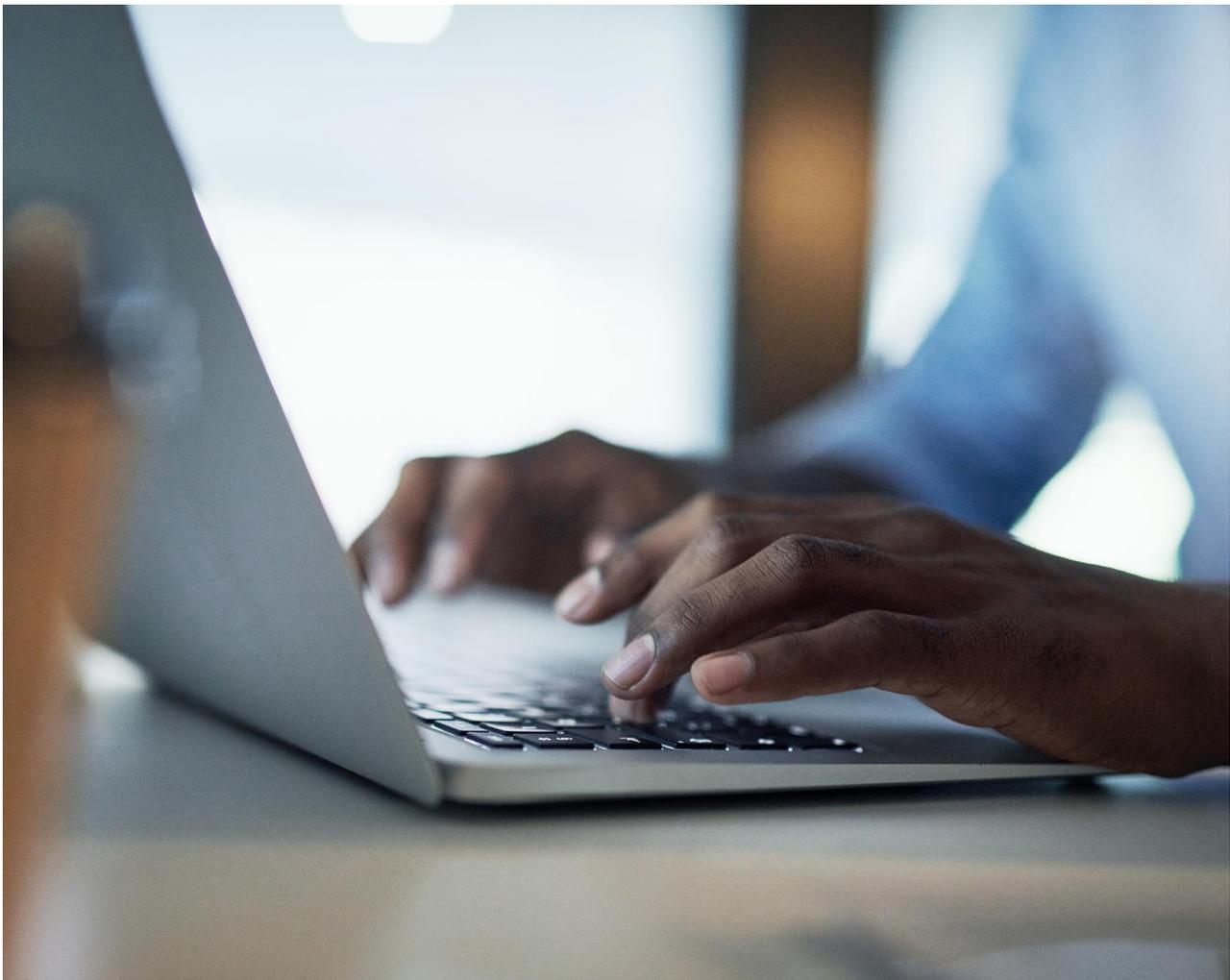


# Manufacturing statistics in Great Britain, 2021

Data up to March 2021

Annual statistics

Published 16th December 2021





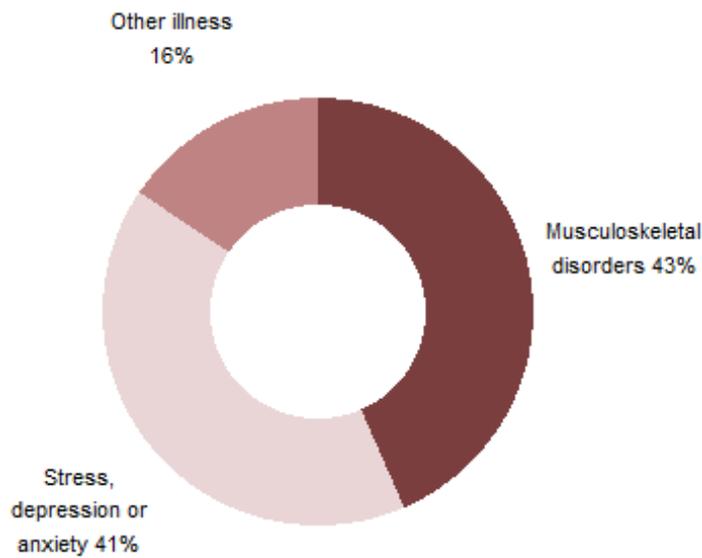
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# Key statistics

## Ill health

88,000 workers suffering from work-related ill health (new or long-standing) each year averaged across the three-year period 2018/19-2020/21.



