

**Note: more recent data are now available**

This document is the most recent *detailed description* of data for this sector, but does not include data for the latest year published on 2 November 2016.

The latest *data tables* are now available at: [www.hse.gov.uk/statistics/tables/index.htm](http://www.hse.gov.uk/statistics/tables/index.htm)

A summary of the latest headline figures is available at:  
[www.hse.gov.uk/Statistics/industry/manufacturing/index.htm](http://www.hse.gov.uk/Statistics/industry/manufacturing/index.htm)

# Health and safety in manufacturing in Great Britain, 2014/15

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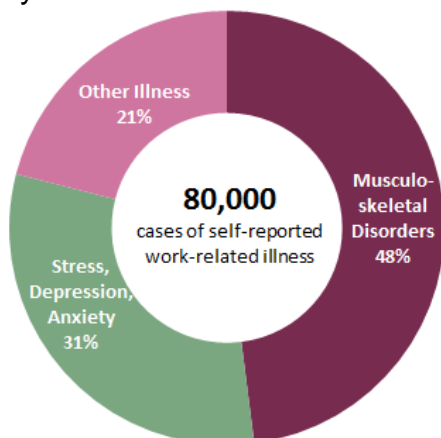


## Summary

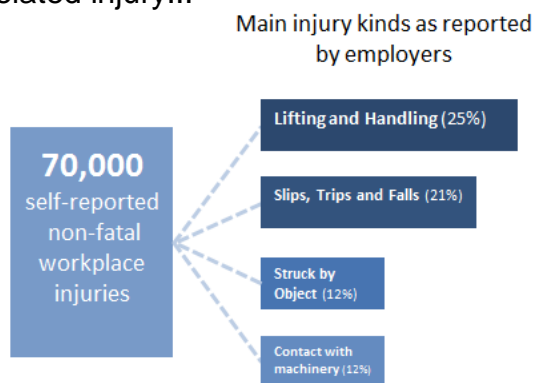
The information in this document relates to health and safety statistics for 2014/15. The document can be found at: [www.hse.gov.uk/statistics/industry/manufacturing/manufacturing.pdf](http://www.hse.gov.uk/statistics/industry/manufacturing/manufacturing.pdf)

Each year in the manufacturing<sup>1</sup> sector around...

...**3%** of workers suffer an illness they believe to be work-related...



...and **2%** of workers sustain a work-related injury...



There were **16** workers fatally injured in the Manufacturing sector 2014/15

...leading to

**2.4 million** working days lost



### Source:

Illness prevalence, Labour Force Survey annual average 2011/12, 2013/14, 2014/15

Injury incidence, Labour Force Survey annual average 2012/13-2014/15

Injury Kind, RIDDOR non-fatal injury 2013/14-2014/15

Days Lost, Labour Force Survey 2014/15

# Introduction

This report provides a profile of workplace health and safety in the Manufacturing<sup>1</sup> sector.

Broadly speaking Manufacturing includes activities that involve the physical or chemical transformation of materials, substances or components into new products. Outputs may be finished products (ready for use) or semi-finished in the sense that it is to become an input for further manufacturing. The 2007 Standard Industrial Classification (SIC) divides manufacturing into 24 divisions. For the purpose of this report, to ensure reliable statistical estimates, these 24 divisions have been grouped into 6 broad activity groups:

- **Manufacture of food and drink products** (SIC 10 and 11).
- **Manufacture of non-metallic products** (SIC 16,17,22,23,31), covering manufacture of:
  - wooden products;
  - pulp paper and converted paper products;
  - rubber and plastic products;
  - other non-metallic products such as glass, ceramics, brick, cement and plaster;
  - furniture.
- **Manufacture of chemical and pharmaceutical products** (SIC 19-21), covering manufacture of :
  - coke and refined petroleum products (e.g. petrol refinery);
  - manufacture of chemicals and chemical products, which includes the transformation of organic and inorganic raw materials by a chemical process;
  - basic pharmaceutical products and preparations.
- **Manufacture of metallic products** (SIC 24,25) covering the manufacture of basic metals and fabricated metal products (except machinery and equipment).
- **Manufacture of transport and transport products** (SIC 29,30), covering manufacture of motor vehicles, trailers and other transport equipment such as ships, boats, rail locomotives and rolling stock, air and spacecrafts.
- **Other manufacturing** (SIC 12-15,18,26-28,32-33) including manufacture of:
  - Textiles, wearing apparels and leather and related products;
  - Tobacco products;
  - Printing and reproduction of recorded media;
  - Computer, electronic and optical products, electrical equipment and other machinery and equipment;
  - Repair and installation of machinery and equipment and other manufacturing.

The health and safety risks for workers in the sector will vary depending on the job being undertaken. Therefore, in addition to looking at health and safety outcomes across the sector as a whole, this report also considers outcomes for three occupational groups<sup>2</sup> that are common across the sector (though not exclusive to the sector):

- **Skilled metal, electrical/electronic trades** (SOC 52)
- **Textiles, printing and other skilled trades** (SOC 54);
- **Process, plant and machine operatives** (SOC 81).

The Manufacturing sector is a major employer accounting for around 8% of the UK workforce<sup>3</sup>. This report considers the current health and safety situation in the sector, focusing on three aspects:

1. The scale and profile of work-related illness and injury in workers. A range of data sources is considered to allow a full assessment of the current health and safety situation. The most comprehensive data source for both work-related illness and workplace injury is the Labour Force Survey, a large scale, nationally representative survey of households. This is supplemented with a range of data from other sources (e.g. for injuries, statutory notifications of workplace injuries under the Reporting of Injuries, Diseases and Dangerous Occurrence Regulations (RIDDOR)) to ensure as complete a picture as possible. More details on the data sources used can be found at Annex 1.
2. The profile of workplace risks in the sector and the procedures and policies in place for managing these risks;
3. The impacts of health and safety failings in terms of working days lost, costs to society and enforcement action taken against employers within the sector.

<sup>1</sup> The Manufacturing sector is defined by section C within the 2007 Standard Industrial Classification . See [www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/standard-industrial-classification/sic2007---explanatory-notes.pdf](http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/standard-industrial-classification/sic2007---explanatory-notes.pdf) for more details

<sup>2</sup> Occupations are defined using the 2010 Standard Occupational Classification. For more details see [www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/soc2010/index.html](http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/soc2010/index.html)

<sup>3</sup> Office for National Statistics estimate [www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-375224](http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-375224) table A01

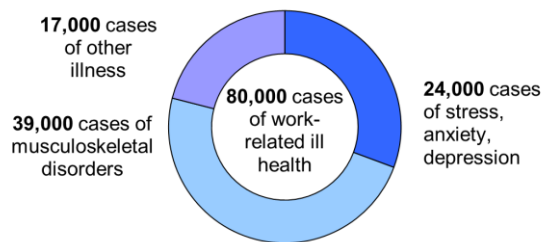
# Work-related illness and workplace injury in the manufacturing sector

## Work-related illness

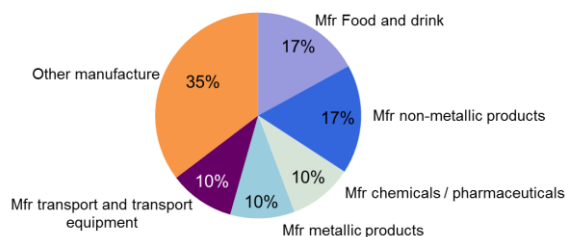
### Overall scale

**Figure 1: Estimated annual number of cases of self-reported work-related illness in the Manufacturing sector by:**

#### (i) Illness kind



#### (ii) Detailed industry grouping



Source: Labour Force Survey 2011/12, 2013/14, 2014/15

Between 2011/12 and 2014/15:

- Annually, around **80,000** manufacturing workers in GB were suffering from an illness they believe was caused or made worse by their work.
- Around 40% of these cases were new conditions which started during the year, while the remainder were long-standing conditions.

