSULTING

Lancashire Local Enterprise Partnership

Food and Agriculture study

Draft Final Report

May 2022

Lancashire Local Enterprise Partnership

Food and Agriculture study

Draft Final Report

May 2022

Reviewed and approved by:	
Signature(s):	*G. P. Russell*
Name(s):	Graham Russell
Job Title(s):	Chief Executive
Date:	May 2022

Contents

Appendices in separate document:

Appendix 1 – Food and Agriculture Sector Definition
Appendix 2 – Strategic Context
Appendix 3 – Literature Review
Appendix 4 – Blackburn with Darwen, Hyndburn, Rossendale and Ribble Valley Travel to Work Area
Appendix 5 – Blackpool, Fylde and Wyre Travel to Work Area
Appendix 6 – Burnley and Pendle Travel to Work Area
Appendix 7 – Lancaster and Morecambe Travel to Work Area
Appendix 8 – Preston, Chorley and South Ribble Travel to Work Area
Appendix 9 – West Lancashire Travel to Work Area

Executive Summary

Introduction

This Executive Summary provides an overview of the findings of research undertaken to provide labour market information (LMI) for the Food and Agriculture sector in Lancashire. The sector definition used in the study covers agriculture and fishing; food processing (manufacturing); food wholesale and retail; and food and drink services, in order to reflect local understanding of the sector and broadly align with the definition used by Defra and the Food and Drink Sector Council.

The Food and Agriculture sector has been identified by Lancashire Local Enterprise Partnership (LEP) as one of six Pillars of Growth, as a result of the Gross Value Added (GVA) and employment contribution which it makes to the Lancashire economy. The sector is going through significant labour market change, both as a result of the on-going impact of the UK's exit from the European Union (EU) on the availability of EU workers, and also due to longer-term drivers including digitalisation, automation and the adoption of new technologies; decarbonisation and the drive for sustainability; and a desire for increased productivity within the Food and Agriculture sector.

The Shape of the Sector in Lancashire

With economic output of over £2bn and over 70,000 people in employment, the Food and Agriculture sector is more important to the Lancashire economy than is the case regionally or nationally, accounting for 6.8% of total GVA. The food manufacturing sub-sector is particularly important in Lancashire, accounting for over 40% of total sector output, whilst the food services sector accounts for over half of all employment. The business base is very diverse, with the vast majority being microbusinesses employing fewer than ten people, whilst there are a small number of very large manufacturing, distribution and retail businesses.

The Food and Agriculture sector is important across all of Lancashire's 'Travel to Work Areas' (TTWAs), making up around 10% of employment in all areas. In absolute terms, Preston, Chorley and South Ribble TTWA has the largest number of workers, but in relative terms the sector is most significant in West Lancashire, where it accounts for around 20% of all employment. West Lancashire has also seen the fastest jobs growth since 2010.

Productivity (GVA per job) in the Food and Agriculture sector varies considerably between the different sub-sectors, ranging from c. £60,000 per job in the wholesale and manufacturing sub-sectors, to under £20,000 per job in retail and food services. On average, sector productivity is estimated to be higher in Lancashire than is the case regionally or nationally – reflecting the greater concentration of employment in the food manufacturing sub-sector. However, productivity levels are below the Lancashire economy average.

The sector accounts for an increasing proportion of Lancashire's exports, with the value of food and live animal exports increasing by 4.8% between 2018 and 2020, whilst overall export values fell by 14.4%. The EU remains the main destination for Lancashire's Food and Agriculture exports, and is also the most important source of imports.

The Lancashire Workforce and Skills Needs

The distinctions between the Food and Agriculture sub-sectors are also clear when looking at the sector workforce. On average, the sector has a young workforce, with over one-third of workers aged 24 and under; however this is largely due to the very high level of young workers in the food services sub-sector. There is a much older workforce in the food manufacturing and particularly the agriculture and farming sub-sectors.

Many of the job roles in the sector require limited qualifications and training beyond a general level of education, and over half of workers in the sector have qualifications at Level 2 or below. Combined with low productivity levels, this results in below average earnings in most of the sector's key occupations, which include farmers and farm workers; food processing workers; kitchen staff, chefs and cooks; and waiters and waitresses, bar staff and coffee shop workers.

In recent years, there has been a shift towards occupations at Skill Levels 3 and 4 (equivalent to A-levels and degree-level qualifications) and the share of 'mid-skill' roles has fallen. Many of the key occupations are likely to see increased automation in future years, which may raise productivity at the expense of employment if workers are not able to acquire the new skills needed to adapt to the changing requirements of their role.

In line with apprenticeship and further education (FE) provision more generally, the number of Food and Agriculture-related apprenticeship starts and FE starts in Lancashire has fallen over the past three years, which may reflect the impact of the pandemic on employers' ability and willingness to invest in staff training. The bulk of provision is at level 2, particularly in hospitality and catering.

Vacancy numbers recorded for the sector recovered strongly in 2021, with the food services sub-sector accounting for two-thirds of all those posted online. The most commonly advertised jobs are for kitchen and catering assistants, and chefs.

Research undertaken for the Local Skills Improvement Plan identified a wide range of skills needs. Farming and agriculture businesses were more likely to identify skills needs relating to net zero, and to highlight barriers which make investment in training difficult. Food manufacturing businesses had greater need for importing and exporting skills, and expected greater need for net zero-related skills in future. Food services businesses had greater need for digital and marketing skills and particularly highlighted the need for soft skills such as customer service and communications skills.

Outlook and Labour Market Implications

Economic projections produced for Lancashire LEP indicate that the value of the Food and Agriculture sector in Lancashire will continue to grow over the next 15 years, with over 10,000 additional jobs expected to be created. This jobs growth will be concentrated in the food services sub-sector, with skills and training needs continuing to arise from retirements and churn within the labour market (replacement demand) across the other sub-sectors.

The very competitive UK labour market presents short-term skills and recruitment challenges for the sector, particularly given the need to recruit seasonal and casual workers. In the longer-term, skills needs relating to net zero, digital and new ways of working need to be built into the

curriculum both for new entrants to the sector, as well as being available to existing workers looking to upskill.

There will be a need to manage the impact of automation and increased use of digital and other technologies within the sector, to enable those most directly affected to adapt and move into new roles as some existing ones become redundant. Maximising the productivity benefits of this shift whilst minimising the negative effects on individuals is likely to be an important policy priority in future.

Key messages

Key messages from the analysis include:

Businesses

- Businesses need to be aware of the drivers affecting their sector, in particular the response required to the net zero agenda and potential impact of automation. Awareness raising by trusted partners is required on an on-going basis to persuade businesses to engage proactively with future change.

- Networks and employer collaborations provide an effective means of bringing employers facing similar challenges together to share learning and identify solutions. The Ag Net Zero model has been successful in engaging agricultural employers with low carbon challenges and new ways of working.

- Skills needs and priorities vary considerably between employers in the different Food and Agriculture sub-sectors, reflecting the diversity of the sector. Ensuring employers are able to shape training provision to their specific needs, rather than having to accept a 'one size fits all' model of training provision, is likely to be more relevant, cost effective and therefore attractive for employers.

Workforce

- Many of those working in the sector have relatively low levels of skills and formal qualifications. Support will be required to help existing workers adapt to change within the sector and ensure they can sustain their employment as employer needs change.

- A number of Lancashire's major employers have well-established progression routes in place, to support employees to move from entry level roles to supervisory and management positions. Similar pathways are needed across all parts of the sector, to increase its attractiveness in a competitive labour market.

- Although the majority of job roles do not require higher level skills, there are pockets of extremely high-tech and innovative activity within Lancashire's Food and Agriculture sector which require highly-skilled workers. These roles should be highlighted to illustrate the diversity of opportunities which the sector provides to potential new recruits.

Education Providers

- Structural changes within the labour market are changing employer skills requirements within the Food and Agriculture sector, with digital and environmental skills needs

increasing across all sub-sectors. Specific skills needs vary considerably across sub-sectors and occupations. Education providers will need to work closely with employers to ensure their provision continues to equip learners with the skills they need for the future.

- Responsibility for engaging potential new recruits in Food and Agriculture-related learning is jointly shared by education providers, employers and policy-makers. Providing case studies to illustrate the opportunities offered by the sector, and how education and training can lead to fulfilling and rewarding careers, is one way to engage the future workforce.

Policy-makers

- Lancashire LEP has recognised the importance of the Food and Agriculture sector by identifying it as one of six Growth Pillars. Providing this enhanced status for the sector will help to signal the opportunities which it provides for Lancashire residents.

- The LEP's 'horizon scanning' work on drivers of labour market change has identified industrial digitalisation as one of the key trends affecting the Lancashire labour market. Evidence from the strategic context and literature review highlights how this labour market trend will impact on Food and Agriculture businesses and workers. The LEP and its partners need to continue to raise awareness and support workers, businesses and education providers to adapt to this fundamental change.

Lancashire Food and Agriculture Sector Summary:

Nearly **71,000 workers**, up 6.5% from 2010

Over **8,000 businesses**, of which over 40% are in the food services sub-sector

11,600 jobs in agriculture, 1.8% of the total

(1.6% nationally)

£2bn generated for the Lancashire economy (6.8% of total output)

7.9% growth in GVA 2010-2021 (-2.4% nationally)

Productive food manufacturing sector (£57,000 per job)

A **young food services workforce** but older manufacturing and agricultural workers

Low skills levels amongst the existing workforce

Growing **demand for digital and environment**-related skills

1 The Food and Agriculture Labour Market Information study

1.1 Introduction

In January 2022, AMION Consulting were commissioned by the Lancashire Local Enterprise Partnership's (LEP) Skills and Employment Hub to produce local Labour Market Information (LMI) to help partners and stakeholders understand the Food and Agriculture sector in Lancashire.

This report sets out findings of the research, drawing on data from a range of local and national sources (including the recent Local Skills Improvement Plan (LSIP) research) as well as research undertaken on the drivers of the sector in Lancashire and beyond. It provides an overview of the sector in Lancashire and sets out the skills implications of key drivers and local growth trends affecting the sector.

1.2 Background

Lancashire is one of the largest local economies in the North of England with a population of over 1.5m people. Lancashire's economy generates over £34bn in Gross Value Added through 52,000 businesses. The Lancashire LEP geography covers the Lancashire County Council, Blackburn with Darwen and Blackpool local authority areas.

The Lancashire Skills and Employment Advisory Panel (formerly the Lancashire Skills and Employment Board), which supports the work of the LEP and Lancashire's local authorities, is responsible for identifying skills and employment priorities within the LEP area.

The Lancashire Skills and Employment Strategic Framework, first published in February 2016 and refreshed in January 2021, provides a framework for public investment in skills and employment activities in the County. The Framework outlines priorities for investment in skills and employment, to best address need. The Strategic Framework highlights four strategic themes for Lancashire:

- **Future Workforce -** Lancashire's continued prosperity depends upon having a workforce that is fit for the future. This theme sets out how education and business can work together to establish a talent pipeline and future workforce that meets the current and future demands of the local labour market.

- **Skilled and Productive Workforce -** The county's diverse industries all require skilled employees, so as a county Lancashire needs to invest heavily in developing people's skills, including those associated with net zero and industrial digitalisation. This theme is about working with business to drive up skills in Lancashire's workforce to boost productivity, in-line with the needs of Lancashire's growth pillars (including the Food and Agriculture sector).

- **Inclusive Workforce -** For Lancashire's economy to succeed, and for businesses to grow, it is important that there are adequate opportunities for all Lancastrians who are

unemployed, or not in education or training. This theme is about supporting unemployed and economically inactive residents into sustainable employment, driving up digital skills and embedding social value to 'level up' areas of Lancashire and accelerate inclusive growth.

- **An Informed Approach** – an understanding of the different skills needs and priorities of Lancashire's industries is vital when making strategic plans or future investment decisions. This theme is about taking an evidence based approach to identifying the skills and employment issues facing Lancashire's businesses and industries, prioritising and influencing locally and nationally, and working with partners to identify best practice.

The development of the LEP's Strategic Economic Framework has resulted in a review of the 'priority sectors' and Food and Agriculture has been identified as one of six Growth Pillars.

This LMI study has been commissioned to provide the information required to understand Lancashire's Food and Agriculture sector, including key sub-sectors, and variations at Travel to Work level. It uses data on the numbers of businesses, types of employment, nature of employment and skills and employment challenges to form a full picture of the sector within Lancashire. It also includes some business case studies to illustrate the range of businesses and activities which make up the sector in Lancashire.

1.3   Report Structure

This report has been prepared to provide LMI which provides a picture of the sector and its sub-sectors, and Lancashire and Travel to Work Area (TTWA) level. It is structured as follows:

- Section 2 provides an overview of the sector definition used in the study, and sets out the strategic and policy context within which Lancashire's Food and Agriculture sector operates;

- Section 3 sets out data on the current size of the sector in Lancashire – the value of economic output (Gross Value Added or GVA), number of businesses, scale of employment, productivity levels and international trade;

- Section 4 provides data on the workforce, earnings, potential automation, education and skills provision and employer skills needs;

- Section 5 considers the future for the sector in Lancashire – through forecasts of GVA and employment growth, and expectations of changing skills needs informed by the literature review;

- Section 6 of the report provides conclusions and recommendations.

2 An Overview of the Sector and Strategic Context

Key points

- The sector definition used in the LMI research covers agriculture and fishing; food processing (manufacturing); food wholesale and retail; and food and drink services. This broadly aligns with the definition used by Defra and the Food and Drink Sector Council. There is overlap with the definition of the Visitor Economy used by the Tourism, Culture and Place Sector Group, with regard to food and drink services.

- Nationally, the Food and Drink Sector Council has set out plans for the sector to become more productive, more innovative and more sustainable, with higher skilled workers, higher levels of exports and which provides healthy and affordable food.

- Government policy recognises the need for increased investment in higher-level technical qualifications to drive productivity across the economy. The importance of people being able to access training and learning throughout their working lives, to adapt to changing employer and economy skills needs, is also recognised.

- In Lancashire, the Food and Agriculture sector has been identified by the LEP as one of six Pillars of Growth, as a result of the GVA and employment contribution which it makes to the Lancashire economy. The Lancashire Recovery Plan highlights the strength of the food production and agriculture sectors and sets out a plan to strengthen local supply chains.

- Drivers including digitalisation, automation and the adoption of new technologies; decarbonisation and the drive for sustainability; and a desire for increased productivity within the Food and Agriculture sector all have significant implications for skills needs and investment within the sector. Changing consumer demands including growing health awareness; and demand for high quality, locally sourced products also require a different set of skills amongst the Food and Agriculture workforce. Lancashire's Food and Agriculture sector will need to respond to these drivers if it is to continue making its existing important contribution to the local economy.

2.1 Sector definition

The first task for the LMI study was to agree a definition of the Food and Agriculture sector which:

- reflects local understanding of the sector,

- aligns as far as possible with existing definitions in use by other organisations, and

- can be used to undertake the analysis of existing data sources (i.e. was defined in Standard Industry Classification (SIC) code terms).

Following a discussion with the Steering Group and a review of other Food and Agriculture sector studies, an initial definition was discussed with and refined by the Food and Agriculture Sector Group. The definition agreed for the study encompasses[1]:

- **_Agriculture and fishing_** – including crop and animal production, hunting and related service activities; fishing and aquaculture; activities of agricultural holding companies; and renting and leasing of agricultural machinery and equipment. Forestry is excluded from the definition to ensure alignment with definition used by Defra. However, it is not always possible to exclude forestry data from the analysis.

- **_Food processing_** – including the manufacture of food products; and manufacture of beverages.

- **_Wholesale of food and agricultural products_** – including wholesale of agricultural raw materials and live animals; wholesale of agricultural machinery, equipment and supplies; and wholesale of food, beverages and tobacco; the activities of agents involved in the sale of agricultural raw materials, live animals, textile raw materials and semi-finished goods; and agents involved in the sale of food, beverages and tobacco.

- **_Retail sale of food, beverages and tobacco_** – in specialised stores.

- **_Food service_** - Food and beverage service activities, including in restaurants; take-aways; event catering; and bars.

This definition means that elements of the packaging, logistics and professional services sectors which are closely connected to the Food and Agriculture sector are not covered by the data analysis included in the report. Whilst these are an important part of the Food and Agriculture supply chain, it is not possible (using the official datasets) to separate out the parts of these sectors which are linked to Food and Agriculture from wider e.g. logistics activity. The definition also excludes veterinary activities, as agricultural-related veterinary activities cannot be disaggregated from the wider veterinary sector.

The inclusion of the food services sub-sector aligns with the definition used by the Food and Drink Council, and with partners' understanding of the Food and Agriculture sector in Lancashire. This sub-sector is also included within the Visitor Economy sector definition used in Lancashire, and falls within the remit of the Tourism, Culture and Place Sector Group. This overlap is not an issue when analysing data at sector level, and reflects the realities of relationships between sub-sectors. However, it does mean that data from this report should not be aggregated with data on the visitor economy sector, because of the risk of double-counting e.g. employment and business numbers.

The data used in this report comes from a number of official and commercial sources, not all of which can be disaggregated to exactly align with the definition agreed. Where analysis is undertaken using a different sector definition, this is made clear in the text.

---

[1] The full list of SIC codes is set out in Appendix 1.

2.2 Strategic Context for the Food and Agriculture Sector

2.2.1 *Introduction*

The Food and Agriculture sector is integral to a number of sectors in the UK's economy including retail, hospitality and tourism. It has a role to play across a wide range of policy objectives, including building a sustainable economic system, improving the health of the UK's population, and helping the recovery from the Covid-19 pandemic. This section provides a summary[2] of the main national policy priorities and local plans to which the Food and Agriculture sector contributes; and key findings from a review of existing literature and studies that have been undertaken to assess the future trends in the Food and Agriculture sector. The findings of the literature review feed into the analysis of future skills needs and sector priorities included in section 5 of the report.

2.2.2 *National Food and Agriculture Strategic Context*

The **Food and Drink Sector Council** (FDSC) is a formal industry-led partnership with Government which aims to increase the productivity and sustainability of the UK's Food and Agriculture sectors. Its focus is on cross-industry challenges and opportunities, providing a strategic view on behalf of the overall industry. The Council's strategy, **Feeding the Future: Working together to build the National Food Strategy** (October 2021) sets out the vision for the UK's food industry vision for 2030 which is to create a "*thriving UK farm-to-fork food sector that is innovative, collaborative and globally competitive that provides fantastic, affordable food sustainably and to the highest standards. Also a food sector that supports healthier diets and encourages better choices and offers exciting business and employment opportunities throughout the food chain*".

The Strategy sets out objectives which private companies, industry bodies and the government all have a part to play in achieving:

- a more productive, highly skilled food and drink sector,

- a food and drink sector that is more innovative,

- a food and drink sector that trades with ease at home and abroad,

- a sustainable food and drink sector for the future,

- a food and drink sector that provides healthy and affordable food for all, and

- a food and drink sector that works in partnership with government on the big issues.

The strategy sets out a range of targets, including increasing sector Gross Value Added (GVA) by one-third by 2030; embedding, attracting and skilling more people throughout the food and drink sector; and offering opportunities for everyone in the industry to gain a qualification by 2030, so the workforce and industry has the skills needed for digitalisation, decarbonisation, sustainability and the circular economy. The strategy seeks to increase levels of expenditure on Research and

---

[2] The more detailed analysis on which this summary is based is included in Appendix 2.

Development (R&D) and increase the value of exports; as well as setting sustainability targets linked to reducing food waste and carbon emissions, and maximising recycling.

The FDSC also published a **Covid-19 Recovery Plan** in July 2020 with the aim of rebuilding the food industry and renewing the food system post-pandemic. The Covid-19 crisis reinforced both the strength and the fragility of the UK's food system and industry, with increased sales for retailers, and the farmers, producers and manufacturers that supply them, whilst businesses in hospitality, restaurants and catering, and those that supply them, saw their sales decline as a result of the public health measures imposed by Government. The Plan outlines the key elements of transformation which have occurred at rapid pace during the pandemic and which have longer-term implications for the sector: changing consumer and customer behaviour; channels and routes to market; product ranges; costs and margins; export and import profiles: and ways of working.

The FDSC's skills report, **Preparing for a changing workforce: A food and drink supply chain approach to skills (October 2019)**, highlighted the pre-pandemic challenges in recruiting to roles within the sector, and the expected shortfall in labour and skills availability arising from changing migration patterns. The report outlines how creating highly skilled, well-paid and home-grown talent is critical to realising the potential of the UK's food industry and emphasises the need for sector-led solutions to upskill and attract talent, combined with related government activities, particularly the ongoing reforms to technical education.

The agriculture part of the Food and Agriculture sector is undergoing considerable change following the UK's exit from the EU and therefore the end of the application of the Common Agricultural Policy (CAP). The Government has set out its vision of creating a "*more dynamic, self-reliant agriculture industry*", where farmers play a vital role in "*protecting the countryside, while providing world class food, plants and trees*" **(Farming for the future, February 2020)**. The '**Path to Sustainable Farming: Agricultural Transition Plan 2021-2024' (November 2020)** sets out how farmers will be supported as the sector moves towards a system of payments for improving the environment, improving animal health and welfare, and reducing carbon emissions, including through support for investment in new technology, improved productivity and for new entrants to the industry.

The **Agricultural Productivity Working Group** (APWG) was established to identify how, working in partnership, industry and government could unlock greater productivity growth across the sector. The APWG's vision is "*for a world-leading, competitive and sustainable agriculture and horticulture industry that can meet consumer demands for high quality products at every price point*". The APWG's Working Group report concentrates on the "scourge of low productivity growth" and recommends overhauling current innovation and knowledge channels and systems by increasing the uptake of agricultural skills and training and driving infrastructure and policy support.

The two-part **National Food Strategy** urges a once-in-a-lifetime opportunity to reshape the food system in the wake of the Covid-19 pandemic and the EU Exit transition. The Strategy contains recommendations to address the major issues facing the food system including climate change, biodiversity loss, land use, diet-related disease, health inequality, food security and trade.

The Strategy aims to ensure the UK'S food system:

- delivers safe, healthy, affordable food, regardless of where people live or how much they earn;

- i robust in the face of future shocks;

- restores and enhances the natural environment for the next generation in this country;

- is built upon a resilient, sustainable and humane agriculture sector;

- is a thriving contributor to urban and rural economies, delivering well paid jobs and supporting innovative producers and manufacturers across the country; and

- delivers all this in an efficient and cost-effective way.

The impact on human health of a poor diet eclipses the damaging effect of smoking. The Department of Health and Social Care's policy paper, **Tackling obesity: empowering adults and children to live healthier lives** (published in July 2020) and the British Medical Association's **Strategy for Improving the nation's diet: Action for a healthier future** both highlight that the quality of the nation's diet remains a key public health issue, with obesity related diseases costing the NHS in excess of £6bn per year. Action for a healthier future highlights the need to create healthier food environments; encourage healthy eating patterns; and introduce UK wide reformulation targets to reduce calorie, fat, saturated fat, salt and added sugar levels. The Food and Agriculture sector has a key role to play in addressing these challenges.

2.2.3 *National Skills, Economic Growth and Innovation Strategic Context*

The Department for Education's **Skills for Jobs strategy: Lifelong Learning for Opportunity and Growth**, published in January 2021, outlines how the government seeks to reform further education to ensure that sectors such as Food and Agriculture can access the skills they need. The strategy puts employers at the heart of the system so that education and training delivered meets skills gaps and drives productivity improvements. The strategy highlights a number of interventions which are relevant to the Food and Agriculture sector, including:

- investing in higher-level technical qualifications that provide a valuable alternative to a university degree; and

- making sure people can access training and learning flexibly throughout their lives and are well-informed about what is on offer through great careers support.

The government's **Build back better: our Plan for Growth** was prepared in response to the Covid-19 pandemic and the UK's exit from the EU and replaces the UK's Industrial Strategy. It seeks to deliver growth by levelling up the UK, supporting the transition to net zero, and supporting the vision for a Global Britain. The plan highlights the importance of infrastructure, skills and innovation as the foundation of recovery and growth across the economy. The UK's deficit compared to international comparators on technical and basic adult skills is noted, with the government committing to "building an apprenticeship revolution", to ensure that they better meet the skills needs of employers. The Plan also commits to a significant uplift in R&D investment.

Building on the Plan for Growth, **The UK Innovation Strategy: Leading the future by creating it**, sets out the government's long-term plan for delivering innovation-led growth. Its primary objective is to boost private sector investment across the whole of the UK, creating the right conditions for all businesses to innovate and giving them the confidence to invest. The link between innovation and the Food and Agriculture industry is continuously made throughout the strategy, acknowledging how the sector can support the government's objectives.