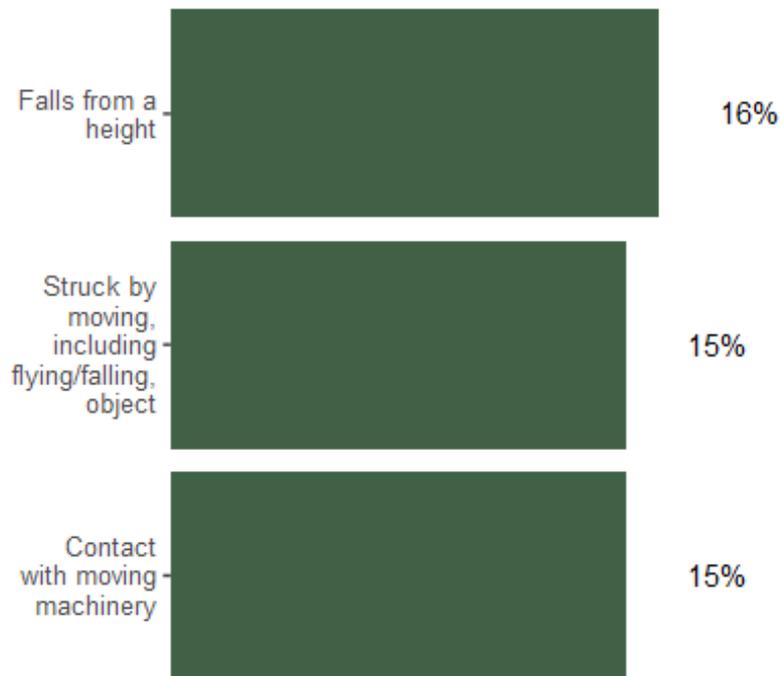
In the recent years prior to the coronavirus pandemic, the rate of self-reported work-related ill health had been broadly flat. In 2020/21 the rate was not statistically significantly different to the 2018/19 pre-coronavirus level.

*Source: LFS estimated annual average 2018/19-2020/21*

## Fatal injuries

20 fatal injuries to workers in 2020/21. This is in comparison with the annual average number of 18 fatalities for 2016/17-2020/21.

Source: RIDDOR



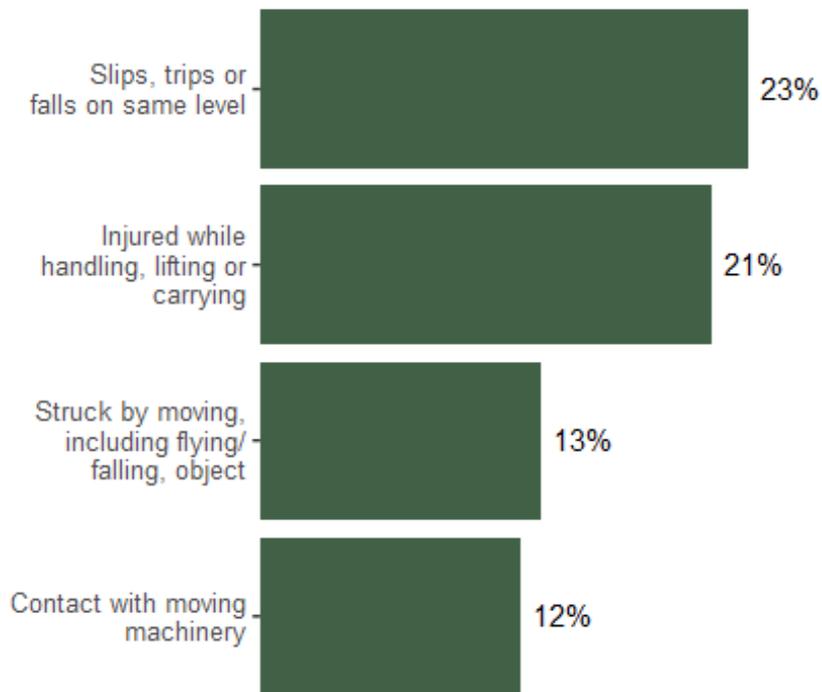
Source: RIDDOR, 2016/17-2020/21. Accident kinds are shown that account for 10% or more of injuries.

## Non-fatal injuries

57,000 Workers sustain non-fatal injuries at work each year averaged across the three-year period 2018/19-2020/21.

Prior to the coronavirus pandemic the rate of self-reported non-fatal injury to workers showed a downward trend. The rate for the latest period, which includes years affected by the coronavirus pandemic, is not statistically significantly different from the previous period.

*Source: LFS, estimated annual average 2018/19-2020/21*



*Source: Non-fatal injuries reported under RIDDOR 2018/19-2020/21. RIDDOR is used here as the LFS is not able to provide a breakdown to this level of detail. Accident kinds are shown that account for 10% or more of injuries*

# 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 sub-sectors, namely:

- Manufacture of food and drink products (SIC 10 and 11).
- Manufacture of non-metallic products, covering manufacture of:
  - wood and wooden products (SIC 16);
  - paper and paper products (SIC 17);
  - rubber and plastic products (SIC 22);
  - other non-metallic products such as glass, ceramics, brick, cement and plaster (SIC 23);
  - furniture (SIC 31).
- Manufacture of chemical and pharmaceutical products, covering manufacture of:
  - coke and refined petroleum products (e.g. petrol refinery) (SIC 19);
  - manufacture of chemicals and chemical products, which includes the transformation of organic and inorganic raw materials by a chemical process (SIC 20);
  - basic pharmaceutical products and preparations (SIC 21).
- Manufacture of metallic products covering the manufacture of basic metals (SIC 24) and fabricated metal products (except machinery and equipment) (SIC 25).
- Manufacture of transport and transport products, covering manufacture of motor vehicles, trailers (SIC 29) and other transport equipment such as ships, boats, rail locomotives and rolling stock, air and spacecrafts (SIC 30).

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<sup>1</sup> The Manufacturing sector is defined by section C within the 2007 Standard Industrial Classification. See [www.hse.gov.uk/statistics/industry/sic2007.htm](http://www.hse.gov.uk/statistics/industry/sic2007.htm) for more detail.

- Other manufacturing including manufacture of:
  - textiles, wearing apparels and leather and related products (SIC 13-15);
  - tobacco products (SIC 12);
  - printing and reproduction of recorded media (SIC 18);
  - computer, electronic and optical products, electrical equipment and other machinery and equipment (SIC 26-28);
  - repair and installation of machinery and equipment and other manufacturing (SIC 32-33).

