

Construction statistics in Great Britain, 2018

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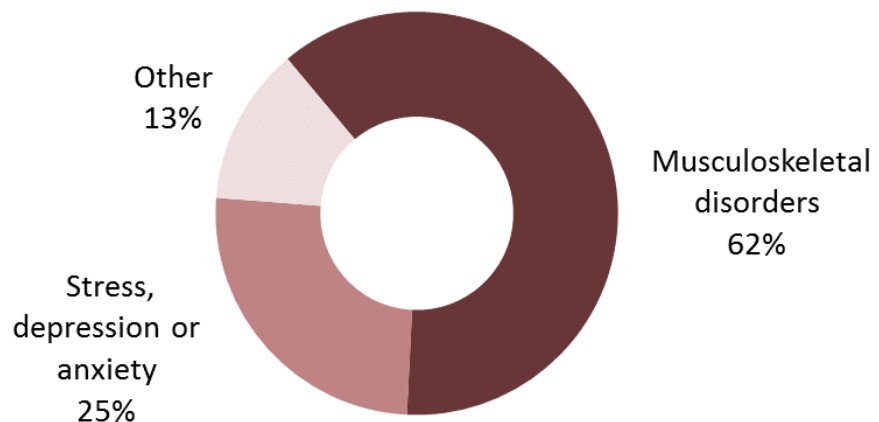
This document can be found at www.hse.gov.uk/statistics/industry/construction.pdf

Key statistics in the Construction sector in Great Britain, 2018



82,000

workers suffering from work-related ill health (new or long-standing).



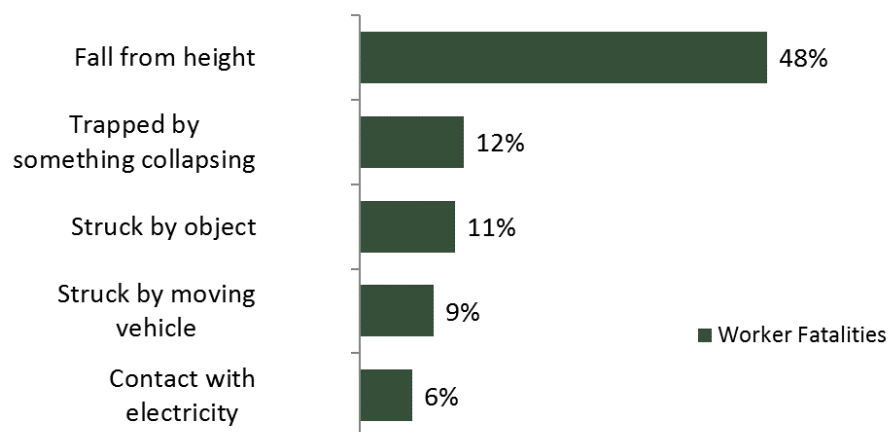
The rate of total self-reported work-related ill health has been broadly flat in recent years.

Source: LFS, 2017/18. Many of these illnesses were long-standing ill health conditions.



38 fatal injuries to workers in 2017/18.

This is close to the annual average number of fatalities (39) for 2013/14-2017/18.



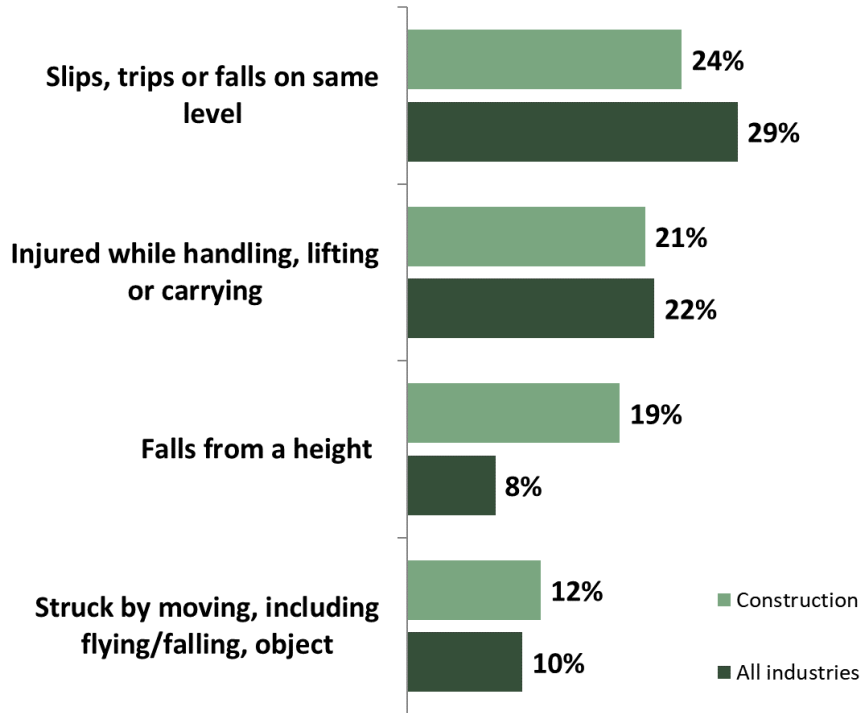
Source: RIDDOR, 2017/18

Source: RIDDOR, 2013/14-2017/18. Accident kinds are shown for the top five causes of fatal injuries.