Of these 80,000 cases:

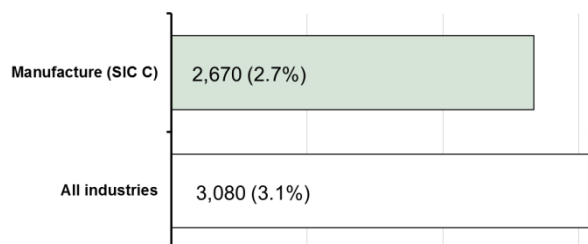
- **39,000** were cases of musculoskeletal disorders (MSD), of which around a third were new conditions;
- **24,000** were cases of stress, depression or anxiety cases, of which over half were new conditions;
- **17,000** were cases of other illness (such as skin or respiratory conditions), of which around 40% were new conditions.

By more detailed industry groupings within the Manufacturing sector:

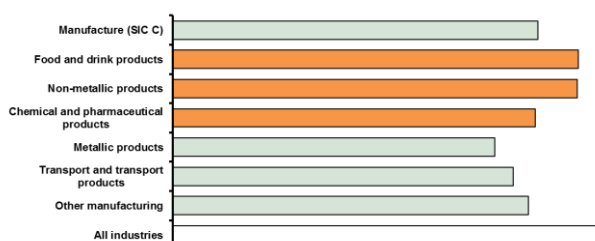
- 17% of cases were to workers in the 'non-metallic manufacture' group.
- The 'food and drink' grouping account for around a further 17% of annual cases;
- The manufacturing groupings: 'Chemical and pharmaceutical products', 'metallic products' and 'transport and transport equipment' each account for around 10% of the annual case load.

**Figure 2: Prevalence rate of self-reported work-related illness (per 100,000 workers) in:**

**(i) Manufacturing sector**

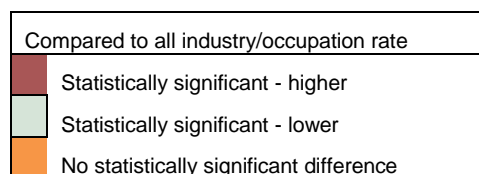
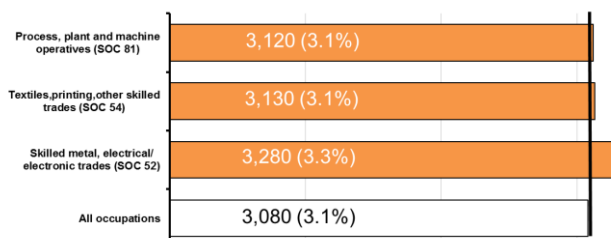


**(ii) Detailed industry groupings within the manufacturing sector**



**Note:** Rates not shown on Figure (ii) since they are based on a slightly different time period so vary slightly from the overall rates in figure (i) and (iii). See <sup>4</sup> below for more details.

**(iii) Selected occupations**



**Source: Labour Force Survey**

**Figure (i) and (iii) 2011/12, 2013/14, 2014/15**

**Figure (ii) 2009/10-2011/12, 2013/14, 2014/15**

Expressing the total number of work-related illness cases as a rate:

- Annually between 2011/12 and 2014/15 around 2.7% of workers in the Manufacturing sector in GB were suffering from an illness that they believe was caused or made worse by their work in the sector.
  - This rate is statistically significantly lower than the rate for workers across all industries (3.1%).

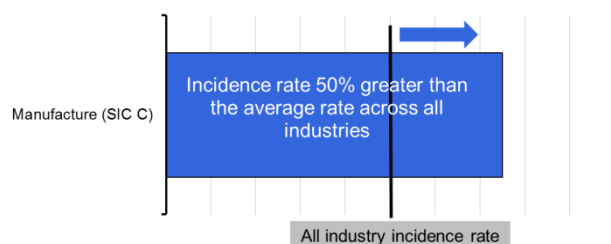
However, looking in more detail across the sector, not all groupings have statistically significantly lower rates of work-related illness.

- Looking, over a slightly longer time period<sup>4</sup> confirms an overall lower work-related illness rate for workers in the three industry groups manufacture of: metallic products, transport and transport products and other manufacturing.
- However, the overall work-related illness rate in the manufacture of 'food and drink products', 'non-metallic products' and 'chemical and pharmaceutical products' is not statistically significantly different to the rate for workers across all industries.

- The occupation groups 'process, plant and machine operatives', 'textiles, printing and other skilled trades' and 'skilled metal, electrical and electronic trades' have broadly similar rates of work-related illness to workers across all occupations. (Note: these occupations are common across the manufacturing sector though not exclusive to the sector).

<sup>4</sup> Average annual rates for the more detailed industry groups in manufacturing have been based on the five year period 2009/10-2011/12, 2013/14, 2014/15. This is in order to improve the reliability of the estimates and thus be able to draw out any inferences on performance of health and safety in these sectors compared to the average across all industries. Since estimates are based on a different time period the actual rates are not shown on the charts, though can be found in Annex 2 (table 1).

**Figure 3: New cases of work-related illness in Manufacturing sector workers seen by GPs**



Source: THOR GP, 2012-2014

Data from a GP reporting scheme of new cases of occupational illness presenting at GP surgeries (THOR-GP) provides an alternative source of intelligence on work-related illness. Like the Labour Force Survey, this data provides intelligence on a broad range of conditions, although the severity threshold is generally greater since medical intervention has been sought.

- Data from the GP reporting scheme, while capturing a different severity range of illness cases to the LFS, suggests the rate of work-related illness in the Manufacturing sector to be higher than that seen across all industries.
- However, since this result does not account for the associated sampling uncertainty, it is difficult to know how reliable this finding is.

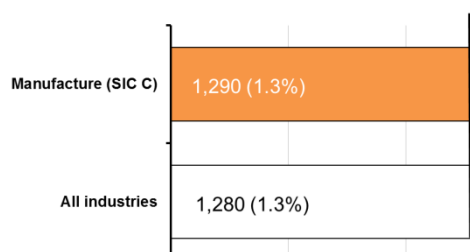
## Musculoskeletal Disorders and Stress

On average, stress and musculoskeletal disorders account for around 80% of the work-related illness cases in the Manufacturing sector (Source: Labour Force Survey). Looking at how the Manufacturing sector compares to all industries for these two illness types:

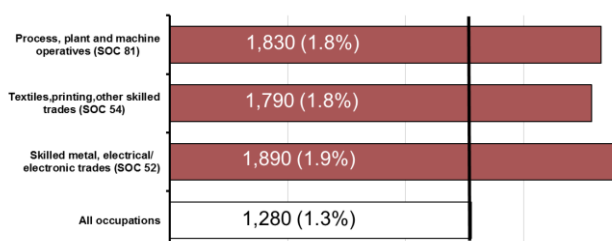
### Musculoskeletal Disorders

**Figure 4: Prevalence rate of self-reported work-related musculoskeletal disorders (per 100,000 workers) in:**

#### (i) Manufacturing' sector



#### (ii) Selected occupations



Compared to all industry/occupation rate	
<span style="color: red;">■</span>	Statistically significant - higher
<span style="color: lightblue;">■</span>	Statistically significant - lower
<span style="color: orange;">■</span>	No statistically significant difference

Source: Labour Force Survey  
2011/12, 2013/14, 2014/15

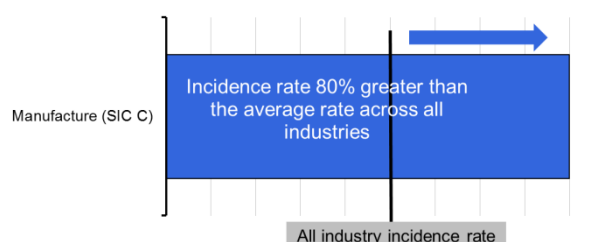
Expressing the total number of musculoskeletal disorder cases in the Manufacturing sector as a rate:

- Annually around 1.3% of workers in the sector were suffering from a musculoskeletal disorder they believed was work-related.
  - This rate is similar to the rate across all industries (1.3%)

- Within manufacturing, there are a broad range of jobs, some more hazardous than others and there are likely to be groups of workers within the sector who are more at risk of suffering musculoskeletal disorders.