The Manufacturing sector is a major employer accounting for around 8% of the GB workforce<sup>2</sup>.

**Important Note:** The coronavirus (COVID-19) pandemic and the government's response has impacted recent trends in health and safety statistics published by HSE. The coronavirus pandemic has also affected certain data collections and consequently, no new data on working days lost and economic costs is available in 2020/21. More details can be found in our technical report on the impact of the coronavirus pandemic on health and safety statistics.

[www.hse.gov.uk/statistics/coronavirus/covid-19.pdf](http://www.hse.gov.uk/statistics/coronavirus/covid-19.pdf)

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<sup>2</sup> Annual Population Survey, 2020. Many transport and warehousing workers will be employed directly in other industry sectors, and therefore their activities are not included in this report

# Work-related ill health

## All illness

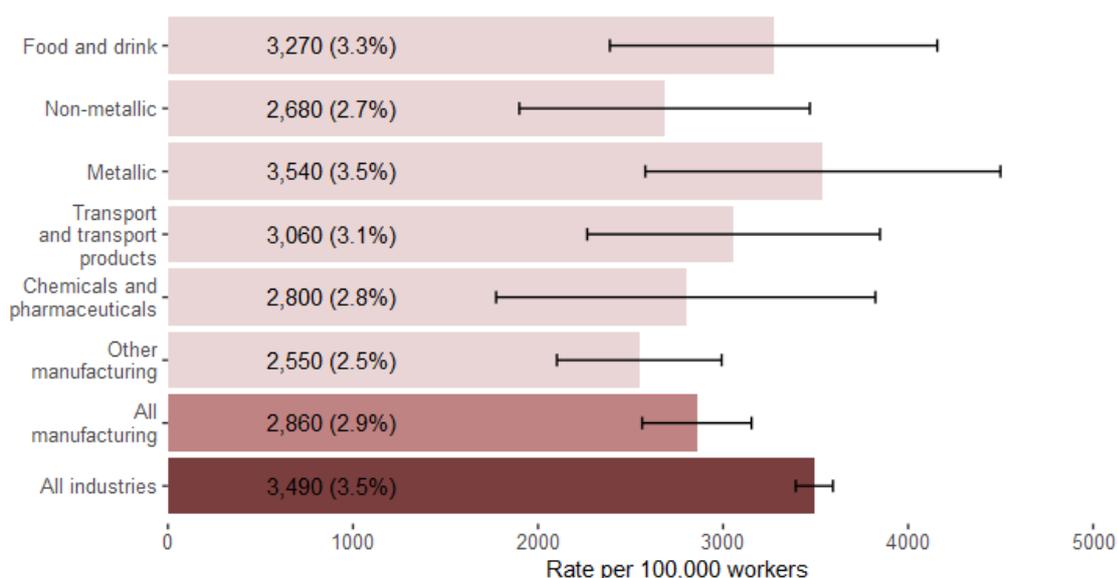
In Manufacturing:

- There were an estimated 88,000 work-related ill health cases annually (new or long-standing).
- **43%** were musculoskeletal disorders, **41%** were stress, depression or anxiety.
- In the recent years prior to the coronavirus pandemic, the rate of self-reported work-related ill health had been broadly flat. In 2020/21 the rate was not statistically significantly different to the 2018/19 pre-coronavirus level.

*Source: LFS, estimated annual average 2018/19-2020/21*

### Comparing ill health rates of sub-sectors in Manufacturing:

- Around 2.9% of workers in Manufacturing suffered from work-related ill health (new or long-standing cases).
- This rate is statistically significantly lower than that for workers across all industries (3.5%).



*Source: LFS, annual average (2016/17-2020/21). A five-year period has been used to improve the reliability of the sub-sector estimates. The grouped sub sectors are defined in the introduction of this publication. 95% confidence intervals are shown on the chart.*

## Musculoskeletal disorders

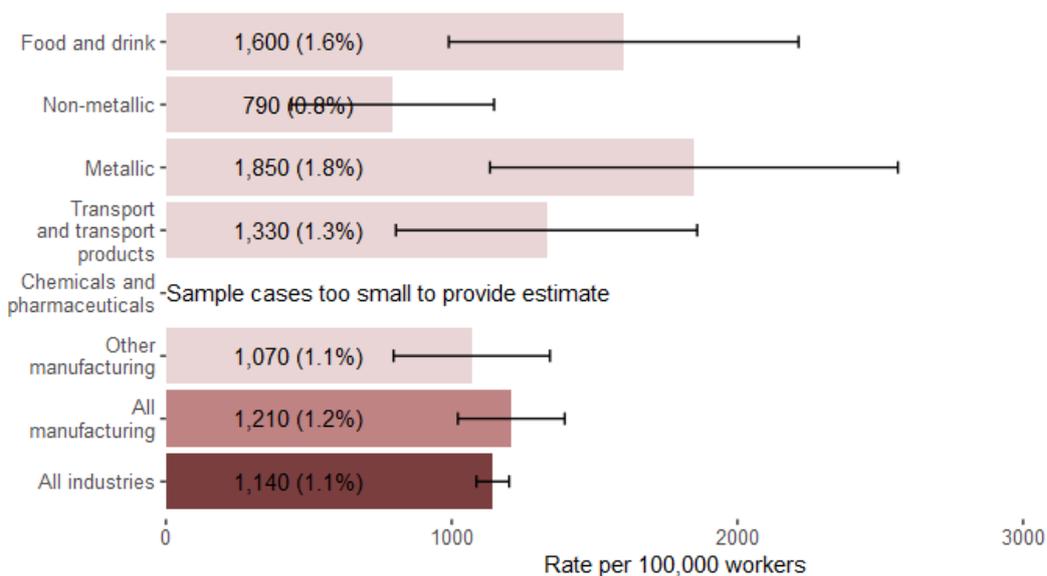
In Manufacturing:

- There were an estimated 38,000 work-related cases of musculoskeletal disorders annually (new or long-standing), **43%** of all ill health in this sector.
- In the recent years prior to the coronavirus pandemic, the rate of self-reported work-related musculoskeletal disorders had been broadly flat. In 2020/21 the rate was not statistically significantly different to the 2018/19 pre-coronavirus level.

