Food Research Collaboration

Earning a Crust? A review of labour trends in UK food manufacturing

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Summary

This Briefing Paper provides a detailed overview on jobs and labour markets in the food sector focusing on food manufacturing. Recent and longer-standing labour market trends are identified which impact the UK workforce more generally, but in food manufacturing some of these are more pronounced.

For example, food manufacturing, like other food sectors, has become systemically reliant on migrant workers, especially EU migrants over the past 10-12 years. Nearly a third of the UK food and drink manufacturing workforce, some 117,000 workers, is now made up of EU migrants supplied mainly through Agencies. This trend has accelerated in recent years.

Food manufacturing faces being squeezed by the twin challenges of a potential labour shortage as the supply of EU migrants is reduced or even dries up after Brexit plus the need to recruit up to 140,000 new workers by 2024 to replace retirees.

This crisis in labour, together with skills shortages and the fact the sector is often viewed as an unattractive career option for many young people, should force the food industry to re-think its approach to recruitment, job roles and career progression. Examples of other challenges facing food manufacturing are pay, job security, working conditions, the introduction and application of technologies and the future skill needs of employers.

Research studies undertaken over the past 10 years have also documented examples of exploitative working practices and conditions at the low-skill/low pay end of food manufacturing and processing and in certain sub-sectors such as the meat industry. In these studies negative workplace experiences have mainly impacted EU migrants.

To prevent and tackle criminal labour exploitation the UK has needed to put in place legislative and investigative tools, most notably in the food sector the Gangmasters and Labour Abuse Authority (GLAA), which came into operation from 2005, which licences agencies supplying labour to food manufacturers.

Labour and job issues are compounded further by the structural tensions many commentators see in the food sector with increasing downward cost pressures, driven by supermarket competition, impacting supply chains including food manufacturing.

While these present many challenges, they can also be used as opportunities.

While many individual food companies provide good workplaces, the potential labour crunch in food manufacturing calls for a collaborative approach and leadership from business, government, trade unions, educators and NGOs to develop an integrated workforce strategy for the future.

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A collaborative and strategic approach should seek to integrate local and regional needs, be directed towards smaller and medium-sized companies that comprise the majority of food businesses, and developing workers with the skills to innovate for a more sustainable and healthier food supply. This integrated strategy should to be framed around social impact.

An integrated approach to the future of food sector work: Six Themes

Six broad and related themes are suggested to form the basis for further dialogue or engagement by civil society and academia. The six themes are:

- **Theme 1:** The impact of food-related labour casualisation on local communities, civil society organisations, and local services and resources such as welfare and housing.
- **Theme 2:** Anti-poverty strategies - food as an entry level route into work and the role food manufacturing can play; how this might be developed as part of wider anti-poverty strategies, especially in local and regional contexts. This is needed in relation to both British born and non-British born workers.
- **Theme 3:** Re-building local food economies – Brexit offers new opportunities for a 're-localisation' food strategy that builds on the UK's many vibrant local food movements, especially in urban areas. There is further opportunity through developing a more 'alternative' food supply and the workforce and skills needed to enable re-localisation to succeed.
- **Theme 4:** Monitoring of food industry responsibilities and actions in relation to workers - all stakeholders can undertake to monitor and help prevent exploitative working conditions and how to further develop more inclusive and diverse workplaces. Such an approach might need facilitating new forms of business collaboration, difficult decision-making and innovation in labour markets.
- **Theme 5:** Skills development – this should not only include 'high-level' or professional skills, but applied throughout work levels and roles. Further, as food citizens we all need to be able to learn how to handle food and cook for a healthier and more sustainable future
- **Theme 6:** Economic development and the role of micro-businesses and SMEs - there is a collaborative or partnership opportunity for different stakeholders from NGOs, policy-makers, trade unions to existing food businesses and education establishments to revisit this aspect of economic development as it relates to food manufacturing.

The future of work and labour markets is a complex subject and there are many perspectives and different initiatives and action plans underway for the food sector. As a society we need to decide what type of food system we want – one that provides good quality jobs and long-term careers for the majority of its workers or one that is subject to the vagaries of world markets, with its own uncertain labour markets and conditions, and continuing reliance on low-skill, low paid work.

The suggested recommendations are for a more integrated, bottom-up approach to labour and food manufacturing especially as it might apply to developing local food economies and one framed in the context of social impact. Such an approach can help both young and older workers who want to contribute to a more sustainable, economically fairer, and healthier food sector.

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1. Preface: Food workers and Brexit

The food industry is in something of a panic. Brexit – triggered on March 29th 2017 – has exposed how structurally vulnerable the food sector is in relation to continuing access to workers from the European Union. Not only to pick the UK's fruits and vegetables, serve us in our retail outlets and restaurants, but also to manufacture and process the UK's food for domestic and export markets.

The food industry is so concerned about this issue that 32 trade organisations from farmers, caterers, ingredient suppliers, meat and poultry producers, bakers, coffee, beer and pub associations among many others, came together to sign a strongly-worded open letter to the UK Prime Minister Theresa May MP calling for action to restore food sector labour market confidence following the Brexit vote in 2016.

The letter, published in December 2016, points out to the Prime Minister that workers from the European Union (EU) play a significant role in the food industry's ability to deliver affordable and high-quality food and drink. They say the industry will not function in the future without EU workers who are described as highly flexible and as providing a 'reservoir' of skilled, semi-skilled and unskilled labour. In some parts of the food chain EU workers are the predominant workforce in skilled and semi-skilled roles. Without such workers, the industry bodies warn, the UK will face less food choice and higher food prices (1).

1.1 Setting the scene for employment and food industries

How are we to understand such concerns? In this Briefing Paper we explore one specific area of employment in the food sector, namely food and drink manufacturing, to provide the context in which to situate this potential crisis over EU migrant labour.

The food and agricultural sector in total employs an estimated 3.9 million people, representing 13.2% of the UK workforce. Of these about 392,000 are employed in food and drink manufacturing with up to 117,000 workers, nearly a third of the total workforce, being EU migrants (2). Not surprisingly, the Food and Drink Federation, the trade body representing UK food and drink manufacturers, in a poll of its member companies taken in March 2016, found 70% wanted to remain as part of the EU (1).

Food and drink is the country's largest manufacturing sector, adding more Gross Value Added for the UK economy than other manufacturing sectors such as transport or chemicals. Over recent years UK food manufacturing has been a successful economic sector, for example through exporting and improving productivity (3). But Brexit, compounded by what new policies might emerge following the June 8th General Election – all herald food business uncertainty in relation to meeting its future labour and skills needs.

1.2 Defining the scope of this Briefing Paper

This paper, in providing an overview of food manufacturing in the UK, sets out its key characteristics and then examines in more depth employment issues confronting it. Together these will provide the context in which to address issues in the food and drink manufacturing labour market of relevance for civil society and academia.

This task - to investigate such a large, complex and dynamic labour market and business environment - presents many analytical challenges, not least the aggregate nature of much of the data. The goal in this Briefing Paper, therefore, is more summative - to provide this 'big picture' context to inform civil society about issues and trends. The paper is based on secondary sources and greater insight and nuance on issues raised would be gained from further primary research – a task for future academic engagement.

On a number of topics there is a lack of a detailed information or reliable research in the public domain. For example, there could be greater understanding of employment practices at different career levels, how jobs are upgraded and developed over time, or how workers' roles - especially those deemed 'low-skill' - might be improved and the dreadful working practices and workplace conditions some food workers experience eliminated from food supply chains.

Other questions arise, such as which businesses are developing best practice and what can be learnt from this, how does this improve business performance, and what role should government and public monies play to help develop people and skills in the food sector. As well as Brexit, food manufacturers face a range of future labour market issues ranging from the image of the industry as an attractive place to work for young people (4) to finding the 140,000 skilled new recruits the sector forecasts it will need by 2024 as people retire or leave the industry (5).

More generally, 'business as usual' is not an option for the food industry if it is to progress, which has important consequences for future workers and food industry skills needs. Many factors, not just Brexit, offer an opportunity to re-imagine and re-design the UK food system to one that is fit for the future. This would be a food system that transforms itself in relation to sustainability challenges, delivers on scale healthy and nutritious food that helps to reverse the crisis of diet-related ill-health in the UK. It would see an industry that becomes more skilled, productive, innovative and competitive, and not least an industry perceived as an inclusive, fair and rewarding place to work.

2. About this briefing paper

An earlier Food Research Collaboration Briefing Paper by Stephen Devlin (6) examined the labour market in the UK agricultural sector and a further paper by Victoria Schoen and Tim Lang (7) has documented the UK's horticultural industry including aspects of labour markets[4]. To compliment these, the focus of this Briefing Paper is on UK food and drink manufacturing with the aim to:

- Identify and discuss key issues or problem areas in employment and jobs in the UK food manufacturing sector,
- Situate UK food manufacturing within the wider food and agricultural industries,
- Consider whether employment issues facing food manufacturing are different from cyclical and structural changes impacting labour markets more generally,
- Draw out conclusions relevant for civil society and academia.

Food manufacturing (and processing) refers to those firms and activities involved in manufacturing the products of agriculture and fishing into foods and drinks for humans. It involves preserving (stopping food from going off and lasting longer), preparing and processing activities. In essence it's adding value to raw products: by

[4] The FRC briefing papers are available at http://foodresearch.org.uk/publications/ and were informed by an FRC roundtable "Where next on food, jobs and work" in April 2016, see http://foodresearch.org.uk/2016/04/frc-hosts-joint-frcsustain-workshop-on-food-jobs-and-work/

a) making them more consumable (such as pasteurising milk, butchery, shelling peas, and milling grain) b) transforming (cheese, wine, fruit juice) or c) combining (from bread to ready meals).

In today's modern food supply there is sometimes a blurring of what might be termed 'manufacturing' or 'processing' – for example, a farm might both grow vegetable crops but also wash, cut, and pack them into a 'product', such as a stir-fry mix, ready for the supermarket shelf (8).

