

Manufacturing statistics in Great Britain, 2023

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Key statistics

III health

91,000 workers suffering from work-related ill health (new or long-standing) averaged over the three-year period 2020/21-2022/23

Percentage of self-reported work-related ill health by type in Manufacturing: new and long-standing



Source: LFS, average estimate over 2020/21-2022/23

In the recent years prior to the coronavirus pandemic, the rate of self-reported workrelated ill health had been broadly flat. The rate for the latest period, which includes years affected by the coronavirus pandemic, was higher than the 2014/15-2016/17 period.

Fatal injuries

There were 15 fatal injuries to workers in 2022/23p. This is in comparison with the annual average of 19 fatalities over the five-year period 2018/19-2022/23p.

Source: RIDDOR, 2022/23p



Percentage of fatal injuries by accident kind in Manufacturing

Accident kinds are shown for those that account for 10% or more of fatal injuries.

Source: RIDDOR, average over 2018/19-2022/23p

Non-fatal injuries

46,000 workers sustained non-fatal injuries at work averaged over the three-year period 2020/21-2022/23. 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, was not statistically significantly different from the 2014/15-2016/17 period.

Source: LFS, average estimate over 2020/21-2022/23



Percentage of non-fatal injuries by accident kind in Manufacturing

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 non-fatal injuries.

Source: RIDDOR, average over 2020/21-2022/23p

Introduction

This report provides a profile of workplace health and safety in the Manufacturing¹ 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).

¹ The Manufacturing sector is defined by section C within the 2007 Standard Industrial Classification. See <u>www.hse.gov.uk/statistics/industry/sic2007.htm</u> for more detail.

- 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).
- 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).

This sector accounts for 8% of the workforce in Great Britain²

² Annual Population Survey, 2022.

Work-related ill health

All illness

In Manufacturing:

- There were an estimated 91,000 workers suffering from work-related ill health (new or long-standing)
- 40% were musculoskeletal disorders, 41% were stress, depression or anxiety

Source: LFS, average estimate over 2020/21-2022/23

Manufacturing compared with other selected industries³

- Around 3.3% of workers in the sector suffered from work-related ill health (new or long-standing)
- This rate is statistically significantly lower than that for workers across all industries (4.1%)

³ Selected manual type industries are generally those with either a higher rate of work-related ill health or workplace injury compared to the rate for all industries.



Rate of self-reported work-related ill health in Manufacturing compared with other selected industries, per 100,000 workers: new and long-standing

95% confidence intervals are shown on the chart

Source: LFS, average estimate over 2020/21-2022/23

Comparison of sub-sectors in Manufacturing

Rate of self-reported work-related ill health in Manufacturing compared with sub-sectors, per 100,000 workers: new and long-standing



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. Estimates are not available for all sub-sectors due to some having insufficient sample cases.

Source: LFS, average estimate over 2018/19-2022/23

Changes over time

Rate of self-reported work-related ill health in Manufacturing, per 100,000 workers: new and long-standing



In the recent years prior to the coronavirus pandemic, the rate of self-reported workrelated ill health had been broadly flat. The rate for the latest period, which includes years affected by the coronavirus pandemic, was higher than the 2014/15-2016/17 period.

The data for 2017/18-2019/20 and 2020/21-2022/23 includes years affected by the coronavirus pandemic, shown inside the grey shaded column. Shaded area and error bars represent a 95% confidence interval.

Source: LFS, average estimate from 2004/05-2006/07 to 2020/21-2022/23

Musculoskeletal disorders

In Manufacturing:

• There were an estimated 37,000 workers suffering from a work-related musculoskeletal disorder (new or long-standing), 40% of all ill health in this sector

Source: LFS, average estimate over 2020/21-2022/23

Manufacturing compared with other selected industries

- Around 1.3% of workers in the sector suffered from work-related musculoskeletal disorders (new or long-standing)
- This rate is not statistically different than that for workers across all industries (1.1%)

Rate of self-reported work-related musculoskeletal disorders in Manufacturing compared with other selected industries, per 100,000 workers: new and long-standing



95% confidence intervals are shown on the chart

Source: LFS, average estimate over 2020/21-2022/23

Comparison of sub-sectors in Manufacturing

Rate of self-reported work-related musculoskeletal disorders in Manufacturing compared with sub-sectors, per 100,000 workers: new and long-standing



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. Estimates are not available for all sub-sectors due to some having insufficient sample cases. 95% confidence intervals are shown on the chart.

Source: LFS, average estimate over 2018/19-2022/23

Changes over time

Rate of self-reported work-related musculoskeletal disorders in Manufacturing, per 100,000 workers: new and long-standing



In the recent years prior to the coronavirus pandemic, the rate of self-reported workrelated musculoskeletal disorders had been broadly flat. The rate for the latest period, which includes years affected by the coronavirus pandemic, was not statistically significantly different from the 2014/15-2016/17 period.

The data for 2017/18-2019/20 and 2020/21-2022/23 includes years affected by the coronavirus pandemic, shown inside the grey shaded column. Shaded area and error bars represent a 95% confidence interval.