*Source: LFS, estimated annual average 2018/19-2020/21*

### Comparing rate of musculoskeletal disorders Manufacturing:

- Around 1.2% of workers in Manufacturing suffered from work-related musculoskeletal disorders (new or long-standing cases).
- This rate is not statistically different than that for workers across all industries (1.1%).



*Source: LFS, annual average (2016/17-2020/21). A five-year period is used to improve the reliability of the sub-sector estimates. The grouped sub sectors are defined in the introduction of this publication. 95% confidence intervals are shown on the chart.*

## Stress, depression or anxiety

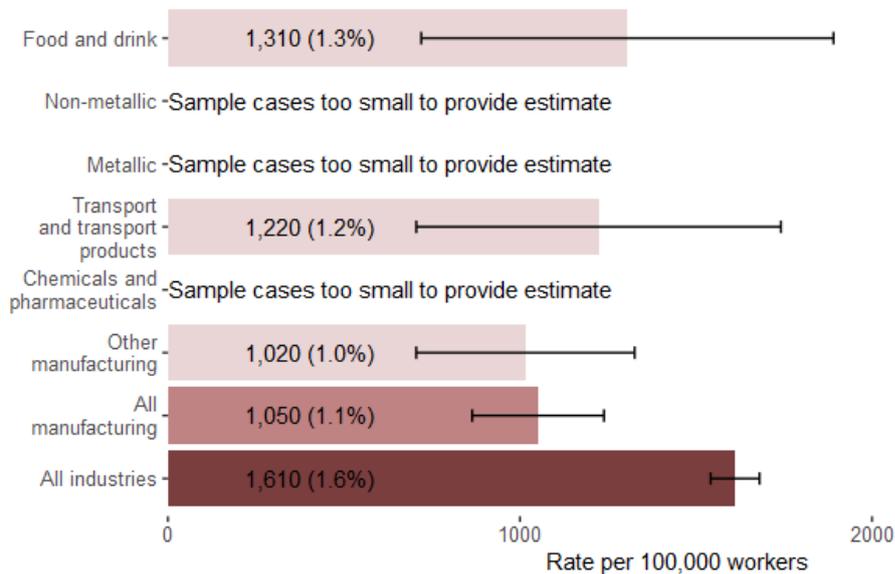
In Manufacturing:

- There were an estimated 36,000 work-related cases of stress, depression or anxiety annually (new or long-standing), **41%** of all ill health in this sector.
- Prior to the coronavirus pandemic the rate of self-reported work-related stress, depression or anxiety showed no clear trend. In 2020/21 the rate was not statistically significantly different to the 2018/19 pre-coronavirus level.

*Source: LFS, estimated annual average 2018/19-2020/21*

### Comparing rate of stress, depression or anxiety in Manufacturing:

- Around 1.1% of workers in Manufacturing suffered from work-related stress, depression or anxiety (new or long-standing cases).
- This rate is statistically significantly lower than that for workers across all industries (1.6%).

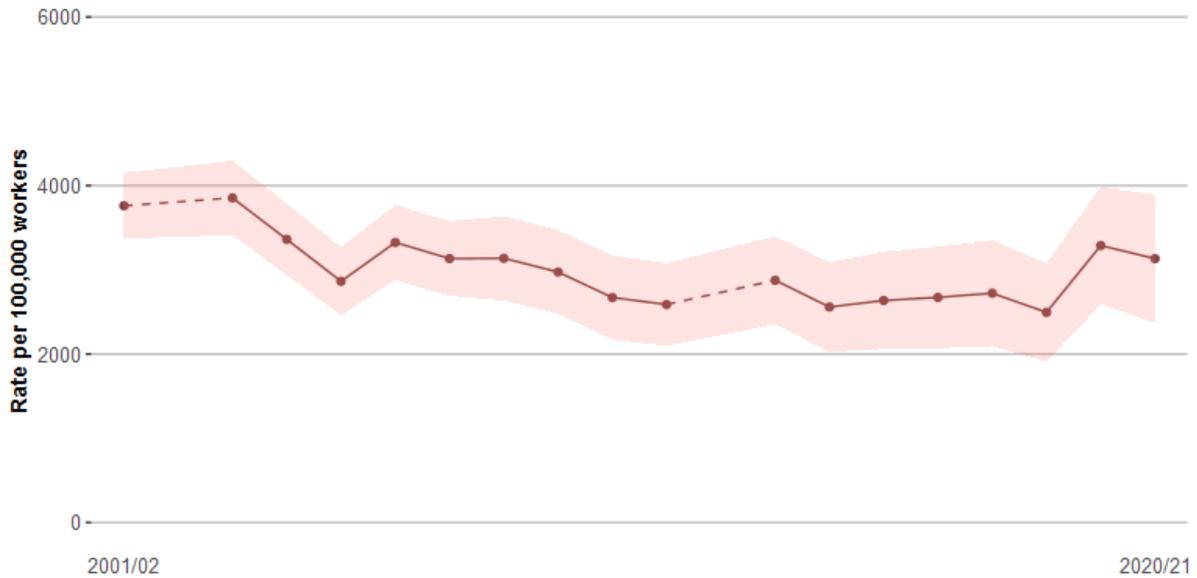


*Source: LFS, annual average (2016/17-2020/21). A five-year period is used to improve the reliability of the sub-sector estimates. The grouped sub sectors are defined in the introduction of this publication. 95% confidence intervals are shown on the chart.*

## Changes over time

### All work-related ill health (new and long-standing cases)

In the recent years prior to the coronavirus pandemic, the rate of self-reported work-related ill health had been broadly flat. In 2020/21 the rate was not statistically significantly different to the 2018/19 pre-coronavirus level.