Most recently, the impact of poor health on economic outcomes has been highlighted in **Levelling Up the United Kingdom,** the Government's Levelling Up White Paper. The White Paper highlights the importance of poor diet and lack of access to healthy food in determining healthy life expectancy, with significant inequalities across the UK. Areas with poorer health outcomes have a higher proportion of economically inactive people, and lower levels of income and wellbeing than other areas, demonstrating the close link between food, health and economic prosperity.

2.2.4   *National Net Zero Context*

The Government has made a legal commitment to reduce the UK's carbon emissions to net zero by 2050 and pledged to ensure that 30% of land is protected for nature by 2030. The farming sector itself will have to become carbon neutral, something the National Farmers' Union has already committed to.

The Department for Business, Energy and Industrial Strategy's (BEIS) **Industrial Decarbonisation Strategy** (March 2021) set out the government's strategy to accelerate the green transformation in industry aiming to reduce emissions by around two thirds by 2035. The Strategy outlines the core role decarbonising UK industry and manufacturing plays as part of the government's ambitious plan for the green industrial revolution. The government's **Net Zero Strategy: Build Back Greener** outlines the delivery pathway across multiple sectors within the UK economy to achieve the government's net zero carbon budget by 2050, whilst the Department for Business, Energy and Industrial Strategy's **Clean growth strategy: Leading the way to a low carbon future** (October 2017) sets the government's growth agenda while cutting greenhouse gas emissions.

The **UK Food and Drink Industry's Plan for Success** demonstrates that the sector is ready and willing to deliver economic growth, healthier consumption, environmental benefits and higher-skilled jobs that will benefit every community. The **'Achieving Net Zero': The Food and Drink Federation handbook** outlines how the FDF, and the food sector can address the challenge of Net Zero, and provides practical guidance for food and drink manufacturers, particularly those at the early stages of developing their climate strategy. The UK Government has already developed an **Industrial Decarbonization and Energy Efficiency roadmap for the food and drink manufacturing sector**, outlining time-bound actions to be taken in relation to heat electrification, biomass and heat recovery[3].

Recognising the impact of the Food and Agricultural industries as a major contributor to the UK's waste and landfill issue, the government has announced the introduction of a plastic packaging tax from April 2022, set at £200 per tonne on plastic packaging which does not meet a minimum threshold of at least 30% recycled content. The **UK's Plastics Pact** brings together businesses in

---

[3]   As the roadmap was published in 2015, it is aligned with the nation's previous climate target of an 80% reduction in net emissions by 2050, against a 1990 baseline, rather than the current net zero target.

the industry to tackle the level of plastic waste in the across the food and drink industry and supply chain in the UK. In the **Roadmap to 2025: The UK Plastics Pact**, a framework is created for all businesses to deliver ambitious reduction targets, including eliminating problematic or unnecessary single-use packaging through redesign, innovation or reuse; and ensuring that 70% of plastics packaging effectively recycled or composted

2.2.5   *Local Policy Context*

The **Greater Lancashire Plan** is being developed by partners and will set out an agreed vision, ambition and long-term strategic priorities for Lancashire. The Plan could provide the foundation for any future devolution deal with Government. The Plan builds on existing priorities for Lancashire, many of which are relevant to the Food and Agriculture sector. The Food and Agriculture sector has an important role in helping to achieve these priorities, such as tackling climate change and building on clean growth opportunities.

The Greater Lancashire Plan builds on the draft LEP Strategic Framework and the Lancashire Recovery Plan – **Redefining Lancashire** (2020) – which sets out both immediate priorities to help the Lancashire economy recover from the impact of COVID-19, and longer term strategic ambitions for Lancashire. Recognising the relative importance of the food manufacturing sector, the Recovery Plan proposes a response programme focused on Lancashire's prime sectors, which encompasses business growth, job creation, skills and employment. It also highlights the importance of the food services sectors to Lancashire's Visitor Economy, with the food 'offer' a crucial part of attracting and encouraging tourists back to the area post-COVID, particularly supporting rural areas and town centres.

The development of the **Lancashire Local Industrial Strategy** was paused due to the pandemic, and the evidence base is now being used to inform the Greater Lancashire Plan. This highlights the key challenges and opportunities which cut across all parts of the Lancashire economy, including the need to adapt to automation and digital transformation; the urgency of addressing climate change and achieving net zero economic growth; and the importance of ensuring that opportunities are 'levelled up' within Lancashire, with all people able to access the skills, training and employment opportunities they need to live a secure and comfortable life. Again, the Food and Agriculture sector, as a major employer and major contributor to the Lancashire economy, as a key role to play in meeting these challenges.

Lancashire LEP is developing a 10-year **Internationalisation Strategy and Export Plan** to drive up the number of Lancashire companies involved in international trade, attract greater levels of inward investment and promote Lancashire on the international stage. A number of Food and Agriculture-related opportunities have been identified, along with the contribution that the sector makes to the visitor experience and attracting overseas tourists to Lancashire.

2.3 Key drivers identified from the literature review

2.3.1 *Introduction*

Understanding the drivers of Lancashire's Food and Agriculture sector is key to understanding the direction skills and employment providers need to take to best address local and national need. A key part of the Lancashire Skills and Employment Strategic Framework is forward-looking to ensure future prosperity and creating a workforce and industries that are fit for the future. To inform our approach to gathering and analysing the LMI available from official datasets, a review of the literature relating to the Food and Agriculture sector drivers has been undertaken. A summary is provided here, with more detail in Appendix 3.

2.3.2 *Sustainability, Net Zero Carbon and the circular economy*

The global food system has a huge environmental impact and is a significant contributor to the current climate crisis. Food and drink production accounts for between 14-30% of global greenhouse gas emissions, generates waste and pollution, and contributes to the degradation of natural resources such as air, water and soil quality, wildlife and biodiversity.

The food manufacturing is the UK's largest manufacturing sector, and in 2019 was responsible for 165 million tonnes of carbon emissions, or c.17% of the UK's carbon footprint. Although green-house gas emissions are generated at all stages of the food supply chain, the majority of emissions (80-86%) are associated with food production and agriculture. The impact of food transportation on the environment and climate change is also significant, with the UK heavily dependent on imported food.

Food waste and food packaging also have major environmental impacts. In the UK approximately 30% of all food produced is wasted along various stages of the food supply chain with 9.5 million tonnes of household food waste a year, and the food that is sent to landfill produces methane - a powerful greenhouse gas that contributes to climate change. The food and drink sector is also responsible for over 100,000 tonnes of packaging waste each year.

Given this position, the Food and Agriculture sector has the potential to make a significant contribution to the transition to net zero. As it remains one of the highest energy users in the UK there are real opportunities to cut costs, energy use and carbon emissions. In Lancashire, there has been a 33% decline in industrial carbon dioxide emissions since 2010. However, agricultural carbon dioxide emissions have increased over the same period.

The Food and Drink Federation recommends that more is done to "harness the benefits of a circular economy" through future policies on innovation and resource efficiency. Innovation in production techniques and packaging materials and a move to minimise energy use will require new ways of working in Lancashire's Food and Agriculture sector. Implementing new approaches requires people to be re-skilled and up-skilled, and is likely to change the pattern of demand for workers within the sector.

2.3.3   *Technology, Automation and Industrial Digitalisation*

The COVID-19 crisis meant that the Food and Agriculture sector (along with many others) had to adapt at pace to significant change. Whilst many parts of the sector did this successfully, the pandemic highlighted the vulnerabilities of the sector and accelerated demands on digital infrastructure, to support the move to new ways of working.

Digitalisation, or the adoption of digital technologies and incorporation of digital information by industries, is vital for improving productivity in the Food and Agriculture sector, as in many others. Digitalisation means access to more timely, granular and high-quality data which helps businesses respond faster and better to customer needs, supply chain requirements and challenges.

In the UK, overall productivity has remained flat over the past decade. In 2020, Defra reported that the UK's agriculture is three times less efficient than other sectors of the UK economy, with the underlying rate of productivity growth near zero throughout the past decade. In part this reflects the effects of intensive farming, with soil degradation calculated in 2010 to cost the economy £1.2 billion every year.

A £24 million package by government to boost Agri-Tech is indicative of the need for change – and government's support of new technologies. Defra has estimated that digitalisation and automation could raise productivity growth on a global basis by as much as 0.8 to 1.4 percent annually, with digital technologies providing firms with new tools to design, produce and sell goods and services. Alongside investment in technologies, complementary investment in skills and factors such as software and data are necessary to reap the benefits of digitalisation (e.g. van Ark, 2016; Brynjolfsson and McAfee, 2011), with considerable evidence that productivity benefits of digital adoption are significantly thwarted by skill and occupational shortages. Ensuring workers have an opportunity to acquire and upgrade the skills needed to thrive in an increasingly digitally focused Food and Agriculture sector is therefore very important if productivity gains are to be realised.

2.3.4   *Changing Consumer Demands*

Change within the sector is also being stimulated by changing consumer demands. Recent research undertaken in Lancashire by Sustain, the alliance for better food and farming, and The Ashden Trust[4], has highlighted the concentration of the UK food supply chain, with twelve supermarket groups accounting for 90% of the £200bn annual food retail spend. Centralised and complex food supply chains mean there is a disconnect between growers and consumers, with farmers often having just one route to market, over which they have very little control and little ability to secure increased value in return for higher quality produce.

Within this context, there is some evidence of growth in demand for locally sourced, higher quality food products, both for consumers to purchase direct and in demand from the food services sector (although the current squeeze on living standards means that value remains a priority for many consumers). This is creating an opportunity for the development of local food systems and the growth of producer-processors, although the Sustain report highlights numerous barriers to change including finance, local infrastructure, a need for marketing advice and

---

[4] A tale of two counties – Strengthening local food cultures through mapping supply chains in East Susses and Lancashire, Sustain, March 2022

support, and established marketplaces. There are also skills implications for producers who wish to move into processing and directly selling their products.

There is also evidence of a change in the nature of products which consumers wish to buy, with a move towards healthier options, organic produce, and plant-based alternatives to meat and dairy.

3 Lancashire's Food and Agriculture sector

Key points

- The Food and Agriculture sector is relatively more important to the Lancashire economy than is the case regionally or nationally, accounting for 6.8% of total GVA, and worth over £2bn to Lancashire in 2021. Over 40% of this total (£875m) is accounted for by the food manufacturing sub-sector.

- There are 8,060 businesses in the sector in Lancashire, accounting for nearly 15% of all businesses in Lancashire, again higher than the regional and national position. The vast majority of businesses (86.4%) are microbusinesses employing fewer than 10 people, with only c.100 employing more than 50 workers.

- Over 70,000 people are employed in the Food and Agriculture sector in Lancashire, 10.8% of total employment. This is higher than the proportion of employment regionally or nationally, although employment in the sector has grown more slowly in Lancashire over the past ten years (+6.5%) than at the regional or national level (+10.4% and +17.5% respectively).

- Nearly half of workers in the Lancashire's Food and Agriculture sector are employed in the food services sub-sector, although the sub-sector's share of the sector total is lower than is the case nationally. Lancashire has a larger proportion of its Food and Agriculture employment in the food manufacturing sub-sector – 2.2% of total employment, compared to 1.3% nationally.

- The largest number of Food and Agriculture sector workers in Lancashire are based in the Preston, Chorley and South Ribble TTWA; however in relative terms the sector is largest in West Lancashire, where it accounts for around 20% of all employment. West Lancashire has also seen the fastest growth since 2010.

- Productivity (GVA per job) in the Food and Agriculture sector is estimated to be higher in Lancashire than is the case regionally or nationally – reflecting the greater concentration of employment in the food manufacturing sub-sector, where productivity tends to be higher than in food services. However, productivity levels are below the Lancashire economy average.

- The sector accounts for an increasing proportion of Lancashire's exports, with the value of food and live animal exports increasing by 4.8% between 2018 and 2020, whilst overall export values fell by 14.4%. The EU remains the main destination for Lancashire's Food and Agriculture exports, and is also the most important source of imports.

3.1 Introduction

Establishing an economic baseline for Lancashire's Food and Agriculture sector is an essential component of understanding the future of the sector. The baseline analysis presented in this section has been carried out at three spatial levels: Lancashire LEP area, Travel to Work Area (TTWA) and local authority level[5]. Trends over time have been analysed and compared to the regional (North West) and national position.

3.2 The Sector's Economic Output

3.2.1 *A note on the sector definition*

Data on GVA is available from a number of sources, including the Office for National Statistics (ONS) as well as forecasting companies including Cambridge Econometrics. We have chosen to use the Cambridge Econometrics GVA data, so that the analysis of current GVA levels aligns with the forecasts for the sector presented in section 5.

Unfortunately, GVA data is not available for the precise sub-sectors included in our Food and Agriculture sector definition from any of these sources (at Lancashire and TTWA level). The Cambridge Econometrics data includes GVA data for the following sub-sectors: agriculture, forestry and fishing; food manufacturing; and food services, but not for food wholesale or food retail, which are aggregated with the wider wholesale and retail sectors. To estimate the GVA generated by the food wholesale and food retail sub-sectors, we reviewed the share of employment in these sectors which was accounted for by the Food and Agriculture sector (at Lancashire and national level) and the share of GVA within these sub-sectors accounted for by Food and Agriculture (data only available at national level). Nationally, the GVA proportion was lower than the employment proportion (implying that GVA per job in food whole and food retail is lower than the GVA per job in the wider wholesale and retail sectors). Applying the Lancashire employment proportion to the GVA total is therefore likely to over-estimate the share of GVA in these sub-sectors which is accounted for by the Food and Agriculture sector. We have therefore applied the national GVA share – 5% of retail GVA is assumed to arise from the food retail sector; and 15.8% of wholesale GVA is assumed to arise from food and agriculture wholesale.

3.2.2 *Current position and recent trends*

In 2021, the Food and Agriculture sector in Lancashire was estimated to be worth £2,061 million (Cambridge Econometrics data) and represented 6.8% of the LEP area's GVA. This exceeds the proportion of total economic activity represented by the sector regionally and nationally with Food and Agriculture accounting for 4.9% of total GVA in the North West and 5.1% across the UK. Between 2010 and 2021, the value of the Food and Agriculture sector in Lancashire increased by 7.9% whilst it shrunk within the North West and nationally by 6.2% and 2.4% respectively.

---

[5] Local authority data is included in Appendix 4.

Table 3.1: Food and Agriculture sector GVA (£m, 2018 prices)								
	2010		**2015**		**2021**		**Change 2010 – 2021 (%)**	
	No.	%	No.	%	No.	%	No.	%
Lancashire LEP area	1,911	7.2%	2,308	8.0%	2,061	6.8%	150	7.9%
North West	8,429	5.8%	9,194	5.8%	7,908	4.9%	-521	-6.2%
UK	85,043	5.8%	93,041	5.7%	83,004	5.1%	-2,039	-2.4%

Source: Cambridge Econometrics Local Authority Economic Forecasting Model (LEFM) Projections

Figure 3.1: GVA in Food and Agriculture sector, as a percentage of total GVA
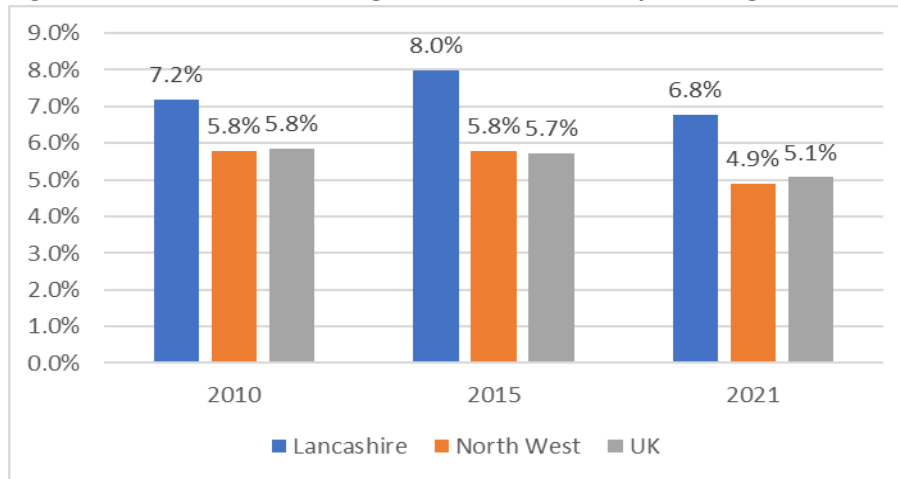
Source: Cambridge Econometrics Local Authority Economic Forecasting Model (LEFM) Projections

In GVA terms, the largest sub-sector in Lancashire is food, drink and tobacco manufacturing. In 2021, the value of GVA from this sub-sector was £875m, or 42% of total food and agriculture GVA. This represents 2.9% of total GVA in the LEP area in 2021, a higher proportion than in the North West (2.0%) and UK (1.8%), indicating the importance of the food processing sector in Lancashire.
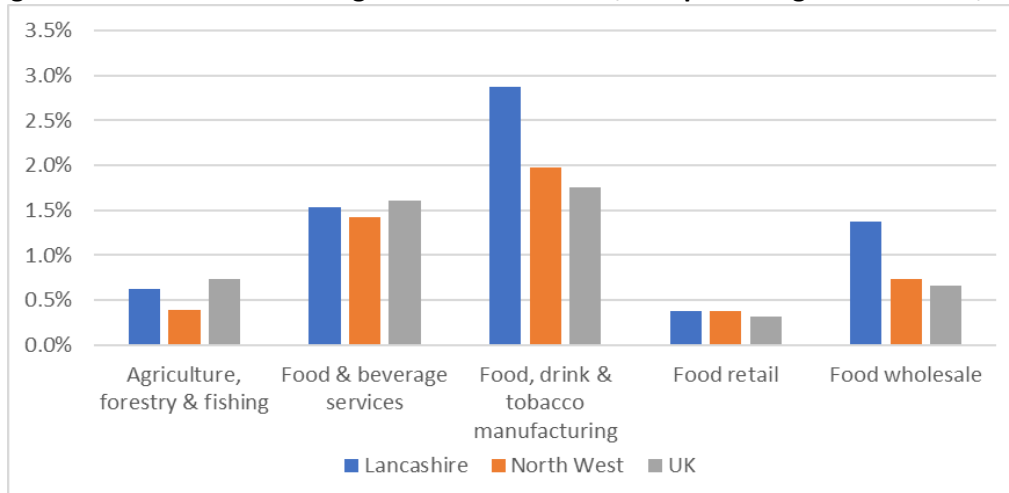
Figure 3.2: GVA in Food and Agriculture sub-sectors, as a percentage of total GVA, 2021

Source: Cambridge Econometrics Local Authority Economic Forecasting Model (LEFM) Projections

The travel to work area (TTWA) with the largest Food and Agriculture sector in Lancashire in GVA terms is Preston, Chorley and South Ribble, where estimated sector GVA was over £521 million in 2021, followed by Blackpool, Fylde and Wyre at £462 million.

Between 2010 and 2021, the largest growth in Food and Agriculture sector GVA was in Burnley and Pendle, with an increase of 20.6%. The sector also experienced high growth in West Lancashire (15.7%) and Lancaster (15.6%) whilst GVA for the sector fell by 5.6% in Blackburn with Darwen, Hyndburn, Rossendale and Ribble Valley.

Table 3.2: Food and Agriculture sector GVA by TTWA (£m, 2018 prices)				
	2010	2015	2021	Change 2010 − 2021 (%)
Preston, Chorley and South Ribble	461	577	521	13.1%
Blackpool, Fylde and Wyre	444	552	462	4.1%
Blackburn with Darwen, Hyndburn, Rossendale and Ribble Valley	450	536	425	-5.6%
West Lancashire	240	304	278	15.7%
Burnley and Pendle	204	268	246	20.6%
Lancaster and Morecambe	111	143	129	15.6%

Source: Cambridge Econometrics Local Authority Economic Forecasting Model (LEFM) Projections

3.3 The Business Base

3.3.1 *Lancashire LEP Area*

In 2021, there were 8,060 businesses in the Food and Agriculture sector in Lancashire as a whole, accounting for 14.9% of all businesses. This is a higher proportion of the business base in Lancashire than the regional and national figures of 12.7% and 11.3% respectively. Lancashire's Food and Agriculture sector is made up of a majority of micro-sized businesses (86.4%) employing 0-9 people. Just under 1,000 (995) of the total business base are small businesses employing 10-49 people (12.3%) and 85 are medium-sized employing 50-249 people (1.1%). Only around 15 Food and Agriculture businesses in Lancashire (0.2%) employ more than 250 people.

Table 3.3: Business size in Food and Agriculture in Lancashire, 2021				
	Micro (0 to 9)	**Small (10 to 49)**	**Medium-sized (50 to 249)**	**Large (250+)**
Food and Agriculture businesses (No.)	6,965	995	85	15
Proportion of F&A businesses	86.4%	12.3%	1.1%	0.2%
All Lancashire businesses	47,750	5,230	920	195
Proportion of Lancashire businesses (No.)	88.3%	9.7%	1.7%	0.4%

Source: UK Business Counts, ONS

> ### Case Study: Huntapac Produce Ltd
>
> Huntapac Produce Ltd is a family firm based in West Lancashire, which grows, washes and packs root vegetables, brassicas and salads. The transport side of the business distributes them to major supermarkets, independent retailers, wholesalers, food service, caterers and food manufacturing businesses across the UK, as well as providing transport services for external customers. The company employs some 500 people, and operates round the clock, with farms in all parts of the country to ensure produce is available throughout the year.
>
> The company has a commitment to high quality produce and creating a productive, supportive and fair working environment, investing in development, training and career opportunities for all staff. The company continues to develop new and exciting uses for its root vegetables, including the development of its own brand of hand cooked vegetable crisps, approved by the Vegan and Vegetarian Societies and providing customers with a healthier alternative to traditional crisps.
>
> *Source: www.huntapac.co.uk*

Since 2010, the number of businesses in the Food and Agriculture in Lancashire has grown by 11.2%, a slower rate of increase than has been seen regionally and nationally (+19.1% and +16.4% respectively), as shown in Figure 3.3.

Figure 3.3: Percentage growth in the number of Food and Agriculture businesses, 2010-2021
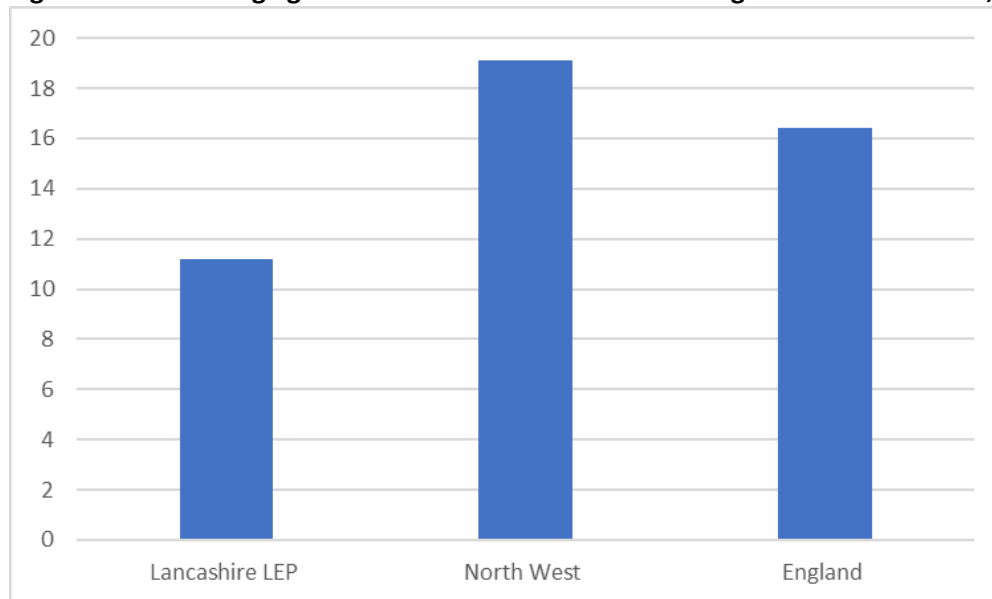
Source: UK Business Counts, ONS

Figure 3.4 shows how the proportion of total businesses which are accounted for by the Food and Agriculture sector has changed since 2010. Nationally, regionally and in Lancashire as a whole, the proportion of the business base which are in the Food and Agriculture sector has declined. The number fell by 6.3% in Lancashire from 2010 to 2020. However, this was a smaller decline than in the North West and England (-9.9% and -13.1% respectively).