- Figure (ii) opposite shows that three occupational groups that are common within the sector (though not exclusive to the sector): 'process, plant and machine operatives', 'textiles, printing and other skilled trades' and 'skilled metal, electrical and electronic trades' have rates of work-related musculoskeletal disorders around 40% higher than that of workers across all occupations.

**Figure 5: New cases of work-related musculoskeletal disorders (MSD) in Manufacturing sector workers seen by GPs**



Source: THOR GP, 2012-2014

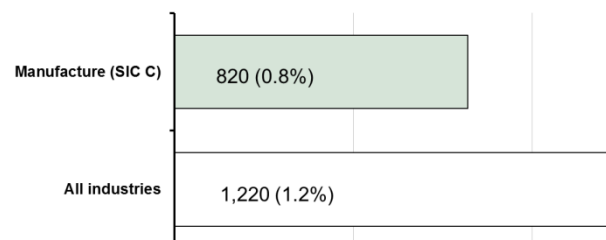
- Data from the GP reporting scheme of new cases of occupational illness presenting at GP surgeries suggests the rate of work-related musculoskeletal disorder in the Manufacturing sector to be greater than the rate across all industries.

- However, this estimate relates to a greater severity threshold to the self-reported estimates of work-related illness since it is based on cases for which medical intervention has been sought.

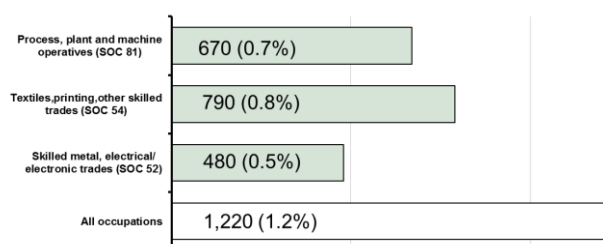
- As above (figure 3), it should also be noted that this result does not account for any of the associated sampling uncertainty around the estimate making it difficult to determine how reliable this finding is.

**Figure 6: Prevalence rate of self-reported work-related stress, depression or anxiety (per 100,000 workers) in:**

## (i) Manufacturing' sector



## (ii) Selected occupations



Compared to all industry/occupation rate	
<span style="color: red;">■</span>	Statistically significant - higher
<span style="color: green;">■</span>	Statistically significant - lower
<span style="color: orange;">■</span>	No statistically significant difference

**Source: Labour Force Survey**  
2011/12, 2013/14, 2014/15

**Note:** estimates for the 3 occupational groups displayed in Fig (ii) above are based on less than 30 sample cases so there is a larger margin of sampling uncertainty on these estimates compared to other estimates.

Expressing the total number of stress, depression or anxiety cases in the Manufacturing sector as a rate:

- Annually around 0.8% of workers in the sector were suffering from stress, depression or anxiety they believed was work-related.
  - This rate is statistically significantly lower than the rate across all industries (1.2%)
- Within workers in the three selected occupational groups commonly (though not exclusively) employed in the manufacturing sector, the rate of work-related stress, depression or anxiety is also statistically significantly lower than the average rate across all workers.

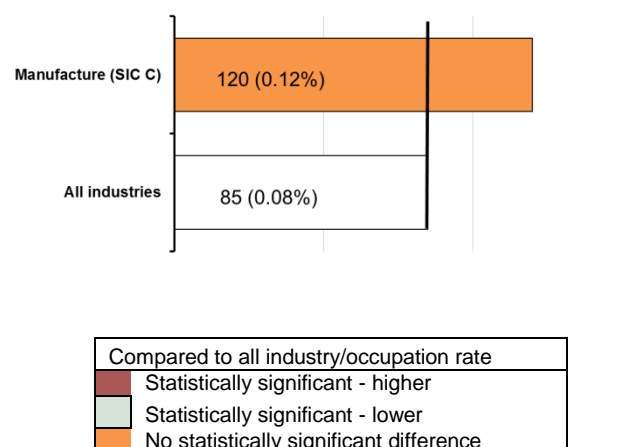


## Other work-related illness conditions

Self-reports of work-related ill health from the Labour Force Survey give the best indication of the overall scale of work-related ill health in Britain today. However, since estimates are based on a sample survey, this source is limited when looking at less common types of work-related ill health. We therefore have a range of supporting ill health data sources to supplement the Labour Force Survey estimates.

## Respiratory disease

**Figure 7: Prevalence rate of self-reported work-related 'breathing and lung' problems in the Manufacturing sector (per 100,000 workers)**



Source: Labour Force Survey, 2007/08-2011/12, 2013/14, 2014/15

### Breathing and lung problems

Between 2007/08 and 2014/15

- Annually, around 4,000 workers in the Manufacturing sector were suffering with 'breathing and lung problems' they believed were caused or made worse by their work, equivalent to 0.12% of workers in the sector.
  - This rate is not statistically significantly different to the rate for workers across all industries (0.08%)
- When asked about exposures contributing to their illness conditions, around 30% of individuals with breathing and lung problems identified 'airborne materials from spray painting or manufacturing foam products', 'airborne materials while welding, soldering, or cutting/grinding metals', or 'dusts from flour, grain/cereal, animal feed or straw' as causing or making their condition worse. These exposures are often associated with activities in the manufacturing sector. (Source: Labour Forces Survey 2009/10-2011/12)

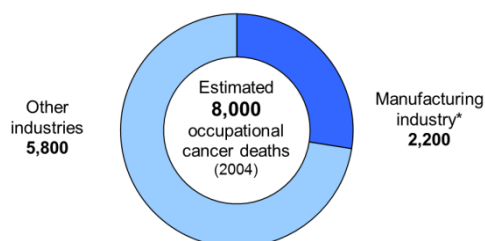
### Occupational asthma

- The chest physician reporting scheme for occupational respiratory disease (THOR-SWORD) suggests that the manufacturing sector as a whole has rates of occupational asthma that are about 3-fold higher than the all-industry average.
- THOR-SWORD reports suggest that exposures to flour and grain dust, isocyanates, wood dust and metal working fluids (exposures often found in manufacturing) are the most common causes of occupational asthma.
- Analyses by industry and occupation support this:
  - the parts of the manufacturing sector with the highest rates of annual reported cases during 2012-2014 were manufacture of vehicles and trailers, manufacture of fabricated metal products, and manufacture of food products.
  - Occupations with the higher rates of annual reported cases during the 10-year period 2005-2014 were Vehicle paint technicians and Bakers and flour confectioners. However, there is some evidence that rates among these groups may have declined over this period.

## Occupational Cancer

HSE commissioned research to look at the burden of occupational cancer in Great Britain. More details of this research can be found at [www.hse.gov.uk/statistics/causdis/cancer/index.htm](http://www.hse.gov.uk/statistics/causdis/cancer/index.htm).

**Figure 8 (i) Estimated number of cancer deaths in 2005 that could be attributed to the ten leading occupational carcinogens**



**Figure 8 (ii) Estimated number of cancer registrations in 2004 that could be attributed to the ten leading occupational carcinogens**



\* includes manufacturing industry, mining, quarrying, electricity, gas, water

Source: HSE Research report

### Current occupational cancer burden

The occupational cancer burden research indicates:

- **Past occupational exposure** to known and probable carcinogens is estimated to account for about 5% of cancer deaths and 4% of cancer registrations currently occurring each year in Great Britain, equating to about 8,000 cancer deaths and 13,600 new cancer registrations annually.
- Of the estimated 8,000 occupational cancer deaths in 2005:
  - Around 2,200 were attributed to **past work** in manufacturing industries.
  - Around half of these estimated cases in manufacturing were caused by **past exposure** to mineral oils (associated with lung and bladder cancer) and asbestos (associated with lung cancer and mesothelioma).
- Of the estimated 13,600 occupational cancer registrations in 2004:
  - Around 3,900 were attributed to **past work** in manufacturing industries.
  - Like cancer deaths, exposure to mineral oils and asbestos accounted for a large proportion of these estimated cases in manufacturing. More than half of cancer registrations relating to mineral oils were non melanoma skin cancer.
- The researchers have also developed methods to estimate the number of occupational cancer cases in the future for a range of scenarios. This will enable us to compare the potential impacts of different interventions on occupational cancer reduction.