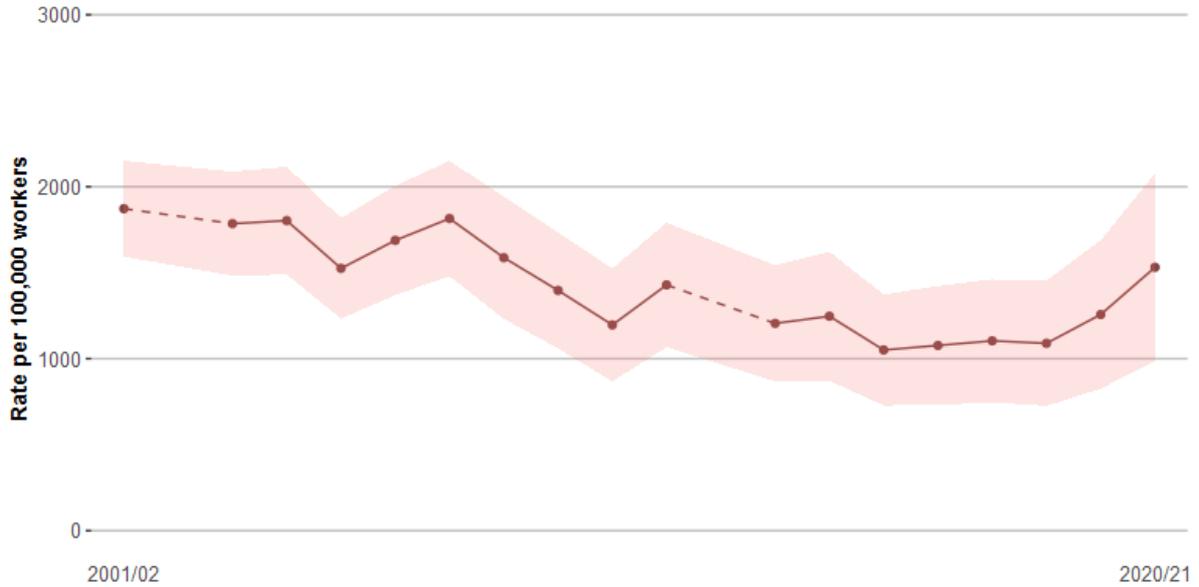
*No ill health data was collected in 2002/03 and 2012/13, represented by the dashed line*

*Shaded area represents a 95% confidence interval*

*Source: LFS, annual rates*

**Work-related musculoskeletal disorders (new and long-standing cases)**

In the recent years prior to the coronavirus pandemic, the rate of self-reported work-related musculoskeletal disorders had been broadly flat. In 2020/21 the rate was not statistically significantly different to the 2018/19 pre-coronavirus level.



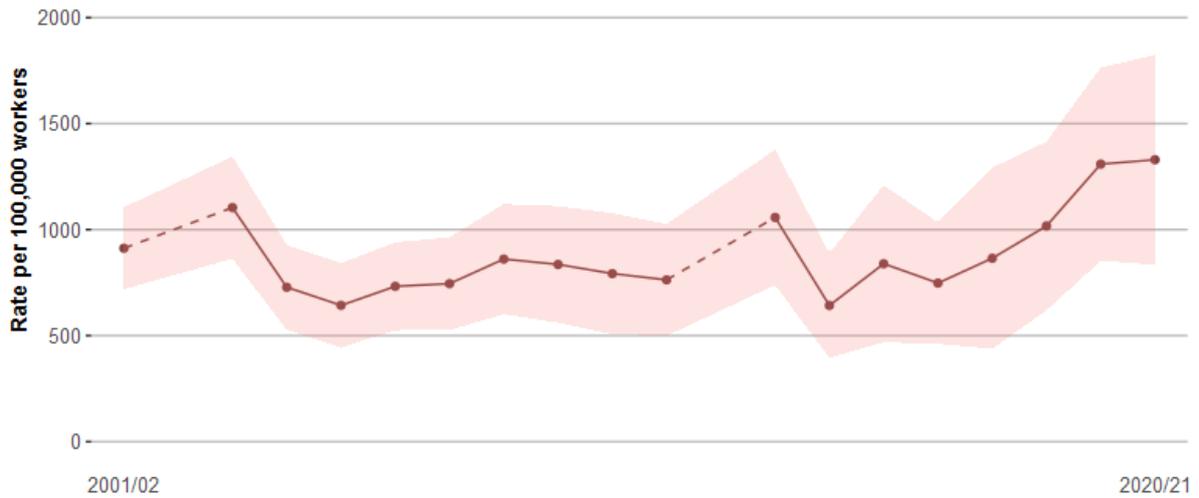
*No ill health data was collected in 2002/03 and 2012/13, represented by the dashed line*

*Shaded area represents a 95% confidence interval*

*Source: LFS, annual rates*

**Work-related stress, depression or anxiety (new and long-standing cases)**

Prior to the coronavirus pandemic the rate of self-reported work-related stress, depression or anxiety showed no clear trend. In 2020/21 the rate was not statistically significantly different to the 2018/19 pre-coronavirus level.



*No ill health data was collected in 2002/03 and 2012/13, represented by the dashed line*

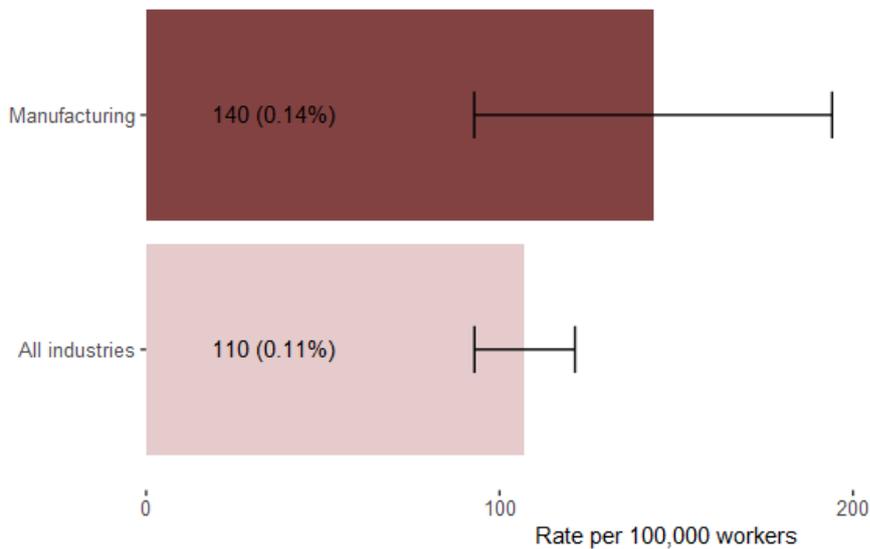
*Shaded area represents a 95% confidence interval*