2.1 Food production as an essential 'foundation industry'

Because of its importance to UK manufacturing generally, and its essential role in providing food for the nation, food manufacturing might be described as an essential 'foundation industry' alongside other sectors such as steel (9). Food also plays a profound role in human interactions and social and cultural life (10). The food and agricultural sector is now increasingly being recognised for its environmental impact and as having a front-line role in addressing sustainability such as food waste or the effects of climate change (11).

Civil society has a long history of campaigning and working on social justice issues relating to food workers. These include labour exploitation, improving the rights and working lives of workers, to arguing for 'fair trade' in the food sector (12). Much of this attention has been in relation to developing countries, especially in the context of the globalisation of food supply chains as developed world consumers and manufacturers rely on foodstuffs and ingredients such as coffee, cocoa, palm oil, tea, fruits and vegetables, farmed in the developing world (13).

The UK is highly dependent on food supply from other countries (and hence the workers who produce this) - around 48% of UK food is imported. Food imports are from both developed and developing world countries, with EU countries supplying just over 60% of imported food (14).

This was brought home to UK consumers with the courgette shortage in early 2017 when months of cold weather in southern Europe affected production of many crops (15). Around 80% of the EU's winter vegetables now come from the Murcia region of Spain. Such extended supply chains highlight the fragility of supply and the fact the UK also relies on large numbers of migrant labour working in these areas to feed the nation.

While the focus of this Briefing Paper is the UK, it is important to acknowledge these other food workers and labour markets that are essential for ensuring the UK is fed and many food businesses here can thrive.

3. A note on skills and careers

Employability skills are usually broken down into three broad categories: 1. Personal attributes, 2. Generic skills, and 3. Vocational skills. All three are important to employers with the first two being especially crucial - employers often comment potential jobseekers are weak in generic skills such as communication skills, team working or even displaying an interest in their business (16).

Personal skill attributes relate to individual behaviours and personal characteristics such as work ethic or the ability to improve your skills. The extent of generic skills that need developing is dependent on the workplace context. At a basic level this means good numeracy and literacy skills, to leadership or managerial skills, to the ability to cope with change (16).

Vocational skills such as marketing and engineering are needed across sectors, but also tend to be specific in terms of their application to a particular industry or sector. For food manufacturing factories these might vary depending if the production process is continuous or semi-continuous, batch production or craft and hand-finishing. They might also include topics such as food safety and hygiene knowledge, dexterity and manual skills, and to how to run a business (17).

There tends to be a focus by policymakers on skills, rather than labour more generally, in the food sector. In particular, resources are directed towards initiatives described as 'high level skills' or hi-tech solutions to food industry challenges (18).

Discussions around 'skills' can, therefore, be very loosely framed, with levels of qualification often defining 'skill', and perhaps at the expense of generic skills for example. It could also be argued that talk of so-called low-skill is used interchangeably to mean low- or poor-pay, as many 'skilled' graduates might testify doing 'low-skill' that is poorly paid, foodservice jobs. Often 'skills' and a 'job role' do not mean the same thing. This distinction was acknowledged in a recent report from the House of Lords on Brexit and agriculture which points out that while many EU-migrant food workers' jobs are often categorised as 'unskilled' they are in fact skilled at sector-specific tasks, such as abattoir workers (19).

3.1 Polarisation between high and low skilled jobs

EU research shows that types of jobs are changing – again with a shift away from low-skills towards high skills. High-skilled roles are usually defined as managers, professionals and technicians and associate professionals. Medium-skilled is conceived as clerical support workers, service and sales workers, skilled agricultural, forestry and fishery workers, and craft and related trades workers. While low-skilled roles are defined as plant and machine operators and assemblers, and elementary occupations. In the EU it is estimated, for all employment types, high-skill jobs account for 40.6% of employment; medium-skill 42.7%; low-skill 16.7% (20).

A further and on-going labour market trend has seen the so-called 'hollowing out' of the 'middle' in organisations – in other words the polarisation of jobs between those that are stable, relatively well paid and skilled in comparison to jobs that are poorly paid, unstable and require low skill.

In practice this means some organisations have re-structured into flatter, less hierarchal operations with many middle-layers of managers, administrators and other blue-collar type work roles being downsized or disappeared, especially as technologies have been introduced such as increased automation (and for many Western economies as jobs have moved to new centres of production such as China). The hollowing out of the middle has seen greater emphasis on high skill roles. These roles tend to offer a greater variety of job opportunities, higher wages and longer-term career development paths.

3.2 The low skill-low pay trap

A further issue, in contrast to the efforts to seek out 'high skills' employees, is the counter-trend of deskilling roles, since low skilled jobs, as well as costing less, require less training for new starters. The temporary nature of some low-skill jobs means there is little need to invest in long-term employees (21).

For many workers trapped in low skill work there is the risk of low pay accompanied by poor working conditions and little chance for advancement. In the worse cases this results in extreme low pay – in the UK in the early 1990s, for example, there were cases of workers being paid £1 an hour or less before the introduction of the National Minimum Wage in 1999. The UK has a large number of low pay, low skilled jobs compared to other developed economies. Using OECD definitions, around five million people or 21% of all UK employees were categorised as 'low pay' workers in 2013.

The 2015 Fabian Commission report on food and poverty (22) estimated that low pay is prevalent throughout the food sector. They calculate that 48% of the workforce in the food industry is classed as low pay, twice as much as for the economy as a whole. In other words, some 1.7 million people in the UK food sector are not making a living wage (22).

This high-skill/low-skill divide is important not just in relation to pay, but also in terms of quality of jobs and workplace conditions experienced by workers.

3.3 Skills training in the food sector

The need for skills development and skills training is widely recognised within the food sector and there have been a number of high-profile initiatives and 'action plans' in place to try and address the skill needs and shortages within the industry (4). High-level skills are an especially important issue for food manufacturing, particularly in respect to finding people with relevant engineering and food science and technology backgrounds (5). But these high skill requirements should not be seen in isolation or detract from improving job quality and lifting working environments throughout the industry or recognising the different levels of skills of much food-making.

'High skill' does not necessarily have to be restricted to addressing hi-tech problems such as applying robotics to agricultural production, implementing sophisticated supply chain logistics, or improving factory productivity.

Some food processing tasks do not fit this conventional high skill definition, but rather as specialist skills: for example, to butcher a carcass at speed in unpleasant working conditions; have the craft skills to bake innovative and interesting cakes; or a blend of entrepreneurial skills like Jamie Oliver who left school at age 16 to go to catering college and subsequently build a multi-million-pound international food business. The most desired skills identified in one study for food science and technology employees were for communication and new product development abilities (23).

Other important issues impacting European labour markets are the education levels of workers; the types of skills required including the problem of skills mismatches – with the 'wrong' skills for the type of future work required, demographic changes with aging populations, and high levels of unemployment in some countries or specific demographic groups.

There are re-training or 'upskilling' challenges to be able to serve fast-moving markets or new business opportunities and the need to engage people in life-long learning. Other negative trends emerging are the over-qualification of workers and 'underemployment' in certain work roles (in the UK many graduates are described as working in non-graduate level positions), the growth in involuntary part-time working, and the relatively low number of people in higher-skill jobs.

Although this Briefing Paper is not about 'skills' as such, rather labour and employment in food manufacturing more generally, it recognises that these topics are intimately related and therefore both need addressing.

For example, while it is a laudable objective to ensure the hi-skill/hi-tech challenge is met, the drive for 'cheap' food by food industries serving consumer markets and unequal power relationships between food sectors, is creating a reliance on a significant band of workers producing or making the nation's food who, in the worse cases, are abused and exploited, or trapped in a trough of low pay and low quality working conditions. Some of the sections below describe this type of food industry job in more detail especially in relation to EU migrant labour.

3.4 Food sector offers attractive career options

As with a lot of food issues there are many contradictory factors in play with a mix of positive and negative interpretations. While some companies were reported as cutting UK workers' pay and conditions in response to the introduction of the new National Living Wage from April 1st 2016 (see below), in other areas the food industry offer tempting career options in a bid to capture talent.

The UK Food and Drink Federation, in a brochure trying to attract young people into the food sector, describes salaries in food management level positions of up to £45,000 and for technical positions salaries of £38,000 (24). For graduates looking for a career in food retail management all the major food retailers offer tempting opportunities. For the especially ambitious the retailer Aldi, to take just one example, invites graduates to apply for its Area Manager Programme for a starting salary of £42,000 (together with a fully expensed car – an Audi A4) rising to £73,450 after four years. The retailer cautions though that this programme is "fast" and "tough" (25).

4. Generic labour market characteristics and challenges

Globalisation and technology are changing the nature of jobs, the skills mix and the way work is carried out. Employers have increasingly looked to make work more flexible, adaptive and responsive to market fluctuations (26). The UK has not been immune from these long-term employment trends especially as the country has moved from an industrial, manufacturing-based 'workshop' for the world to an economy that is today more than 80% based on service sectors such as finance, retailing or tourism.

In this respect the structure of UK employment changed in significant ways in the 30 years leading up to the new millennium. As an example, the fastest employment growth at the end of the 20th century was what has been euphemistically termed 'atypical' work – this is work that is part-time, fixed-term or done without a contract (27). Such 'atypical' trends have accelerated in recent years (28).

However, in early 2017 the UK achieved its highest level of employment since records began in 1971 with 74.6% of 16 to 64 year olds in work (29). Of the approximate 32 million people in employment, 2.2 million are non-UK EU nationals and 1.2 million nationals from outside the EU (30).

4.1 Structural factors impacting food jobs: the power of supermarkets

While it needs to be recognised that some changes in labour markets are cyclical, for example, the state of the economy or market conditions within an industry sector, other changes are structural – this is especially the case with the introduction of new technologies such as increasing automation or the impact of globalisation and changing trade patterns.