## ***Skin Disease and other ill health conditions***

### **Skin disease**

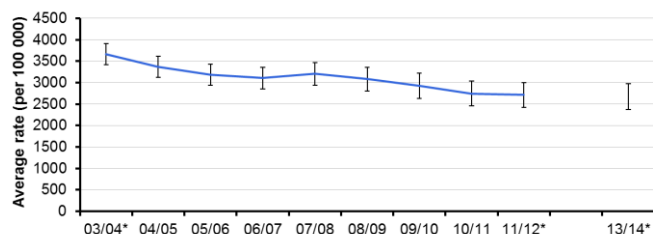
- The dermatologist reporting scheme for occupational skin disease (THOR-EPIDERM) shows that a number of parts of the manufacturing sectors have high rates of contact dermatitis. During the period 2008-2014 the highest rates of annual reported cases were seen in the industry groups: manufacture of chemicals, manufacture of basic metals and printing and reproduction of recorded media.

### **Other conditions**

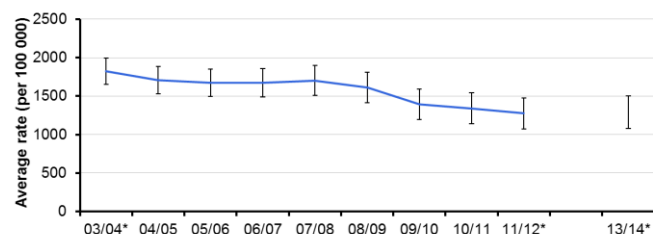
- Other conditions that can affect manufacturing workers include
  - occupational deafness; and
  - Hand Arm Vibration (largely made up of two conditions, Vibration White Finger and Carpal Tunnel Syndrome)
- Our main source of information on both these conditions is from new claims from the Industrial Injuries Disablement Benefit scheme (IIDB). The relative frequency of new IIDB assessments for these conditions is higher for workers in manufacturing than most other sectors.

**Figure 9: Prevalence rate of self-reported work-related illness in the Manufacturing sector**

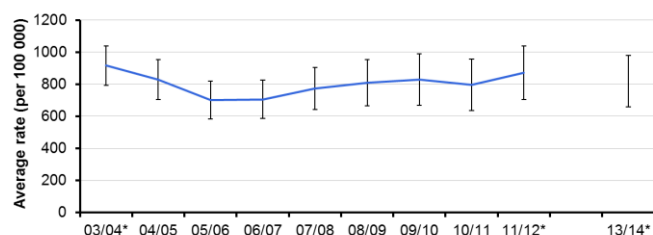
**(i) All work-related illness**



**(ii) Musculoskeletal disorders**



**(iii) Stress, depression and anxiety**



I 95 % confidence interval.

Source: Labour Force Survey

(\* annual estimates are actually based on the average estimate for a rolling 3 year period. Generally the 3 year average is based on consecutive years e.g. 2004/05 is based on the average for 2003/04-2005/06. However no ill health data was collected in 2002/03 or 2012/13 so the annual average for 2003/04, 2011/12 and 2013/14 is based on non-consecutive years e.g. 2013/14 is based on the average for 2011/12,2013/14,2014/15)

**Within the Manufacturing sector:**

- Over the last decade the rate of work-related illness shows an overall downward trend.
- The annual average rate for 2013/14<sup>a</sup> is around a quarter less than that in 2003/4<sup>b</sup>.

- There is an overall downward trend in the overall rate of musculoskeletal disorders over the last decade.
- The annual average rate for 2013/14<sup>a</sup> is around 30% less than that in 2003/4<sup>b</sup>.

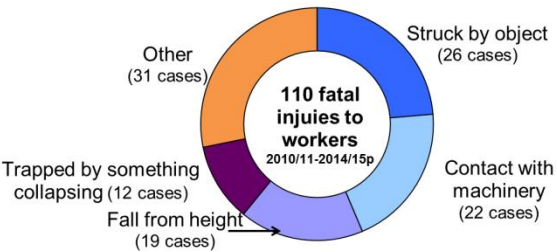
- However, the overall rate of work-related stress, depression and anxiety has remained broadly level over the last decade.

<sup>a</sup> based on the average annual rate for 2011/12, 2013/14, 2014/15

<sup>b</sup> based on the annual average rate for 2001/02, 2003/04, 2004/05

**Workplace Injury**  
**Fatal injuries**

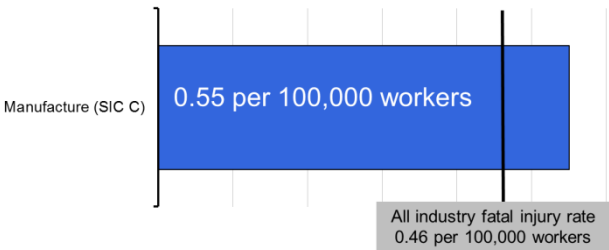
**Figure 10: Fatal injuries to workers in the Manufacturing sector by injury kind, last 5 years**



Source: RIDDOR

- There were 16 fatal injuries to workers in the Manufacturing sector in 2014/15, slightly less than the five year average for 2010/11-2014/15 (22). This brings the total number of fatal injuries to workers in the sector over the last five years to 110.
- Four injury kinds accounted for almost three quarters of fatal injuries to workers in the manufacturing sector over the last five years: ‘struck by an object’, ‘contact with machinery’, ‘fall from a height’ and ‘trapped by something collapsing’.

**Figure 11: Rate of fatal injuries to workers in the Manufacturing sector per 100,000 workers, 2014/15p**



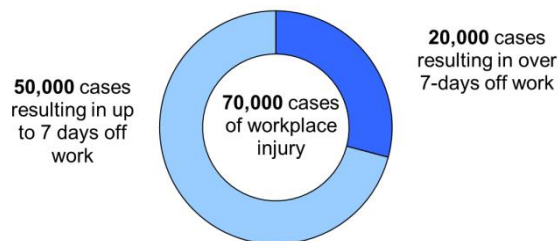
Source: RIDDOR

- The worker fatal injury rate in the Manufacturing sector in 2014/15 is 0.55 per 100,000 workers, compared to 0.46 per 100,000 across all industries.

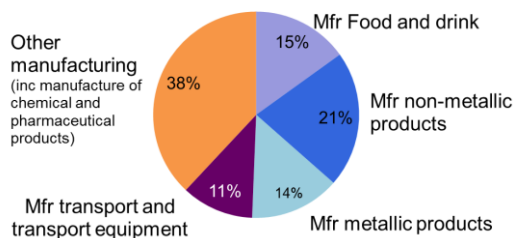
## Non-fatal injuries

**Figure 12: Estimated annual cases of all self-reported workplace injury in the Manufacturing sector by:**

**(i) Duration of time off work**



**(ii) Detailed industry grouping**



Source: Labour Force Survey, 2012/13 - 2014/15

Between 2012/13 and 2014/15:

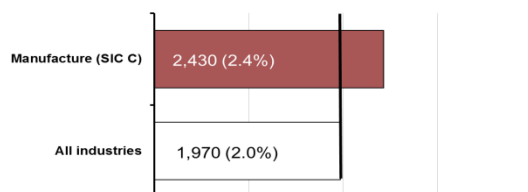
- Annually, around 70,000 manufacturing workers in GB sustained an injury at work.
- Around a quarter of these cases resulted in absence from work of over 7-days.

By more detailed industry groupings within the Manufacturing sector:

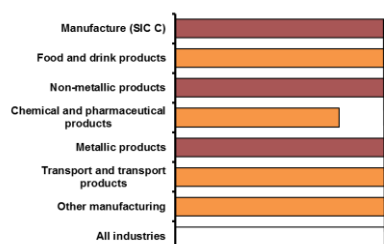
- Over 20% of cases were to workers in the 'non-metallic manufacture' group.
- The 'food and drink' grouping account for around a further 15% and 'metallic products manufacture' accounts for a similar proportion.
- A further 10% of cases were to workers in the 'manufacture of transport and transport equipment'.

