

## 22. Statistics

### Analysing the impacts of supply chain issues in the food industry.

You are a student in a rural community with strong ties to the farming and food industries. In order to get more young people interested in the food industry, a local food manufacturer has launched a competition at your school that requires entrants to submit an essay on how inflation during 2022-23 has impacted the food industry. As part of the competition, you have been provided with some data provided by the The Office for National Statistics (ONS).

The ONS survey was sent to around 39,000 UK businesses and around 25.5% (10,034) of all businesses surveyed responded. The following business sectors were invited to respond to the survey:

- **Food manufacturing:** these are businesses such a meat, poultry and fish processing, bakeries and confectionary makers, dairies and fruit and vegetable processing.
- **Food Wholesaling:** these businesses buy food products from food manufacturers and sell them in bulk to retailers (e.g supermarkets) for sale to the public.
- **Food Retailing:** these are businesses such as supermarkets, grocery shops and market stalls that sell food products to the public.

Using the ONS survey data you decide to focus on three key themes for your report:

1. Supply chain disruptions
2. Pricing changes
3. Shortage of workers

For each of these three themes, produce one graph to visualise some of the data (consider combining data from the two questions to show useful insights) and provide 3-5 bullet points explaining the data and what it shows.

## Theme 1: Supply chain disruptions



A supply chain is a sequence of activities or processes that are involved in the production and distribution of goods.

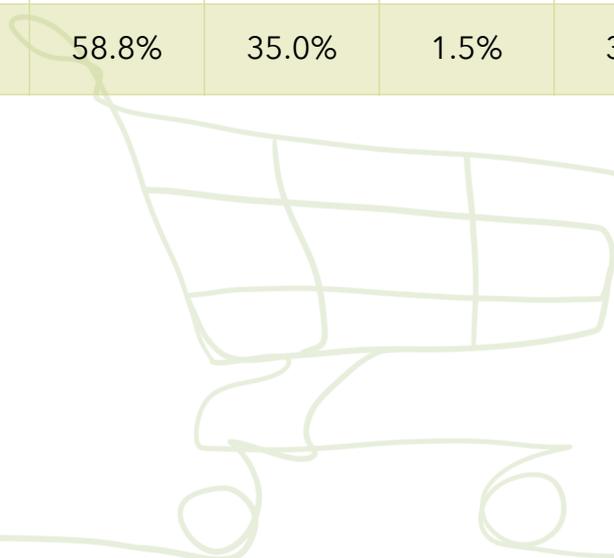
### Survey data:

**Question: Did your business experience any global supply chain disruption in January 2023?**

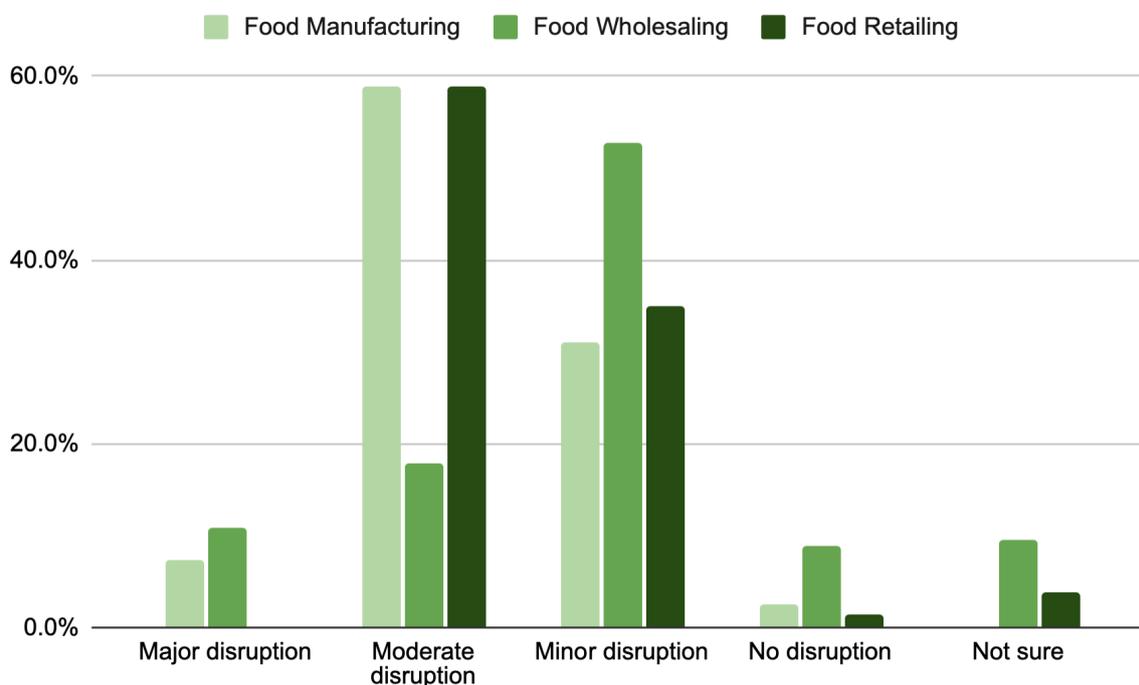
Industry	Yes	No	Not sure	Not applicable
Food Manufacturing	30.3%	47.1%	18.3%	4.2%
Food Wholesaling	24.2%	57.7%	10.5%	7.6%
Food Retailing	29.7%	24.5%	15.1%	30.8%

**Question: How much disruption to your business have these challenges caused?**

Industry	Major disruption	Moderate disruption	Minor disruption	No disruption	Not sure
Food Manufacturing	7.4%	58.8%	31.0%	2.5%	
Food Wholesaling	10.8%	17.9%	52.8%	8.9%	9.6%
Food Retailing		58.8%	35.0%	1.5%	3.8%



### Example visualisation:



Across all three industries, fewer than a third of businesses were impacted by supply chain disruptions.

Of those businesses that were impacted, food wholesalers were the most likely to face major disruptions. However, overall, manufacturers and retailers faced the most business disruption.

Between 10% and over 18% of businesses who responded to the survey were not sure of the disruption caused by supply chain issues. This impacts our ability to draw concrete conclusions on the impact of supply chain disruptions as impacts could be over or understated.

## Theme 2: Pricing changes

### Survey data:

Question: How did the prices of goods or services bought by your business in January 2023 compare with the previous calendar month?				
Industry	Yes	No	Not sure	Not applicable
Food Manufacturing	56.2%	36.3%	1.5%	5.9%
Food Wholesaling	66.8%	29.4%	0.0%	3.5%
Food Retailing	65.1%	23.3%	0.0%	11.5%

Question: How did the prices of goods or services sold by your business in January 2023 compare with the previous calendar month?				
Industry	Prices increased	Prices stayed the same	Prices decreased	Not sure
Food Manufacturing	27.8%	65.4%	1.4%	5.2%
Food Wholesaling	49.6%	44.3%	3.0%	3.2%
Food Retailing	63.7%	25.4%	0.0%	11.0%



### Example visualisation:

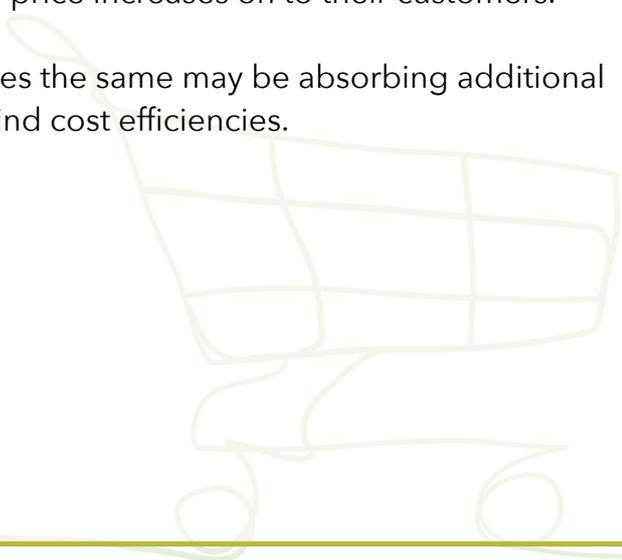


The majority of businesses across all three industries were impacted by higher prices of the goods and services they purchased in January 2023.