A recurring theme relating to the prevalence of low pay in the food sector is the power of supermarkets and their search for continued cost savings within their supply chains and suppliers. Supermarket supplier contracts demand levels of performance on price, quality, service and accountability. To serve retailer demands, for many companies this has meant looking for cost savings including from wage rates, to increasing levels of work intensification, and introducing flexible working and shift patterns, among other measures (31).

Related to this uneasy relationship between supermarkets and their suppliers, in 2010 the government introduced a Groceries Supply Code of Practice following the 2008 Competition Commission Market Investigation into supermarkets which found some large retailers were transferring excessive risk and unexpected costs to their direct suppliers. A further statutory measure was formerly added in June 2013 with the appointment of a Groceries Code Adjudicator to oversee that supermarkets treated their direct suppliers lawfully and fairly.

4.2 Reliance on international markets

A key structural characteristic of the UK food system is its high dependence on well-functioning international markets to supply the nation's food –producing only around of 52% of food in the UK itself (14). As a nation we rely on around 20 countries to produce 90% of the UK's imported food - dominated by imports from the EU (the EU provides 29% of food imports; Africa, Asia, South America, and North America provide around 4% each) (14, 33). Hence the UK relies upon and is dependent on an extended workforce across many countries working to feed us.

4.3 Changing employment contracts

The prospects of securing a full-time job or getting permanent contracts has also shrunk. Different contractual arrangements driven by the demand for flexible working has seen concerns grow about agency workers, 'zero-hour' contracts, the meaning of self-employment, and the use of migrant labour – topics discussed further in this Briefing Paper.

Cyclical and structural changes pose a number of problems and challenges for different industry sectors including food manufacturing, key here are:

- Pay
- Job security (type of contract)
- Progression (workplace training, career development)
- Job quality (working conditions)
- The introduction and application of technologies (such as automation/robotics)
- The future needs of employers/business (matching labour demand/skills to jobs)

4.4 The "Flat White Economy"

Wider societal and technological trends are creating a very different type of economy, labour market, and therefore, type of employee. One example of such dramatic change has been interestingly documented by Douglas McWilliams (33) through the remarkable growth in the UK's digital economy. He and his colleagues have termed this the 'flat white economy' - named after the type of white coffee favoured by techie geeks, marketing people and creative types.

In the UK this new type of digital activity grew rapidly from the early 2000s centred around Old Street station in East London (specifically the area covered by the London postcode EC1V). This postal area, at the time, had the highest density of tech firms, at 3,228 per square kilometre, than any other part of the country.

McWilliams documents the economic significance of this largely London based business activity to the wider UK economy, as well as helping propel London into achieving much higher economic growth than a comparable city such as Hong Kong. The 'flat white' economy is now spreading to other cities such as Manchester and Birmingham as well as internationally (33).

McWilliams describes the type of worker in the Flat White Economy – highly-skilled, more informal, but not especially well paid (compared to financial services) who adopt a 'hip' and trendy lifestyle – no suits required. One consequence from this has been the explosion in coffee shops in East London.

Importantly, McWilliams – writing before the Brexit referendum – argues the flat white economy is being driven by migrant workers not only from other parts of the UK but especially from the influx of EU migrants. These skilled migrants are seen as making positive contributions to innovation and productivity performance. Restricting migration might have a material impact on UK competitiveness (33). The point of this digression into the flat white economy, as well as illustrating new working trends, is to put forward a positive story about work and EU migrant labour – a very different case to the conditions for some EU migrants working in the food sector that are described below.

4.5 Food sector far from static

Such trends from the digital economy might seem far removed from the working life or jobs involved in manufacturing ready-meals, butchering meat, milking cows, picking vegetables, or manufacturing the day-to-day staples and processed foods and drinks the British consumer relies upon. But this might help explain why younger people are not always attracted to a career in food manufacturing.

Many, however, might find it surprising if they visit a food factory. Some food factories are like a trip back in time with decades old technology or machines churning out well-known consumer staples such as biscuits or the assembling of microwaveable prepared meals. On the other hand, much food manufacturing is highly automated and focused on applying high levels of technology to production and logistics to maximise efficiencies or create innovative food products. Visiting some food factories is a futuristic experience with production controlled by a small number of experts operating space-station-like consorts and equipment.

This section has illustrated that labour markets and jobs are experiencing considerable change and pressures. While many job roles can appear relatively stable or unchanging, the reality is food manufacturing has not been immune to shifting trends in labour markets and the future will be far from static.

5. Setting the context: Food manufacturing

In advanced economies such as the UK, all manufacturing has been in long-term decline. In 2015 manufacturing employed in total around 2.6 million people or 7.8% of the UK workforce (down from 22% of workforce in 1982 or some 5.6 million workers). Jobs in manufacturing are forecast to continue to decline to around 2.35 million by 2024 (and 6.7% of all employment). Jobs in manufacturing have declined due to productivity gains and introduction of new technologies including increasing automation. While overall the number of jobs has fallen there has been strong growth for higher level occupations such as managers, professional and technical roles (34).

Manufacturing share of UK economic output (defined in terms of Gross Value Added) declined from more than 30% in the early 1970s to around 10% by 2014. This, however, is a reflection of gains by other industry sectors especially services, rather than significant falls in manufacturing output; by 2014 services represented 80% of the UK economy (35).

Food manufacturing, measured by Gross Value Added (GVA), contributed 17% of all manufacturing, bigger than transport (14% GVA) and chemicals and pharmaceuticals (14% GVA). However, compared to all other manufacturing sectors, food manufacturing only spends 3% on R&D expenditure as a share of total UK manufacturing R&D spend. Chemicals and pharmaceuticals, by contrast, spent 35%, and transport 33% of total manufacturing R&D (36).

5.1 Food manufacturing in the European Union

This section considers the main characteristics of food and drink manufacturing and processing (FDMP) starting within the European Union (EU28) and then setting the scene within the UK context. The structure of UK food and drink manufacturing is outlined drawing on UK government statistics to illustrate key trends over time. The section finishes by drawing attention to a number of labour market challenges faced by food manufacturing. It should be noted EU statistics about UK food and drink manufacturing vary slightly to those produced by Defra.

Food and drinks manufacturing and processing (FDMP) is the largest part of the EU's manufacturing sector in terms of turnover, value added and employment (37). The latest available data shows EU FDMP turnover was €1,089 billion, accounting for 15.6% of all manufacturing in the EU28. By comparison the EU automotive sector accounted for 12.4% of all EU manufacturing (38).

The European FDMP sector employs around 4.25 million people in some 289,000 companies. EU food manufacturing is dominated by a large number of Small and Medium-Sized Enterprises (SMEs) and 'micro' food businesses. EU SMEs accounted for 99.1% of all food and drink companies that in turn account for half of all food and drink turnover and approaching two-thirds of employment in the sector. In contrast, however, just 0.9% of FDMP companies –large and multinational corporations - in the EU produce half of turnover and around 37% of employment (38). The top five FDMP sectors are bakery, meat, dairy, drinks and 'various' – these between them account for 75% of turnover and 80% of all employees.

A major characteristic of the food industry is a long-term divergence between small businesses and an ever consolidating corporate sector This has given rise to a two-tier manufacturing sector: one of industrial might often operating across many countries if not globally; the other being small-scale and mainly serving more localised markets. In this respect it should be noted that the average number of people employed per company in 2012 was 16. Despite the importance of FDMP to the EU economy, labour productivity in FDMP sector is generally lower than most other manufacturing sectors (38).

5.2 EU food manufacturing workforce trends

A number of workforce trends have emerged across EU food manufacturing. A major study and report by Jassi et al (37) identifies these as:

- The growth in temporary contracts at the expense of permanent appointments – this has been an involuntary development (that is, imposed upon workers rather than them looking for such a change in contractual arrangements).
- Migrant workers from both inside and outside the EU have become a vital feature of the European FDMP workforce in many (although not all) EU countries. At the time the study was carried out they estimated 400,000 migrant workers in the EU FDMP, around half of which were EU nationals. This represents a doubling in the proportion of migrant workers in the FDMP workforce - rising from around five per cent to nearly double this

figure in the course of a decade (migrant labour in UK food manufacturing is discussed below).

- The FDMP sector workforce has a greater proportion of what is termed 'precarious workers' than the economy as a whole and has greater numbers of employees in the medium-low income band than the sector average for the EU (37% versus 24%).
- When it comes to skills and training in EU FDMP the workforce is less well-qualified than the general EU working population – a trend also reflected in UK. The sector was found to be weak when it comes to workforce training with relatively little spent on activities likely to make the businesses more productive.

The EU FDMP faces recruitment challenges as the sector has a poor image for potential employees – again something reflected in the UK. This is especially the case for some low- or medium skills roles and for sub-sectors, such as the meat industry and butchery, which are now heavily reliant upon migrant labour (37).

These findings are confirmed in academic-research such as Major et al. (39) who found the European food sector ranks low in innovation and few young educated people tend to pursue food careers. There are a higher proportion of workers with low qualifications (30%) in food sector compared to 21% in the overall economy. The share of high skilled employees is only 14% compared to 30% in the whole economy (39). This can be a reflection of the 'craft' nature of much food manufacture, particularly when Europe is dominated by micro and small-scale food manufacturing and what is meant by 'skill' as discussed earlier.

The next section sets out the key characteristics of the UK food industry, drawing largely from government statistical data for the sector.

5.3 The UK food sector

In the UK, the total number of jobs in the food sector is 3.4m which rises to 3.9m if agriculture, fishing and self-employed farmers are included. This total figure represents 13.2% of the national workforce (11.8% if agriculture and fishing are excluded). As can be seen in Table 1 below catering is by far the largest source of food sector employments following by food retailing – together they account for more than 2.8 million of the 3.9 million jobs in food or 72%. Food and drink manufacturing as a whole employs around 392,000 (14).