**Figure 13: Incidence rate of all self-reported workplace injury (per 100,000 workers) in:**

**(i) Manufacturing sector**

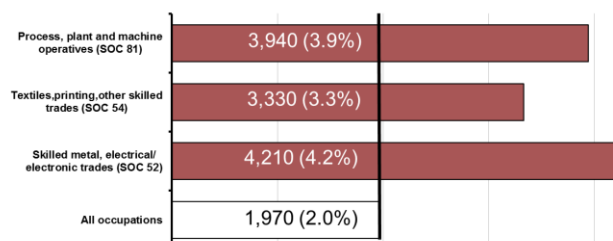


**(ii) Detailed industry groupings within the manufacturing sector**



**Note:** Rates not shown on Figure (ii) since they are based on a slightly different time period so vary slightly from the overall rates in figure (i) and (iii). See<sup>4</sup> below for more details.

**(iii) Selected occupations**



Compared to all industry/occupation rate	
<span style="display: inline-block; width: 15px; height: 15px; background-color: #a52a2a; border: 1px solid black;"></span>	Statistically significant - higher
<span style="display: inline-block; width: 15px; height: 15px; background-color: #d3d3d3; border: 1px solid black;"></span>	Statistically significant - lower
<span style="display: inline-block; width: 15px; height: 15px; background-color: #ffa500; border: 1px solid black;"></span>	No statistically significant difference

**Source: Labour Force Survey**

**Figure (i) and (iii) 2011/12, 2013/14, 2014/15**

**Figure (ii) 2009/10-2011/12, 2013/14, 2014/15**

Expressing the total number of workplace injury cases as a rate:

- Annually between 2012/13 and 2014/15 around 2.4% of workers in the Manufacturing sector in GB sustained an injury in the sector.
  - This rate is statistically significantly higher than the rate for workers across all industries (2.0%).

However, looking in more detail across the sector, not all groupings have statistically significantly higher rates of workplace injury.

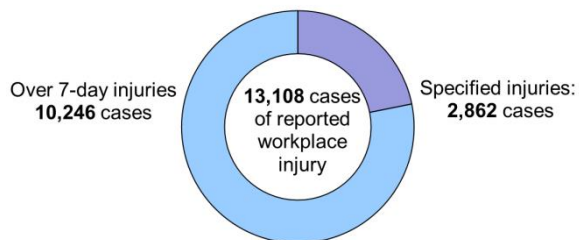
- Looking, over a slightly longer time period<sup>5</sup> confirms an overall higher workplace injury rate (compared to the all industry rate) for workers in the two industry groups manufacture of non-metallic products and manufacture of metallic products.
- However, the overall workplace injury rate in the manufacture of the four other industry groupings is not statistically significantly different to the rate for workers across all industries.

- The occupation groups 'process, plant and machine operatives', 'textiles, printing and other skilled trades' and 'skilled metal, electrical and electronic trades' have statistically significantly higher rates of workplace injury compared to workers across all occupations. These occupations are common within the manufacturing sector (though not exclusive to the sector).

<sup>5</sup> Average annual rates for the more detailed industry groups in manufacturing have been based on the five year period 2009/10-2011/12, 2013/14, 2014/15. This is in order to improve the reliability of the estimates and thus be able to draw out any inferences on performance of health and safety in these sectors compared to the average across all industries. Since estimates are based on a different time period the actual rates are not shown on the charts, though can be found in Annex 2 (table 2).

The survey estimates of non-fatal workplace injury numbers presented above give the best indication of the scale of workplace injury within the sector. A further source of intelligence on workplace non-fatal injuries comes from statutory notifications from employers under the 'Reporting of Injuries, Diseases and Dangerous Occurrence' regulations (RIDDOR). However, RIDDOR data need to be interpreted with care since it is known that non-fatal injuries are substantially under-reported<sup>6</sup>, especially for the self-employed. Variations in reporting rates both between industries and over time make such comparisons difficult. However, RIDDOR (as a data source) may sometimes be useful in providing analysis at a detailed level not available through the LFS, mainly around the type of accident itself.

**Figure 14: Employer reported non-fatal injuries to employees in the Manufacturing sector**

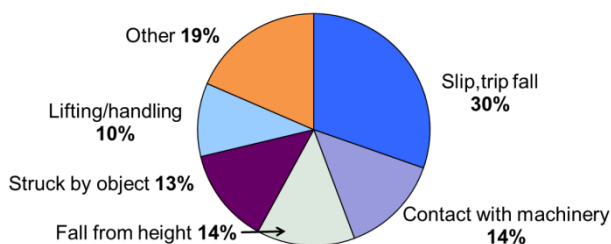


Source: RIDDOR 2014/15p

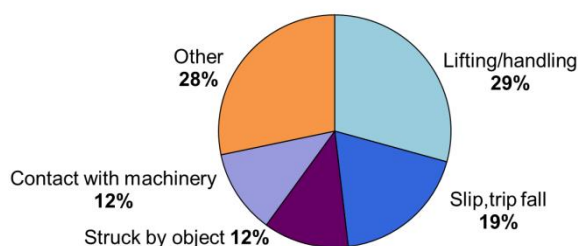
- Provisional figures show over 13,100 reported non-fatal injuries to employees in the Manufacturing sector in 2014/15.
- Reported non-fatal injuries are categorised as either specified (a pre-defined list of certain injury types which includes for example fractures, amputations, serious burns<sup>7</sup>) or as resulting in over 7-days off work.
  - Around 20% of the manufacturing injury reports in 2014/15 were for specified injuries.

**Figure 15: Employer reported non-fatal injuries to employees in the Manufacturing sector by injury kind**

**(i) Specified Injuries<sup>8</sup>**



**(ii) Over 7-day injuries**



Source: RIDDOR 2013/14r and 2014/15p

**Specified Injuries:**

- Around a third of all reported specified injuries in the Manufacturing sector are due to 'slip, trip or fall on the same level'.

**Over 7-day injury:**

- Accidents involving lifting/handling and slip, trip or fall on the same level account for almost half of reported over 7-day injuries in the Manufacturing sector.

<sup>6</sup> It is estimated that, across all industries, just under a half of all reportable non-fatal injury to employees are actually reported.

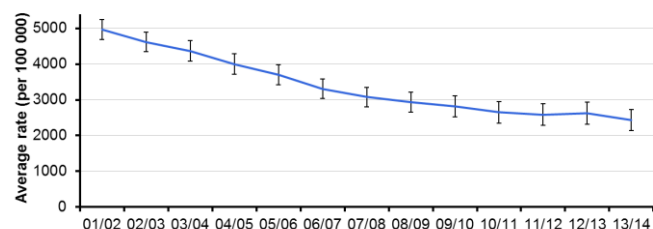
<sup>7</sup> For the full list of specified injuries, see [www.hse.gov.uk/riddor/reportable-incidents.htm](http://www.hse.gov.uk/riddor/reportable-incidents.htm)

<sup>8</sup> Prior to October 2013, reported non-fatal injuries were categorised as either 'major' or 'over 7-day', with major being a pre-defined list of injuries. This list of pre-defined injury types was revised in October 2013, and such injuries are now referred to as 'specified' (many injuries previously categorised as major continue to be categorised as specified, primarily most fractures and amputations). The 'Kind' breakdown for specified injuries presented here includes major injuries for the first half of 2013/14 and specified injuries thereafter.



## Changes over time

**Figure 16: Incidence rate of all self-reported workplace injury in the Manufacturing sector**



I 95 % confidence interval.

Source: Labour Force Survey

(\* annual estimates are actually based on the average estimate for a rolling 3 year period. The 3year average is based on consecutive years e.g. 2013/14 is based on the average for 2012/13-2014/15)

■ There has been an overall downward trend in the rate of all workplace injury in the Manufacturing sector since 2001/02.

— The rate in 2013/14<sup>a</sup> was around 40% less than in 2001/02<sup>b</sup>.