Figure 3.4: Percentage of the business base which are Food and Agriculture sector businesses
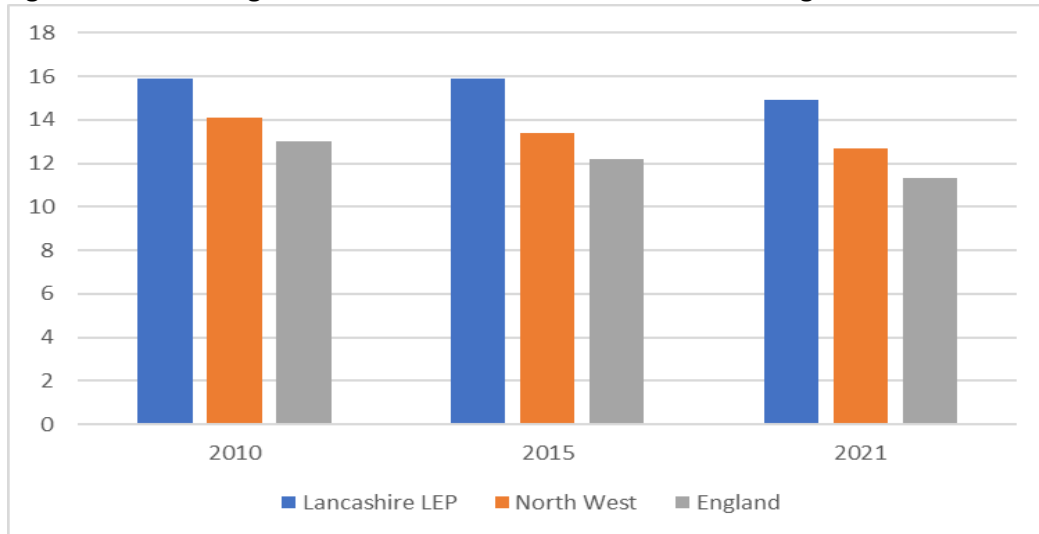
Source: UK Business Counts, ONS

A more detailed sub-sector breakdown of businesses within Lancashire's Food and Agriculture sector is provided within Table 3.4, showing business counts by sub-sector, together with the share of total Food and Agriculture sector businesses. Over 40% of businesses are in the food and drink services sub-sector (including event catering), with the other most common sub-sectors all within the agriculture sub-sector.

Table 3.4: Businesses in Food and Agriculture sub-sectors in Lancashire, 2021		
Food and Agriculture sub-sector	**No. of businesses**	**% of Food and Agriculture sector businesses**
Restaurants and mobile food service activities	2,160	26.8%
Beverage serving activities	960	11.9%
Raising of horses and other equines	670	8.3%
Raising of sheep and goats	530	6.6%
Raising of dairy cattle	330	4.1%
Event catering activities	290	3.6%
Growing of cereals (except rice), leguminous crops and oil seeds	280	3.5%
Raising of other cattle and buffaloes	245	3.0%
Growing of vegetables and melons, roots and tubers	240	3.0%
Mixed farming	225	2.8%

Source: UK Business Counts, ONS

3.3.1 *Travel To Work Area analysis*

The number of businesses in the Food and Agriculture sectors within each TTWA is shown in Table 3.5 alongside the percentage growth from 2010 to 2020. The table shows that all TTWAs experienced positive growth in the number of Food and Agriculture businesses except West

Lancashire. Blackburn with Darwen, Hyndburn, Rossendale and Ribble Valle TTWA experienced the fastest growth during the period, with an increase of 16.2%.

| Table 3.5: Food and Agriculture businesses in Lancashire TTWAs, 2021				
	2010	**2015**	**2020**	**% change**
Blackburn with Darwen, Hyndburn, Rossendale and Ribble Valley	1,795	1,170	2,085	16.2%
Blackpool, Fylde and Wyre	1,630	1,715	1,785	9.5%
Preston, Chorley and South Ribble	1,470	1,640	1,705	16.0%
Lancaster and Morecambe	830	880	905	9.0%
Burnley and Pendle	685	755	770	12.4%
West Lancashire	805	815	760	-5.6%

Source: UK Business Counts, ONS

3.4   Employment

3.4.1   *Lancashire LEP Area*

In total, the Food and Agriculture sector employed 70,945 people in Lancashire in 2020 (a further 85 are employed in forestry and 1,500 in the veterinary activities sector). Figure 3.5 shows employment in the Food and Agriculture sector as a share of total employment for Lancashire and its regional and national counterparts from 2010-2020. In 2020, the Food and Agriculture sector represented 10.8% of the total employment in Lancashire, above the regional and national level. In comparison, the Food and Agriculture sector represents 9.5% and 9.9% of total employment in the North West and nationally.

Figure 3.5: Employment in Food and Agriculture Sector as a percentage of Total Employment
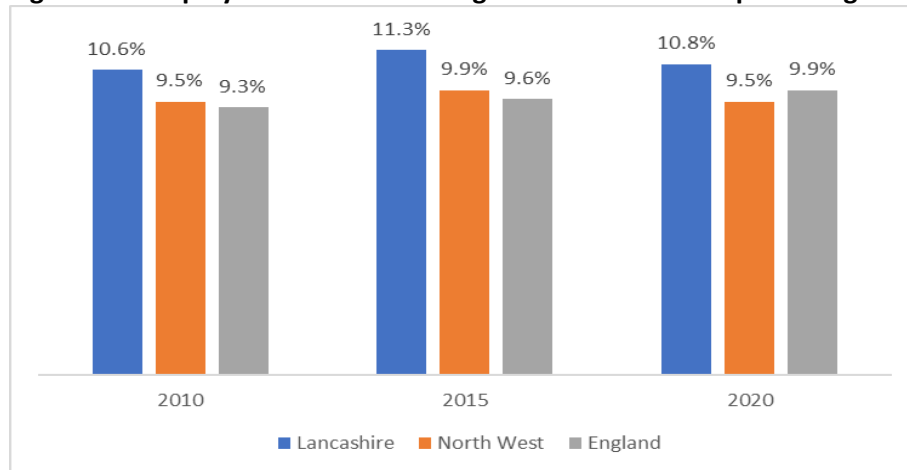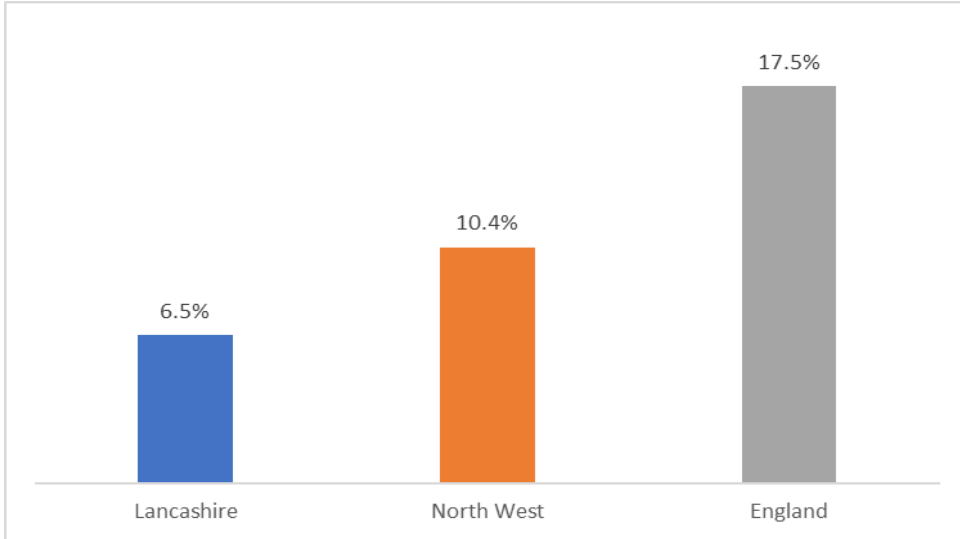

Source: Business Register and Employment Survey, Employment Analysis, ONS

Although Lancashire has a higher proportion of total employment in the Food and Agriculture sector than is the case regionally or nationally, growth in employment in the Food and Agriculture sector over the last ten years has lagged behind the comparator areas, as shown in Figure 3.6.

19

Employment in the Food and Agriculture sector grew by 10.4% and 17.5% in the North West and England respectively, but only by 6.5% in Lancashire.

Figure 3.6: Growth in the Food and Agriculture sector (2010-2020)

Source: Business Register and Employment Survey, Employment Analysis, ONS

Figure 3.7 shows total employment in Lancashire, split into subsectors. The food service subsector employs the highest proportion of Food and Agriculture workers - 34,000 people, almost half (48%) of the total. As a share of the total employment in Lancashire, the food service subsector represents 5.2%.

Figure 3.7: Employment in Agriculture and Food Sub-Sectors
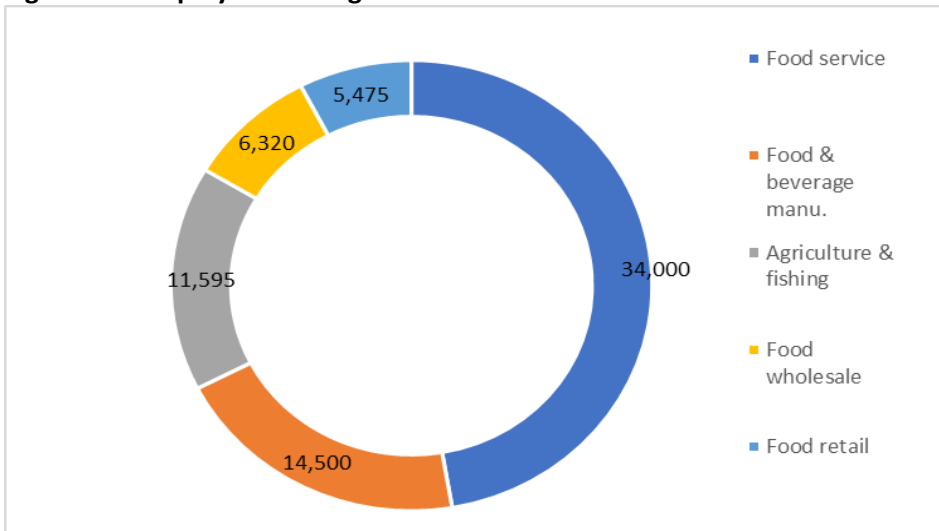
Source: Business Register and Employment Survey, Employment Analysis, ONS

Figure 3.8 highlights the importance of the five key subsectors identified above when compared to the national picture. As a share of total employment the proportion of employment in Lancashire's Food and Beverage Manufacturing, Agriculture and Fishing, Food Wholesale and Food Retail subsectors is above the national average.
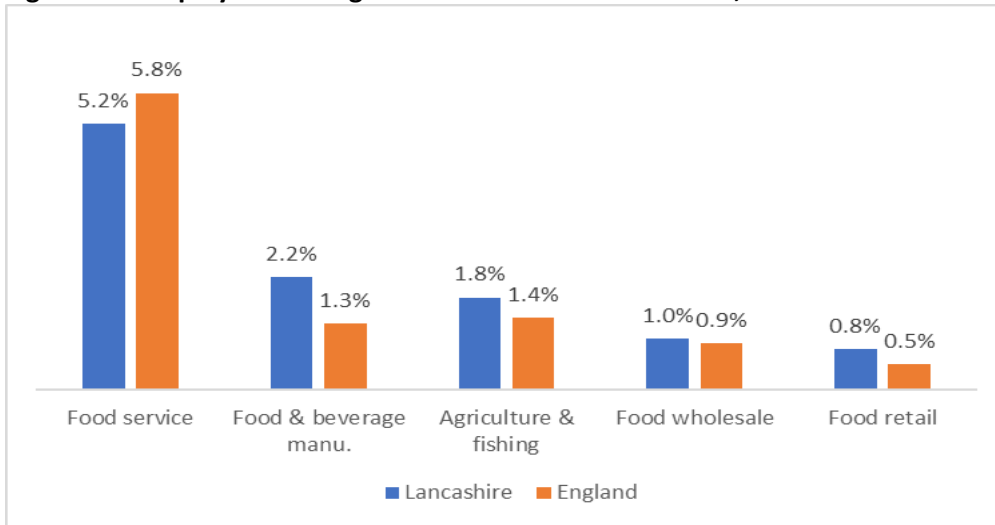
Figure 3.8: Employment in Agriculture and Food Sub-sectors, 2020

Source: Business Register and Employment Survey, Employment Analysis, ONS

Further analysis of the Food and Agriculture sectors at a 4-digit SIC code level highlights the importance of a number of subsectors within Lancashire. Table 3.6 shows the twelve top sub-sectors in Lancashire in terms of number of people employed and the proportion of total Food and Agriculture sector employment. These twelve sub-sectors account for 80% of all Lancashire's Food and Agriculture employment.

Table 3.6: Employment in Food and Drink sub-sectors in Lancashire, 2020		
Food and Agricultural sub-sectors	**Employment**	**% of Food and Agriculture sector employment**
Restaurants and mobile food service activities	17,000	23.9%
Beverage serving activities	12,000	16.9%
Agriculture excluding support activities*	11,000	15.5%
Event catering activities	3,000	4.2%
Non-specialised wholesale of food, beverages and tobacco	2,500	3.5%
Processing and preserving of meat	2,250	3.2%
Manufacture of rusks and biscuits; manufacture of preserved pastry goods and cakes	1,750	2.5%
Retail sale of meat and meat products in specialised stores	1,500	2.1%
Retail sale of bread, cakes, flour confectionery and sugar confectionery in specialised stores	1,500	2.1%
Other processing and preserving of fruit and vegetables	1,250	1.8%
Manufacture of bread; manufacture of fresh pastry goods and cakes	1,250	1.8%
Manufacture of prepared meals and dishes	1,250	1.8%

Agricultural employment data is gathered through DEFRA / Scottish Executive and is not broken down by type of agriculture

Source: Business Register and Employment Survey, Employment Analysis, ONS

Case Study: **Burton's Biscuits / Fox's Biscuits – Fox's Burton's Companies (FBC) UK**

Burton's Biscuit Company is a leading British biscuit manufacturer, the second-biggest supplier of biscuits in the UK and a major exporter globally. One of its major manufacturing facilities is located in Blackpool, producing Maryland cookies, as well as soft baked cookies for Mars and other small and large chocolate biscuit bars. The company also produces Jammie Dodgers – 500 are eaten every minute in the UK!

Another biscuit manufacturer, Fox's Biscuits, has one of its two major UK sites at Wesham in Fylde, with the other at Batley in Yorkshire. Fox's Biscuits are also exported globally with its main markets in Europe, North America, and Asia. The business is known for biscuits such as Rocky, Classic, Echo, Crunch Creams and Party Rings. The company also makes own brand biscuit products for a number of supermarkets and makes Farley's Rusks for Heinz. Fox's bakes six billion biscuits per year.

In March 2022, the two organisations integrated to form a new biscuit company called Fox's Burton's Companies (FBC) UK.

Source: www.burtonsbiscuits.com, www.foxs-biscuits.co.uk

A location quotient has been calculated for the sub-sectors to highlight employment concentrations in Lancashire. Location quotients (LQ) analysis is used to quantify how concentrated a particular industry is in a region, compared to the national average and can reveal what makes a particular region 'unique'. A LQ>1 shows a greater concentration of employment in Lancashire than in England as a whole. Figure 3.9 shows the sub-sectors with greatest employment concentrations in Lancashire when compared to the national average. The proportion of employment in the manufacture of prepared animal feeds is nearly three times the national level.

Figure 3.9: Sub-sectors with greatest employment concentration, 2020, UK concentration = 1

Source: Business Register and Employment Survey, Employment Analysis, ONS

Case Study: **GA Pet Food Partners, Leyland**

GA Pet Food Partners is Europe's leading manufacturer of own label premium dry pet foods. The company is involved in all stages of pet food production, from new product development and testing, to manufacturing, packaging, storage and dispatch. From the company's beginnings on a 2,500 acre arable farm in 1992, GA Pet Food Partners has grown to become a company which employs over 800 people, sells over 80,000 tonnes of dry pet food each year and exports to 50 countries.

The company's Research and Development team work with the Nutrition, Production, and Quality teams, using their animal biology and nutrition knowledge, to develop new products which provide better nutrition for pets and meet the needs of the company's partners.

GA Pet Food Partners is committed to minimising its environmental impact. The company has invested £9 million in a state-of-the-art odour abatement system, with five large bio-beds that scrub the air clean before releasing it back into the atmosphere and recycles 98% of waste generated on-site.

Source: www.ga-petfoodpartners.co.uk

3.4.2 *Travel to Work Area Analysis*

Figure 3.10 maps the employment in the Food and Agriculture sector in each of Lancashire's six TTWAs, showing that the largest number of employees is in the Preston, Chorley and South Ribble TTWA. However, in relative terms, the sector accounts for the largest proportion of total employment in West Lancashire – 21.1% of the total.

Figure 3.10: Food and Agriculture sector employment, by TTWA, 2020
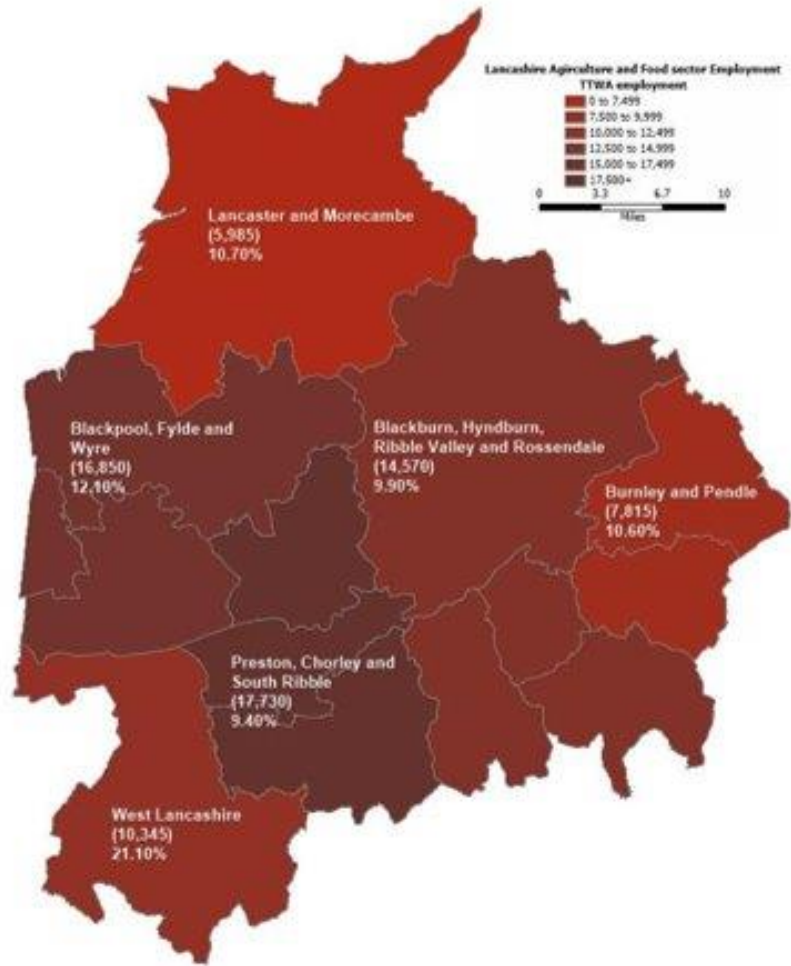
Source: Business Register and Employment Survey, Employment Analysis, ONS

Figure 3.11 shows the percentage of people employed in the Food and Agriculture sector each TTWA as a proportion of total employment for 2010, 2015 and 2020. West Lancashire is the only area which has seen a consistent increase in the proportion of employment in the Food and Agriculture sector.

Figure 3.11: Employment in Food and Agriculture Sector as % of Total Employment
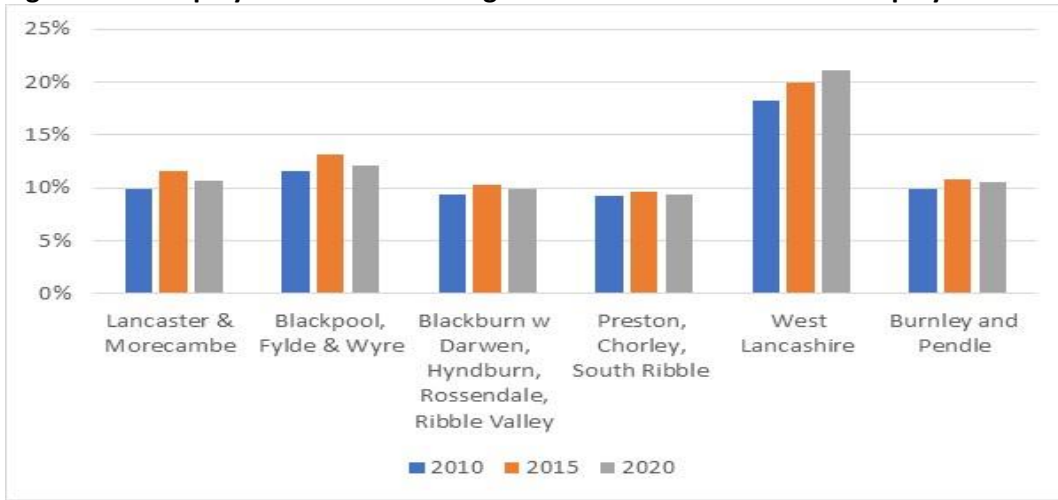
Source: Business Register and Employment Survey, Employment Analysis, ONS

Figure 3.12 show the share of employment in each TTWA, split into the Food and Agriculture subsectors. The food service subsector employs the highest proportion of people in every TTWA. The relative importance of the Food and Agriculture sector to West Lancashire is evident from the chart.

Figure 3.12: Employment in Food and Agriculture sub-sectors as a percentage of total employment, by TTWA
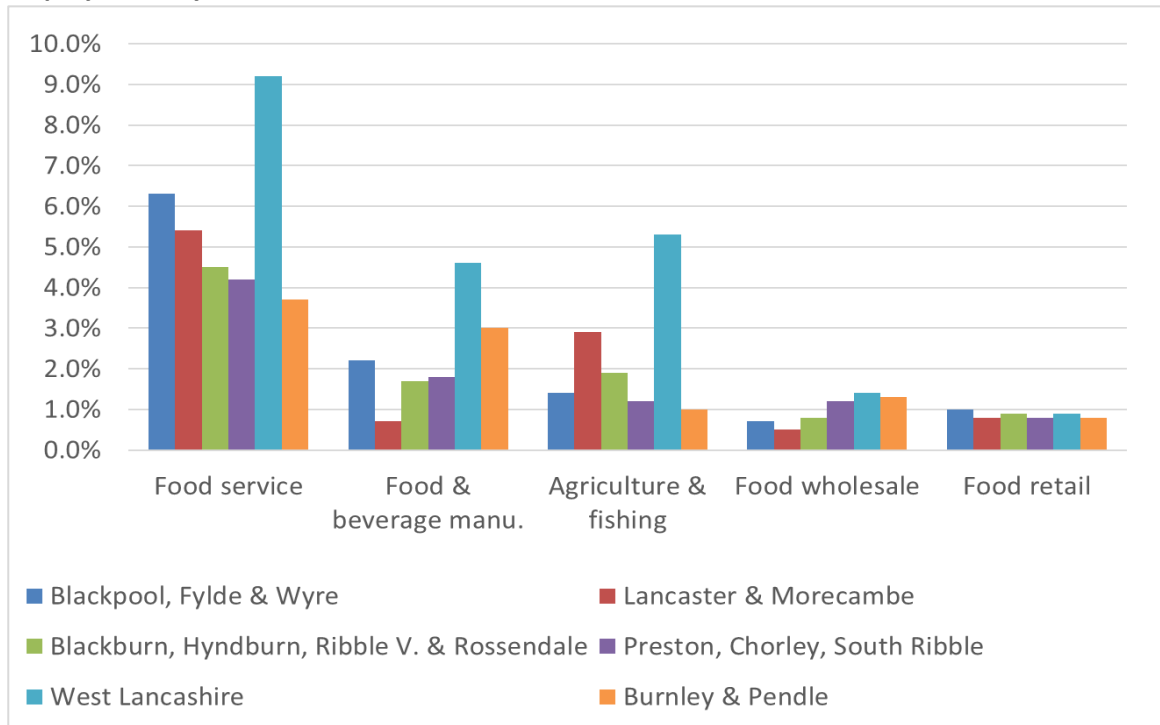
Source: Business Register and Employment Survey, Employment Analysis, ONS

<div style="border:1px solid">

Case Study: **Northcote Luxury Hotel and Michelin Star Restaurant**

Northcote is a multi-award winning hotel and Michelin Star restaurant situated on the edge of the Ribble Valley. The restaurant was awarded a Michelin Star in 1996 and has retained it for more than 25 years. It creates local dishes based on regional ingredients and has close relationship with numerous local biodynamic and organic suppliers. The hotel also sources as much produce as possible from its on-site kitchen garden.