*Source: LFS, annual rates*

## Lung disorders

### Manufacturing compared with the All industries rate

- Annually around **4,000** workers were suffering with breathing or lung problems caused or made worse by their work (new and long-standing cases).
- This is equivalent to **0.14%** of workers in the sector.
- This rate is not statistically different than that for workers across all industries (**0.11%**).



Source: LFS, annual average 2014/15-2020/21. 95% confidence intervals are shown on the chart

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 Great Britain. However, since estimates are based on a survey, this source can be limited when looking at less common work-related ill health cases. There is a range of supporting ill health data sources to supplement the Labour Force Survey estimates, including specialist physician surveillance schemes (THOR) and epidemiological research.

### **Occupational asthma**

- The chest physician reporting scheme suggests that manufacturing has a rate of occupational asthma about 5 higher than the All Industries average.
- The parts of the sector with the highest rates of annual reported cases during 2010-2019 were Manufacture of food products, Manufacture of motor vehicles, trailers and semi-trailers and Manufacture of chemicals and chemical products.
- The most common causes of occupational asthma include isocyanates, flour dust, solder/colophony, wood dust and cutting oils and coolants; these are exposures often found in manufacturing.

This assessment is based on the most recent data prior to the coronavirus pandemic.

*Source: THOR-SWORD (see annex 1)*

### **Skin disease**

The dermatologist reporting scheme for occupational skin disease (THOREPIDERM – see annex 1) shows that a number of parts of the manufacturing sectors have high rates of contact dermatitis. During the period 2010-2019 the highest rates of annual reported cases were seen in the following industry groups: Manufacture of chemicals, Manufacture of basic metals and Manufacture of fabricated metal products, except machinery and equipment. These groups all had rates of contact dermatitis at least 3 times the all-industry average.

This assessment is based on the most recent data prior to the coronavirus pandemic.

*Source: THOR-EPIDERM (see annex 1)*

## Occupational cancer

A research study published in 2012 on the occupational burden of cancer in Great Britain showed that for each year, known and probable occupational carcinogens are estimated to account for:

- **5%** of cancer deaths (**8,000 deaths in 2005**).
- **4%** of all new cancer registrations (**13,600 registrations in 2004**).

Of the estimated deaths in 2005:

- Around **2,200** were attributed to past work in manufacturing industries.
- About half of these cases were caused by past exposure to mineral oils (associated with lung and bladder cancer) and asbestos (associated with lung cancer and mesothelioma).

Of the 13,600 registrations in 2004:

- Around **3,900** were attributed to past work in manufacturing industries.
- Similar to deaths, exposure to mineral oils and asbestos accounted for a large proportion.
- More than half of the cancer registrations relating to mineral oils were nonmelanoma skin cancer.

More details of this research is available at [www.hse.gov.uk/cancer/research.htm](http://www.hse.gov.uk/cancer/research.htm)

# Workplace injuries

## Fatal injuries

In Manufacturing:

- There were 20 fatal injuries in 2020/21.
- This is in comparison with the annual average number of 18 fatalities for 2016/17-2020/21.
- 16% of deaths over the same five-year period were classified as Falls from a height.
- The fatal injury rate (0.65 per 100,000 workers) is around 1.5 times the All Industry rate (0.42 per 100,000 workers).

*Source: RIDDOR, annual average 2016/17-2020/21*

## Changes over time



## Non-fatal injuries

The Labour Force Survey is HSE's preferred data source for non-fatal injuries.

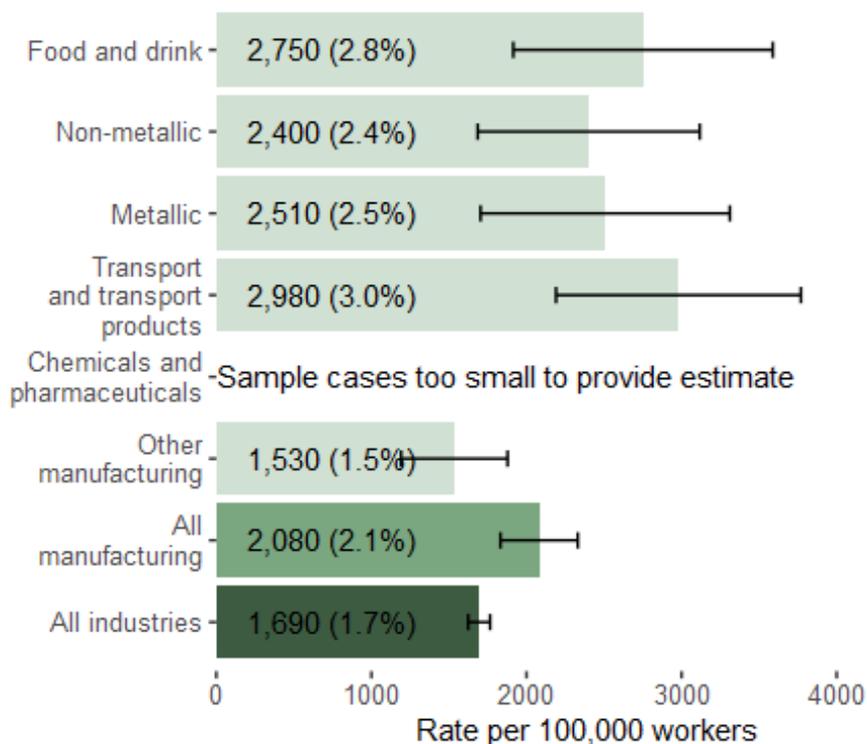
In Manufacturing:

- There were an estimated 57,000 workers who sustained an injury at work.
- 25% of these cases resulted in absence from work of over 7 days.
- Prior to the coronavirus pandemic the rate of self-reported non-fatal injury to workers showed a downward trend. The rate for the latest period, which includes years affected by the coronavirus pandemic, is not statistically significantly different from the previous period.