Table 1: Number of jobs in different UK food sectors (2016)

UK food sectors	Number of jobs
Caterers (restaurants, cafes and canteens)	1,671,000
Food and Drink Retailers	1,152,000
Food and Drink Wholesalers	225,000
Food and Drink Manufacturing	392,000
Farmers and Primary Producers	430,000

Source: Defra (14)

The core structural characteristic of UK food and drink manufacturing is, like in the EU, a mass of micro and smaller companies, with relatively few larger players, although there is a tendency for there to be larger companies in the UK compared to the EU. There are an estimated 9,465 food manufacturing enterprises. Of these 6,600 are micro, small and medium-sized. Again, as in the EU context, certain sub-sectors are particularly important. A third of UK food SMEs manufacture bakery products, whilst meat, dairy and drinks producers are also significant (See Table 2).

Excluding beverages, SMEs account for 96% of all food manufacturing businesses, 27% of employment and 19% of turnover (14).

Table 2: UK food manufacturing subsector size and value

Product	Gross Value Added (2015) £bn	Number of SMEs
Meat and meat products	3.6	740
Dairy products	2	460
Fish and crustaceans	0.6	250
Fruit and vegetables	2.2	355
Oils and fats	0.2	35
Grain and starch products	1.4	95
Bakery	4.0	2250
Other food products	5.9	1105
Prepared animal feeds	1.8	305
Beverages	6.6	980

Source: Defra (14)

The UK food sector has distinct labour market characteristics, key ones include:

- 50% of food sector jobs are part-time (compared to 25% for UK workforce as a whole)
- Women form a large part of the workforce in retailing (57%) and in non-residential catering (53%); this compares to UK food and drink manufacturing where two-thirds of employees are male (as defined by number of hours worked)
- 26% of workforce made up of migrants, predominantly from Central and Eastern Europe

Large swathes of work in the UK food sector is more 'precarious' – this has been defined as: "employment that is uncertain, unpredictable, and risky from the point of view of the worker" (40). The precarious nature of work includes issues such as zero-hours contracts, self-employment, temporary or seasonal employment, low paid, or agency work.

The UK workforce contained significant numbers of people on Minimum Wage jobs (now changed to the National Living Wage in 2016) – for different food chain sectors the number of minimum wage jobs had been estimated as 6% in agriculture; around 15% in food processing; and around 25% in hospitality (41).

In addition, a range of recruitment and labour challenges for the UK food sector have been identified (41):

- Demographic change (for example, 16-24 years-old who prefer other careers or an aging workforce that is due to retire)
- Sector attractiveness (not seen as a positive career choice)
- Limited or lack of skills of new entrants (such as STEM subjects – the industry complains costly 'up-skilling' is often needed)
- High reliance on migrant workers (see below)
- Career pathways not always clear
- Low levels of training (except for professional and/or managerial roles)

- Skill shortage areas
- Low/uncompetitive pay (compared to other industry sectors).

6. UK food manufacturing and labour market trends

This section looks at employment trends in food manufacturing. In line with broader economic and societal changes, the food manufacturing is undergoing a prolonged period of contraction in the number of people employed by the sector.

As Figure 1 illustrates, this trend has continued over the last decade, with a reduction in the UK workforce of around 10% between 2006 and 2015. The largest driver of this change is a growth in capital intensity driven by consolidation and technological change, such as automation. A potential secondary driver is increased imports of food products from overseas (14).

As the food industry has become more capital intensive, the numbers of people employed per output has fallen. The upside to this is that average skill levels have risen, as has productivity (5).

However, for food manufacturing and processing, one study suggests the general workplace trend of 'hollowing out' described earlier may not be so marked in food manufacturing due to the wide range of skilled and semi-skilled roles needed. This is illustrated in Table 3 below which details different job roles in food manufacturing:

Table 3: Percentage of workforce in UK food manufacturing by job role

Job category	% of sector workforce	Approximate skill level required	% of workforce qualified to minimum skill level	Typical job titles
Managers and senior officials	17%	L3 (e.g. A-level / advanced apprenticeship) or above	76%	Production manager, quality assurance manager, product developer
Professionals	3%	L4 (e.g. CertHE/ higher apprenticeship) or above.	55%	Food scientist, senior lab technician
Associate professional and technical roles	7%	L3 (e.g. A-level / advanced apprenticeship) or above	65%	Food technologist, line engineer
Sales and customer service staff	3%	Not available		
Skilled trades	10%	L3 (e.g. A-level / advanced apprenticeship) or above	43%	Butcher, baker, flour confectioner
Process, plant and machine operatives	33%	L2 (e.g. GSCE A*,A,B,C / intermediate apprenticeship) or above	53%	Line operators, forklift truck driver
Administrative/clerical	6%	Not available		
Elementary roles	22%	L1 (e.g. GSCE D,E,F,G) or above	69%	Kitchen assistant, packer

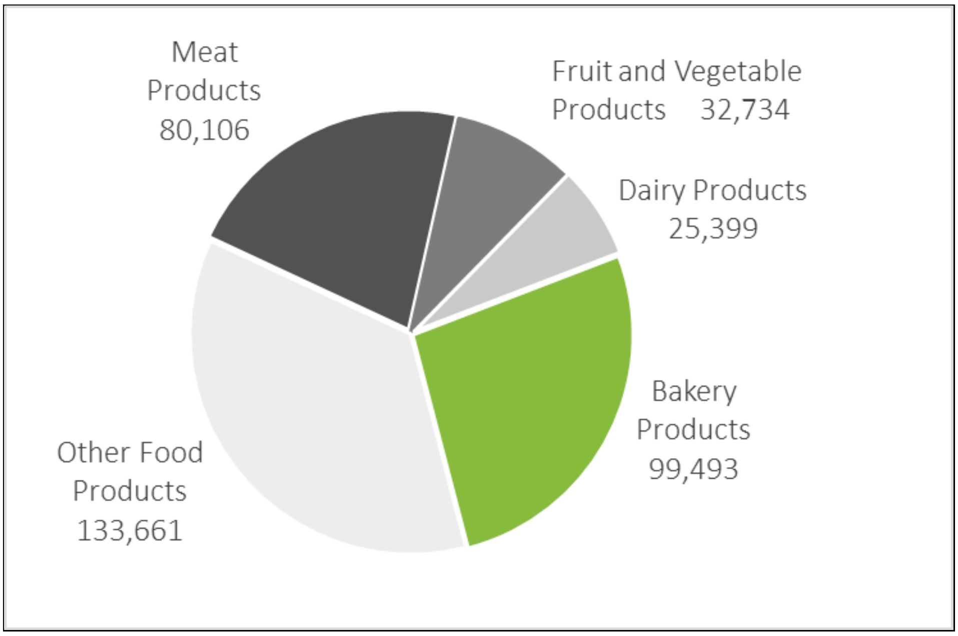
Source: Adapted from Alderson et al (42)

Figure 1: UK food manufacturing employment 2006 to 2015

Source: Eurostat (43)

Whereas Figure 1 shows generalised trends in food manufacturing employment over time, Figure 2 shows the relative importance in terms of jobs of sub-sectors and number of jobs for each of these. As can be seen from Figure 2 bakery products followed by meat products are the individual sub-sectors employing largest number of workers; while the large number of miscellaneous food producers collectively employ more than 133,000.

Figure 2: UK food processing industry employment breakdown (2014)



Source: ONS (29)

From this data it is not clear how job roles are changing over time, or what future new jobs or roles (and skills) might emerge, other than a reduction in manufacturing jobs generally as technologies are introduced. Part of this drive for economic efficiencies in food and drink manufacturing has been described as resulting from the market power of supermarkets passing costs down food supply chains. This 'race to the bottom' in the food industry, where costs and margins are under continual pressure to be reduced, will undeniably continue to have an impact on the numbers and types of jobs available and the associated pay and working conditions.

While this Briefing Paper does not consider food production in specific geographies, it is important to note regional concentrations or differences in food manufacturing and that there are ‘clusters’ of food processing activities in particular locations – such as vegetable production in Lincolnshire. Connected to this are food production activities in Scotland, Wales and Northern Ireland as well as England. Different geographies each have particular strengths (and weaknesses) in food production.

For example, Scotland has set out an ambitious vision to double the turnover of its farming, fishing, food and drink industries by 2030 from £14 billion to £30 billion and to make these collectively Scotland’s most valuable industry sector. Scotland has a strong record of exports over the past 10 years (driven by the whiskey industry) and the country’s manufacturing rate is twice the UK average for food and drink. In 2015, the Scottish food industries employed around 360,000 people. As part of its 2030 vision, it is hoped that people will see the food industry as a first choice for work and a career and that the industry is recognised for its commitment to developing people (44).

However, despite regional and local food clusters or concentrations, employment and jobs in the food sector is often uneven and challenging, such as through industry restructuring or plant closures. This is illustrated by Table 4 below which shows the socioeconomic impacts of an increasingly concentrated food manufacturing sector through Eurostat data for changes in employment at a regional level in English regions. Table 4 shows annual percentage employment change for selected regions from 2009 to 2014, some parts of the UK bear significant swings in employment levels from year to year. Whilst linked to the cyclical economic performance of the country, some regions such as Northumberland and Tyne and Wear and Bedfordshire and Hertfordshire have experiences changes far beyond national swings, indicating a concentration of either large individual businesses or clusters of smaller companies in the same sector.

Table 4: Changes in regional employment in UK food manufacturing sector

	2009	2010	2011	2012	2013	2014
Northumberland and Tyne and Wear	-8.0	2.8	-34.8	65.9	-7.3	-12.9
West Midlands	-2.2	2.7	-22.5	**7.6**	-4.4	12.6
Bedfordshire and Hertfordshire	-27.2	31.9	-0.1	-2.9	-7.6	52.7
Dorset and Somerset	22.2	-4.9	-15.4	9.5	-4.9	-22.6
Lincolnshire	-10.7	8.2	-4.1	8.6	1.3	-2.1
London	-9.3	3.5	0.2	29.8	10.2	-6.9
Highlands and Islands	-10.6	16.3	-8.6	28.5	3.9	6.1
United Kingdom	**-5.0**	**11.6**	**-5.8**	**-2.9**	**2.1**	**1.0**

Key: ≥ 5% decrease ≥5% increase

Source: Eurostat (43)

6.1 Current employment issues impacting the UK food industry

By and large the UK is considered a mostly safe and fair place to work with employment and the responsibilities of employers clearly set out and governed by legislation. However, the UK has responded to a number of emerging or new labour market and business trends, including political interventions, to make employment flexible and responsive to so-called market needs. One important political involvement in labour markets with strong implications for the food industry was the introduction of the national living wage from April 2016 (see below).