Source: LFS, average estimate from 2004/05-2006/07 to 2020/21-2022/23

Stress, depression or anxiety

In Manufacturing:

• There were an estimated 37,000 workers suffering from work-related stress, depression or anxiety (new or long-standing), 41% of all ill health in this sector

Source: LFS, average estimate over 2020/21-2022/23

Manufacturing compared with other selected industries

- Around 1.3% of workers in the sector suffered from work-related stress, depression or anxiety (new or long-standing)
- This rate is statistically significantly lower than that for workers across all industries (2.1%)

Rate of self-reported work-related stress, depression or anxiety in Manufacturing compared with other selected industries, per 100,000 workers: new and long-standing



95% confidence intervals are shown on the chart

Source: LFS, average estimate over 2020/21-2022/23

Comparison of sub-sectors in Manufacturing

Rate of self-reported work-related stress, depression or anxiety in Manufacturing compared with sub-sectors, per 100,000 workers: new and long-standing



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. Estimates are not available for all sub-sectors due to some having insufficient sample cases. 95% confidence intervals are shown on the chart.

Source: LFS, average estimate over 2018/19-2022/23

Changes over time

Rate of self-reported work-related stress, depression or anxiety in Manufacturing, per 100,000 workers: new and long-standing



Prior to the coronavirus pandemic the rate of self-reported work-related stress, depression or anxiety was broadly flat. The rate for the latest period, which includes years affected by the coronavirus pandemic, was higher than the 2014/15-2016/17 period.

The data for 2017/18-2019/20 and 2020/21-2022/23 includes years affected by the coronavirus pandemic, shown inside the grey shaded column. Shaded area and error bars represent a 95% confidence interval.

Source: LFS, average estimate from 2004/05-2006/07 to 2020/21-2022/23

Lung disorders

In Manufacturing:

- There were an estimated 3,000 workers suffering from a work-related breathing or lung problems (new and long-standing). 0.11% of workers in the sector
- This rate is not statistically different than that for workers across all industries (0.11%)

Source: LFS, average estimate over 2016/17-2022/23

Rate of self-reported work-related breathing or lung problems in Manufacturing compared with the all industry average, per 100,000 workers: new and long-standing



95% confidence intervals are shown on the chart

Source: LFS, average estimate over 2016/17-2022/23

Other 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 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 are a range of supporting ill health data sources to supplement the Labour Force Survey estimates, including death certificates, 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 times 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.

Source: THOR-SWORD, 2010-2019

Skin disease

The dermatologist reporting scheme for occupational skin disease 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.

Source: THOR-EPIDERM, 2010-2019

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

Source: Epidemiological studies

Workplace injuries

Fatal injuries

In Manufacturing:

- There were 15 fatal injuries to workers in 2022/23p
- This is in comparison with the annual average number of 19 fatalities for 2018/19-2022/23p
- 18% of deaths over the same five-year period were classified as Contact with moving machinery

Source: RIDDOR, 2022/23p

Manufacturing compared with all industry

- The fatal injury rate in Manufacturing is 0.69 per 100,000 workers
- This is around 1.7 times the all industry rate

Rate of work-related fatal injuries in Manufacturing compared with the all industry average, per 100,000 workers



Rate per 100,000 workers

Source: RIDDOR, average over 2018/19-2022/23p

Changes over time

Rate of work-related fatal injuries in Manufacturing, per 100,000 workers



Prior to the coronavirus pandemic, the rate of fatal injury to workers showed a downward trend, with signs of flattening out in more recent years though number of deaths each year are, statistically speaking, small making the annual rate prone to fluctuation. In 2022/23 the rate was similar to the pre-coronavirus levels.

The data for 2019/20-2021/22 includes years affected by the coronavirus pandemic, shown inside the grey shaded column.

Source: RIDDOR, 1981 to 2022/23p

Non-fatal injuries

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

In Manufacturing:

- There were an estimated 46,000 workers who reported sustaining a workplace non-fatal injury
- 27% of these workplace non-fatal injuries resulted in absence from work of over 7 days

Source: LFS, average estimate over 2020/21-2022/23

Manufacturing compared with other selected industries

- Around 1.7% of workers in the sector sustained a workplace non-fatal injury
- This rate is not statistically different than that for workers across all industries (1.5%)

Rate of self-reported workplace non-fatal injuries in Manufacturing compared with other selected industries, per 100,000 workers



95% confidence intervals are shown on the chart

Source: LFS, average estimate over 2020/21-2022/23

Comparison of sub-sectors in Manufacturing

Rate of self-reported workplace non-fatal injuries in Manufacturing compared with sub-sectors, per 100,000 workers



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. Estimates are not available for all sub-sectors due to some having insufficient sample cases. 95% confidence intervals are shown on the chart.

Source: LFS, average estimate over 2018/19-2022/23

Changes over time

Rate of self-reported workplace non-fatal injuries in Manufacturing, per 100,000 workers



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, was not statistically significantly different from the 2014/15-2016/17 period.