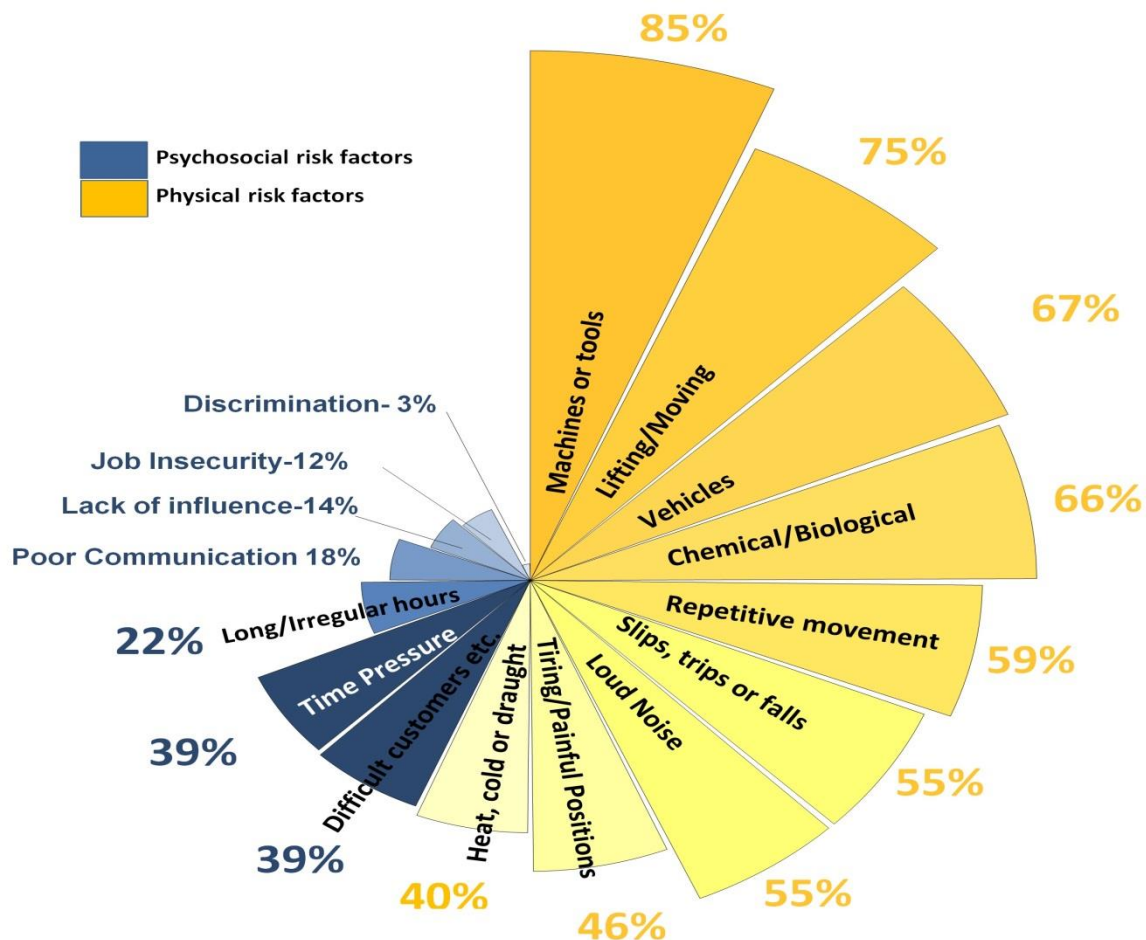
<sup>a</sup> based on the average annual rate for 2012/13-2014/15

<sup>b</sup> based on the average annual rate for 2000/01-2002/03

# Workplace risks and measures in place for managing these risks

## Workplace risks

A 2014 survey, commissioned by the European Union Occupational Safety and Health Agency (in collaboration with the Health and Safety Executive), explores how health and safety risks are managed at the workplace. Full details of the UK results can be found at [www.hse.gov.uk/statistics/oshman.htm](http://www.hse.gov.uk/statistics/oshman.htm)



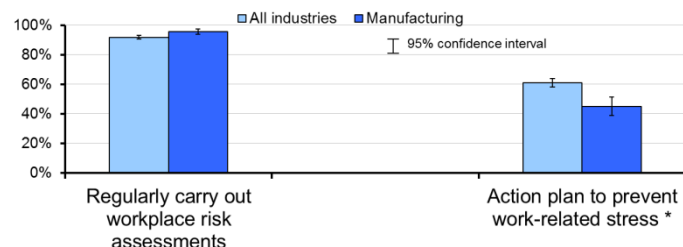
Source : ESENER 2014

For 16 recognised workplace risks, the survey asked “Which of the following risk factors are present in your establishment?” Results show that within the Manufacturing sector:

- Physical risks were much more widely reported being present than psychosocial risks. This is consistent with the lower than average levels of stress, depression or anxiety seen in the sector.
- The most common reported workplace risk was ‘machines or tools’. Comparing to what we know about causes of injury, one in five of all fatal injuries in the sector over the last five years were due to contact with machinery and it accounts for over 10% of employer reported non-fatal injuries (see figures 10 and 15).
- ‘Lifting or moving people or heavy loads’ was the second most common reported physical risk factor, present in around three-quarters of Manufacturing workplaces. Lifting/handling is a significant cause of non-fatal injury, accounting for a quarter of employer reported non-fatal injuries.
- Around two-thirds of workplaces in manufacturing reported ‘Risk of accidents with vehicles in the course of work but not on the way to and from work’ as a risk factor present in the workplace. Over the last five years there were 7 (out of 110) fatal injuries to workers caused by being ‘struck by moving vehicle’. In terms of non-fatal injury it accounted for around 2% of all employer-reported non-fatal injury.
- ‘Increased risk of slips, trips and falls’ was reported by just over half of workplaces. This is one of the most common causes of non-fatal injury in the Manufacturing sector, accounting for around a fifth of employer reported injuries.

## Risk control measures

**Figure 18: Proportion of workplaces (i) regularly carrying out risk assessments and (ii) with a stress action plan**



(i) Workplaces with 5 or more employees

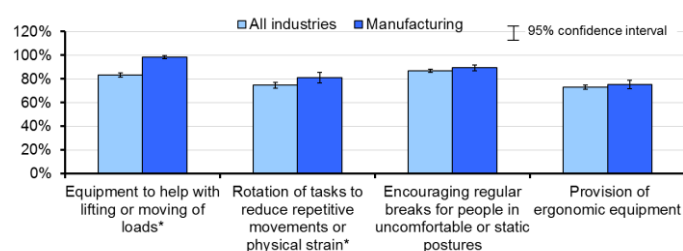
(ii) Workplaces with 20 or more employees

Source : ESENER 2014

The survey asked about how health and safety risks are managed in the workplace. Within the Manufacturing sector:

- an estimated 96% of workplaces with 5 or more employees report that they regularly carry out risk assessments. (Though note this does not indicate anything about the quality of the completed risk assessments);
- an estimated 45% of workplaces with 20 or more employees have an action plan to prevent work-related stress. This is statistically significantly lower than the proportion across all industries (61%) and may reflect the fact that work-related stress is not as great an issue in this sector as in others.

**Figure 19: Proportion of workplaces with 5 or more employees implementing various measures to prevent musculoskeletal problems \***



\* Percentage based on those workplaces with risk present (either lifting/moving loads of repetitive tasks)

Source : ESENER 2014

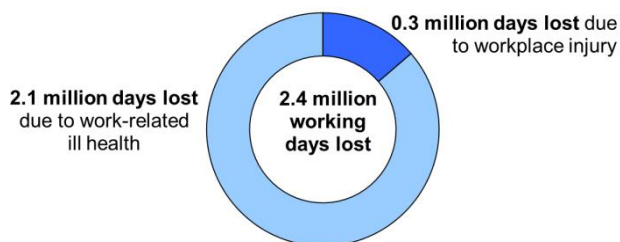
Figure 19 opposite shows the proportion of workplaces implementing a range of different measures to prevent musculoskeletal problems.

- Preventive measures for musculoskeletal disorders are widespread across workplaces in the Manufacturing sector.
- Lifting and moving was the second most common reported risk factor in workplaces across the sector (see figure 17) and almost all workplaces where the risk is present provide equipment to help control this risk (98%). Across all industries, the proportion is statistically significantly lower at 83%.