During the Covid-19 lockdowns when the restaurant was unable to open normally, Northcote was one of the first hotels to introduce pre-prepared meal boxes, with the kitchen team working to create an 'at home' dining experience of the same quality for customers as the usual restaurant service. Over 10,000 gourmet boxes were sold, raising the hotel's profile, generating positive customer feedback and helping to retain the staff team throughout the disruption caused by the pandemic.

Source: www.northcote.com

</div>

3.5   Productivity

3.5.1   *Productivity*

In 2021, the Food and Agriculture sector in Lancashire was estimated to have GVA per job (productivity estimate) of £29,456, higher than the estimate for the North West (£24,128) and UK (£26,270). However, this level of productivity is lower than the Lancashire LEP average across all sectors - £41,866. Between 2010 and 2021, productivity in the Food and Agriculture sector is estimated to have increased by 2.7% in Lancashire LEP whilst it fell by 12.3% and 10.7% in the North West and UK respectively. All areas experienced a fall in productivity between 2019 and 2020, which is likely to reflect the impact of the COVID-19 pandemic on sector output, although in Lancashire this trend appears to pre-date the pandemic.

Figure 3.13: Food and Agriculture sector productivity levels, 2010-2021 (£, 2018 prices)
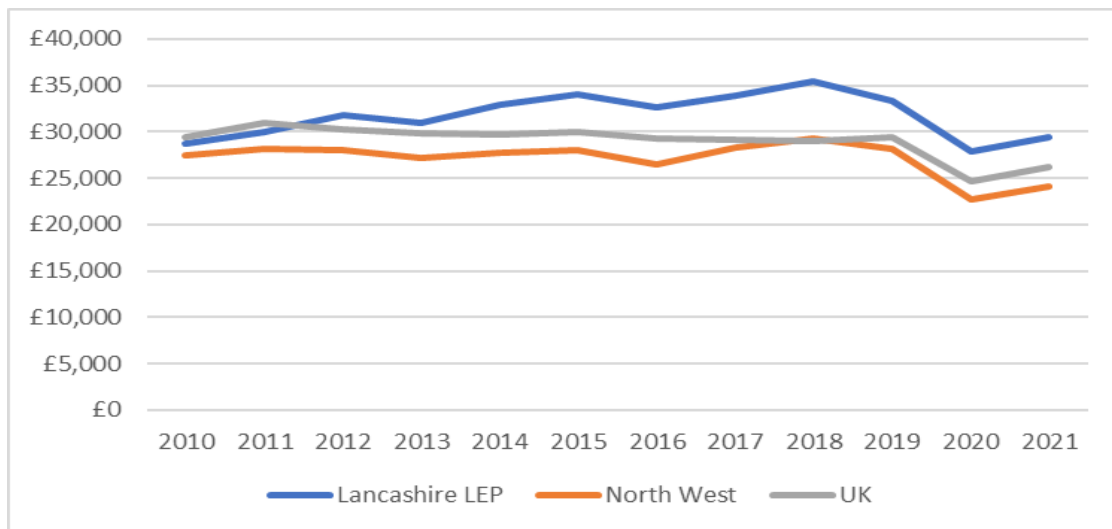
Source: Cambridge Econometrics Local Authority Economic Forecasting Model (LEFM) Projections

3.5.2 *Productivity by sub-sector and TTWA*

Productivity levels vary considerably between sub-sectors (see Table 3.7), with GVA per job in the food wholesale sub-sector over four times as high as in food and beverage services. It is the relative productivity of the food wholesale sub-sector (160% of the UK average) which leads to Lancashire's overall high productivity in the Food and Agriculture sector – in all other sub-sectors, productivity is lower than the UK average.

As shown in Table 3.8, productivity in the food wholesale sub-sector has risen rapidly since 2010, the GVA nearly doubling from £31,000 to £61,000 per job in that time. Productivity has also increased in the food retail and agriculture, forestry and fishing sub-sectors. This is likely to reflect increased automation and use of technology across these sub-sectors. In contrast, the food and beverage services sector has seen a fall in productivity levels (with the 2021 data likely to be affected by the impact of the restrictions on activity affecting the sub-sector at that time).

Table 3.7: Food and Agriculture sub-sector GVA per job, 2021 (£, 2018 prices)				
	Lancashire	**North West**	**UK**	**Lancashire as % of UK**
Food wholesale (estimated)	£61,652	£37,045	£38,519	160.1%
Food, drink & tobacco manufacturing	£57,203	£58,091	£63,310	90.4%
Agriculture, forestry & fishing	£25,427	£22,295	£32,196	79.0%
Food retail (estimated)	£19,207	£19,747	£20,319	94.5%
Food & beverage services	£13,484	£12,664	£14,604	92.3%
Food and Agriculture sector overall	£29,456	£24,128	£26,270	112.1%
All sector economy average	£41,866	£42,896	£46,396	90.2%

Source: Cambridge Econometrics Local Authority Economic Forecasting Model (LEFM) Projections

Table 3.8: Food and Agriculture sector GVA per employment, Lancashire (£, 2018 prices)				
	2010	**2015**	**2021**	**Change 2010 – 2021 (%)**
Food wholesale (estimated)	£31,606	£50,656	£61,652	95.1%
Food retail (estimated)	£14,912	£14,016	£19,207	28.8%
Agriculture, forestry & fishing	£20,011	£30,433	£25,427	27.1%
Food, drink & tobacco manufacturing	£57,870	£67,966	£57,203	-1.2%
Food & beverage services	£20,198	£21,375	£13,484	-33.2%
Food and Agriculture sector overall	£28,691	£34,085	£29,456	2.7%
All sector economy average	£38,207	£42,113	£41,866	9.6%

Source: Cambridge Econometrics Local Authority Economic Forecasting Model (LEFM) Projections

---

Case Study: **James Hall & Co. Ltd**

JAMES HALL & CO
— ESTD·1863 —

James Hall & Co. Ltd specialises in the wholesale distribution of groceries and is one of Lancashire's largest employers, with over 800 staff working at the company's distribution site at Bowland View on the outskirts of Preston, and 4,200 staff in total. The Lancashire-based family business is SPAR UK's wholesaler and distributor for the north of England and provides over 600 SPAR stores with bakery goods, fresh cakes, pies and sandwiches and Asian cuisine from Lancashire based production sites. Its Clayton Park production facility in Accrington supplies pies to football clubs including Liverpool, Everton, Oldham Athletic, Rochdale, Preston North End and Accrington Stanley.

The company employs staff in a wide variety of roles, from retail and driving, and provides learning and development opportunities to help colleagues progress in their careers. Apprentices are supported across areas including manufacturing, retail and leadership and management, and the in-house Leadership Academy supports shop floor workers to progress into supervisory and management roles. There is a Management Trainee Programme open to undergraduate and post-graduate students.

Source: www.jameshall.co.uk

These sub-sector differences impact on productivity at the TTWA level (see Table 3.9). In 2021, the Food and Agriculture sector in Burnley and Pendle was estimated to have the highest level of productivity with GVA of £33,236 per job, whilst Lancaster and Morecambe had the lowest (£22,596). This reflects the sub-sectoral make-up of the Food and Agriculture sector in each TTWA, with the highly productive food wholesale sub-sector accounting for 31% of total sectoral employment in Burnley and Pendle, compared to just 7% in Lancaster and Morecambe.

Table 3.9: Food and Agriculture sector GVA per job (£, 2018 prices)				
	2010	**2015**	**2021**	**Change 2010 – 2021 (%)**
Burnley and Pendle	£30,710	£36,492	£33,236	8.2%
Preston, Chorley and South Ribble	£27,211	£33,593	£30,907	13.6%
Blackburn w. Darwen, Hyndburn, Rossendale, Ribble Valley	£30,879	£36,073	£30,720	-0.5%
West Lancashire	£29,092	£36,451	£30,520	4.9%
Blackpool, Fylde and Wyre	£28,750	£32,837	£27,185	-5.4%
Lancaster and Morecambe	£23,057	£27,008	£22,596	-2.0%
Lancashire LEP	£28,691	£34,085	£29,456	2.7%
North West	£27,505	£27,972	£24,128	-12.3%
UK	£29,423	£30,038	£26,270	-10.7%

Source: Cambridge Econometrics Local Authority Economic Forecasting Model (LEFM) Projections

3.6 International Trade

3.6.1 *A note on the data*

Data on international trade in goods is available at Lancashire level from HM Revenue & Customs. The 'food and live animals' category relates to the agriculture, forestry & fishing and food, drink & tobacco manufacturing sub-sectors within the Food and Agriculture sector.

3.6.2 *Exports*

In 2020, food and live animal exports from Lancashire were worth £305 million which represented 6.2% of total Lancashire exports[6] (ONS). This is a higher proportion of total Lancashire exports than the proportion of GVA (3.6%) or employment (3.1%) accounted for by the agriculture, forestry & fishing and food, drink & tobacco manufacturing sub-sectors in 2020[7]. This demonstrates the sector's relative exporting strength in Lancashire. Between 2018 and 2020, the value of food and live animals exports from Lancashire increased by 4.8%, whilst the value of total exports from Lancashire fell by 14.4%, highlighting the increasingly important contribution of the sector to Lancashire's export earnings.

3.6.3 *Imports*

In 2020, food and live animals imports to Lancashire were worth £480 million, representing 8.9% of total Lancashire imports. Although the value of food and live animal imports fell by 27% between 2018 and 2020, the value of imports still exceeded exports by £175 million, resulting in a Balance of Trade deficit for this category of trade.

3.6.4 *Trade patterns*

Food and live animal exports to the EU were worth £223 million in 2020, with the EU accounting for 73.1% of Lancashire's total food and live animal exports (compared to 51.0% of all Lancashire's exports). The EU was the source of 84.8% of Lancashire's total food and live animal imports (£407 million), compared to 54.0% of all Lancashire's exports, showing the importance of the EU as both a market and supply chain for Lancashire's Food and Agriculture sector. Whilst there was a Balance of Trade deficit with the EU (£184 million), there was a small trade surplus with non-EU countries (£9 million).

---

[6] [Regional trade in goods statistics disaggregated by smaller geographical areas: 2020 - GOV.UK (www.gov.uk)](www.gov.uk)
[7] Cambridge Econometrics Local Authority Economic Forecasting Model (LEFM) Projections

Table 3.10: Food and Agriculture sector – contribution to Lancashire's international trade, £m				
	2018	**2019**	**2020**	**Change (%)**
Food & live animals - exports	291	301	305	4.8%
Food & live animals - imports	658	555	480	-27.1%
Food & live animals – Balance of Trade	-367	-254	-175	-52.3%
Lancashire total - exports	5,740	5,243	4,916	-14.4%
Lancashire total - imports	6,658	6,195	5,380	-19.2%
Lancashire total – Balance of Trade	-918	-961	-464	-49.5%
Food & live animals – exports as % of total Lancashire exports	5.1%	5.7%	6.2%	22.4%
Food & live animals – imports as % of total Lancashire imports	9.9%	9.0%	8.9%	-9.7%

Source: UK Regional Trade in Goods Statistics, HM Revenue & Customs

Case Study: **Cheese Matters**

Based in Garstang, Cheese Matters is a small specialist company which supports high quality cheese producers in Lancashire and beyond to develop relationships with international customers and grow export sales.

The team provides support to cheese producers by undertaking company assessments to check if exporting is a suitable goal, helping prepare the producer to export, e.g. through developing the correct documentation, identifying the best route to market, and supporting them to complete the sale with their new overseas customer. The company also acts for international customers, helping them find the right product for their business, through Cheese Matters' network of heritage and speciality producers.

The company was recently awarded the Queens Award for Enterprise, having seen 80% growth in exports between 2018 and 2021.

Source: www.cheesematters.co.uk

4 Workforce, Education and Skills Needs

Key Points

- The Food and Agriculture sector workforce in Lancashire is, on average, younger than the sector workforce nationally, and younger than the Lancashire workforce as a whole, with over one-third of workers aged 24 and under – particularly those working in the food services sub-sector.

- Many of the job roles in the sector are considered to be at 'Skill Level 1', requiring limited qualifications and training beyond a general level of education. The proportion of jobs at 'Skill Level 2' has fallen in recent years, whilst there was a shift towards occupations at Skill Levels 3 and 4. The most common occupations in the sector in Lancashire include waiters and waitresses; farmers; kitchen and catering assistants; cooks; and bar staff.

- This age and occupational profile is reflected in the qualifications held by the Lancashire workforce, which are lower than those held by their national counterparts. Over half have qualifications at Level 2 or below.

- Low levels of qualifications and a relatively low-skilled occupational profile are reflected in below average earnings across all Food and Agriculture sub-sectors (national data). Earnings in the Food Services sub-sector are particularly low, with median full-time gross earnings below £20,000 per annum. Earnings in the sector's most common occupations are below the national mean and median averages.

- Many of the key occupations are at a high risk of automation. This will support higher productivity, but workers will need new skills to adapt to the changing requirements of their role, and there could be in job losses in the most vulnerable occupations.

- The number of apprenticeships relevant to the sector delivered in Lancashire has fallen over the past three years, although there was an upturn in agriculture apprenticeships (and Further Education provision) in 2020. The bulk of provision is at level 2, particularly in hospitality and catering. Myerscough College dominates provision related to agriculture, horticulture and animal care, with a broader range of providers active in delivering hospitality and catering training.

- Vacancy numbers (counted through monitoring of online job advertisements) recovered strongly in 2021, with the food and beverage services sub-sector accounting for two-thirds of all those posted online. The most commonly advertised jobs are for kitchen and catering assistants, and chefs.

- Research undertaken for the Local Skills Improvement Plan identified a wide range of skills needs. Farming and agriculture businesses were more likely to identify skills needs relating to net zero, and to highlight barriers which make investment in training difficult. Food manufacturing businesses had greater need for importing and exporting skills, and expected greater need for net zero-related skills in future. Food services businesses had greater need for digital and marketing skills and particularly highlighted the need for soft skills such as customer service and communications skills.

4.1 The Food and Agriculture Sector Workforce

4.1.1 *A note on the data source*

The Annual Population Survey (APS) is a sample survey of the population, which provides information on employment, unemployment and economic activity, amongst other topics. In contrast to the business and employment data presented in section 3, the APS is gathered from individuals, who are surveyed in their home rather than at their place of work. The data presented in this section is therefore not directly comparable to the information included in section 3, and therefore no numbers are included in this section. It does, however, provide useful contextual data on the make-up of the workforce in Lancashire's Food and Agriculture sector, and how this compares to the sector workforce nationally, and the wider Lancashire workforce.

4.1.2 *Age, Sex and Ethnicity of the Workforce*

The Food and Agriculture workforce in Lancashire is relatively young, compared to the national sector workforce and to the Lancashire (employed) workforce as a whole. Over one third of the workforce in Lancashire's Food and Agriculture sector are aged 16 to 24 (34%), compared to around one quarter in the sector nationally (26%). The largest proportion of the Food and Agriculture sector workforce in Lancashire is aged 25 to 49 (43%), lower than the proportion of the sector in England as a whole (50%). The proportions aged over 50 were roughly similar.

The proportion of workers aged 16-24 is much higher in the Food and Agriculture sector than in Lancashire's overall workforce (34% compared to 13%), whilst the proportion aged over 50 is much lower (23% compared to 35%). This is due to the food services sub-sector, where young workers account for 56% of all employment and only 10% are aged over 50. This contrasts with the agriculture and food manufacturing sub-sectors, which have an older workforce.

In Lancashire, males and females each account for 50% of the sector workforce. Nationally, a higher proportion of the sector workforce is male than female (54% compared to 46%). The proportion of non-white workers in the Food and Agriculture sector in Lancashire (16%) is higher than the proportion of the total Lancashire employed workforce which is non-white (10%).

**Figure 4.1: Food and Agriculture sector workforce proportions by age, 2021 (%)**
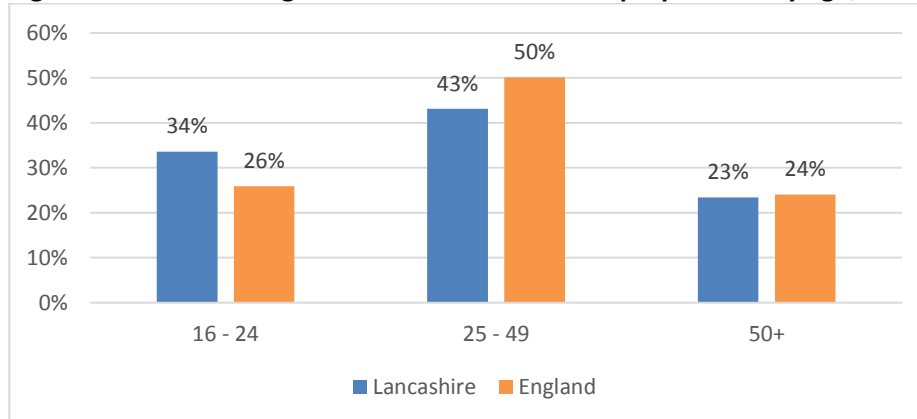
Source: Annual Population Survey, 2017 and 2021, ONS Analysis

4.1.3 *Qualification Levels*

The data shows that Lancashire's Food and Agriculture workforce is less well-qualified than the national sector workforce. Just 19% of workers in Lancashire's Food and Agriculture sector have qualifications at Level 4 or above (higher education, degree or equivalent). This compares to 27% of the sector workforce in England. Over half (51%) have qualifications at Level 2 or below (GCSE or equivalent) compared to 46% nationally.

Figure 4.2: Food and Agriculture sector workforce by highest level of qualification, 2021 (%)
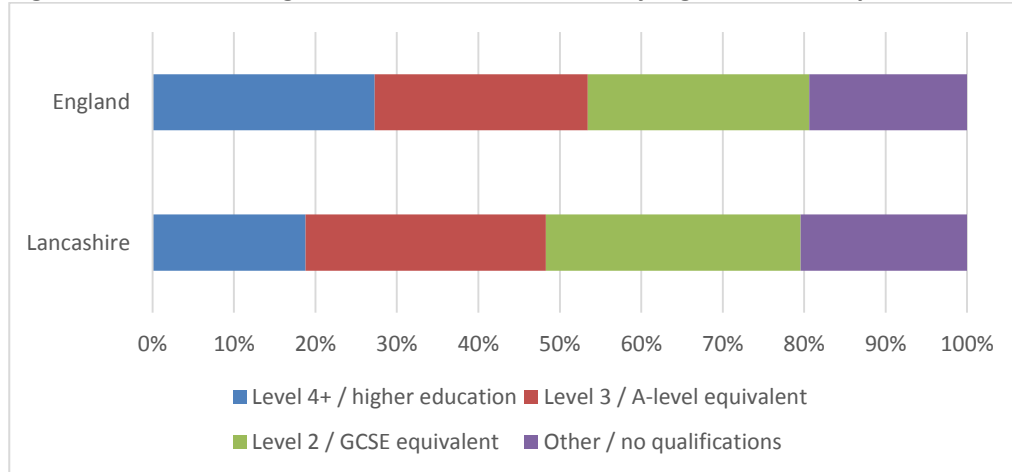
4.1.4 *Occupations*

Occupations can be grouped by 'skill level', reflecting the level of qualifications and training required to undertake the role. Skill Level 1 equates with the competence associated with a general education, and jobs may require a short period of training, e.g. catering assistants. Skill Level 2 occupations also requires a general education, but typically have a longer period of work-related training or work experience, e.g. machine operators. Skill Level 3 roles require a body of knowledge associated with a period of post-compulsory education but not normally to degree level, and include technical and skilled trades roles, such as skilled agricultural workers. Roles classed as Skill Level 4 require a degree or equivalent period of relevant work experience, and can be considered professional or managerial roles.

In 2021, Skill Level 1 (Elementary Occupations) accounted for nearly half (48%) of the sector workforce in Lancashire, and 47% in the sector nationally. The profile of occupations by Skill Level in Lancashire in the Food and Agriculture sector is similar to that of the sector across England with 18% of the sector's workforce in Lancashire in Skill Level 4 roles (Managers, Directors And Senior Officials, and Professional Occupations) compared to 19% in England. Between 2017 and 2021, there was a shift towards occupations at Skill Levels 3 and 4, whilst the number of roles at Skill Level 2 fell from 16% of the total, to 7%. This reflects the 'hollowing out' of the labour market with increased demand for highly skilled and unskilled workers, and a fall in the number of opportunities for those with relatively low level qualifications.

The most common occupations (by 4-digit SOC code) in the Food and Agriculture sub-sectors in Lancashire in 2021 include:

- *Agriculture, forestry and fishing:* Farmers; farm workers;

- *Food manufacturing:* Food process operatives; kitchen and catering assistants; drivers and other transport operatives;

- *Food wholesale:* Warehouse workers; drivers;

- *Food retail:* Sales and retail assistants; coffee shop workers; and

- *Food and beverage services:* Waiters and waitresses; cooks; bar staff; kitchen and catering assistants; chefs; and coffee shop workers.

This is very similar to the largest workforce occupations within the sector in England as a whole, which include kitchen and catering assistants, waiters and waitresses, chefs, and bar staff.

4.1.5   *The Agricultural Workforce*

Additional data is available from Defra on the make-up of the agricultural workforce[8]. Figure 4.3 shows that c. 60% of the workforce are farmers, their partners, directors and spouses, working either full- or part-time. A further 27% are regular workers, with 9% employed on a casual basis.

National data[9] shows that the vast majority of managers and non-family workers in agriculture are male. Agriculture has an ageing workforce with around 40% of farm 'holdings' headed by someone aged over 65. Female agricultural workers are more likely to work part-time than male workers.

Figure 4.3: The Agriculture Workforce in Lancashire, % of total (2016)
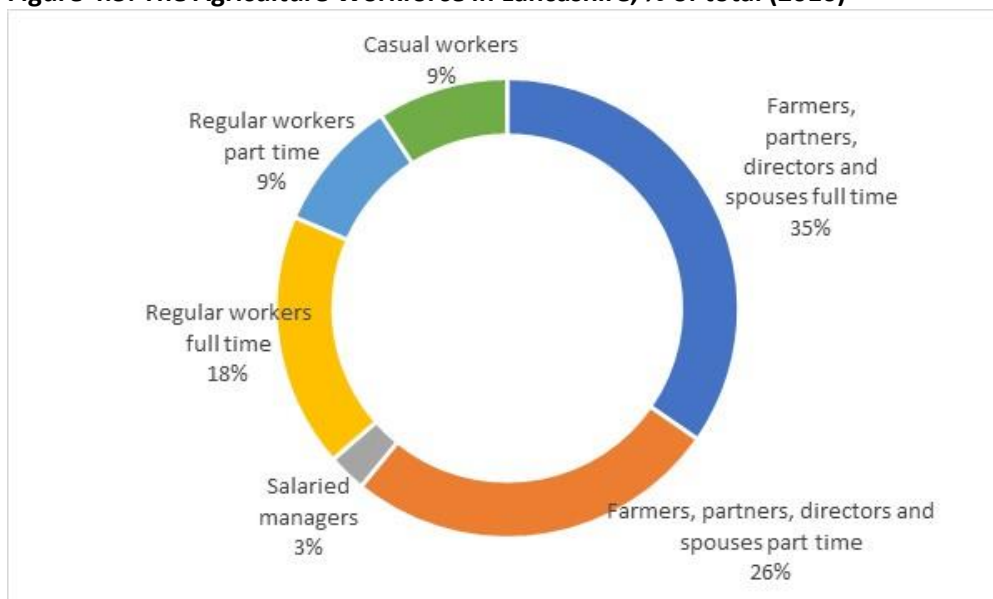
Source: Defra, Structure of the Agricultural Industry

---

[8] This data is only produced at Lancashire level on an irregular basis – the most recent data is from 2016 although 2021 data is due to be published during 2022.
[9] Agricultural labour in England and the UK, Defra, 2016

Case Study: **Flavourfresh Salads**

Flavourfresh Salads are a leading British commercial grower of tomatoes, strawberries, blackberries and blueberries. Based in West Lancashire where the high levels of light, mild temperatures and flat open land create a beneficial micro-climate, the company's state of the art facilities enable the production of the highest quality fruit. The company supplies to major supermarkets including Booths, Morrisons, ASDA, Marks and Spencer, Waitrose and Partners and the Co-op.