The data for 2017/18-2019/20 and 2020/21-2022/23 includes years affected by the coronavirus pandemic, shown inside the grey shaded column. Shaded area and error bars represent a 95% confidence interval

Source: LFS, average estimate from 2002/03-2004/05 to 2020/21-2022/23

Supporting information around work-related injuries is available from RIDDOR reporting⁴, In Manufacturing:

- There were 10,382 non-fatal injuries to employees reported by employers under RIDDOR in 2022/23p
- 2,691 (26%) were specified injuries⁵ and 7,691 (74%) were injuries resulting in the incapacitation of a worker for over seven days

Source: RIDDOR, 2022/23p

Percentage of non-fatal work-related specified injuries by accident kind in Manufacturing



Source: RIDDOR, average over 2020/21-2022/23p

⁴ 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. Possible variations in reporting rates both between industries and over time make comparisons difficult. However, RIDDOR can be used for analysis at a detailed level not available through the LFS, for example, around the kind of incident.

⁵ Specified injuries are a defined list of injuries. The full list is at <u>www.hse.gov.uk/riddor/reportable-incidents.htm</u>

Percentage of non-fatal work-related injuries resulting in incapacitation of a worker for over seven days by accident kind in Manufacturing



Source: RIDDOR, average over 2020/21-2022/23p

Economic Cost

- The total cost in 2021/22 is estimated at £1.4 billion (95% confidence interval £1,023M £1,757M)
- This accounts for 7% of the total cost of all work-related ill health and injury (£20.6 billion)

Economic costs from work-related ill health and workplace injury in Manufacturing, in \pounds millions (2021/22 prices)



Estimates based on LFS (self-reported work-related ill health and workplace nonfatal injuries) and RIDDOR (work-related fatal injuries). 95% confidence intervals are shown on the chart.

Source: HSE Costs to Britain, 2021/22

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. This cost is shared between individuals, employers and government/taxpayers.

Working days lost

In Manufacturing around 2.9 million working days (full-day equivalent) were lost each year due to:

- Workplace injury (20%) and
- Work-related illness (80%)
- That is equivalent to around 1.1 working days lost per worker which is not statistically different than the all industry level (1.1 days)

Working days lost from self-reported work-related ill health and workplace injury in Manufacturing, full-day equivalent



95% confidence intervals are shown on the chart

Source: LFS, average estimate over 2019/20, 2021/22-2022/23

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 27,000 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.

Specialist physician surveillance schemes (THOR): Cases of work-related respiratory and skin disease are reported by specialist physicians within The Health and Occupation Reporting network (THOR) surveillance schemes. Reporting of respiratory disease by chest physicians is through the Surveillance of Work-Related and Occupational Respiratory Disease scheme (THOR-SWORD). Reporting of skin disease cases by consultant dermatologists is through the occupational skin surveillance scheme (THOR-EPIDERM).

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 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.

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.

Notes:

Percentages presented on charts in this document use rounded data and so may not sum to 100% in all cases.

p is used in this document to indicate provisional figures due to be finalised in 2024

For more information, see https://www.hse.gov.uk/statistics/assets/docs/sources.pdf

Annex 2: Links to detailed tables

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

Work-related illness

Ifsillind: <u>https://www.hse.gov.uk/statistics/assets/docs/lfsillind.xlsx</u> Ifsillman: <u>https://www.hse.gov.uk/statistics/assets/docs/lfsillman.xlsx</u>

CAN02: <u>https://www.hse.gov.uk/statistics/assets/docs/can02.xlsx</u> CAN03: <u>https://www.hse.gov.uk/statistics/assets/docs/an03.xlsx</u> THORS05: <u>https://www.hse.gov.uk/statistics/assets/docs/thors05.xlsx</u> THORR05: <u>https://www.hse.gov.uk/statistics/assets/docs/thorr05.xlsx</u>

Workplace injuries

Ifsinjind: https://www.hse.gov.uk/statistics/assets/docs/Ifsinjind.xlsx Ifsinjman: https://www.hse.gov.uk/statistics/assets/docs/Ifsinjman.xlsx RIDIND: https://www.hse.gov.uk/statistics/assets/docs/ridind.xlsx RIDFATAL: https://www.hse.gov.uk/statistics/assets/docs/ridfatal.xlsx RIDHIST: https://www.hse.gov.uk/statistics/assets/docs/ridhist.xlsx RIDHIST: https://www.hse.gov.uk/statistics/assets/docs/ridhist.xlsx

Costs to Britain of workplace injury and illness COST_tables: <u>https://www.hse.gov.uk/statistics/assets/docs/costs_tables2122.xlsx</u>

Other tables can be found at: www.hse.gov.uk/Statistics/tables/index.htm

National Statistics

National Statistics are accredited official statistics. This publication is part of HSE's accredited official statistics releases. <u>https://uksa.statisticsauthority.gov.uk/about the authority/uk-statistical-system/types-of-official-statistics/</u>

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A revisions policy and log can be seen at <u>www.hse.gov.uk/statistics/about/revisions/</u>

Additional data tables can be found at www.hse.gov.uk/statistics/tables/

General enquiries: sam.wilkinson@hse.gov.uk

Journalists/media enquiries only: www.hse.gov.uk/contact/contact.htm



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