# Impacts of health and safety failings.

## Working days lost

**Figure 20: Estimated working days lost due to work-related illness and workplace injury in the Manufacturing sector.**



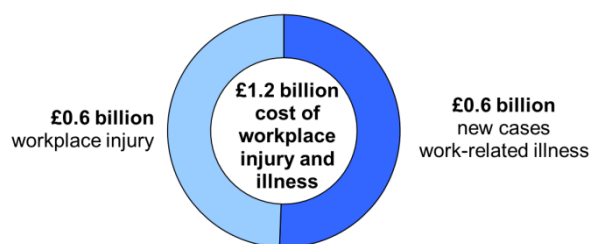
Source: Labour Force Survey, 2014/15

An immediate impact of workplace injury and work-related illness (aside from the human suffering) is the impact on business in terms of lost working time due to sickness absence.

- In 2014/15 an estimated 2.4 million working days (full-day equivalent) were lost in the Manufacturing sector due to workplace injury (0.3 million) and work-related illness (2.1 million). (However, it should be noted that there is a wide degree of sampling uncertainty attached to this estimate). making year-on year comparisons difficult).
- That is the equivalent of 0.89 working days lost per worker, broadly similar to the average days lost per worker across all industries (0.9 days).
- Assuming a full-time working year equates to 225 working days, this is equivalent to around 11,000 full-time workers being absent from the workforce for the whole year in the Manufacturing sector in 2014/15

## Economic cost

**Figure 21: Economic cost of workplace injury and new cases of work-related ill health in the Manufacturing sector (2013 prices)**



Source: HSE Cost to Britain Model, 2013/14

Workplace injury and ill health impose costs: both financial (for example in terms of lost output and healthcare costs) and non-financial (the monetary valuation of the human cost of injury and illness in terms of loss of quality of life, and for fatalities, loss of life). Taken together, this gives the total economic cost to society.

- The total economic cost of workplace injury and new cases of work-related illness in manufacturing in 2013/14 is estimated to be £1.2billion (£0.6 billion injury, £0.6billion illness), accounting for around 8% of the total cost across all industries - £14.3billion).
  - In the manufacturing sector, injury accounts for a larger share of the total cost as compared to all industries (around half of the total cost in manufacturing is from injuries, compared to around a third across all industries).
- This total cost is shared between individuals (e.g. the monetary valuation of the human costs), employers (e.g. sick pay costs) and government/taxpayers (e.g. healthcare costs)

Enforcement

Figure 22: Enforcement notices issued in the Manufacturing sector by HSE, 2014/15p



Source: HSE Enforcement Data

HSE and local authorities are responsible for enforcing health and safety legislation. For the most serious offences, inspectors may serve improvement notices and prohibition notices and they may prosecute (or in Scotland, report to the Procurator Fiscal with a view to prosecution).

- Provisional figures for 2014/15 show a total of 3,544 notices issued by HSE inspectors in the Manufacturing sector: 2,987 improvement notices and 557 prohibition notices (including 1 deferred prohibition notices).
  - This figure is slightly down on the 3,786 notices issued in 2013/14.
- There were 183 prosecution cases<sup>9</sup> in 2014/15p, 173 (95%) of which resulted in a guilty verdict for at least one offence.
  - The resulting fines from these prosecutions totalled £4,439,000.

<sup>9</sup> This figure reflects proceedings instituted by HSE, and in Scotland, the Crown Office and Procurator Fiscal Service. Cases refer to a prosecution against a single defendant. The defendant may be an individual person or a company. There may be one or more breach of health and safety legislation (offences) in each case.

# Annex 1: Sources and definitions used

## The Labour Force Survey (LFS)

The LFS is a national survey run by the Office for National Statistics of currently around 41,000 households each quarter. HSE commissions annual questions in the LFS to gain a view of work-related illness and workplace injury based on individuals' perceptions. The analysis and interpretation of these data are the sole responsibility of HSE. See [www.hse.gov.uk/statistics/lfs/technicalnote.htm](http://www.hse.gov.uk/statistics/lfs/technicalnote.htm) for more details.

**Self-reported work-related illness:** People who have conditions which they think have been caused or made worse by their current or past work, as estimated from the LFS. Estimated total cases include long-standing as well as new cases. New cases consist of those who first became aware of their illness in the last 12 months. HSE has collected data on ill health through the LFS, periodically since 1990 and annually from 2003/04 to 2011/12. In 2012/13, the ill health data collection was suspended but from 2013/14 reverted back to an annual data collection.

**Self-reported injuries:** Workplace injuries sustained as a result of a non-road traffic accident, as estimated by the LFS. Over-7-day absence injuries include all those with more than seven consecutive (working and non-working) days away from work (not counting the day on which the accident happened). HSE has collected data on injuries through the LFS in 1990 and annually since 1993/94. LFS injury rates are generally presented as three-year averages to provide a more robust series of estimates.

**Working days lost:** Days off work due to workplace injuries and work-related ill health. The figures are expressed as full-day equivalents, to allow for variation in daily hours worked, and are available for 2000/01 (injuries), 2001/02 (ill health), and annually (for both injuries and ill health) from 2003/04 to 2011/12. In 2012/13, the ill health data collection was suspended but from 2013/14 reverted back to annual data collection.

## Reports of ill health by specialist physicians and General Practitioners (THOR & THOR-GP)

Reports of work-related ill health are gathered in surveillance schemes run by The Health and Occupation Reporting network (THOR); statistical tables covering patients seen by specialists are available annually from the early 1990s for work-related respiratory disorders and skin disease. In THOR-GP (since 2005), general practitioners are asked to report new cases of work-related ill health.

## Ill health assessed for disablement benefit (IIDB)

New cases of specified 'prescribed diseases' (with an established occupational cause) assessed for compensation under the Industrial Injuries Disablement Benefit scheme. IIDB statistics are available annually from 2003, although earlier historical data is available.

## RIDDOR

The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (as amended), under which fatal and defined non-fatal injuries to workers and members of the public are reported by employers.

Certain types of work-related injury are not reportable under RIDDOR, hence excluded from these figures. Particular exclusions include fatalities and injuries to the armed forces and injuries from work-related road collisions.

A number of key changes to the reporting system and legal requirements have occurred in recent years, with some impact on the resulting statistics:

- September 2011: the notification system used by employers changed to a predominately online system.
- April 2012: a legislative change introduced the requirement to report injuries to workers that lead to absence from work or inability to do their usual job, for over seven days (over-7-day injuries). This replaced the previous 'over-3-day' legal requirement.
- October 2013: more extensive legislative changes were introduced to simplify the reporting of workplace injuries. One key change was the introduction of 'specified injuries', which replaced the previous 'major injury' category.

## HSE Costs to Britain Model

Developed to estimate the economic costs of injury and new cases of ill health arising from current working conditions. The economic cost estimate includes estimates of both financial (or direct) costs incurred, either in terms of payments that have to be made or income/output that is lost and the monetary valuation of the impact on quality and loss of life of affected workers.

## **European Survey of Enterprises on New and Emerging Risks (ESENER)**

A large Europe-wide survey of establishments with five or more employees including all sectors of economic activity except for private households (SIC 2007 Section T) and extraterritorial organisations (SIC 2007 Section U). The survey asks those 'who know best' about safety and health in establishments about the way safety and health risks are managed at their workplace, with a particular focus on psychosocial risks.

### **HSE Enforcement data**

The enforcing authorities are HSE, Local Authorities and, in Scotland, the Crown Office and Procurator Fiscal Service (COPFS). In Scotland, HSE and local authorities investigate potential offences but cannot institute legal proceedings and the COPFS makes the final decision whether to institute legal proceedings and which offences are taken.

Enforcement notices cover improvement, prohibition and deferred prohibition. Offences prosecuted refer to individual breaches of health and safety legislation; a prosecution case may include more than one offence. Where prosecution statistics are allocated against a particular year, unless otherwise stated, the year relates to the date of final hearing with a known outcome. They exclude those cases not completed, for example adjourned.