New Product Development and innovation are a key priority at Flavourfresh salads, with new trial varieties planted, grown and refined each year. The development process considers flavour, fruit quality, shelf life, disease-resistance and yield potential, and it can take on average up to four years from the first test to products being available in stores following full commercial production.

The company seeks to minimise its impact on the environment, for example through its own Combined Heat and Power plants, maintaining night-time greenhouse temperatures through the use of rainwater heated using the CO_2 generated on site, and re-circulating nitrate-rich water to ensure it does not enter local water courses. A range of high-tech production methods are used, including computerised monitoring of water, humidity, light levels and temperature. Robotic harvesting technology, developed by agri-tech start-up company Xihelm, is being piloted to harvest the company's tomatoes.

Source: flavourfresh.com

4.2 Sector and Occupation Earnings

4.2.1 *A note on the data source*

Data on earnings is available from ONS' Annual Survey of Hours and Earnings (ASHE). This provides very detailed data on average (mean and median) earnings by sector and by occupation. The national data for each Food and Agriculture sub-sector is presented here[10], along with national data for some of the most common occupations.

4.2.2 *Earnings by Sub-Sector*

Figure 4.4 provides data on the annual gross earnings of full-time workers in the Food and Agriculture sub-sectors. Both the mean and the median earnings are provided. Within every sector, people are employed in a range of occupations, some of which are senior / require high levels of skills and qualifications and therefore tend to be well-paid, whilst others are more routine, require relatively few qualifications and are therefore less well-paid. Presenting the sub-sector average can be misleading as these nuances are lost.

The median figure in the chart below shows the earnings of the person at the mid-point of the earnings range within each sub-sector. The mean figure can be distorted by the presence of a small number of very well-paid individuals which acts to drag the mean average upwards.

---

[10] Although regional data is available for some sectors / occupations, due to the survey sample size it is much less reliable than the national data.

As shown in Figure 4.4, mean earnings are highest (nationally) in fishing and aquaculture, manufacture of beverages and wholesale of agricultural raw materials, although all are lower than mean earnings across the economy as a whole. Median earnings are highest in the manufacture of beverages, where they are only very slightly lower than median earnings in the economy as a whole. In general, the Food and Agriculture sector is a low-paid sector, with earnings in the food and beverage sub-sector particularly low.

Figure 4.4: Annual pay - Gross (£) - For full-time employees in the Food and Agriculture sector, UK, 2021
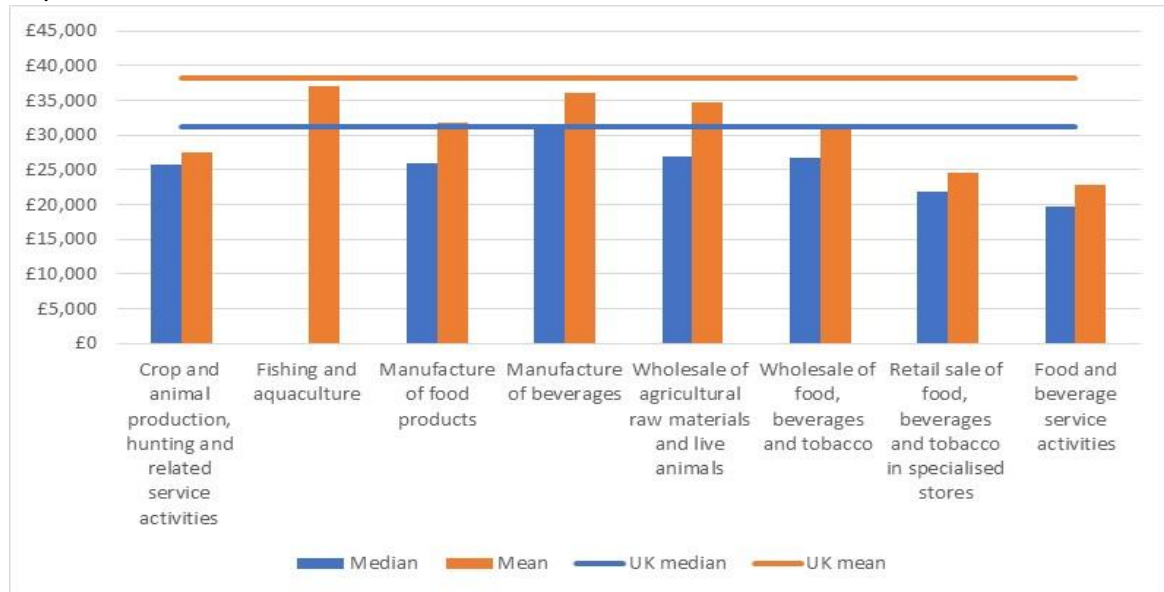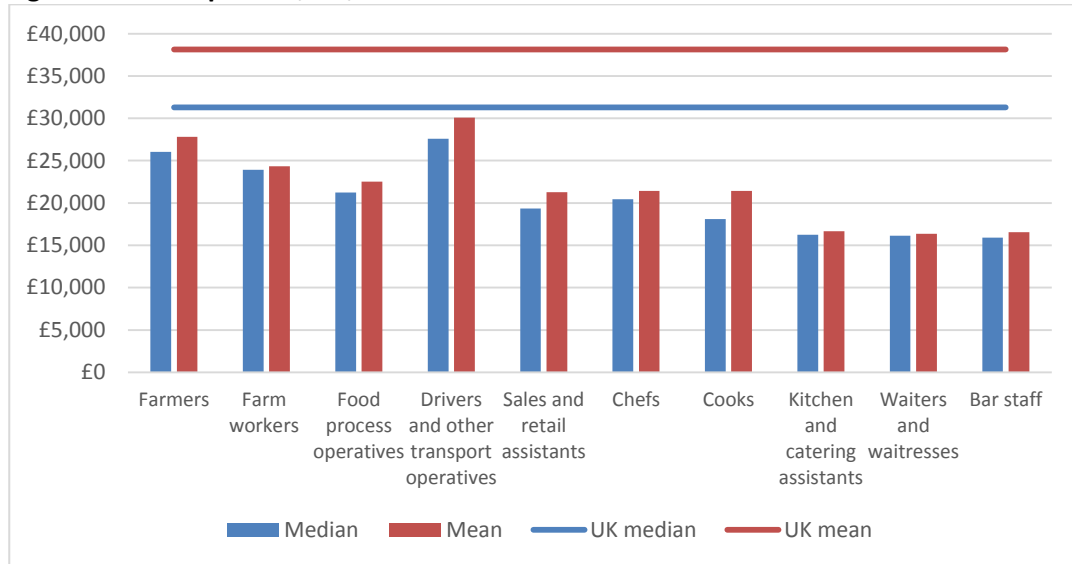

Source: Annual Survey of Hours and Earnings, 2021, ONS

4.2.3   *Earnings by Occupation*

Annual earnings for those working in the most common Food and Agriculture sector occupations are below the UK average, with median earnings for kitchen and catering assistants, waiters and waitresses and bar staff only just over half the UK median.

Figure 4.5: Annual pay - Gross (£) - For full-time employees in the most common Food and Agriculture occupations, UK, 2021

Source: Annual Survey of Hours and Earnings, 2021, ONS

4.3 Automation

4.3.1 *Background*

One of the key drivers of change across all parts of the labour market is the trend towards greater levels of automation, as technological development means that tasks currently done by workers can increasingly be delivered through technology, including computer programs, algorithms, or even robots. As the Levelling Up White Paper notes[11], automation is a key driver of economic growth as it makes production more efficient, reduces costs and increases output. However if not carefully managed, it may have serious implications for workers whose jobs are most at risk from automation.

The Office for National Statistics has undertaken research[12] to identify these jobs, based on an analysis of the tasks performed in each occupation, and the probability that some of these tasks could be replaced through automation. Note that this does not imply that the jobs will disappear – but that their nature will change and there is a risk of reduced levels of employment. Jobs most at risk are those which involve a high percentage of routine and repetitive tasks, which can be relatively easily replicated through artificial intelligence or a machine. Lower-skilled jobs therefore tend to be most at risk from automation, whilst those where specialist skills or personal service are required are less at risk.
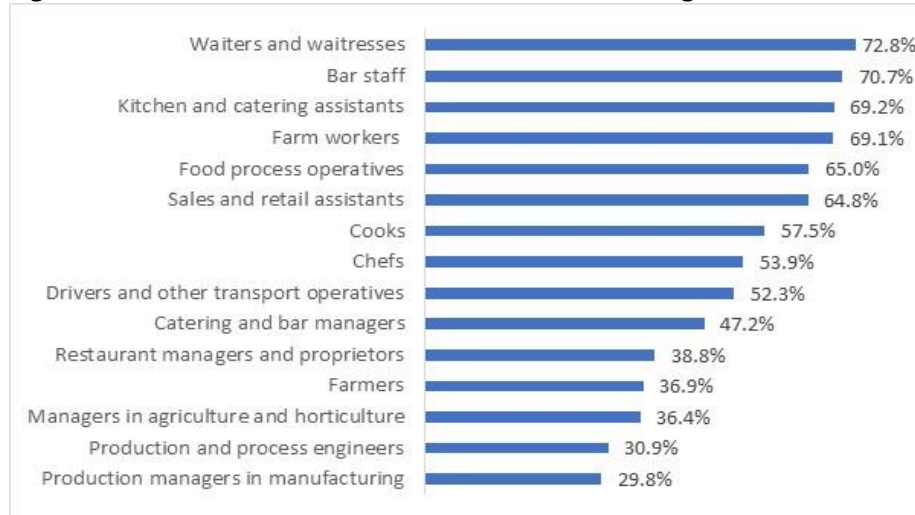
---

[11] Levelling up the United Kingdom, DLHUC, February 2022
[12] The probability of automation in England: 2011 and 2017, ONS, 2019

4.3.2 *Automation in the Food and Agriculture Sector*

There are already numerous examples of automation within the food and agriculture sector, such as the introduction of self-service checkouts in supermarkets. Looking at the most common occupations identified in 4.14, as well as some higher skilled occupations in the sector, Figure 4.6 illustrates the estimated risk of automation:

Figure 4.6: Jobs at risk of automation in the Food and Agriculture sector

Occupation	% at risk
Waiters and waitresses	72.8%
Bar staff	70.7%
Kitchen and catering assistants	69.2%
Farm workers	69.1%
Food process operatives	65.0%
Sales and retail assistants	64.8%
Cooks	57.5%
Chefs	53.9%
Drivers and other transport operatives	52.3%
Catering and bar managers	47.2%
Restaurant managers and proprietors	38.8%
Farmers	36.9%
Managers in agriculture and horticulture	36.4%
Production and process engineers	30.9%
Production managers in manufacturing	29.8%

Source: ONS, 2019

***Case Study:* Booths**

Booths is a family owned and operated independent supermarket with 27 stores across the North of England (mostly in Lancashire) and its headquarters in Ribbleton, Preston.

Booths is committed to sourcing products locally and seasonally from the counties it serves, and its approach to retailing has earned the company multiple awards and recognition as the UK's leading regional supermarket.

Booths has taken a number of steps to reduce the environmental impact of its operations, including introducing less harmful packaging materials, removing single use plastic cutlery and plastic produce bags from its stores, and providing electric vehicle (EV) charging points. Used coffee grounds from the stores and cafes are recycled into 'coffee logs' which can used on wood burners, stoves and open fires.

Source: www.booths.co.uk

4.4 Current Education and Training Provision

This section of the report provides information the current provision of education and training relevant to the Food and Agriculture sector. The data covers education and training delivered in Lancashire and may therefore include some courses undertaken by learners who are not resident in Lancashire.
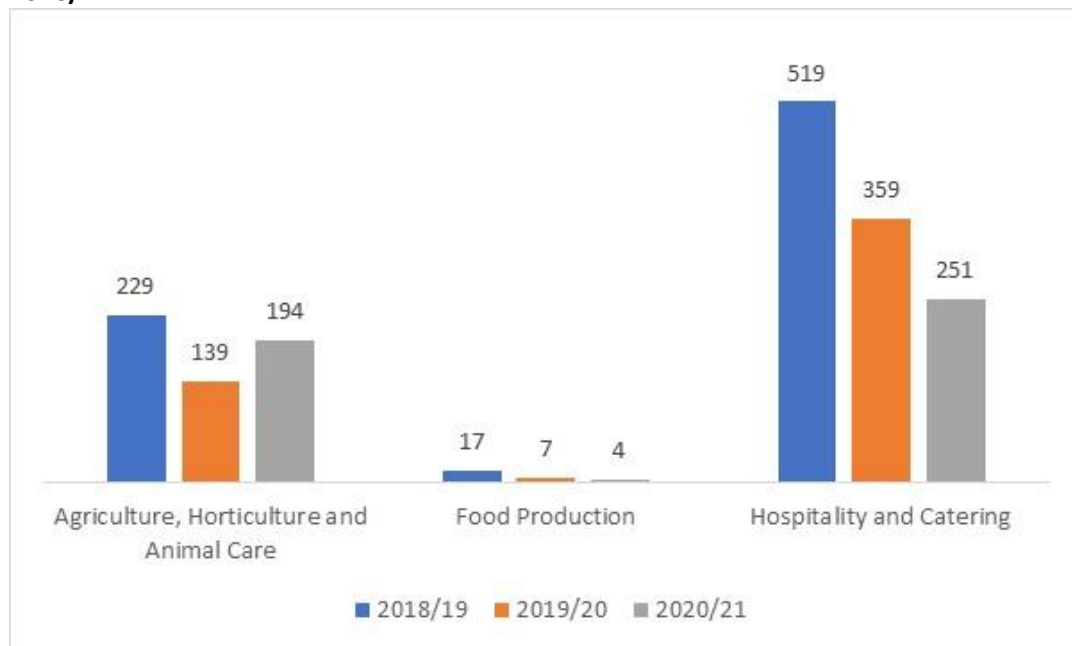
4.4.1 *Apprenticeship provision*

In total, 1,720 apprenticeships relevant to the Food and Agriculture sector were delivered in Lancashire from 2018 to 2021. This includes:

- Agriculture, Horticulture and Animal Care apprenticeships,

- Manufacturing Technologies apprenticeships most relevant to food and drinks manufacturing (including Baker; Brewer; Fishmonger; and Food Manufacture), and

- Hospitality and Catering apprenticeships within the Retail and Commercial Enterprise subject area.

As shown in Figure 4.7, in each year, Hospitality and Catering courses attracted the highest number of apprentices with 1,129 (65.6%) of all Food and Agriculture-related apprenticeships in this subject area. Since 2018/19, the number of apprenticeships relevant to the Food and Agriculture sector has declined by 41.2%. This is likely to reflect the impact of the Covid-19 pandemic on both employers and educational institutions, although it is notable that there was an increase in agriculture, horticulture and animal care apprenticeships in Lancashire in 2020/21.

Figure 4.7: Food and Agriculture-related apprenticeship provision in Lancashire, 2018/19-2020/21

Source: ESFA Datacube

The majority of the apprenticeships undertaken were at Level 2, with 1,246 (72.4%) of all apprenticeships during these years completed at this level. Just under one-quarter (24%, 418) of apprenticeships delivered in Lancashire were at Level 3 and 56 Level 4 apprenticeships were delivered.

Figure 4.8: Food and Agriculture-related apprenticeship provision in Lancashire by level, 2018/19-2020/21
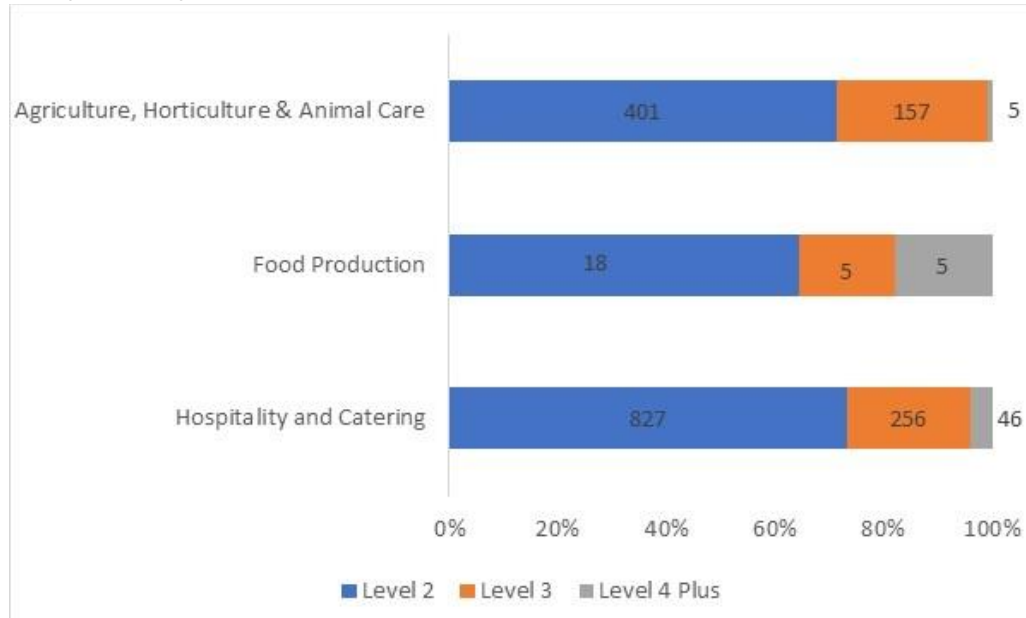
Source: ESFA Datacube

4.4.2   *Further Education provision*

Looking at FE provision more broadly, in 2020/21 there were 4,441 further education courses relating to the Food and Agriculture sector delivered within Lancashire. Agriculture, horticulture and animal care accounted for nearly 70% of all provision. This incorporated courses relating to agriculture, horticulture, and forestry; animal care and veterinary science; and environmental conservation. As with the apprenticeship data, whilst the number of manufacturing technologies and hospitality and catering courses declined across the 2018/19-2020/21 period, agriculture, horticulture and animal care saw an increase in provision during 2020/21. In total, starts relevant to the sector fell by 26.6% between 2018/19-2020/21 – compared to 23.3% across all subject areas.

Figure 4.9: Food and Agriculture-related FE provision in Lancashire, 2018/19-2020/21
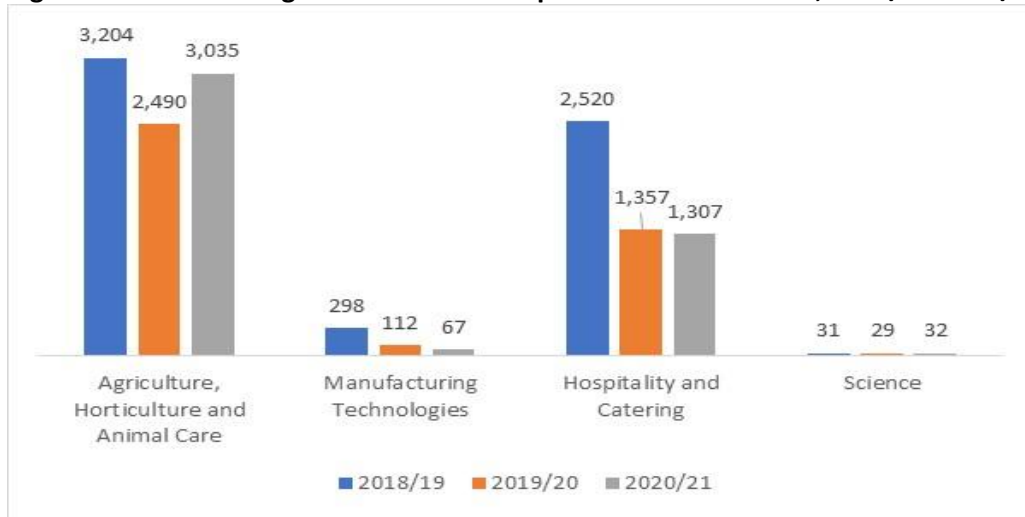
Source: ESFA Datacube

For the period 2018/19-2020/21, 49% of the further education provision related to the Food and Agriculture sector delivered in Lancashire was at Level 2, although this varied across subject area. For example, while 68% of Manufacturing Technologies provision and 71% of Hospitality and Catering provision was at Level 2, science-based courses related to the Food and Agriculture sector in Lancashire tended to be at a higher qualification level (Level 4 and 5 exclusively) and one-third of all Agriculture, Horticulture and Animal Care provision was at Level 3 or above.

Figure 4.10: Food and Agriculture-related FE provision in Lancashire by level, 2018/19-2020/21
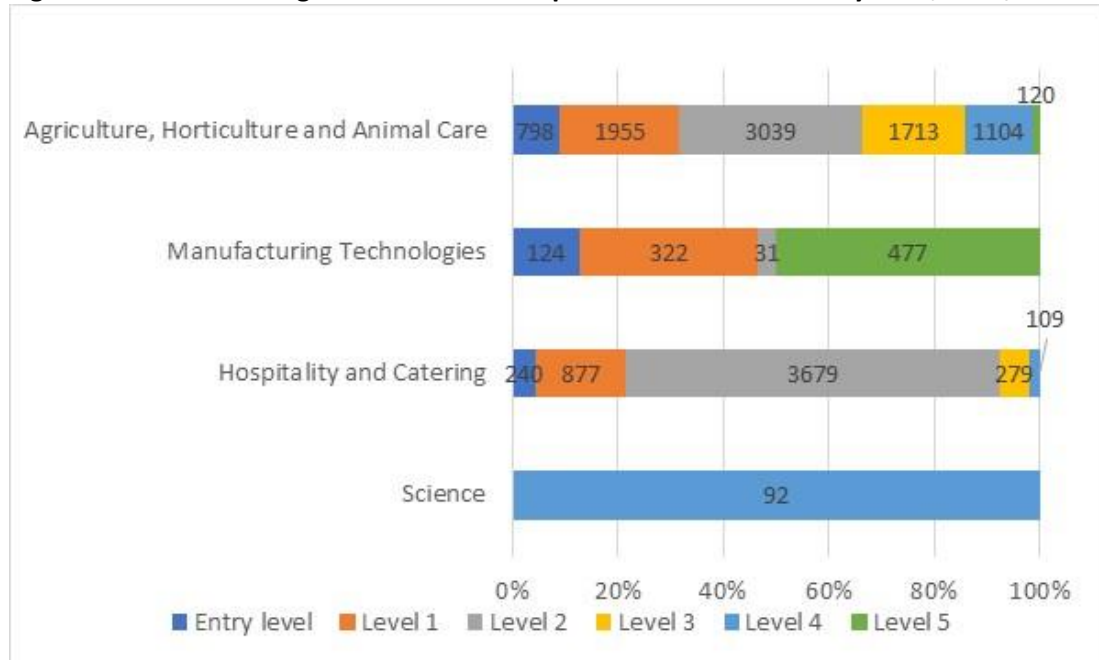
Source: ESFA Datacube

4.4.3 *Further Education Providers*

In total, 37 FE providers deliver Food and Agriculture-related education and training in Lancashire. Nineteen providers deliver Agriculture, Horticulture and Animal Care courses, but three-quarters of total provision is through Myerscough College.

Figure 4.11: Agriculture, Horticulture and Animal Care FE provision in Lancashire by provider, 2018/19-2020/21
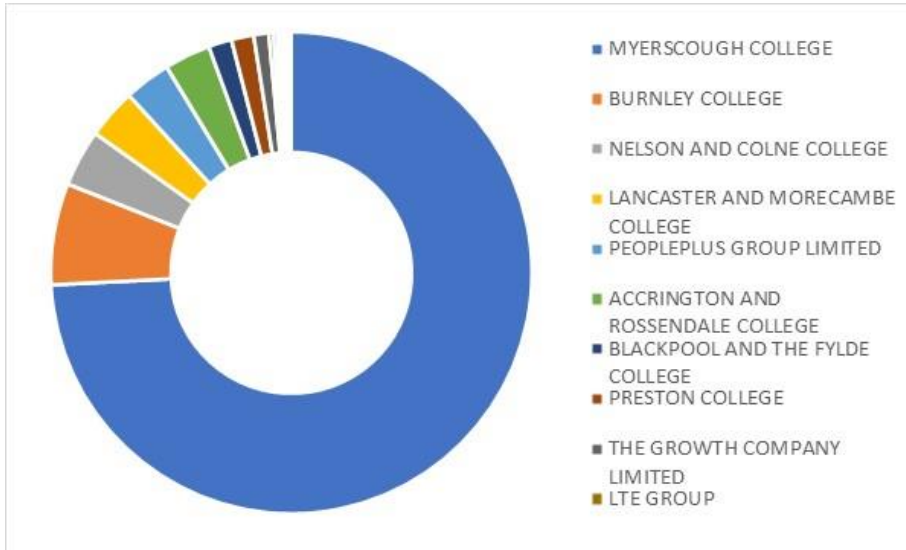
Source: ESFA Datacube

Delivery of Hospitality and Catering provision is much more evenly distributed across 29 providers, although the three largest account for nearly half of all provision, as shown in Figure 4.12.