*Source LFS, estimated annual average 2018/19-2020/21*

### Comparing rates of non-fatal injuries Manufacturing:

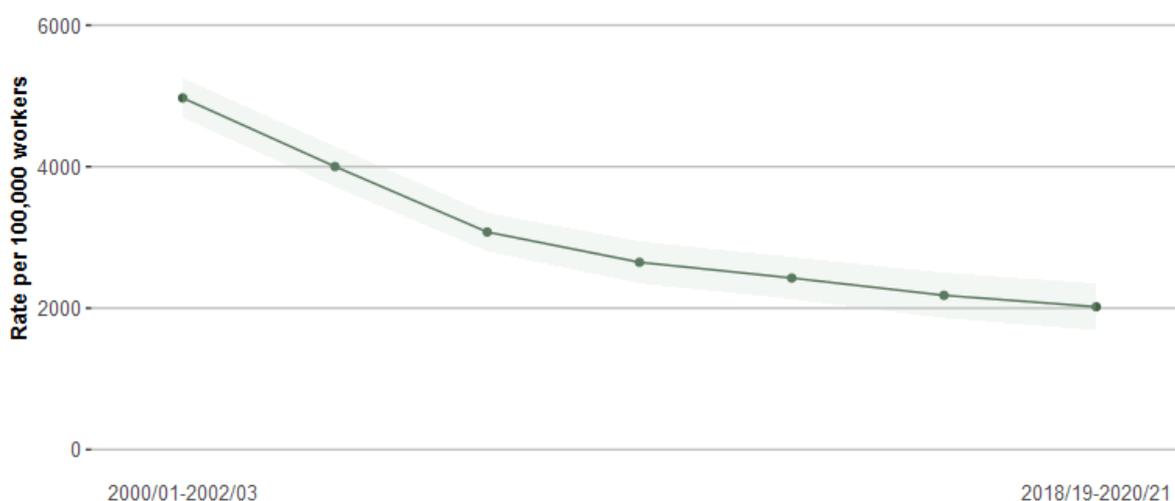
- Around 2.1% of workers in Manufacturing sustained a workplace injury.
- This rate is statistically significantly higher than that for workers across all industries (1.7%)



*Source: LFS, annual average (2016/17-2020/21). A five-year period is used to improve the reliability of the sub-sector estimates. The grouped sub sectors are defined in the introduction of this publication. 95% confidence intervals are shown on the chart.*

## Changes over time

Prior to the coronavirus pandemic the rate of self-reported non-fatal injury to workers showed a downward trend. The rate for the latest period, which includes years affected by the coronavirus pandemic, is not statistically significantly different from the previous period.



*Source: LFS, annual averages, grouped by 3 years, from 2000/01-2002/03*

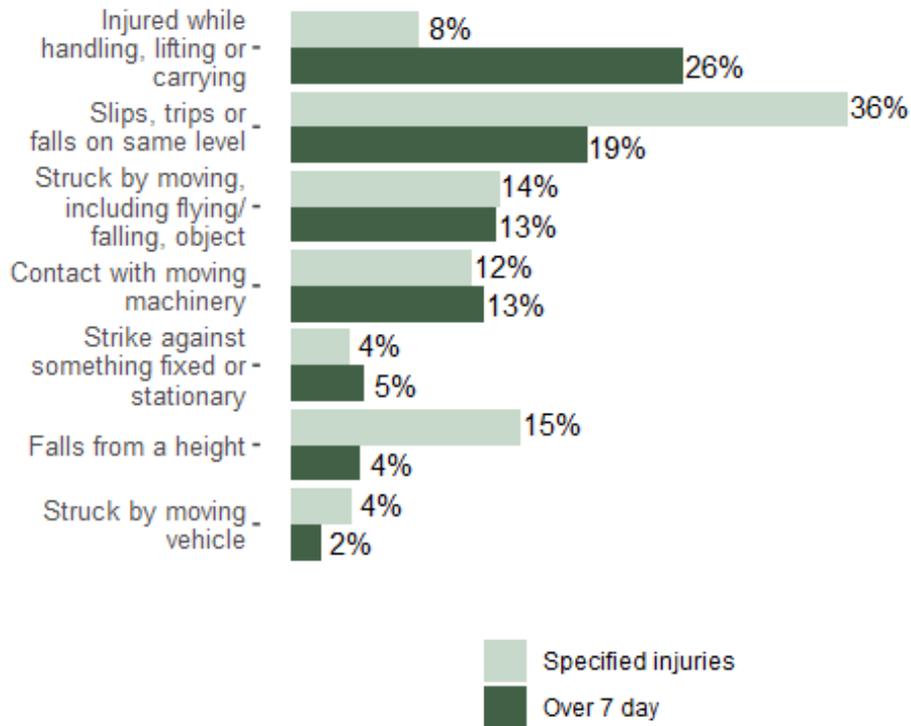
Supporting information around work-related injuries is available from RIDDOR reporting<sup>3</sup>, In Manufacturing there were:

- 8,713 non-fatal injuries to employees reported by employers under RIDDOR in 2020/21p.
- 2,201 (25%) were specified injuries<sup>4</sup> and 6,512 (75%) were over seven-day injuries.