### **Definitions**

**Rate per 100,000:** The number of annual injuries or cases of ill health per 100,000 employees or workers

**95% confidence interval:** The range of values which we are 95% confident contains the true value, in the absence of bias. This reflects the potential error that results from surveying a sample rather than the entire population

**Statistical significance:** A difference between two sample estimates is described as 'statistically significant' if there is a less than 5% chance that it is due to sampling error alone.

For more information, see [www.hse.gov.uk/statistics/sources.htm](http://www.hse.gov.uk/statistics/sources.htm)



## Annex 2: Data tables

Data presented in this report mostly draws on published data (see annex 3 for links to the published sources). However, the following tables present data used within the report that are not routinely published on the HSE website.

**Table 1:** Estimated prevalence and rates of self-reported illness caused or made worse by current or most recent job, by industry, for people working in the last 12 months, averaged 2009/10-2011/12, 2013/14, 2014/15

Industry description+	Section, division	Illness ascribed to their current/most recent job					
		Averaged estimated prevalence (thousands)			Averaged rate per 100 000 employed in last 12 months		
		central	95% Confidence Interval		central	95% Confidence Interval	
			lower	upper		lower	upper
<b>All industries (illness ascribed to current or most recent job)</b>		<b>982</b>	<b>957</b>	<b>1007</b>	<b>3190</b>	<b>3110</b>	<b>3270</b>
Agriculture, forestry and fishing	A	13	11	16	3800	3050	4550
Mining and quarrying	B	4	2	5	2750	1710	3780
Manufacturing	C	81	74	88	2730	2500	2960
Manufacture of food and drink products	10,11	12	10	15	3030	2360	3710
Manufacture of non-metallic products	16,17,22,23,31	14	12	17	3020	2440	3610
Manufacture of chemical and pharmaceutical products	19-21	7	5	9	2710	1930	3490
Manufacture of metallic products	24,25	8	6	11	2410	1730	3080
Manufacture of transport and transport products	29,30	10	7	12	2550	1920	3170
Other manufacturing	12-15,18, 26-28,32-33	29	25	34	2660	2300	3020
Electricity, gas, steam and air conditioning supply	D	8	6	10	4260	3100	5420
Water supply; sewerage, waste management and remediation activities	E	8	6	11	3780	2780	4770
Construction	F	75	68	82	3330	3030	3630
Wholesale and retail trade; repair of motor vehicles and motorcycles	G	101	93	109	2380	2200	2570
Accommodation and food service activities	I	30	26	35	1860	1590	2130
Transportation and storage	H	53	48	59	3510	3140	3870
Communication, business services and finance	J-N	166	156	176	2640	2480	2810
Public administration and defence; compulsory social security	O	79	72	86	4180	3830	4530
Education	P	120	111	128	3630	3380	3880
Human health and social work activities	Q	190	179	200	4690	4430	4940
Arts, entertainment, recreation and other service activities	R-S	53	47	58	3010	2690	3330

Source: Labour Force Survey (LFS)

**Table 2:** Estimated incidence and rates of all self-reported workplace non-fatal injury sustained in current or most recent job, by industry, for people working in the last 12 months, averaged 2010/11 - 2014/15

Industry description	Section, division	Injury sustained in their current/most recent job					
		Averaged estimated incidence (thousands)			Averaged rate per 100 000 workers		
		central	95% Confidence Interval		central	95% Confidence Interval	
			lower	upper		lower	upper
<b>All industries (injury sustained in current or most recent job)</b>		<b>575</b>	<b>556</b>	<b>595</b>	<b>1980</b>	<b>1910</b>	<b>2040</b>
Agriculture, forestry and fishing	A	14	11	17	4290	3440	5140
Mining and quarrying	B	*	*	*	*	*	*
Manufacturing	C	70	64	77	2470	2240	2700
Manufacture of food and drink products	10,11	10	7	13	2640	1960	3320
Manufacture of non-metallic products	16,17,22,23,31	14	11	17	3190	2520	3850
Manufacture of chemical and pharmaceutical products	19-21	4	2	5	1550	910	2180
Manufacture of metallic products	24,25	10	7	12	2940	2220	3670
Manufacture of transport and transport products	29,30	9	6	11	2410	1780	3030
Other manufacturing	12-15,18, 26-28,32-33	24	20	27	2210	1860	2560
Electricity, gas, steam and air conditioning supply	D	*	*	*	*	*	*
Water supply; sewerage, waste management and remediation activities	E	6	4	8	2570	1680	3470
Construction	F	64	57	70	3040	2740	3350
Wholesale and retail trade; repair of motor vehicles and motorcycles	G	84	76	91	2130	1940	2330
Accommodation and food service activities	I	38	33	44	2610	2270	2950
Transportation and storage	H	39	34	44	2730	2390	3070
Communication, business services and finance	J-N	53	48	59	890	790	990
Public administration and defence; compulsory social security	O	39	34	44	2190	1910	2470
Education	P	51	45	56	1630	1450	1800
Human health and social work activities	Q	85	78	92	2190	2000	2380
Arts, entertainment, recreation and other service activities	R-S	27	23	31	1640	1390	1890

Source: Labour Force Survey (LFS)



**Table 3:** Estimated prevalence and rates of self-reported breathing disorders caused or made worse by current or most recent job, by industry, for people working in the last 12 months, averaged 2007/08-2011/12, 2013/14, 2014/15

Industry description	Section	Illness ascribed to their current/most recent job					
		Averaged estimated prevalence (thousands)			Averaged rate per 100 000 employed in last 12 months		
		central	95% Confidence Interval		central	95% Confidence Interval	
			lower	upper		lower	upper
<b>All industries (illness ascribed to current or most recent job)</b>		<b>26</b>	<b>23</b>	<b>29</b>	<b>85</b>	<b>75</b>	<b>95</b>
Agriculture, forestry and fishing	A	*	*	*	*	*	*
Mining and quarrying	B	*	*	*	*	*	*
Manufacturing	C	4	2	5	120	81	160
Electricity, gas, steam and air conditioning supply	D	*	*	*	*	*	*
Water supply; sewerage, waste management and remediation activities	E	*	*	*	*	*	*
Construction	F	3	2	4	140	97	190
Wholesale and retail trade; repair of motor vehicles and motorcycles	G	3	2	5	81	52	110
Accommodation and food service activities	I	*	*	*	*	*	*
Transportation and storage	H	*	*	*	*	*	*
Information and communication	J	*	*	*	*	*	*
Financial and insurance activities	K	*	*	*	*	*	*
Real estate activities	L	*	*	*	*	*	*
Professional, scientific and technical activities	M	*	*	*	*	*	*
Administrative and support service activities	N	*	*	*	*	*	*
Public administration and defence; compulsory social security	O	*	*	*	*	*	*
Education	P	3	2	5	110	69	140
Human health and social work activities	Q	3	2	4	75	48	100
Arts, entertainment and recreation	R	*	*	*	*	*	*
Other service activities	S	*	*	*	*	*	*
Activities of households as employers; undifferentiated goods-and	T	*	*	*	*	*	*
Activities of extraterritorial organisations and bodies	U	*	*	*	*	*	*

Source: Labour Force Survey (LFS)

**Notes:**

Figures in italics are estimates based on fewer than 40 sample cases.

\*Sample numbers too small to provide reliable estimates.

## National Statistics

National Statistics are produced to high professional standards set out in the National Statistics Code of Practice. They undergo regular quality assurance reviews to ensure that they meet customer needs. They are produced free from any political interference.

An account of how the figures are used for statistical purposes can be found at [www.hse.gov.uk/statistics/sources.htm](http://www.hse.gov.uk/statistics/sources.htm)

For information regarding the quality guidelines used for statistics within HSE see [www.hse.gov.uk/statistics/about/quality-guidelines.htm](http://www.hse.gov.uk/statistics/about/quality-guidelines.htm)

A revisions policy and log can be seen at [www.hse.gov.uk/statistics/about/revisions/](http://www.hse.gov.uk/statistics/about/revisions/)

Additional data tables can be found at [www.hse.gov.uk/statistics/tables/](http://www.hse.gov.uk/statistics/tables/).

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**Last updated:** October 2015

**Next update:** To be announced

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