Figure 4.12: Hospitality and Catering FE provision in Lancashire by provider, 2018/19-2020/21
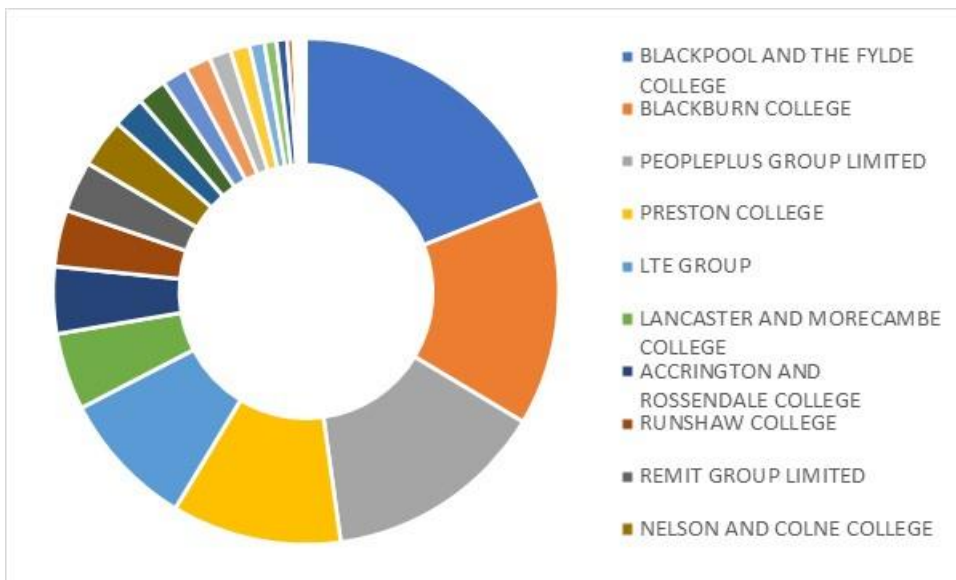
Source: ESFA Datacube

4.4.4 *Delivery of Higher Education through Further Education providers*

Five FE providers deliver Higher Education provision which is relevant to the Food and Agriculture sector in Lancashire, although again Myerscough College is the dominant provider. Over the 2018/19- 2020/21 period, 1,305 HE qualifications have been delivered, of which 1,222 related to Agriculture, Horticulture and Animal Care. The only other significant provider of relevant HE in FE is Blackpool and the Fylde College, which delivered 65 Foundation Degrees and 32 BA(Hons) Degrees in Hospitality and Events Management over the same period.

4.4.5 *Higher Education provision through Lancashire's Universities*

Data on higher education provision from the Higher Education Statistics Agency (HESA) has been analysed, to identify relevant provision at Lancaster University, the University of Central Lancashire and Edge Hill University[13].

Analysis shows that across the UK, there were nearly 18,500 students enrolled on Agriculture, Food and Related Studies HE programmes in 2020/21. Provision is dominated by six providers who account for over half of total provision:

- Harper Adams University;

- SRUC (Scotland's Rural College);

- Hartpury University;

- Nottingham Trent University;

- University College Birmingham, and

- Royal Agricultural University.

Only 40 students are recorded as being enrolled on relevant programmes in Lancashire's universities in 2020/21 (numbers are rounded to the nearest five), of which 30 were studying Food Sciences and ten were studying Food and Beverage Production. No Animal Science, Agricultural Science, Agriculture, or Rural Estate Management provision is recorded in Lancashire on HESA's datasets.

Although there is relatively little relevant degree provision within Lancashire's Universities, there is relevant research expertise within the Higher Education sector, including the Centre for Global Eco-Innovation at Lancaster University.

Case Study: **Centre for Global Eco-Innovation**

Lancaster University's Centre for Global Eco-Innovation was established in 2012. It has four core themes – net zero carbon; nature-based solutions; circular solutions; and enabling eco-innovation – and is leading on a range of research projects related to the Food and Agriculture sectors. These projects are focused on increasing food security, sustainability, improving the resilience of the food industry to climate change and boosting

---

[13] The University of Cumbria's Lancaster campus does not deliver relevant provision.

productivity and the nutritional quality of food. Relevant research projects undertaken at the centre include:

- **Eco-I North** - A £14m R&D support project open to businesses across England's North West. The programme has a distinctive model for interdisciplinary research and seeks to support low carbon business innovations within Lancashire. A key theme of the project is food and resource efficiency.

- **Rurban Revolution** - An interdisciplinary project focused on urban greening and food growing. Rurban Revolution brings together expertise in ecosystems, psychology, plant sciences and supply chains from Lancaster University, Cranfield University and University of Liverpool. In particular, the project focuses on healthy and sustainable diets by improving availability, access and consumption of fruit and vegetables, food production in terms of quantity, quality and safety and the resilience of the UK food system.

- **Soil-Value** – A 5-year EPSRC funded fellowship focused on understanding the delivery of soil food, water and carbon services across the UK, improving resilience to climate change and investigating future land drivers, and how to enhance soil's services.

- **CropBooster-P** – A project that brings together plant scientists, food system researchers and stakeholders to identify the priorities and opportunities for improving the sustainability, productivity and nutritional quality of the food system by improving crops.

Lancaster University is also running a Food and Agriculture Innovation Catalyst programme, focussed on Lancashire businesses in the sector who are seeking innovative approaches to improve environmental sustainability. The Innovation Catalyst model brings together businesses with shared issues to develop effective long-term solutions that capture greater value for them and for the region.

Source: www.lancaster.ac.uk/global-eco-innovation/, www.lancaster.ac.uk/business/innovation-catalyst-lancashire/index.php

---

Case Study: **ARID AGRITECH**

ARID AGRITECH is developing innovative techniques to help drive the growth of crops grown under cover. The company designs and supplies products to meet the needs of individual crops based on cutting edge crop science and exhaustive global field trials. The approach uses individual light 'recipes' to tackle a range of challenges including managing pests, pesticide breakdown rates, improving crop yields and growing more sustainable crops.

The company is based in Lancaster University's Environment Centre, and has worked closely with researchers at the University over many years. It has funded and supervised a number of PhD and Masters students to take forward research on the role of light in crop production, and is using that knowledge to undertake grower-led trials of the innovative technology with producers in Turkey and the Middle East.

Source: www.aridagritec.net

4.5 Vacancies and Recruitment

4.5.1 *A National Overview*

Robust and comparable data on vacancies, hard-to-fill vacancies and skills shortages is available from the national Employer Skills Survey (ESS). However, the sector definitions used are very broad, with agriculture grouped with energy and utilities, no breakdown of the manufacturing sector by type of product manufactured, and food services included in a broader 'hotels and restaurants' classification.

Although this does not align with the sector definition agreed for this study, the ESS data does provide a guide to potential labour market challenges within the Food and Agriculture sub-sectors. The data reflects the pre-pandemic position, and indicates that businesses within the food services sub-sector (part of the Hotels and Restaurants sector on the chart below) are most likely to have recruited recently, to have a current vacancy and to have a hard-to-fill vacancy. This position is likely to have worsened given the demand for labour since COVID-19 restrictions were eased.

However, manufacturing businesses were more likely to report having a skill shortage vacancy, i.e. a position which cannot be filled due to a lack of applicants with the required skills / qualifications.

Figure 4.13: Recruitment, vacancy and skills shortages challenges by broad sector, England, 2019
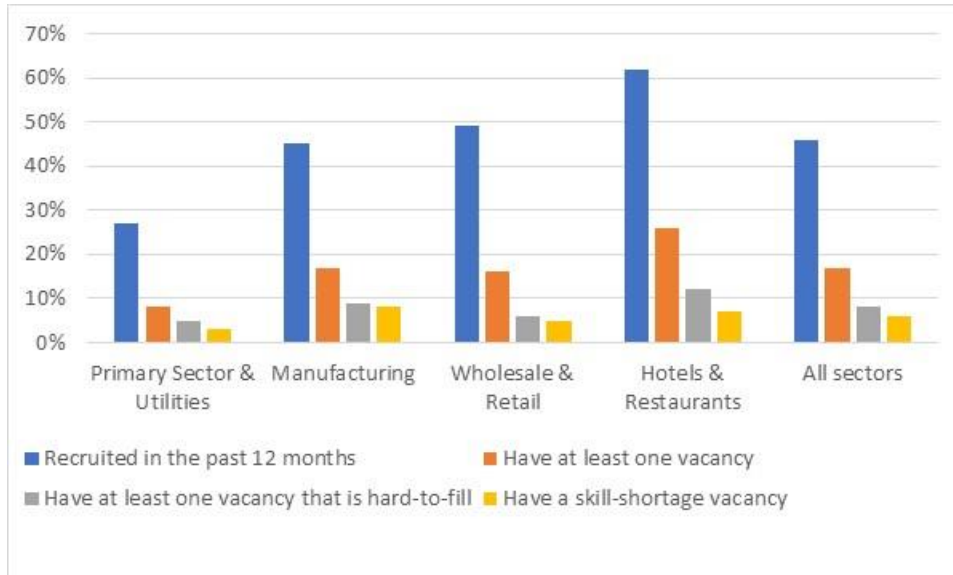
Source: Employer Skills Survey, 2019
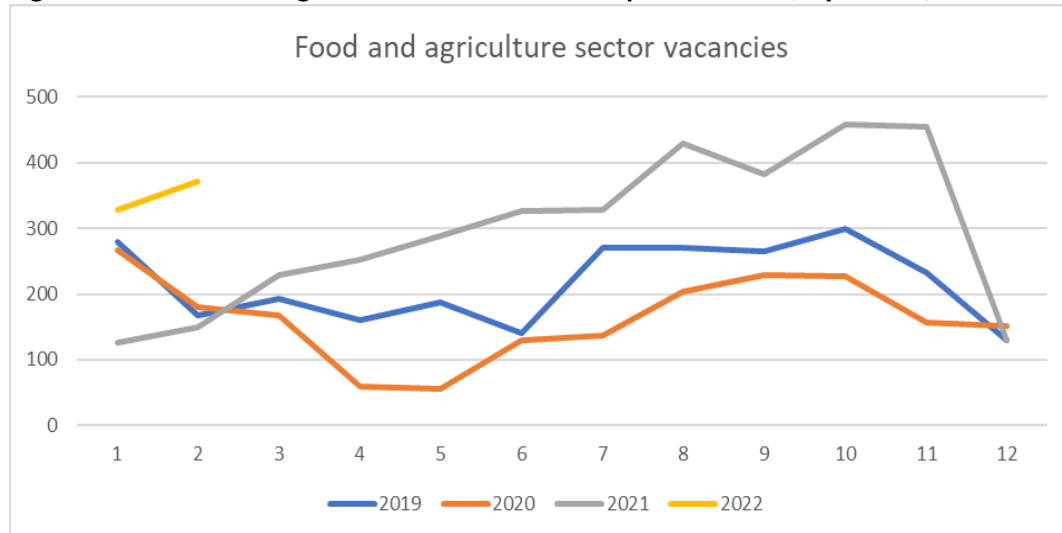
4.5.2 *Job Vacancies in Lancashire*

Lancashire Skills and Employment Hub has access to data on vacancies gathered by Burning Glass, an analytics software company which provides real-time data on labour market trends by tracking and analysing online job adverts. Data from Burning Glass shows the number of Lancashire-based

vacancies posted each month. Vacancies are categorised by occupation, and by sector where possible, although only one-third of vacancies are coded by sector. The data is not comprehensive as it only captures vacancies which are advertised online (which is more common for some sectors / occupations than others), but it can be used to track trends over time.

Based on the sector definition agreed for the Food and Agriculture sector LMI study (see Appendix 1), 3,556 vacancies in the Food and Agriculture sector in Lancashire were posted online in 2021, an average of 297 vacancies per month. This represented 1.9% of all vacancies posted online in Lancashire in 2021, and 5.6% of all vacancies which were coded to a specific sector.

The annual number of vacancies posted for the Food and Agriculture sector has fluctuated considerably over the past three years, reflecting the impact of the pandemic on the labour market and recruitment patterns. The number of vacancies posted in the sector was around 20% lower in 2020 than in 2019, and then rose by 80% between 2020 and 2021. Data from the start of 2022 suggests the number of vacancies has continued to rise.

Figure 4.14: Food and Agriculture sector vacancies posted online, by month, Lancashire

Source: Burning Glass data, 2022

The sub-sector with the highest number of vacancies in Lancashire was food and beverage services which saw 2,332 vacancies posted online in 2021, representing 65.6% of all Food and Agriculture sector vacancies, and nearly twice as many as in 2020, reflecting a significant increase in demand for workers as the hospitality sector re-opened after the Covid-19 restrictions. The second highest number of vacancies was in the food and beverage manufacturing sector, which accounted for 17.5% of the sector total.

Table 4.1: Food and Agriculture sub-sector vacancies, no. and % of sector total							
	2019		2020		2021		Change 2019 – 2021
	No.	%	No.	%	No.	%	
Agriculture, forestry & fishing	283	10.9%	212	10.8%	391	11.0%	+108 (38.2%)
Food & beverage manufacturing	380	14.6%	371	18.9%	621	17.5%	+241 (63.4%)
Food wholesale	55	2.1%	39	2.0%	87	2.4%	+32 (58.2%)
Food retail	40	1.5%	77	3.9%	125	3.5%	+85 (212.5%)
Food & beverage services	1,839	70.8%	1,267	64.4%	2,332	65.6%	+493 (26.8%)
Total	**2,597**		**1,966**		**3,556**		**+959 (36.9%)**

Source: Burning Glass data, 2022

Figure 4.15: Sub-sector breakdown of Food and Agriculture sector vacancies posted online in Lancashire, 2019-2021
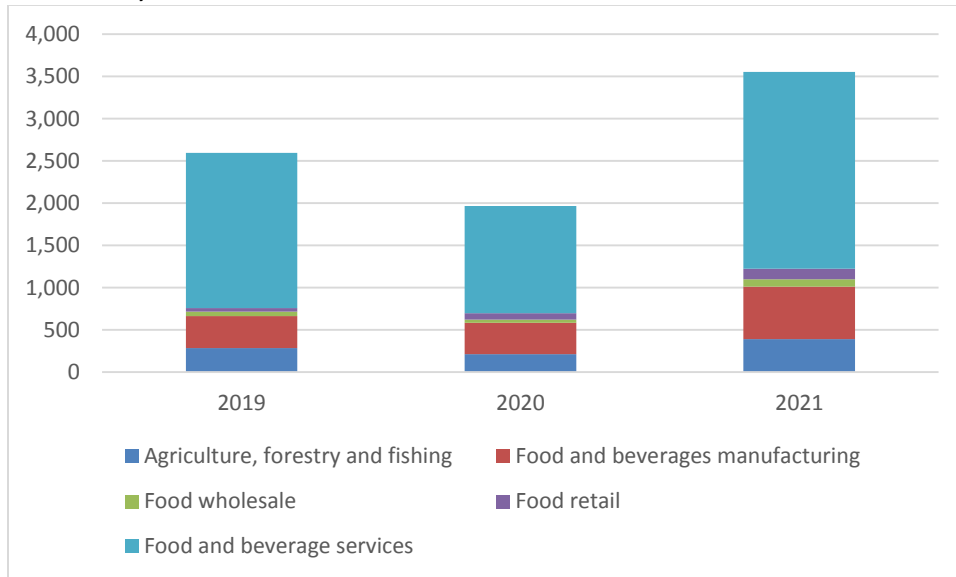
Source: Burning Glass data, 2022

The Burning Glass data also provides a breakdown of the number of vacancies by occupational (SOC) code in Lancashire, with vacancies posted in the food and agricultural sector in 2021 including 1,652 Kitchen and catering assistants (0.88% of total vacancies posted online in Lancashire), 1,219 Chefs (0.65%), 248 Waiters and waitresses (0.13%), 52 Farm workers (0.03%) and 21 Farmers (0.01%). It is worth noting that the number of vacancies within the agricultural sector is likely to be higher, with recruitment often completed informally or offline.

Figure 4.16: Vacancies for key Food and Agriculture sector occupations posted online in Lancashire, 2019-2021
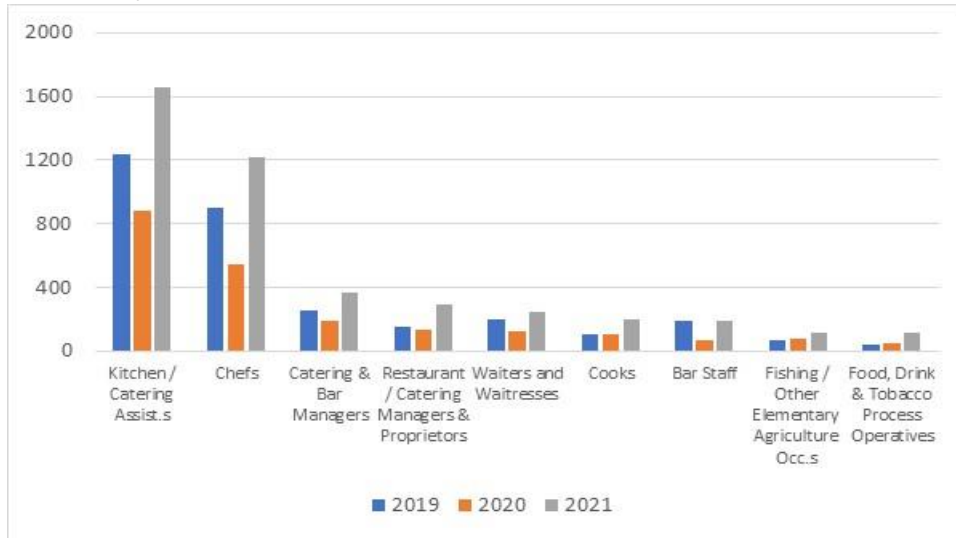
Source: Burning Glass data, 2022

4.5.3   *Recruitment in Lancashire*

Data gathered from Food and Agriculture employers in Lancashire as part of the LSIP research (see section 4.6.1 below) provides useful insights into recruitment patterns in the county, as shown in Table 4.2. The most common source of recruitment across all sectors in Lancashire was from Industry (44%), followed by Apprentices (43%) and University graduates (39%). The most common source of recruits for the farming and agriculture sector is Apprentices (36%), with greater recruitment of GCSE school leavers (28%) than across all sectors. Sources for the manufacturing sector (which includes food and beverage manufacturing) are similar to the levels across all sectors, with Industry (55%) and Apprentices (51%) the most common source of new recruits. For the hospitality sector, there is a greater reliance on younger / lower skilled individuals, such as A-level school leavers (43%), GCSE school leavers (42%) and University (42%), which is in line with the profile of the sector's workforce – see Section 4.1.

Table 4.2: Sources of recruitment, Lancashire				
	All sectors	**Farming & agriculture**	**Manufacturing (inc. food & drink)**	**Hospitality**
Industry	44%	28%	55%	38%
Apprentices	43%	36%	51%	31%
University	39%	20%	32%	42%
School leaver - A Level	33%	24%	28%	43%
Competitors	32%	24%	30%	29%
School leaver - GCSE	27%	28%	28%	42%

Source: Lancashire LSIP ANNEX 3 – Data Analysis Reports, March 2022

4.6   Skills Needs in Lancashire – Local Skills Improvement Plan research

4.6.1   *Background*

The Government has introduced Local Skills Improvement Plans (LSIPs) to give employers a stronger voice in shaping local skills provision. Employers and their representative organisations are being asked to lead research on behalf of FE providers, local leaders and other stakeholders to ensure that employers are at the heart of defining local skills needs.

Lancashire was selected to be one of eight LSIP trailblazers, with North & Western Lancashire Chamber of Commerce and East Lancashire Chamber leading an extensive programme of engagement and research to identify the skills requirements of Lancashire's business community, now and for the future. A wide-ranging research programme involved surveys, focus groups, one to one interviews, roundtable discussions and roadshows and provides a wealth of valuable data including on:

- Employer skills gaps – 970 employer survey responses to sector-specific skills needs questions, including 25 from farming and agriculture employers and 25 from food and drink manufacturers. There were also 65 responses from the hospitality sub-sector, but these did not include questions on sector-specific skills needs;

- Employer barriers to upskilling / re-skilling – 318 employer survey responses;

- Employee upskilling / re-skilling survey – 569 individual responses; and

- Unemployed upskilling / re-skilling survey – 201 individual responses.

4.6.2   *Overall findings*

The main findings from the LSIP research include:

- increasing shortages in essential technical skills in the county which apply to the majority of sectors (two thirds of employers surveyed said that their sector is suffering from a shortage of qualified individuals);

- a commitment to training amongst employers (the majority of employers hire people they expect to have to train with the vast majority of training provided in-house by employers);

- the importance of sector 'image' when recruiting new workers (employers highlighted problems in attracting young people into perceived 'dirty' industries including, amongst others, manufacturing, farming and agriculture and transport and distribution);

- employer concerns about the aptitude for technical roles amongst those leaving the education system; and

- the range of factors which impact on recruitment and retention (including low wage levels, unsociable hours and lack of progression which are seen as contributing towards difficulties in hiring and retaining staff in the farming & agriculture and health & social care sectors).

4.6.3   *Skills Needs in the Food and Agriculture Sector*

The LSIP surveys gathered data on employers' current and future need for both cross-cutting and sector-specific skills. This provides a useful understanding of the relative importance of generic skills to each sub-sector, as well as their very specific skills requirements.

Farming and Agriculture Sub-Sector Skills Needs

Twenty-five respondents from the farming and agriculture sub-sector identified a series of current and future skills needs, as shown in Table 4.3. Compared to the other Food and Agriculture sub-sectors and businesses as a whole, farming and agriculture respondents were:

- more likely to highlight current and future skills needs relating to net zero, particularly waste management / minimisation and carbon offsetting; and

- less likely to expect an increase in digital and marketing skills needs.

Table 4.3: Sub-Sector Skills Needs - Farming and agriculture		
Type		**Skills Need and % of respondents identifying**
Current skills needs	Sector specific	Driving qualification (28%); Environmental planning (24%); Manual handling (24%)
	Digital and marketing	Networking and Relationship Building (20%); Social Media (20%).
	Importing and exporting	N/a – do not export (28%); Shipping (24%), Customs Procedures (20%) and Documentation (16%)
	Net zero	Waste Management / Minimisation (48%); Understanding Net Zero v Carbon Neutrality (40%); Energy Efficiency & Energy Management (36%); Environmental Management Systems (32%); Measuring carbon emissions (32%)
	Sales	Customer retention (16%)
	Other	Quality Assurance (28%); procurement (20%); supply chain (20%)
Future skills needs	Sector specific	Disease management (20%); Animal husbandry (20%); Driving (20%); Environmental planning (20%); Farm chemicals (20%)
	Digital and marketing	Crisis management (16%); SEO (16%); Strategic Communications (16%); Strategic Marketing (16%)
	Importing and exporting	Regulatory Compliance (20%) and Customs Procedures (16%).
	Net zero	Carbon offsetting (48%); Innovation (develop low carbon products or services) (44%); Decarbonisation (36%); Measuring carbon emissions (36%); Waste Management/Minimisation (36%)
	Sales	Customer retention (20%)
	Other	Procurement/Supply Chain (20%): Quality assurance (20%)

Number of farming and agriculture respondents = 25
Source: Lancashire LSIP ANNEX 3 – Data Analysis Reports, March 2022

<u>Food and Drink Manufacturing Sub-Sector Skills Needs</u>

Amongst the 166 manufacturing employers that responded to the survey, 25 were food and drink manufacturers. Table 4.4 shows the sector-specific skills needs that they identified. Data on the cross-cutting skills (marked with an asterisk in the table below) is only available for 'all manufacturing' businesses (excluding advanced manufacturing). Compared to the other Food and Agriculture sub-sectors and businesses as a whole, food and drink manufacturing respondents were:

- less likely to highlight skills needs related to digital and marketing skills;

- more likely to identify current skills needs relating to importing and exporting; and

- more likely to identify increasing skills needs relating to net zero.