<sup>3</sup> The LFS gives the best indication of the scale of workplace injury within the sector. RIDDOR provides additional information for non-fatal injuries but needs to be interpreted with care since it is known that non-fatal injuries are substantially under-reported. Variations in reporting rates both between industries and over time make such comparisons difficult. However, RIDDOR is often useful in providing analysis at a detailed level not available through the LFS, mainly around the type of accident itself.

<sup>4</sup> Specified injuries are a defined list of injuries. The full list is at [www.hse.gov.uk/riddor/reportable-incidents.htm](http://www.hse.gov.uk/riddor/reportable-incidents.htm)

Main accident kinds for the latest three years (2018/19-2020/21)



Source: RIDDOR, 2018/19-2020/21

## Enforcement

Provisional figures for 2020/21p show a total of 801 notices issued by HSE inspectors in Manufacturing:

- 80% were improvement notices and;
- 20% were prohibition notices.
- This is compared to the 3,102 notices issued in the previous year.

There were 59 prosecution cases<sup>5</sup> led by HSE or, in Scotland, the Crown Office and Procurator Fiscal where a verdict was reached in 2020/21, resulting in:

- 59 (100%) with a conviction for at least one offence;
- £8.0 million in total fines averaging around £135,000 per conviction.<sup>6</sup>
  - In 2019/20 there were 88 cases resulting in 84 convictions (95%). This led to £15.2 million in total fines and average fines of around £181,000.

*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 Crown Office and Procurator Fiscal Service (COPFS) with a view to prosecution).

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<sup>5</sup> 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.

<sup>6</sup> New sentencing guidelines for health and safety offences came into force February 2016. A feature of these guidelines is that the fine is related to the turnover of organisations and, as a result, large organisations convicted of offences are receiving larger fines than seen prior to these guidelines.

## Annex 1: Sources and definitions

The Labour Force Survey (LFS): The LFS is a national survey run by the Office for National Statistics of currently around 37,000 households each quarter. HSE commissions annual questions in the LFS to gain a view of self-reported work related illness and workplace injury based on individuals' perceptions. The analysis and interpretation of these data are the sole responsibility of HSE.

- 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.
- Self-reported injuries: Workplace injuries sustained as a result of a non-road traffic accident, as estimated by the LFS.

RIDDOR: The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations, 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.

HSE Enforcement data: The main enforcing authorities are HSE and local authorities. In Scotland, HSE and local authorities investigate potential offences but cannot institute legal proceedings and the Crown Office and Procurator Fiscal Service (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.

Rate per 100,000: The number of annual workplace injuries or cases of work-related ill health per 100,000 employees or workers.

95% confidence interval: The range of values within 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.pdf](http://www.hse.gov.uk/statistics/sources.pdf)

## Annex 2: Links to detailed tables

The data in this report can be found in the following tables:

### Work-related illness

lfsillind: [www.hse.gov.uk/Statistics/lfs/lfsillind.xlsx](http://www.hse.gov.uk/Statistics/lfs/lfsillind.xlsx)

lfsillman: [www.hse.gov.uk/Statistics/tables/lfsillman.xlsx](http://www.hse.gov.uk/Statistics/tables/lfsillman.xlsx)

THORS04: [www.hse.gov.uk/Statistics/tables/thors04.xlsx](http://www.hse.gov.uk/Statistics/tables/thors04.xlsx)

THORS05: [www.hse.gov.uk/Statistics/tables/thors05.xlsx](http://www.hse.gov.uk/Statistics/tables/thors05.xlsx)

### Workplace injuries

lfsinjind: [www.hse.gov.uk/Statistics/lfs/lfsinjind.xlsx](http://www.hse.gov.uk/Statistics/lfs/lfsinjind.xlsx)

lfsinjman: [www.hse.gov.uk/Statistics/tables/lfsinjman.xlsx](http://www.hse.gov.uk/Statistics/tables/lfsinjman.xlsx)

RIDIND: [www.hse.gov.uk/Statistics/tables/ridind.xlsx](http://www.hse.gov.uk/Statistics/tables/ridind.xlsx)

RIDFATAL: [www.hse.gov.uk/Statistics/tables/ridfatal.xlsx](http://www.hse.gov.uk/Statistics/tables/ridfatal.xlsx)

RIDHIST [www.hse.gov.uk/Statistics/tables/ridhist.xlsx](http://www.hse.gov.uk/Statistics/tables/ridhist.xlsx)

RIDKIND [www.hse.gov.uk/Statistics/tables/ridkind.xlsx](http://www.hse.gov.uk/Statistics/tables/ridkind.xlsx)

### Enforcement

Notices: [www.hse.gov.uk/Statistics/tables/notices.xlsx](http://www.hse.gov.uk/Statistics/tables/notices.xlsx)

Prosecutions: [www.hse.gov.uk/Statistics/tables/prosecutions.xlsx](http://www.hse.gov.uk/Statistics/tables/prosecutions.xlsx)

Other tables can be found at: [www.hse.gov.uk/Statistics/tables/index.htm](http://www.hse.gov.uk/Statistics/tables/index.htm)

## National Statistics

National Statistics status means that statistics meet the highest standards of trustworthiness, quality and public value. They are produced in compliance with the Code of Practice for Statistics, and awarded National Statistics status following assessment and compliance checks by the Office for Statistics Regulation (OSR). The last compliance check of these statistics was in 2013.

It is Health and Safety Executive's responsibility to maintain compliance with the standards expected by National Statistics. If we become concerned about whether these statistics are still meeting the appropriate standards, we will discuss any concerns with the OSR promptly. National Statistics status can be removed at any point when the highest standards are not maintained, and reinstated when standards are restored. Details of OSR reviews undertaken on these statistics, quality improvements, and other information noting revisions, interpretation, user consultation and use of these statistics is available from [www.hse.gov.uk/statistics/about.htm](http://www.hse.gov.uk/statistics/about.htm).

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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Journalists/media enquiries only: [www.hse.gov.uk/contact/contact.htm](http://www.hse.gov.uk/contact/contact.htm)





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