Other labour market factors such as a growing number of people reporting as self-employed, the wide use of ‘agency workers’, ‘zero hour’ contracts, and the crucial role of migrant labour - especially from Central and Eastern EU countries – are prevalent in industry sectors such as hospitality, health and social care as well as agriculture and food.

An additional area of uncertainty will be the consequences from Brexit – from the general which some fear will see a 'bonfire of workers' rights' as EU employment protections are scrapped (45), to specifics such as worker shortages in the food industry due to the UK being a less attractive option for EU migrants, something which appears to have already started to happen (46).

As an example of the potential impact of Brexit on a food business, the high-street food chain Pret a Manager reported in 2017 that just one in 50 applicants for jobs at the chain are British. The company says it employs 110 different nationalities with 65% of its workforce coming from EU countries. Pret a Manager's director of human resources was reported as saying it would be "virtually impossible" to find enough staff if the company were forced to turn its back completely on EU nationals after Brexit (47).

It is widespread labour challenges such as these that prompted the concerns raised in the open letter to Prime Minister Theresa May MP referred to in the introduction.

6.2 The 'gig economy' and food

These trends and the rise of the so-called 'gig economy' – built on short-term, casual contracts and often carried out on a 'self-employment' basis – has promoted the government to conduct an independent review into modern employment practices. The review is being led by Matthew Taylor the Chief Executive of the Royal Society of Arts and will consider the implications of new forms of work on worker rights and responsibilities as well as on employer freedoms and obligations (48). Officially launched on November 30 2016, the review is due to report in 2017. An important aspect of this review will be to also consider job quality.

The rise of the 'gig' work, also known as the 'on-demand' economy, has seen 15% of the UK workforce report as self-employed, and has in part been prompted by work roles obtained by using mobile phone apps especially for driving, delivering items or DIY tasks. This style of 'casual' work is not so prominent in the food sector where other types of employment practices and employment contract are more common. For example, there is limited information on the role of 'zero hour' contracts in food manufacturing specifically, even though the use of casual contracts in other parts of the food sector is widespread.

A 'zero hour' contract is defined as a type of employment contract under which an employer is not required to offer an employee any defined number of working hours and the employee is, in turn, neither guaranteed any set number of working hours nor obliged to take any offered. The individual therefore only receives pay for the working hours for which they are required; hours which may be subject to variation on a daily or weekly basis (49). Workers on zero hour contracts tend to earn less or be underemployed, but not all such contracts are the same – one in six zero hour contracts are for workers described as manager, professionals or associate professionals (50).

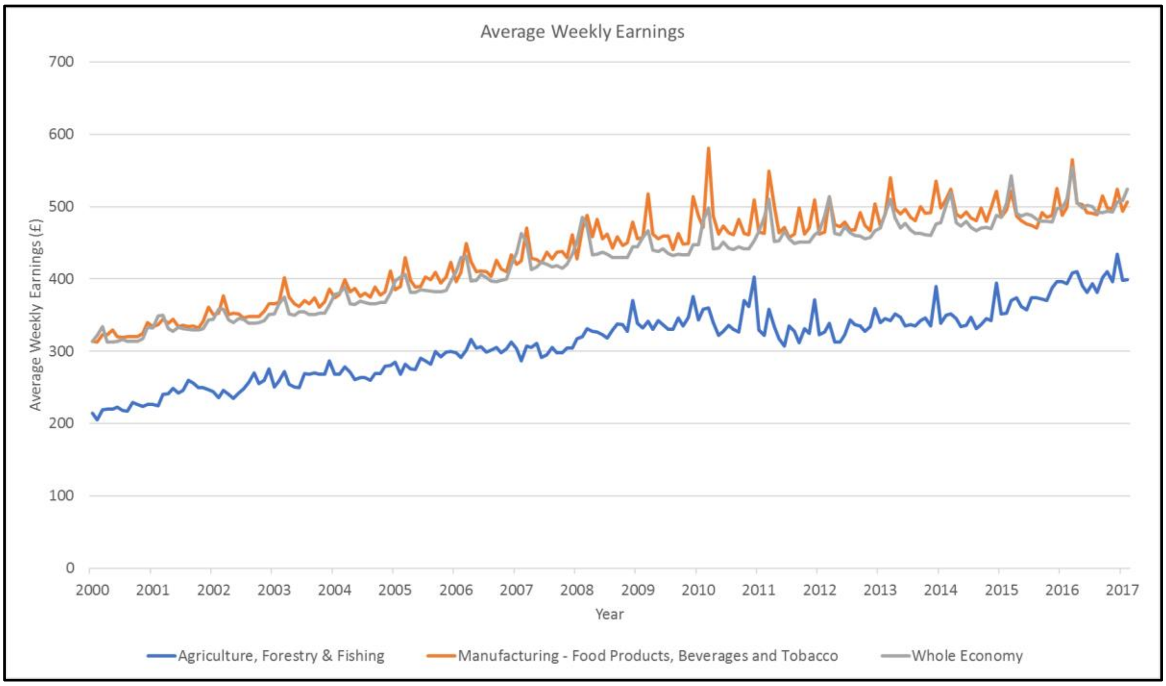
The number of workers on this type of contract reached a new high in the UK by the end of 2016 jumping to 905,000, a near five-fold increase from 2010-12 when it was estimated there were around 200,000 such contracts. However, this rise may have reached a plateau in early 2017 according to analysis by the Resolution Foundation (50).

The scale of the use of zero hour contracts in food related businesses other than food manufacturing became apparent when in 2017 food companies, McDonalds and JD Wetherspoon, announced they were offering their staff on casual contracts the opportunity to become permanent employees with a guaranteed number of hours. This move could potentially apply to an estimated 80,000 employees at McDonalds and 24,000 staff at JD Wetherspoon (51,52).

6.3 Pay in food manufacturing

Despite concerns about poor wage conditions in the food manufacturing sector, ONS[5] statistics indicate that Average Weekly Earnings are broadly reflective of the UK economy as a whole (See Figure 3 below). Moreover, it is significantly higher than average earnings in the agriculture, forestry and fishing sector. What these figures mask, however, is a high degree of bifurcation in the sector between executive and technical roles and low skilled jobs.

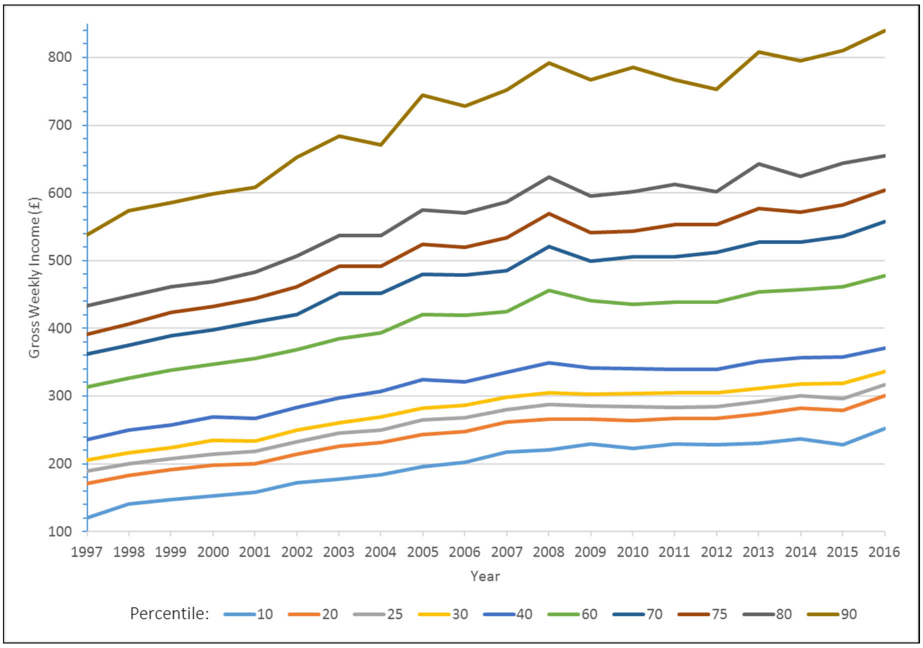
Figure 3: Average weekly earnings growth in food manufacturing, agriculture and the general economy from 2000 to 2016



Source: ONS (29)

This is partially resolved by breaking down income percentiles as set out below (Figure 4)

Figure 4: Percentile average weekly earnings growth in food manufacturing from 1997 to 2016



Source: ONS (29) NB: 1997 – 2004 data includes beverage sector.

[5] Office for National Statistics, the executive office of the UK Statistics Authority.

This data shows clearly an increased divergence between lowly paid and highly paid workers in the food manufacturing sector. The income differential between the top 10% and bottom 10% grew from £418 to £587 between 1997 and 2016.

Table 5 shows average weekly earnings among the food processing subsectors employing over 30,000 workers in the UK. Fruit & vegetable and dairy product manufacturers paid the highest average weekly earnings of £597 and £517 respectively in 2016. The lowest paying major subsector was the manufacturing of bread, pastry goods and cakes at only £435 gross pay per week.