Table 4.4: Sub-Sector Skills Needs – Food and drink manufacturing / all manufacturing		
Type		**Skills Need and % of respondents identifying**
Current skills needs	Sector specific	Food Science (32%), Machine Operating (32%), Quality Control (28%) and Process Controls (24%).
	Digital and marketing*	Social media (12%), digital marketing (10%), e-commerce (10%) and Search Engine Optimisation (SEO) (10%).
	Importing and exporting*	Customs procedures (25%); shipping (21%); documentation (17%); N/a – do not export (11%)
	Net zero*	Energy Efficiency & Energy Management (14%); Waste Management/Minimisation (14%); Regulatory compliance/Duty of care (12%)
	Sales*	Lead generation / Business Development (16%); Sales Management (12%)
	Other*	Project Management (16%); Leadership & Management (14%); Computer skills – Excel (13%); Health and Safety (11%); Quality Assurance (11%)
Future skills needs	Sector specific	New Product Development Processing (40%), Procurement / supply chain (36%), Food Science (32%), Lean Management (28%), and Machine Operating (28%).
	Digital and marketing*	Content marketing (12%); social media (11%); advertising (10%); e-commerce (10%)
	Importing and exporting*	Customs procedures (14%); international sales (14%); shipping (14%);
	Net zero *	Carbon offsetting (28%); Understanding Net Zero v Carbon Neutrality (23%); Waste Management/Minimisation (21%); Measuring carbon emissions (20%)
	Sales*	Lead generation / Business Development (18%); Technical Sales (16%); Sales Management (14%)
	Other*	Leadership & Management (14%); Procurement/Supply Chain (13%); Project Management (12%)

Number of food and drink manufacturing respondents = 25
*Data not available for food and drink manufacturing sub-sector only; data included is for all manufacturing (excluding advanced manufacturing), n = 166
Source: Lancashire LSIP ANNEX 3 – Data Analysis Reports, March 2022

Hospitality Sub-Sector Skills Needs

There were 65 respondents to the skills needs survey from the hospitality sector[14]. The survey did not ask about the sector-specific skills needs of hospitality businesses, but does provide useful data on cross-cutting skills needs within the sub-sector. Compared to the other Food and Agriculture sub-sectors and businesses as a whole, hospitality respondents were:

- more likely to identify current skills needs relating to digital and marketing;

- less likely to identify skills needs relating to importing and exporting; and

- less likely to expect that skills needs relating to net zero will increase in future.

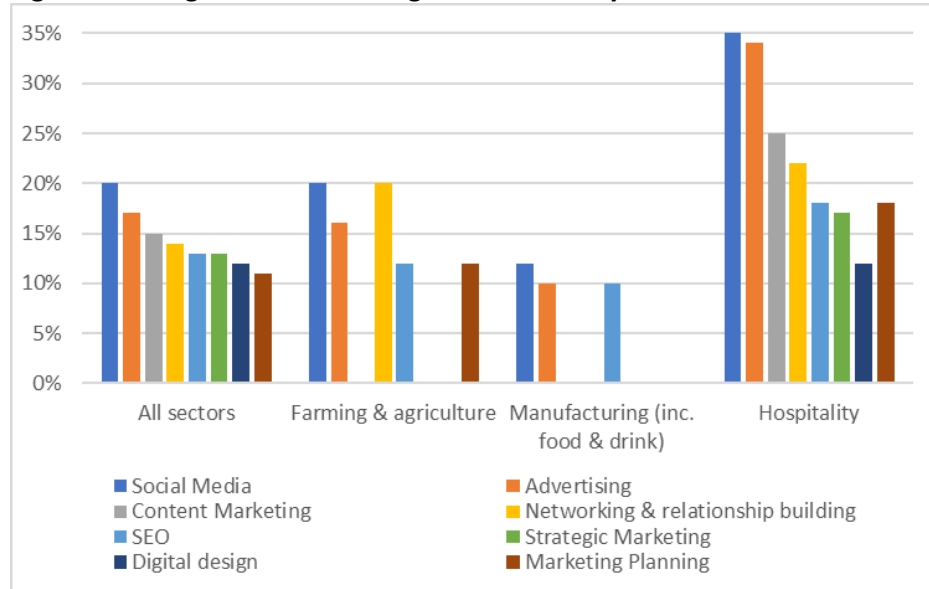| Table 4.5: Sub-Sector Skills Needs – Hospitality sub-sector		
Type		**Skills Need and % of respondents identifying**
Current skills needs	Sector specific	*Not available*
	Digital and marketing	Social media (35%); advertising (34%); content marketing (25%)
	Importing and exporting	N/a – do not export (48%); methods of payment (12%)
	Net zero	Waste Management / Minimisation (22%); Energy Efficiency & Energy Management(20%); Supply chain management and collaboration (20%); Understanding Net Zero v Carbon Neutrality (20%)
	Sales	Lead generation / Business Development (23%); Customer retention (18%); Sales Management (18%); Business Contracting (17%)
	Other	Leadership & Management (26%); Health and Safety (23%); Computer skills – Excel (20%); Food Hygiene (20%)
Future skills needs	Sector specific	*Not available*
	Digital and marketing	Event Management (14%), Social Media (14%) and Crisis Management (11%)
	Importing and exporting	Languages (12%)
	Net zero	Carbon offsetting (15%); Energy Efficiency & Energy Management (15%); Understanding Net Zero v Carbon Neutrality (14%); Waste Management/Minimisation (14%)
	Sales	Business Contracting (9%); Customer retention (9%)
	Other	Computer skills – Word (12%); Leadership & Management (12%)

Source: Lancashire LSIP ANNEX 3 – Data Analysis Reports, March 2022

---

[14] The sub-sector definition includes accommodation in addition to food and beverage services, so does not align exactly with the sub-sector as included in the food and agriculture sector study.

<u>Digital and Marketing Skills Needs</u>

The LSIP survey asked businesses about their digital and marketing skills needs. As shown in Figure 4.17 and Table 4.6, there was considerable variation in the digital skills requirements identified across the Food and Agriculture sub-sectors, with hospitality businesses having higher digital and marketing skills requirements. The hospitality sector was much more likely to highlight a need for social media and advertising skills, whilst farming and agriculture businesses highlighted the importance of networking and relationship building, and manufacturing businesses less likely in general to identify digital or marketing skills needs.

Figure 4.17: Digital and marketing skills needed by sub-sector

Source: Lancashire LSIP ANNEX 3 – Data Analysis Reports, March 2022

Table 4.6: Digital and marketing skills needs by sub-sector				
	All sectors, n=969	**Farming & agriculture,** n=25	**Manufacturing (inc. food & drink manuf.),** n=166	**Hospitality,** n=61
Social Media	20%	20%	12%	35%
Advertising	17%	16%	10%	34%
Content Marketing	15%			25%
Networking & relationship building	14%	20%		22%
SEO	13%	12%	10%	18%
Strategic Marketing	13%			17%
Digital design	12%			12%
Marketing Planning	11%	12%		18%

Source: Lancashire LSIP ANNEX 3 – Data Analysis Reports, March 2022

<u>Importing and Exporting Skills Needs</u>

The LSIP survey also asked businesses about their importing and exporting skills needs. As shown in Figure 4.18 and Table 4.7, there was considerable variation in the importing and exporting skills requirements across the Food and Agriculture sub-sectors, with importing and exporting skills requirements generally higher for manufacturing and farming and agricultural businesses than those in the hospitality sector and the average across all businesses surveyed. The farming and agriculture and manufacturing sectors had high demand for shipping, customs procedures and documentation skills, whilst the hospitality sector had greater demand for methods of payment skills.

Figure 4.18: Importing and exporting skills needed by sub-sector

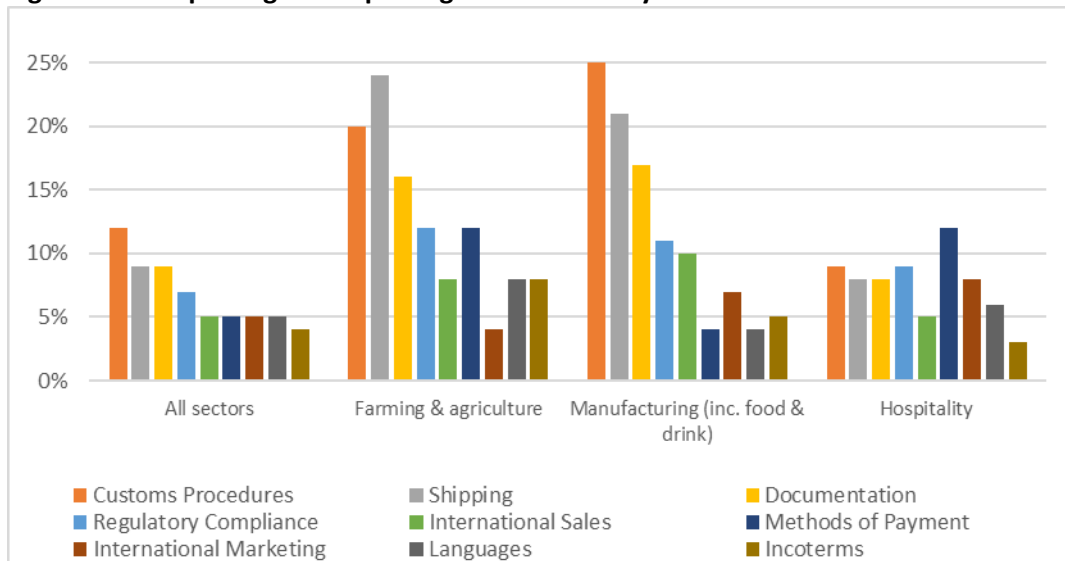*Source: Lancashire LSIP ANNEX 3 – Data Analysis Reports, March 2022*

Table 4.7: Importing and exporting skills needs by sub-sector				
	All sectors, n=969	**Farming & agriculture**, n=25	**Manufacturing (inc. food & drink manuf.)**, n=166	**Hospitality**, n=61
Customs Procedures	12%	20%	25%	9%
Shipping	9%	24%	21%	8%
Documentation	9%	16%	17%	8%
Regulatory Compliance	7%	12%	11%	9%
International Sales	5%	8%	10%	5%
Methods of Payment	5%	12%	4%	12%
International Marketing	5%	4%	7%	8%
Languages	5%	8%	4%	6%

Source: Lancashire LSIP ANNEX 3 – Data Analysis Reports, March 2022

Net Zero Skills Needs

The LSIP survey asked businesses about their skills needs in relation to the transition to Net Zero. As shown by Figure 4.19 and Table 4.8, there was again considerable variation in the demand for net zero skills across the Food and Agriculture sub-sectors, with net zero skills requirements generally higher for farming and agricultural businesses. The farming and agriculture sector had particularly high demand for waste management / minimisation, understanding Net Zero v Carbon Neutrality, and Energy Efficiency & Energy Management skills. The greatest requirements within the manufacturing sector were for Waste Management / Minimisation and Energy Efficiency & Energy Management, with the hospitality sector having similar net zero skills requirements including supply chain management and collaboration.

Figure 4.19: Net zero skills needed by sub-sector
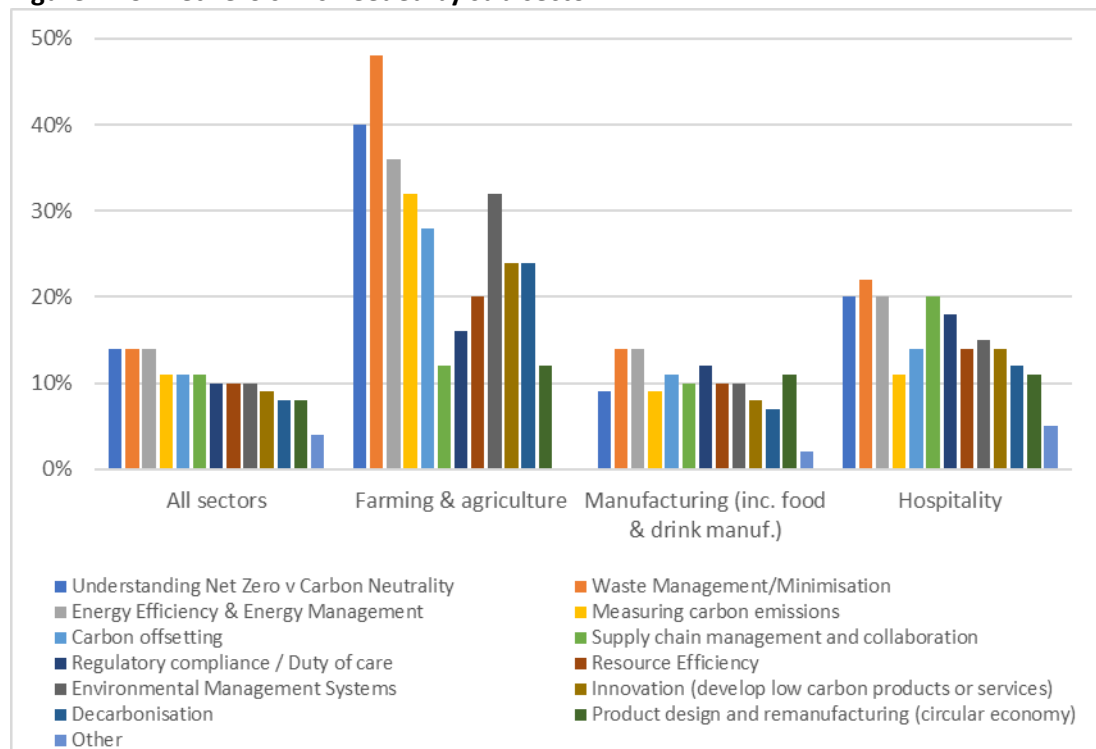
Source: Lancashire LSIP ANNEX 3 – Data Analysis Reports, March 2022

Table 4.8: Net zero skills needs by sub-sector				
	All sectors, n=969	Farming & agric., n=25	Manuf. (inc. food & drink), n=166	Hosp., n=61
Understanding Net Zero v Carbon Neutrality	14%	40%	9%	20%
Waste Management/Minimisation	14%	48%	14%	22%
Energy Efficiency & Energy Management	14%	36%	14%	20%
Measuring carbon emissions	11%	32%	9%	11%
Carbon offsetting	11%	28%	11%	14%
Supply chain management and collaboration	11%	12%	10%	20%
Regulatory compliance / Duty of care	10%	16%	12%	18%
Resource Efficiency	10%	20%	10%	14%
Environmental Management Systems	10%	32%	10%	15%
Innovation (develop low carbon products or services)	9%	24%	8%	14%
Decarbonisation	8%	24%	7%	12%
Product design and remanufacturing (circular economy)	8%	12%	11%	11%
Other	4%		2%	5%

Source: Lancashire LSIP ANNEX 3 – Data Analysis Reports, March 2022

Case Study: **Myerscough College Ag Net Zero Challenge**

Myerscough College has led a project to engage and upskill Lancashire's farmers in relation to net zero, as part of a wider £8.4m programme to upskill workers to meet the needs of a low carbon economy. The Ag Net Zero Challenge is funded through the Department for Education's Strategic Development Fund. The Fund has piloted new approaches and allowed The Lancashire Colleges to implement and test new collaborative ways of working with each other to develop new curriculum, establish specialist skills demonstrator centres across the county and to deliver the skills local businesses need.

The agricultural element, led by Myerscough College, has involved establishing a new Farmer Network, running roadshows and workshops. Over £450,000 capital investment has been made in new technology and the latest farm machinery to demonstrate new ways of working and show how these can reduce carbon emissions, improve safety and raise productivity. Carbon audits have been undertaken with ten case study farms, with support provided to help them understand how they could reduce their carbon footprint.

The farming community has responded well to the information provided and farmers have been keen to hear about how they could implement low carbon ways of working. Within the network developed through the Ag Net Zero Challenge, farmers are sharing ideas and looking to collaborate on the shared challenges that they face.

Source: www.myerscough.ac.uk

Sales Skills Needs

The survey asked businesses about their skills needs in relation to sales skills. Demand for sales skills was greater for businesses in the hospitality sector. The hospitality sector had particularly high demand for lead generation / business development, sales management, and customer retention skills – exceeding the average across all businesses surveyed. The greatest requirements within the manufacturing sector was for lead generation / business development skills, whilst customer retention was the most important sales skill for the farming and agriculture sector from the businesses surveyed. This data is presented within Figure 4.20 and Table 4.9.

Figure 4.20: Sales skills needed by sub-sector
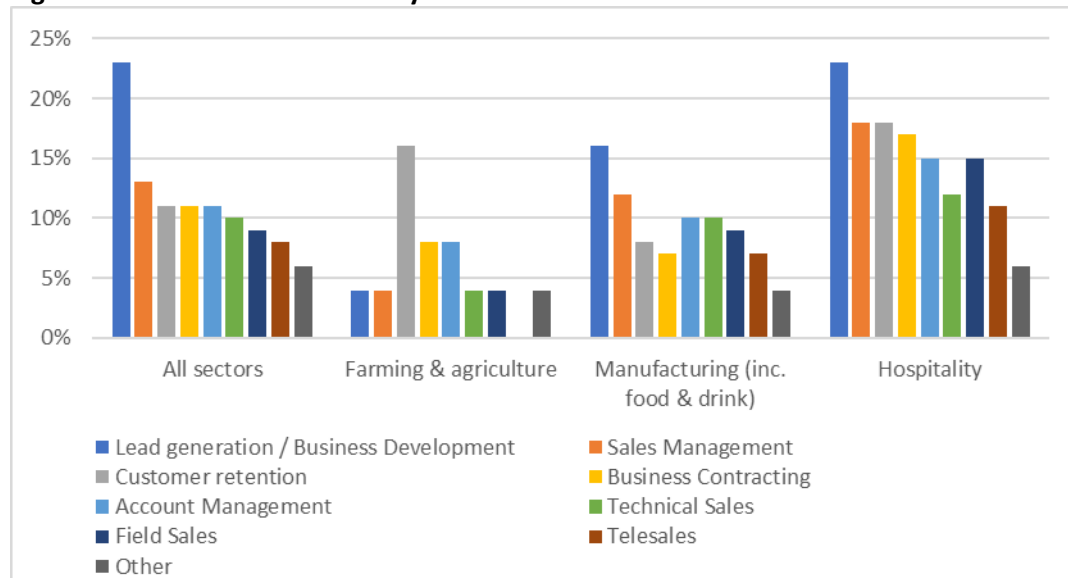
Source: Lancashire LSIP ANNEX 3 – Data Analysis Reports, March 2022

Table 4.9: Sales skills needs by sub-sector				
	All sectors, n=969	Farming & agriculture, n=25	Manufacturing (inc. food & drink), n=166	Hospitality, n=61
Lead generation / Business Development	23%	4%	16%	23%
Sales Management	13%	4%	12%	18%
Customer retention	11%	16%	8%	18%
Business Contracting	11%	8%	7%	17%
Account Management	11%	8%	10%	15%
Technical Sales	10%	4%	10%	12%
Field Sales	9%	4%	9%	15%
Telesales	8%		7%	11%
Other	6%	4%	4%	6%

Source: Lancashire LSIP ANNEX 3 – Data Analysis Reports, March 2022

Other skills

The LSIP research also asked employers about other skills requirements within their businesses. As shown by Figure 4.21 and Table 4.10, there was wide variation in the skills requirements across the Food and Agriculture sub-sectors. In particular, the farming and agriculture sub-sector had higher demand for quality assurance, strategic and business planning, and procurement / supply chain skills than the average across all businesses surveyed. The manufacturing sector had the greatest demand for project management and leadership & management skills, whilst businesses in the hospitality sector reported its greatest skills needs in relation to leadership & management and health and safety skills.

Figure 4.21: Other skills needed by sub-sector
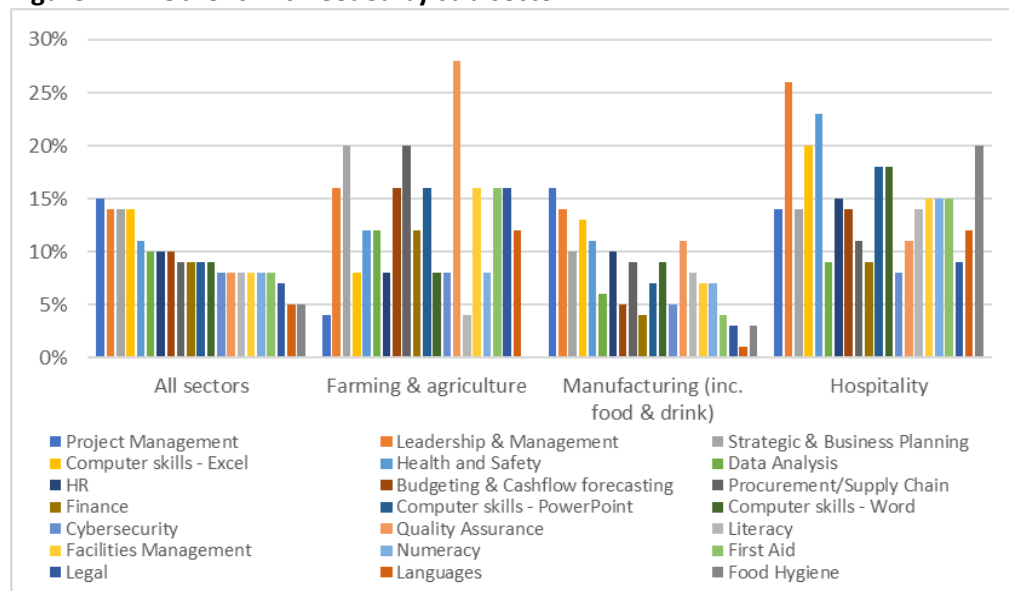
Source: Lancashire LSIP ANNEX 3 – Data Analysis Reports, March 2022

Table 4.10: Other skills needs by sub-sector				
	All sectors, n=969	**Farming & agriculture,** n=25	**Manufacturing (inc. food & drink manuf.),** n=166	**Hospitality**, n=61
Project Management	15%	4%	16%	14%
Leadership & Management	14%	16%	14%	26%
Strategic & Business Planning	14%	20%	10%	14%
Computer skills - Excel	14%	8%	13%	20%
Health and Safety	11%	12%	11%	23%
Data Analysis	10%	12%	6%	9%
HR	10%	8%	10%	15%
Budgeting & Cashflow forecasting	10%	16%	5%	14%
Procurement/Supply Chain	9%	20%	9%	11%
Finance	9%	12%	4%	9%

Computer skills - PowerPoint	9%	16%	7%	18%
Computer skills - Word	9%	8%	9%	18%
Cybersecurity	8%	8%	5%	8%
Quality Assurance	8%	28%	11%	11%
Literacy	8%	4%	8%	14%
Facilities Management	8%	16%	7%	15%
Numeracy	8%	8%	7%	15%
First Aid	8%	16%	4%	15%
Legal	7%	16%	3%	9%
Languages	5%	12%	1%	12%
Food Hygiene	5%		3%	20%

Source: Lancashire LSIP ANNEX 3 – Data Analysis Reports, March 2022

Soft Skills Needs

The LSIP survey also asked businesses about the 'soft skills' needed within their sector. As shown in Figure 4.22 and Table 4.11, there was considerable variation in the soft skills identified across the Food and Agriculture sub-sectors, with hospitality businesses much more likely to highlight customer services and verbal communications skills, whilst farming and agriculture businesses highlighted the importance of a strong work ethic and adaptability, and manufacturing businesses highlighting organisational and problem-solving skills as the most important.