Despite this, most of these businesses have not immediately increased their sales prices.

Retailers seem to have passed their price increases on to their customers.

Businesses that have kept their prices the same may be absorbing additional costs or looking for other areas to find cost efficiencies.



## Theme 3: Shortage of workers

### Survey data:

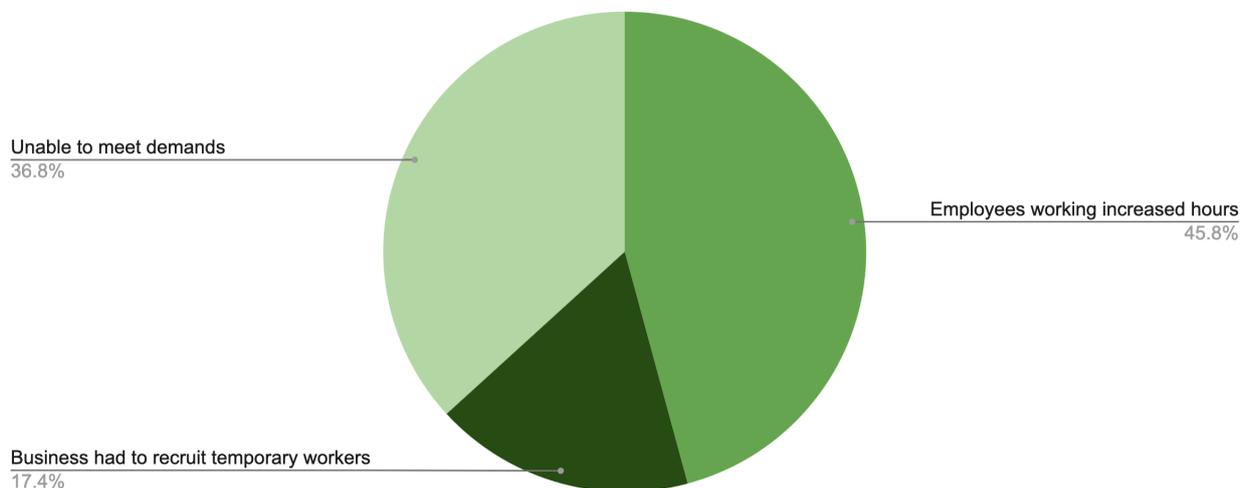
Question: Is your business currently experiencing a shortage of workers?			
Industry	Yes	No	Not sure
Food Manufacturing	37.4%	59.4%	3.2%
Food Wholesaling	18.4%	75.6%	5.5%
Food Retailing	35.9%	62.4%	1.6%

Question: How has the shortage of workers affected your business?			
Industry	Employees working increased hours	Business had to recruit temporary workers	Unable to meet demands
Food Manufacturing	27.8%	65.4%	1.4%
Food Wholesaling	49.6%	44.3%	3.0%
Food Retailing	63.7%	25.4%	0.0%



### Example visualisation:

#### How the shortage of workers affected Food Wholesaling



Over a third of Food Manufacturing and Retailing businesses are experiencing worker shortages. This could be due to wage competition and workers choosing to go elsewhere.

In the Wholesaling industry, despite having less worker shortage issues than the other industries, those that are experiencing worker shortages are struggling to meet business demands.

Wholesalers are having to rely on staff taking on extra hours and potentially working overtime to maintain their business operations.