Table 5: Average weekly earnings among subsectors employing more than 30,000 people in the UK for 2016

Subsector	Average Weekly Earnings (£)
Processing and preserving of fruit and vegetables	597
Manufacture of dairy products	517
Manufacture of bread; manufacture of fresh pastry goods and cakes	435
Manufacture of bakery and farinaceous products	448
Manufacture of prepared meals and dishes	487
Processing and preserving of meat and production of meat products	440
Total Food Manufacturing	445

Source: ONS (29)

6.4 The National Living Wage

On April 1st 2016 the UK introduced a statutory National Living Wage (NLW). For workers aged 25 and over this meant an hourly pay rate of £7.20, which from April 2017 rose to £7.50. The government intends the NLW for over 25s to reach 60% of median earning by 2020 which it is estimated will see the NLW rise to £9.00 per hour by 2020.

Prior to the National Living Wage (NLW), the UK operated the National Minimum Wage (NMW) which had been introduced from April 1999. This had different age cut-offs than the NLW, so before April 2016 for workers aged over 21 the NMW was £6.70.

The introduction of the NMW was seen as creating a pay ‘floor’ to prevent worker exploitation and abuse as well as making a ‘level playing field’ for business against cost-cutting competitors. At the time of the introduction of the minimum wage the UK had both higher levels of low pay and lower levels of productivity than its main international rivals (41).

The National Living Wage should not be confused with the Living Wage promoted by the Living Wage Foundation (53). This is a group of businesses, organisations and people who campaign for a living wage based on the cost of living, and not a minimum set by government. The Living Wage Foundation calculate that on this basis the living wage should be £8.45 per hour for the UK (and £9.75 per hour in London). The Living Wage campaign that started in 2001 and is voluntary unlike the NLW, which is a statutory requirement.

The reaction of the food sector and its analysts to the introduction of the National Living Wage (NLW) clearly demonstrates a reliance on low paid workers. The Food and Drink Federation, for example, adopted a cautionary tone, stating that the impact among its members of a move to the introductory rate of £7.20 an hour would be ‘minimal’ however ‘concerns remain about the steep rise to £9.00 and the effect this rise will have on productivity levels’ (54, p8).

This was echoed by global credit rating agency Moody’s, who stated that with regards the packaged food sector:

> *"The UK national living wage will have a limited impact in 2016 but the effect of further increases to 2020 will be much greater. Companies will take steps to mitigate the cost impact but a complete offsetting is unlikely."* (55)

According to a report in the *Food Manufacturer* magazine, the fully implemented NLW could 'wreak havoc' across the food and drink sector, resulting in increases in the cost of food and / or job losses. According to a Moody's Senior Credit Officer quoted in the article, '*it would most likely to be the later, since manufacturers and retailers were already operating at rock bottom'* (56). Whilst, at the time of publication, we do not have reliable data on the actual impact of the NLW in 2016, the discourse from the industry illustrates the importance of low pay across the sector.

6.5 Agency workers and food manufacturing

Agency work – which means a person has their work contract with an agency that then 'supplies' them to a hirer, in this case a food processing business, often on a temporary basis - has been around a long time but it has expanded rapidly in the UK in the past few years. The Resolution Foundation has produced a definitive study on this neglected area of labour market analysis and estimates that in 2016 there were 865,000 agency workers in the UK, a rise of 30% since 2011 (28).

The definition of agency work is highly varied in the sense it covers a wide range of job roles and types. But under The Agency Worker Regulations, introduced in 2011, agency workers are entitled to parity of treatment with those of a client firms' employees. Contrary to assumptions, the Resolution Foundation research says that three-quarters of agency workers are full-time.

While agency work covers a spectrum of occupational roles, it tends to be clustered in low-skilled occupations compared to managerial and professional roles. In manufacturing this type of labour is characterised by a wide mix from high- to low-value jobs. The Resolution Foundation evidence shows the majority of agency workers are British born (around 60%), but a significant part (40%) are non-British. They also calculate there is a significant negative pay penalty to being an agency worker (28).

While the Resolution Foundation research suggests most Agency workers are full-time, the food sector appears to use agency workers more flexibly.

Many Agency suppliers of labour to the food sector are members of their own trade body, the Association of Labour Providers (ALP). The ALP is a trade association that aims to promote best practice for organisations that supply the workforce to the consumer goods supply chain across the food processing, horticultural and wider manufacturing, industrial, warehousing and distribution sectors. It has approximately 320 organisations that voluntarily choose to be members of the Association on payment of an annual subscription and commitment to abide by the membership regulations. ALP member organisations supply approximately 70% of the temporary contingent workforce into the food growing and manufacturing supply chain (30).

The ALP provides interesting background to the role its members play in supplying agency workers to the food industry. For example, members mostly provided unskilled workers but also supply specialist skilled and semi-skilled workers to the food industry. Members are hugely dependent on EU migrants for their business model to work.

The ALP says, depending on the area of the UK, EU migrant workers make up between 70% and 100% of workers supplied by labour providers into the food industry with a national average of between 90-95%. The remaining workers are British nationals or those migrants from non-EU countries that have been given right of residence in the UK (30).

6.6 Payments for agency workers in food manufacturing

The reliance of food manufacturers and processors on agencies for the supply of its labour is far higher than other UK manufacturing sectors. This is illustrated by Eurostat[6] data who collect a range of, albeit often incomplete, data at the EU level related to labour. This includes information on payments provided to employment agencies for agency workers. The average payment for agency workers within the UK food manufacturing sector was €179,000 per business in 2014. This compares to a non-food manufacturing average of just over €35,000 in the same year. Moreover, as Figure 5 below, illustrates, over recent years this difference has been growing steadily.

Figure 5: Average annual payments for agency workers per Business Unit from 2009 to 2014

Source: Eurostat (43)

The UK food manufacturing sector spent approximately £2780 per employee on agency workers in 2013, which was the third highest spender behind only the Netherlands and Belgium. The subsectors with the highest averages all relate to processing and preserving rather than other parts of the manufacturing sector. Meat, poultry, fruit and vegetable processing and preserving all average around £4250 per work, significantly higher than the industry average of £2780 (43).

7. Migrant labour and food manufacturing

At the start of this paper it was pointed out that there are many high-level opportunities and strong careers prospects in the UK food industry and that the industry is looking to attract people with the skills to help the sector succeed in the future. The sector is also important as it gives the opportunity for the young, workforce returners, or people looking for flexible working arrangements a chance to work as well as for people with few formal qualifications a way into paid employment.

As set out in this Briefing Paper, the UK food sector struggles with a range of labour force challenges – some generic to labour markets, others specific to the food

[6] The EU statistics authority and Directorate-General of the European Commission

sector. One over-riding area is the food sector reliance on migrant labour, especially from the EU. While the exact numbers are not available for the food sector as a whole, EU migrants make up a substantial proportion of the workforce across food and agricultural sub-sectors for both seasonal and permanent staff. For example, for seasonal workers, 90% of the total labour requirements for the UK's horticultural industry are EU migrants – some 75,000-80,000 workers (19).

In evidence given to the House of Lords EU Energy and Environment Sub-Committee inquiry about the impact of Brexit on agriculture, published May 3rd, different trade bodies gave estimates of proportions of their sector accounted for by migrant workers. Dairy UK said non-British born labour accounted for 11% of the processing workforce in the UK dairy industry; the British Egg Council said around 40% of staff on egg farms and 50% of staff in egg packing centres were EU migrants; the National Pig Association said one-in-five farms and businesses connected to the pig industry would "struggle to survive" without migrant labour; the British Poultry Council said that of 35,900 direct employees in the British poultry meat industry around 60% are migrant workers; and the British Meat Processors Association said that around 63% of the workforce of the British red and white meat processing industry were EU migrants, mainly from central and eastern Europe (19).

According to the latest figures from the Food and Drink Federation, EU migrant workers made up around one-third of the food and drink manufacturing workforce in 2017 – some 117,000 workers (2).

The academic and grey literature provides a great deal of insight on the working life of EU migrant workers - a migrant worker being anyone who is working outside their home country. The following sections consider some of these studies. It should be noted the much of these workforce challenges around migrant labour fall into what might be seen as the blurred line of what is formally categorised or defined as 'food processing' (including manufacturing). In this sense this section strays over statistical definitional boundaries and not all the studies apply to all activity that takes place strictly in factories, but more generally for foodstuffs that are 'processed' and usually packaged (as outlined in the introduction).

7.1 EU migrant labour in the UK

EU migrant workers in the UK is a highly contentious issue so it is worth situating these within the broader economy and to help understand how EU migrants are employed in the food sector. Research by the Centre for Economic Performance, London School of Economics shows that between 1995 and 2015 the number of migrants from other EU countries living in the UK more than tripled from 900,000 to 3.3million, representing 5.3% of the UK population by 2015 (57).

Large increases of EU migrants into the UK is a relatively recent and accelerated after 2004 when the A8 countries joined the EU (the A8 countries being the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia) and in 2007 when the EU again expanded to include the A2 countries of Romania and Bulgaria – a trend occurring during the 2007-08 economic recession (59). Although it should be noted access to UK labour markets was restricted for A2 nationals until the end of 2013. Consequently, since 2014, Romania and Bulgaria became the main sourcing regions for new workers into UK food and horticultural industries (30).

As Table 6 shows the largest group of EU migrants living in the UK are Polish followed by those from the Republic of Ireland.

Table 6: Share of EU nationals living in the UK by country of origin (2015)

Country of origin	Percentage share
Poland	29%
Ireland	12%
Portugal	7%
Romania	7%
Italy	6%
Lithuania	6%
Germany	5%
France	5%
Spain	4%
Bulgaria	2%
Other	17%

Source: Wadsworth et al. (57)

The Centre for Economic Performance also provides evidence to show that EU immigrants are generally more educated, younger, and more likely to work and less likely to claim benefits than the UK-born. They state that in areas of the UK that have experienced large increases in EU migrants there was not greater falls in the jobs of pay of UK born workers (57).

In the research literature an emerging theme has been the idea of the migrant as a "good worker" in the sense that generally employers viewed the migrants they employed positively (26,58). Although there is no evidence to suggest employers were using migrants in preference to British workers solely on the assumption that they have more desirable attributes. Other factors, such as lower recruitment costs are important (26).