Figure 4.22: Soft skills needed by sub-sector
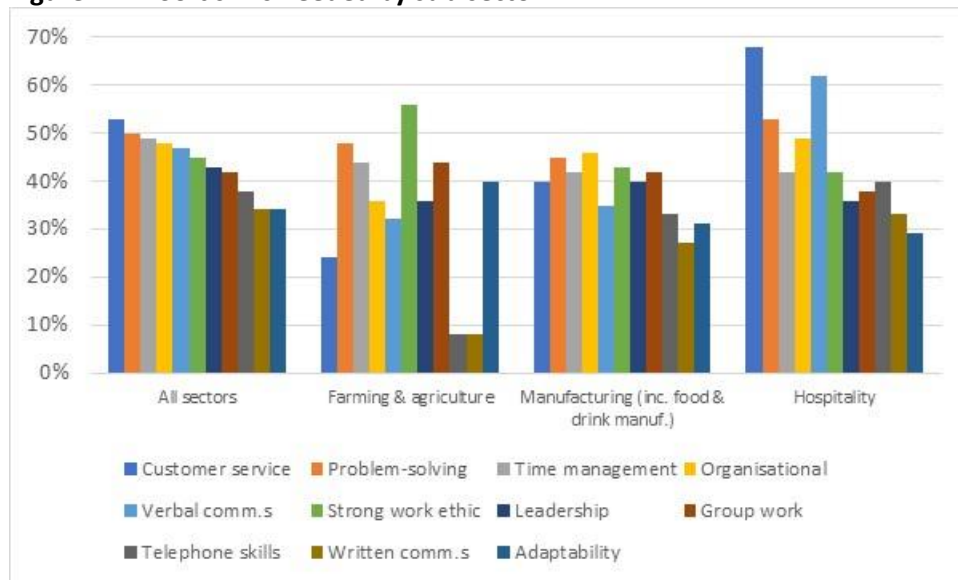
Source: Lancashire LSIP ANNEX 3 – Data Analysis Reports, March 2022

Table 4.11: Soft skills needs by sub-sector				
	All sectors, n=969	Farming & agriculture, n=25	Manufacturing (inc. food & drink manuf.), n=166	Hospitality, n=61
Customer service	53%	24%	40%	68%
Problem-solving	50%	48%	45%	53%
Time management	49%	44%	42%	42%
Organisational skills	48%	36%	46%	49%
Verbal communications	47%	32%	35%	62%
Strong work ethic	45%	56%	43%	42%
Leadership	43%	36%	40%	36%
Group work	42%	44%	42%	38%
Telephone skills	38%	8%	33%	40%
Written communications	34%	8%	27%	33%
Adaptability	34%	40%	31%	29%

Source: Lancashire LSIP ANNEX 3 – Data Analysis Reports, March 2022

Barriers to Training

The LSIP research also asked employers about barriers which make investment in training difficult. As shown in Figure 4.23, the barriers identified varied considerably:

- Farming and agriculture businesses were more likely to cite all the barriers (other than staff turnover), with a lack of time and lack of funds particular challenges

- Manufacturing businesses had slightly lower barriers overall but were more likely to say they lacked knowledge about training opportunities, there was a lack of good local training providers, and that employees were reluctant to train

- Levels of staff turnover was a particular barrier for hospitality businesses, along with finding time to organise training

Figure 4.23: Barriers which make training investment difficult, by sub-sector
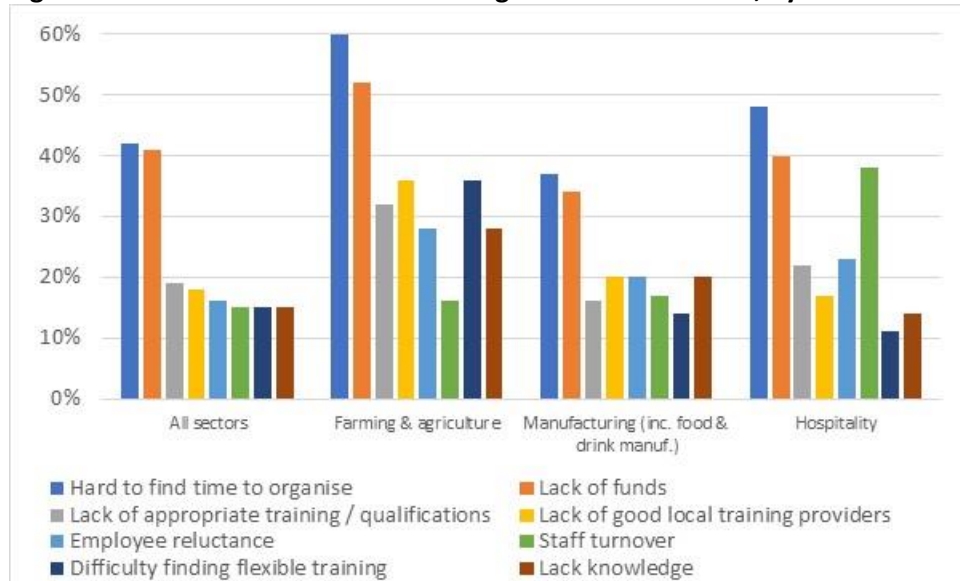
Source: Lancashire LSIP ANNEX 3 – Data Analysis Reports, March 2022

Table 4.12: Barriers to investing in training, by sub-sector				
	All sectors, n=969	Farming & agriculture, n=25	Manufacturing (inc. food & drink manuf.), n=166	Hospitality, n=61
Hard to find time to organise	42%	60%	37%	48%
Lack of funds	41%	52%	34%	40%
Lack of appropriate training / qualifications	19%	32%	16%	22%
Lack of good local training providers	18%	36%	20%	17%
Employee reluctance	16%	28%	20%	23%
Staff turnover	15%	16%	17%	38%
Difficulty finding flexible training	15%	36%	14%	11%
Lack knowledge	15%	28%	20%	14%
Lack of provision (e.g. courses full)	7%	8%	8%	9%
Staff now fully proficient	7%	-	8%	11%
Training not a management priority	6%	4%	8%	3%
Decisions taken at head office	3%	-	3%	5%

Source: Lancashire LSIP ANNEX 3 – Data Analysis Reports, March 2022

5   The Future of the Sector in Lancashire

Key points

- The value of the Food and Agriculture sector in Lancashire is expected to continue to grow over the next 15 years, and will continue to account for a greater share of the Lancashire economy than is the case regionally or nationally.

- Just over 10,000 additional jobs are expected to be created – with all of the absolute growth coming from the food services sub-sector. Retirements and churn within the labour market mean that jobs will continue to arise across all sub-sectors, even when no absolute growth is forecast.

- The sector faces short-term skills and recruitment challenges given the very competitive UK labour market. In the longer-term, skills needs relating to net zero, digital and new ways of working need to be built into the curriculum for potential new entrants to the sector, as well as being available to existing workers looking to upskill.

- The impact of automation and a move towards more productive ways of working, is likely to drive up overall productivity levels (and therefore earnings) within the sector. However, whilst these are positive benefits, the negative impact of these changes will be borne by those whose jobs become redundant, unless they can be supported and encouraged to re-train and upskill.

- Maximising the benefits of this shift whilst minimising the negative effects on individuals is likely to be an important policy priority in future, in Food and Agriculture as in other sectors.

5.1   GVA and Employment Forecasts

5.1.1   *GVA forecasts*

In 2036, the food and agriculture sector in Lancashire is estimated to be worth £2,847 million[15] which would represent 7.3% of the county's total Gross Value Added (GVA). This would exceed the proportion of total economic activity forecast to be represented by the sector regionally and nationally at 5.4% of total GVA in the North West and 5.5% across the UK, highlighting its significance to the county. Between 2021 and 2036, the value of the food and agriculture sector in Lancashire is forecast to increase by 38.1%, compared to increases of 43.2% in the North West and 40.5% nationally.

---

[15] Cambridge Econometrics Local Authority Economic Forecasting Model (LEFM) Projections

Table 5.1: Food and Agriculture sector forecast GVA (£m, 2018 prices)

|	2021	2026	2031	2036	Change 2021 - 2036 (%)
Lancashire	2,061	2,389	2,616	2,847	38.1%
North West	7,908	97,407	107,005	116,654	43.2%
UK	83,004	9,391	10,352	11,322	40.5%

Source: Cambridge Econometrics Local Authority Economic Forecasting Model (LEFM) Projections

Table 5.2: Food and Agriculture sector proportion of total GVA (%)

	2021	2026	2031	2036
Lancashire	6.8%	7.1%	7.2%	7.3%
North West	4.9%	5.2%	5.3%	5.4%
UK	5.1%	5.3%	5.4%	5.5%

Source: Cambridge Econometrics Local Authority Economic Forecasting Model (LEFM) Projections

At the sub-sector level within Food and Agriculture, the largest sector in Lancashire is forecast to be food, drink and tobacco manufacturing, which is forecast to be worth £1,054 million in 2036, representing 2.7% of the LEP area's total GVA, exceeding the proportion in the North West (1.7%) and UK (1.7%), demonstrating the relative significance of the sector which is expected to persist over the next fifteen years.

Figure 5.1: Food and Agriculture sub-sectors as a % of total forecast GVA, 2036
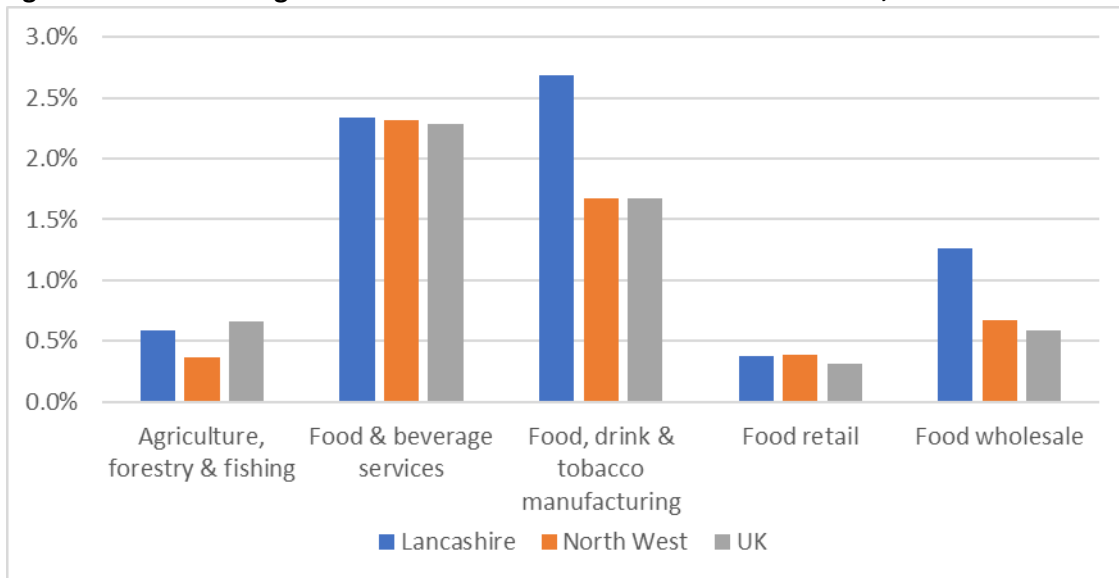
Source: Cambridge Econometrics Local Authority Economic Forecasting Model (LEFM) Projections

By 2036, the TTWA with the largest Food and Agriculture sector in Lancashire is expected to remain as Preston, Chorley and South Ribble with an estimated sector GVA of £716 million in 2036, followed by Blackpool, Fylde and Wyre at £638 million. Between 2021 and 2036, the Food and Agriculture sector is estimated to experience growth across all of Lancashire's TTWAs with the largest growth in GVA forecast to occur in Blackburn with Darwen, Hyndburn, Rossendale and Ribble Valley, at a rate of 39.7%.

Table 5.3: Food and Agriculture sector forecast GVA by TTWA (£m, 2018 prices)					
	2021	**2026**	**2031**	**2036**	**Change 2021 – 2036 (%)**
Blackburn with Darwen, Hyndburn, Rossendale and Ribble Valley	425	494	544	594	39.7%
Blackpool, Fylde and Wyre	462	539	588	638	38.1%
Burnley and Pendle	246	279	305	331	34.5%
Lancaster	129	153	166	180	39.7%
Preston, Chorley and South Ribble	521	601	658	716	37.3%
West Lancashire	278	322	355	388	39.7%

Source: Cambridge Econometrics Local Authority Economic Forecasting Model (LEFM) Projections

5.1.2 *Employment forecasts*

In 2036, the Food and Agriculture sector in Lancashire is forecast to employ 80,609 people which would represent 10.4% of the county's total employment. This would exceed the proportion of employment forecast to be represented by the sector regionally and nationally at 9.7% of total employment in the North West and 9.9% across the UK. Between 2021 and 2036, the level of employment in the Food and Agriculture sector in Lancashire is forecast to increase by 15.2%. This is below the forecast increases of 20.8% and 19.9% in the North West and UK respectively, but equates to an additional 10,600 jobs in the sector in Lancashire over a 15 year period.

Table 5.4: Food and Agriculture sector forecast employment					
	2021	**2026**	**2031**	**2036**	**Change 2021 - 2036 (%)**
Lancashire	69,980	74,176	77,623	80,609	15.2%
North West	327,749	354,218	376,363	395,845	20.8%
UK	3,159,592	3,391,167	3,598,722	3,786,837	19.9%

Source: Cambridge Econometrics Local Authority Economic Forecasting Model (LEFM) Projections

Table 5.5: Food and Agriculture sector proportion of total employment (%)				
	2021	**2026**	**2031**	**2036**
Lancashire	9.6%	10.0%	10.2%	10.4%
North West	8.7%	9.1%	9.4%	9.7%
UK	9.0%	9.3%	9.6%	9.9%

Source: Cambridge Econometrics Local Authority Economic Forecasting Model (LEFM) Projections

At the sub-sector level, virtually all of the forecast employment growth will arise in the food and beverage services sub-sector, which is forecast to employ 44,900 people in 2036, an increase from 34,500 in 2021. This represents 5.8% of total employment in Lancashire, which is still expected to be below the proportion in the North West (6.2%) and UK (6.3%).

Figure 5.2: Expected change in Food and Agriculture sub-sector employment, 2021-2036
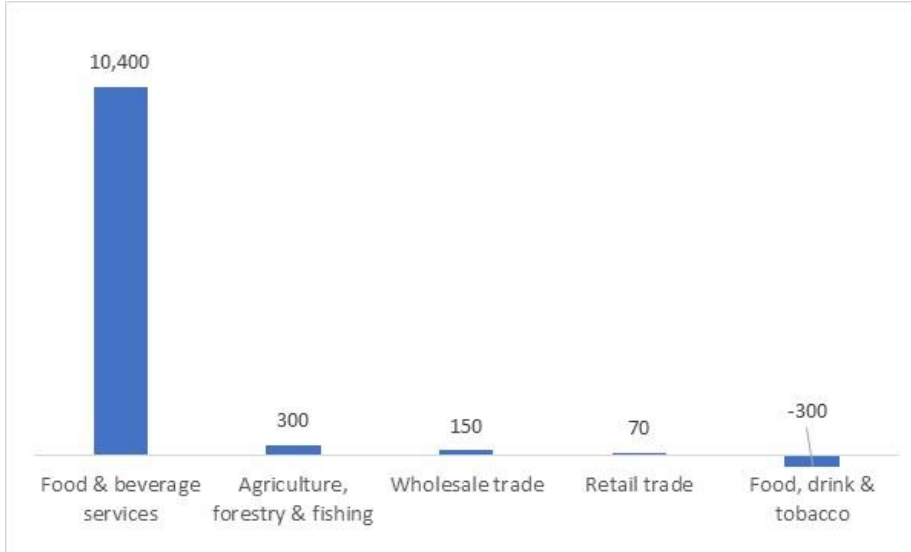
Source: Cambridge Econometrics Local Authority Economic Forecasting Model (LEFM) Projection

By 2036, the TTWA with the largest employment in the Food and Agriculture sector in Lancashire is expected to be Preston, Chorley and South Ribble with 19,506 employees in 2036, followed by Blackpool, Fylde and Wyre with 18,977 employees. Between 2021 and 2036, employment in the Food and Agriculture sector is estimated grow across all of Lancashire's TTWAs with the largest percentage employment growth forecast to occur in West Lancashire at a rate of 20.6%, and the largest absolute increase in Blackburn with Darwen, Hyndburn, Rossendale and Ribble Valley.

Table 5.6: Food and Agriculture sector forecast employment by TTWA					
	2021	**2026**	**2031**	**2036**	**Change 2021 – 2036**
Blackburn with Darwen, Hyndburn, Rossendale and Ribble Valley	13,848	14,912	15,797	16,558	2,710
Blackpool, Fylde and Wyre	17,000	17,825	18,458	18,977	1,980
Burnley and Pendle	7,403	7,807	8,136	8,417	1,010
Lancaster and Morecambe	5,695	5,901	6,055	6,177	480
Preston, Chorley and South Ribble	16,862	17,926	18,781	19,506	2,650
West Lancashire	9,104	9,849	10,459	10,983	1,880

Source: Cambridge Econometrics Local Authority Economic Forecasting Model (LEFM) Projection

5.1.3 *Replacement demand*

As well as understanding how employment is expected to grow in absolute terms, those planning future skills provision need to understand the likely level of replacement demand; that is, the extent to which existing workers will move out of job roles due to retirement, migration and

occupational mobility. This is generally a much bigger driver of skills and training provision than is 'expansion demand' i.e. jobs growth.

Data on replacement demand is not available at sector level, but the Cambridge Econometrics model provides some estimates at 2-digit occupational level. This indicates that:

- for skilled agricultural trades (farmers), replacement demand is likely to be five times greater than demand due to jobs growth (as the ageing workforce retires and needs to be replaced);

- for the 'other skilled trades' category (which includes chefs, cooks, bakers, butchers etc) no absolute growth in employment numbers is forecast, but replacement demand is expected to be significant, with 10,000 opportunities (not all related to the Food and Agriculture sector) arising over the 15 year period; and

- similarly for sales occupations (including retail assistants), process and plant occupations (including food process operatives), elementary service occupations (including bar staff, waiters and waitresses), no absolute growth in employment numbers is forecast, but replacement demand is expected to be significant.

5.2   Implications for Future Skills Needs

The sector forecasts provide a context for the understanding of future skills needs. These are also informed by the drivers affecting the sector, as outlined in the strategic context and literature review. The implications for future skills needs are summarised in Table 5.7.

Table 5.7: Food and Agriculture sector – future skills needs	
Issue – wider labour market	**Implications for the Food and Agriculture sector**
Highly competitive domestic labour market at the current time due to: • Loss of EU workers post-Brexit • Greater restrictions on overseas workers under new immigration controls • Smaller workforce post-Covid after increased economic inactivity	Particularly impacting on the Food and Agriculture sector given lower than average wages, some negative perceptions about career opportunities within the sector and the sector's need to recruit seasonal / casual workers on a regular basis. Indicates a need to develop clear career pathways to encourage ambitious individuals to enter the sector; and work to address negative perceptions of the sector to make it a more attractive option for workers on a short-term basis. More creative approaches to meeting seasonal workforce needs may be required in the longer-term, e.g. a shift towards greater use of technology to undertake seasonal tasks.
Longer-term 'hollowing out' of the labour market with a shift across the economy to higher and low skilled jobs, and a loss of medium-skilled positions.	The loss of 'mid-skill' jobs is already clear in the Lancashire data, and much of the expected jobs growth is likely to be in lower-skilled roles within the food services sub-sector.

Table 5.7: Food and Agriculture sector – future skills needs	
Issue – wider labour market	**Implications for the Food and Agriculture sector**
Impact of automation and increased use of digital technologies	Skills support will be needed to help those in jobs at most risk from automation to adapt to their changing roles, and develop the digital skills they need to maintain employment. Continued engagement with employers will also be required to ensure that even low-skilled / low-paid jobs within the sector still offer 'good' work – defined by the CIPD as offering fair reward; work-life balance; development opportunities; a supportive environment; ensuring the employee voice is heard; and supporting mental and physical health.
Issue – Food and Agriculture drivers	**Implications for the Food and Agriculture sector**
Changing consumer demands are affecting what the sector produces and how, and the level of service associated with non-domestic food consumption: • Growing focus on healthy food • Provenance, quality and local products • Continued shift of spending towards eating out / buying in	Food producers will increasingly need to re-formulate products in response to changing regulations and consumer demand – indicating a need for R&D, innovation and nutrition skills, as well as changes to production methods. Demand for 'artisan' food is expected to continue to grow, creating opportunities for small-scale specialist producers who can produce high quality and distinctive products. This may also create opportunities for providers of services and specialist advice to food businesses. Greater eating out indicates a continued need for customer service skills, as well as food preparation skills. Increased 'eating in' of food delivered from restaurants as well as traditional take-aways indicates a new market which restaurant staff will need to serve, plus the need for digital and marketing skills to promote the offer. Transportation of food deliveries may be an area where increased automation reduces demand for human delivery drivers.
Increased focus on environmental impacts and sustainability: • Environmentally-friendly production • Drive for increased productivity – innovative approaches; more with less	Food growers and producers will increasingly require their workforce to have skills relating to environmentally-friendly production, which could encompass a wide range of specific technical skills. An understanding of the carbon footprint and how to reduce carbon emissions and waste is likely to be required across a wide range of Food and Agriculture activities. Driving up productivity in the sector will require new approaches and ways of working, with investment R&D and innovation requiring skilled workers who can both develop and implement new techniques.

Table 5.7: Food and Agriculture sector – future skills needs	
Issue – wider labour market	**Implications for the Food and Agriculture sector**
A changing policy and regulatory environment: • Agricultural Transition Plan 2021-2024 • New immigration regime	Food and Agriculture sector businesses will need to adapt to the changing policy and regulatory environment which will affect the sector in coming years. This will require leadership and management skills to help workers adapt to and respond positively to change.

There will be a need to adapt the existing curriculum to reflect these changes, and ensure that both new entrants and existing workers have the opportunity to enhance their skills in response to changing business needs.

6 Conclusions and Key Messages

6.1 Conclusions

The Food and Agriculture sector is a vital part of Lancashire's economy, which contributes:

- **Significant numbers of jobs**, particularly job roles which are suitable for young people and new entrants / returners to the labour market. The customer services skills required in the food services sub-sector are transferable to many other parts of the economy.

- **GVA**, contributing £2bn per annum or around 7% of Lancashire's total economic output. Many of the growers and food manufacturing businesses serve a national market, and the food services sub-sector is part of Lancashire's wider visitor economy, creating an attractive place to visit and spend time and money.

- **Exports**, which have increased in value despite the turbulence caused by the UK's exit from the European Union. Many of the larger manufacturing businesses serve international markets and their brands are familiar around the world.

- **Innovation** and the opportunity to contribute to solving global challenges including climate change, plastic pollution and water shortages. Producers and growers in Lancashire are seeking new ways of working to reduce their impact on the environment, whilst cutting edge R&D being undertaken in partnership with Lancashire's Universities has the potential to transform production methods both here and overseas, driving up productivity and driving down waste.

The sector is currently subject to significant short-term turbulence which is causing issues for employers around recruitment and retention, whilst longer-term structural shifts have implications for skills and labour needs. Section 6.2 highlights key messages for businesses, the workforce, education providers and policy-makers.

6.2 Key messages

Key messages from the analysis include:

Businesses

- Businesses need to be aware of the drivers affecting the sector, in particular the response required to the net zero agenda and the potential impact of automation on their competitiveness and operations. On-going awareness raising by trusted partners is required, to persuade businesses to engage proactively with future change.

- Networks and employer collaborations provide an effective means of bringing together employers facing similar challenges to share learning and identify solutions. The Ag Net Zero model has been successful in engaging agricultural employers with low carbon challenges and new ways of working.

- Skills needs and priorities vary considerably between employers in the different Food and Agriculture sub-sectors, reflecting the diversity of the sector. Ensuring employers are able to shape training provision to their specific needs, rather than having to accept a 'one size fits all' model of training provision, is likely to be more relevant, cost effective and therefore attractive for employers.

Workforce

- Many of those working in the sector have relatively low levels of skills and formal qualifications. Support will be required to help existing workers adapt to change within the sector and ensure they can sustain their employment as employer needs change.

- A number of Lancashire's major employers have well-established progression routes in place, to support employees to move from entry level roles to supervisory and management positions. Similar pathways are needed across all parts of the sector, to increase its attractiveness in a competitive labour market.

- Although the majority of job roles do not require higher level skills, there are pockets of extremely high-tech and innovative activity within Lancashire's Food and Agriculture sector which require highly-skilled workers. These roles should be highlighted to illustrate the diversity of opportunities which the sector provides to potential new recruits.

Education Providers

- Structural changes within the labour market are changing employer skills requirements within the Food and Agriculture sector, with digital and environmental skills needs increasing across all sub-sectors. Specific skills needs vary considerably across sub-sectors and occupations. Education providers will need to work closely with employers to ensure their provision continues to equip learners with the skills they need for the future.

- Responsibility for engaging potential new recruits in Food and Agriculture-related learning is jointly shared by education providers, employers and policy-makers. Providing case studies to illustrate the opportunities offered by the sector, and how education and training can lead to fulfilling and rewarding careers, is one way to engage the future workforce.

Policy-makers

- Lancashire LEP has recognised the importance of the Food and Agriculture sector by identifying it as one of six Growth Pillars. Providing this enhanced status for the sector will help to signal the opportunities which it provides for Lancashire residents.

- The LEP's 'horizon scanning' work on drivers of labour market change has identified industrial digitalisation as one of the key trends affecting the Lancashire labour market. Evidence from the strategic context and literature review highlights how this trend will impact on Food and Agriculture businesses and workers. The LEP and its partners need to continue to raise awareness and support workers, businesses and education providers to adapt to this fundamental change.