The UK food industry has long been particularly proactive in using migrant labour as an important source of workers - for full-time, temporary and seasonal labour on farms and in food processing. This can be situated in broader labour market trends that have seen labour brought in or attracted to core economies from the economic 'periphery' (60). This has contributed to accelerating the use of migrant labour. As one expert comments: "…EU enlargement migrants [A8 and A2] quickly became the main source of temporary and seasonal labour on farms and in food processing factories" (60, p1095).

7.2 The management of agricultural migrant labour

Much of this has been actively managed migration and recruitment, notably in the UK by the Seasonal Agriculture Workers Scheme (SAWS) until it was closed on December 31st 2013. SAWS set a quota for migrant labour undertaking short-term agricultural or horticultural labour (such as picking fruit and vegetables) and had been in operation since 1948. From 2008 the SAWS had been limited to nationals from Romania and Bulgaria only, with a quota of 21,250 (from 2009) to undertake seasonal work with a maximum duration of six months stay in the UK (61).

With a tightening of UK immigration policy in an attempt to reduce immigration and the fact the A2 countries became fully integrated into EU labour markets the scheme was closed, although not without protest or concern being expressed from the food industry. Food businesses argued that tighter immigration policies could restrict seasonal migrant labour, which had become essential to the harvesting the UK's seasonal vegetable and fruit crops. The government was warned this might lead to a rise in labour costs and a 10-15% rise in supermarket prices (62). Up until this time, SAWS workers accounted for a third of Britain's seasonal agricultural workforce. The scheme was seen as crucial for the supply of strawberries, salad, apples and other soft fruit to UK supermarkets (62).

But the rise in migrant labour in the food sector has to be considered in wider structural changes within food systems such as the rise in value-added food processing (especially in fresh produce such as bagged salad), the decline in agriculture (such as number of farms and consolidation into larger holdings), and the rise in supermarket power and the resulting pressures on food supply chains (60, 10).

But as noted earlier, the majority of the workers throughout the UK economy and employed through agencies are full-time. In relation to the food sector it is not clear how many Agency supplied workers are full-time, seasonal or temporary. However temporary or otherwise, EU migrant labour has become a 'permanent fix' over a relatively short period for UK food manufacturing and processing industries.

7.3 Problems and exploitative working conditions for some migrant workers in the food industry

While it might be reasonable to assume the majority of the migrant-based workforce is treated well based on the sheer numbers of people involved, a number of studies investigating migrant labour in the food sector portray a very bleak and worrying working environment for some workers. It might be hoped that evidence from these studies and the media and policy attention they receive has led to an overall improvement in conditions today – more up-to-date evidence is needed to find this out. This section summarises some of this research from the past 10 years.

A report published in 2009 by the UK's Ecumenical Council for Corporate Responsibility (63) brought to light how the conditions for some migrant workers in certain food supply chains at the time were highly unpleasant with a lack of oversight by food businesses of labour problems within their supply chains.

The EECR, a church-based investor coalition working for economic justice, environmental stewardship, and corporate and investor responsibility, in their 2009 report *Vulnerable Migrant Workers: The Responsibility of Business*, investigated the precarious life of migrant workers in areas of the UK domestic economy where low-skilled flexible labour is concentrated including in care, cleaning, construction, hospitality and catering, as well as food production, manufacturing and retailing.

The research focused on the food sector in the UK and Ireland and compared at the time of the research the policies and practices of nine prominent food production, manufacturing, and supermarket companies towards migrant workers, particularly in their supply chains. The companies investigated at the time were: Associated British Foods, Greencore Group, Kerry Group, Morrisons, Northern Foods, Premier Foods, Sainsbury's, Tesco and Unilever.

The report found that few of these food companies were explicit about the potential vulnerability of migrant workers or the additional support they might need. Although the report said most recognized some responsibility for workers in their supply chains, few (at the time of the research) appeared to have established considerations about labour conditions into their core business practices.

The study detailed a wide range of findings including that the monitoring of labour conditions throughout the supply chain was weak among the companies and at times there was a failure to translate a company's stated labour policy into practice. In the case of three of the companies the report found evidence that parts of their supply chains exploited migrants. Among a series of recommendations, the report highlighted the need for companies to:

- recognize the potential vulnerability of migrant labour, temporary and agency workers;
- implement effective codes of conduct for suppliers;
- increase awareness of rights among workers; and
- strengthen monitoring and audits

The report stated that many companies' profits benefit from the use of flexible labour in the supply chain and that companies and investors therefore have a moral responsibility to reduce the incidence of vulnerable work throughout their business and supply chain.

7.4 Working conditions in the meat industry

In 2010 the Equality and Human Rights Commission (64) published research it had commissioned looking at labour conditions at a number of UK meat and poultry companies. Key findings from this study included an early signal that the meat and poultry industry was already relying heavily on agencies to supply labour- at the time this might range from 10%-50% of the employed workforce.

The largest group of agency workers were Polish, other countries represented included Lithuanian, Latvian, Czech, Slovakian, and Portuguese workers. The companies reported it was difficult to attract British workers to low-paid meat processing jobs especially on an agency basis. The reasons given for British workers not wanting the work was an aversion to handling meat, the (low) rates of pay, the working conditions (frozen products, low temperatures), and the physical demands (intensive manual labour, long shifts)

The inquiry found evidence for what it describes as widespread mistreatment and exploitation of British and migrant workers, particularly those working for agencies. Evidence suggested at this time that agency workers are treated differently to those employed directly in terms of pay and conditions and their treatment at work. Some of the negative working conditions identified were preventing toilet breaks, physical abuse, verbal abuse, health and safety breaches, working time breaches (long hours, no days off), and a lack of language skills. But it was noted problems in the meat sector were not that different from other non-food sectors that make use of low-paid, agency migrant labour (64).

7.5 'Forced labour' and the food sector

In 2012 the Joseph Rowntree Foundation (JRF) commissioned research looking into the issue of 'forced labour' within UK food industry (65). The research used the concept of 'forced labour', as defined by the International Labour Organisation, which includes, amongst other areas:

- threat or actual physical harm to the worker
- restriction of movement
- debt bondage
- withholding of wages or excessive deduction
- retention of passport and identity document
- threat of denunciation to the authorities

'Forced labour' risk factors include:

- Being a migrant
- Concentrations of low-paid and demanding work
- When (ultra) work flexibility is required

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- When job insecurity is chronic (for example, zero-hour contracts)

This study used in-depth interview evidence from 62 migrant workers in different geographical areas working in agriculture, food processing and minority ethnic catering. The researchers found a number of forced labour practices among the migrant workers they interviewed that were exploitative. This included a range of abuses from non- or underpayment of wages to threats and bullying. One finding highlighted by the researchers was the acute sense of powerlessness among low-wage migrant workers (65).

The evidence from this report was framed within the structural changes taking place within food systems; the report states: “It is clear that forced labour is not just related to the acts of isolated criminal employers but it is concentrated in particular industries because of the competitive conditions and structures shaping employment in these industries” (65, p.6). The report sets out ten main policy recommendations aimed particularly for government or regulatory actions and the role unions can play in addressing forced labour issues.

7.6 Protecting UK’s vulnerable and precarious food workers: Gang labour

One area where the UK has taken bold steps in protecting vulnerable food workers is the area of gang labour. Gang labour is a form of temporary labour in which an agent (‘gangmaster’) contracts and supplies workers for employment (66). In the UK gang labour, which re-emerged in the 1980s and relies heavily on migrant labour, is traditionally used in the horticultural and agricultural sectors, but also increasingly in food manufacturing and processing.

It was a shocking tragedy that brought about profound change in the way gang labour is overseen and regulated in the UK. The tragic incident was when twenty-three Chinese workers, all illegal immigrants to the UK, were drowned while collecting cockles (shellfish) from Morecambe Bay beach in North West England on February 4th 2004.

This incident led to a new public body being set up - The Gangmasters Licensing Authority (GLA) – starting work on April 1st 2005 following new legislation (the Gangmasters (Licensing) Act 2004). The function of the GLA is to regulate the suppliers of labour to the farming, food processing and packaging and shellfish gathering sectors. This is a remit that covers more than 464,000 people (67). It does this through all suppliers of labour to these sectors requiring to be licenced through the GLA. For example, all 330 members of the Association of Labour Providers discussed earlier are licenced with the GLA.

At end of 2016 the GLA managed around 1000 gangmaster licenses. As well as its licensing activities, the GLA’s work includes investigating and working with other enforcement agencies to stop criminal activities involving workers and the use of illegal labour. These types of investigations involve labour exploitation ranging from unlawful travel and subsistence schemes and withholding holiday pay up to and including examples of human trafficking, forced labour, benefit fraud and other crimes committed by organized criminals who have sought to infiltrate the legitimate human resource supply chain.

In May 2017 the GLA was transitioned into The Gangmasters and Labour Abuse Authority (GLAA) following the passing of The Immigration Act in 2016 which extended the remit of the GLA to give the new GLAA police-style powers to investigate and enforce labour market offences.

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7.7 Modern slavery and food supply

Further protection against the criminal exploitation of workers has been the introduction of the Modern Slavery Act which received Royal Assent on March 26th 2015. The Act gives law enforcement tools to fight modern slavery and provides measures to enhance the support and protection of victims. The UK government describes modern slavery as a: "brutal form of organized crime in which people are treated as commodities and exploited for criminal gain." It was estimated there were 10-13,000 potential victims of modern slavery in the UK in 2013 (69).

In addition, the Modern Slavery Act 2015 requires commercial organisations with a turnover of £36 million or more and that are based in the UK or carry on business in the country, to report on an annual basis, via their websites, what steps they are taking to make sure that slavery and human trafficking is not taking place in their own business or that of their supply chains. Clearly the Act has direct application for many food businesses, especially those heavily engaged with global supply chains.

Separately, the food sector saw a landmark civil ruling in June 2016 regarding the trafficking of EU migrant workers. A successful civil claim was brought by six Lithuanian workers who sued Kent-based egg producer DJ Houghton Chicken Catching Services and the company's sole directors Darrell Houghton and his wife Jacqueline Judge, for forcing them to work as chicken catchers in inhuman and degrading conditions (68). The company provided eggs for a number of well-known brands. This was the first time a British company had been found liable for the victims of trafficking (70).

8. Discussion

Food manufacturing leads the UK's manufacturing industries in terms of Gross Value Added and has increased its productivity ahead of the UK average in recent years. But food manufacturing, like other industry sectors, is having to manage the change and uncertainty that is impacting working and employment practices and to keep pace with modern business needs.

It is an industry integral to food supply chains that have their own unique challenges especially in relation to on-going cost reduction pressures as consumers worry about food prices going up and supermarkets look to ways to keep these down.

In terms of its workforce, food manufacturing has evolved an umbilical connection with to EU migrant labour over recent years. The sector is understandably nervy about what lies in store as the Brexit negotiations unfold. Food manufacturing, and the agencies who supply its workers, will probably have to compete even harder for EU migrants who already appear to be turning their backs on the UK.

8.1 Clear trends for the future of food manufacturing and workforce

In this Briefing Paper a wide range of factors have been identified that are impacting jobs and employment relevant to the food manufacturing and the food sector more generally. These are based on a descriptive analysis using secondary sources to look at trends, data and the academic and grey literature to build a context to discuss the future of work in food manufacturing.

Clear trends to emerge are the need for skills development at all levels; a new engagement with EU migrant labour; an approach that stamps out labour abuses and exploitation within food supply chains.

Food manufacturing is heavily reliant on Agencies for its workforce and EU migrant labour sourced by Agencies. Less information was available on the extent of other 'atypical' employment practices such as 'self-employment' or 'zero-hours' contracts – although other food sectors use the latter extensively.

Less discussed in relation to impacts on employment has been the extent the role of technology, innovation, and internationalisation is playing on the future of work in food manufacturing, although it is noted how automation has reduced job numbers. One consequence of Brexit is that it might speed up the process of automation and bring an acceleration towards 'smart' food systems.

Some important areas are missing from this overview of food manufacturing as no studies were found: these are about food manufacturing employment in relation to diversity, gender, disability, and ethnicity (other than EU migrants) and how these impact employment opportunities and practices. The jobs, careers and working conditions for British workers in food manufacturing was also a neglected area.

Many food companies now have strong and distinct policies in place to address such areas and other workplace practices such as treating employees with respect and dignity or providing safe, productive and healthful working environments, but research-based studies on these in relation to food manufacturing were not available.

8.2 Contradictory forces impacting food manufacturing and labour

This overview also highlights some of the contradictory forces shaping employment and food manufacturing. For example, on the one hand, it is an industry sector doing relatively well economically with improving productivity. On the other, especially in certain sub-sectors, there is a dark side which a number of high profile studies have revealed worker exploitation and abuse.

The government has put in place a number of statutory measures led by The Gangmasters and Labour Abuse Authority, to combat the worse of these practices where criminality or modern-day slavery is involved. But the question remains – could the food industry collaboratively still do more. For example, how are supermarkets and larger corporations taking greater responsibility for improving poor labour practices in supply chains beyond minimum legislative requirements?

Another contradiction is the urgent need for very skilled employees and the industry offering attractive, well paid careers for those with these skills. But in contrast, the industry appears locked into a system where it is equally reliant on low-skill, low paid workers on casual, temporary or seasonal contracts with few prospects of moving beyond this, although there is the suggestion that some agency workers are able to move onto more permanent positions.

A limitation with the analysis presented in this Briefing Paper has been the limited information available to provide much insight of employment and work in different sized companies. A core feature of food manufacturing is the very large number of small businesses and relatively few large ones. The UK also appears unique in having a sizeable number of medium-sized companies compared to the rest of the EU. Much more evidence is needed to understand the labour market issues faced by SMEs from skills to use of EU migrants. Employment opportunities and challenges with respect to company size and food manufacturing would help towards greater understanding of future sector worker needs. Related to this, there was very little information about British workers in food manufacturers

As labour issues are becoming much more politicised as a result of Brexit, even an independent perspective cannot not avoid, however unintentionally, falling into this political melee.

To address this potential trap food manufacturing labour issues should be considered in the round – that is, not only Brexit or EU migrants, but including all workers, skills, structural factors, recruitment needs, innovation, competitiveness, productivity and new technologies.

Addressing these interrelated issues offers the opportunity to transcend individual companies (even though individual businesses often do a lot by themselves) and for stakeholders to seek collaborative solutions.

9. Conclusions and recommendations

This Briefing Paper provides a detailed overview of work and labour markets in the food sector focusing on food manufacturing. It is clear food manufacturing in the UK must react to safeguard its existence against a growing crisis in securing a workforce for the future.

The sector is being squeezed by the twin challenges of a potential labour shortage as the supply of EU migrants is reduced or even dries up after Brexit plus the need to recruit up to 140,000 new workers by 2024.

This crisis in labour, food manufacturing skills shortages and the fact the sector is often viewed as an unattractive career option for many young people, should force the food industry to re-think its approach to recruitment, food manufacturing careers and progression.

Other challenges facing food businesses identified by this Briefing Paper are pay, job security, career progression, working conditions, the introduction and application of technologies and the future skill needs of employers.

While these are challenges, they can also be used as opportunities.

It is therefore an opportunity for a re-think of food manufacturing labour markets. While many individual food companies provide good workplaces, the potential labour crunch in food manufacturing calls for a collaborative approach and leadership from business, government, trade unions and educators to develop an integrated workforce strategy for the future.

We recommend a new collaborative approach that should take into account local and regional needs and ought to be directed towards smaller and medium-sized companies that comprise the majority of food businesses – and developing workers with the skills to innovate for a more sustainable and healthier food supply top of the list. This integrated strategy ought to be framed around social impact.

Six broad themes from the analysis are suggested to form the basis for further dialogue or engagement by civil society and academia. As all six are related and a coherent strategy might look how themes might be integrated to develop and implement a new food strategy for food workers in relation to social, environmental and economic outcomes and social impact.

Theme 1: Brexit, EU migrant labour and progression

The most immediate and pressing issue facing food manufacturing is the future of its labour supply following Brexit. Here there is much uncertainty. There is the need for on-going monitoring and further understanding of the role EU migrants play within food manufacturing. There are a number of studies that point out the extremely poor working conditions some EU migrants face – are these improving? Less known is the role of EU migrants in other areas of food manufacturing such as in semi-skilled or skilled positions. Related to this, further insight is needed on worker progression and career paths within food manufacturing.

The extent of labour casualisation, from Agency work to 'zero-hour' contracts - and the effects on both workers and business performance need further understanding. As well as EU migrants, what is happening to the British workforce in food manufacturing?

Theme 2: Anti-poverty strategies - food as an entry level route into work

The food sector offers opportunities for entry-level positions for people from many different backgrounds or life experiences. More information is needed about the role of food manufacturing offering a route into work or for longer-term careers and how this might be developed as part of wider anti-poverty strategies, especially in economically deprived areas of the UK. This is needed in relation to both British born and non-British born workers.

Theme 3: Re-building the local food economy

Brexit could offer the opportunity to revitalise local food economies. EU anti-competition policy has at times been cited as a reason not to give preferential treatment to local businesses or local business development. There can now be a new opportunity for a 're-localisation' food strategy that builds on the UK's many vibrant local food movements, especially in urban areas. This can include making jobs and work quality part of policy and public procurement. There is further opportunity to develop a more 'alternative' food supply and the workforce needed to enable re-localisation to succeed.

Theme 4: Food industry responsibilities and actions for labour in supply chains

The UK has made important strides in combating criminal labour practices in food supply chains, not least through the newly strengthened Gangmasters and Labour Abuse Authority (GLAA). But there are further actions outside of this all stakeholders can undertake to improve poor working conditions or workplace opportunities especially for those working at the bottom of food supply chains. Such an approach might need new forms of business collaboration, difficult decision-making and innovation in labour markets, especially in the face of increasing food cost pressures. Related to this are implementing more fully on-going processes for inclusive work places within food manufacturing and making the industry a more attractive career option.

Theme 5: Skills more generally

The UK faces on-going skills shortages, needs and development within the food sector including food manufacturing. This will become more urgent over the next 5-10 years as the sector needs to recruit tens of thousands more workers as people leave the industry or possible restrictions on the availability of EU migrant workers. This offers an opportunity for the more creative recruitment of young people, up-skilling, and also for older people who need to change careers or work for longer. Skills development should not only include 'high-level' or professional skills, but applied throughout work levels and roles. More generally, as a population we all need to be able to learn how to handle food and cook more for a healthier and more sustainable future.

Theme 6: Economic development and the role of micro-businesses and SMEs

The importance of micro and small businesses in the food sector for economic development and entrepreneurship is an old story in the sense this is well known as a powerful component for economic development. But this could be a time for a revival, learning from, and building on past initiatives, in the light of Brexit and the demand for news skills and entrants into the food sector as well as on-going entrepreneurship and innovation (social as well as types of food business). There is a role for many stakeholders from NGOs, policy-makers to existing food businesses and education establishments to revisit this aspect of economic development and opportunity as it relates to food and drink manufacturing.

The future of work and labour markets is a complex subject and there are many perspectives and different initiatives and action plans underway for the food sector. As a society we need to decide what type of food system we want – one that provides good quality jobs and long-term careers for the majority of its workers or one that is subject to the vagaries of world markets, with its own uncertain labour markets and conditions, and continuing reliance on low-skill, low paid work.

The suggested recommendations are for an integrated, bottom-up approach to labour and food manufacturing especially as it might apply to developing local food economies and one framed in the context of social impact. Such an approach can help both young and older workers who want to contribute to a more sustainable, economically fairer, and healthier food sector.

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