58,000
non-fatal injuries to
workers each year

The long-term
trend of the rate of
workplace injury is
downward.



Source: LFS, annual average 2015/16-2017/18.

Source: Non-fatal injuries reported under RIDDOR 2015/16-2017/18. 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 construction¹.

Construction includes three broad industry groups:

- Construction of buildings – general Construction of buildings, including new work, repair, additions and alterations;
- Civil engineering – Civil engineering work, including road and railway construction, and utility projects; and
- Specialised construction activities – covering trades that usually specialise in one aspect, common to different structures. For example: demolition, electrical, plumbing, joinery, plastering, painting and glazing.

There is an overlap between these groups, for example roofing work may be carried out by a specialist contractor and so included in Specialised construction activities or by a general contractor as part of Construction of buildings.

The construction industry is a major employer accounting for around 7% of the UK workforce. About 41% of the construction workforce are self-employed.² This report considers current health and safety in the sector, focusing on:

- The scale and profile of work-related ill health and injury in workers.
 - A range of data sources is considered to allow a full assessment of the current health and safety situation. The preferred data source for both work-related ill health 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 (eg 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.
- The impact of health and safety failings in terms of working days lost, costs to society and enforcement action taken against employers within the sector.

¹ The 'Construction' sector is defined by section F within the 2007 Standard Industrial Classification. See www.hse.gov.uk/statistics/industry/sic2007.htm for more detail.

² Annual Population Survey – see www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/methodologies/annualpopulationurveyapsqmi



Work-related ill health

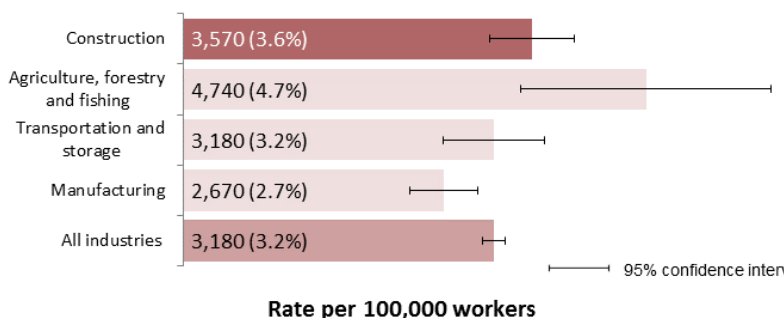
All illness

In Construction:

- There were an estimated **82,000** work-related ill health cases (new or long-standing)
 - **62%** were musculoskeletal disorders
 - **25%** were stress, depression or anxiety.
- Cases of musculoskeletal disorders account for a higher proportion of ill health cases in construction than in all industries (44%).

Source: LFS, annual average 2015/16-2017/18

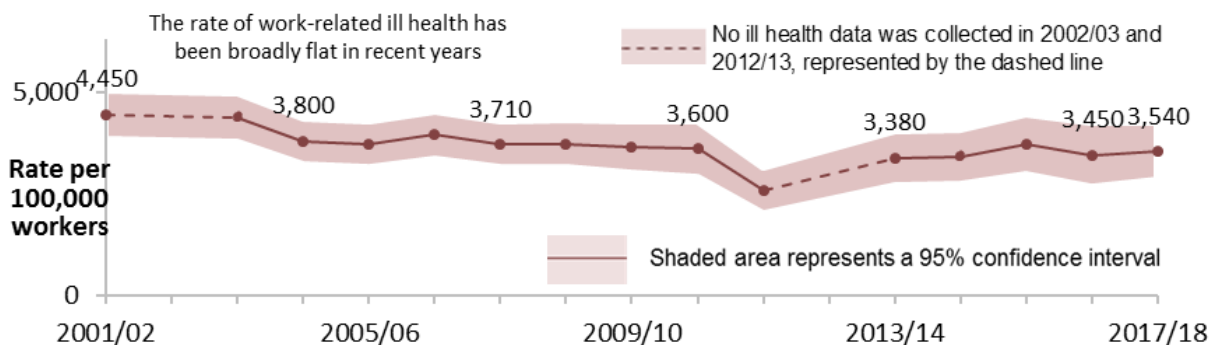
Construction compared with other selected industries



- Around **3.6%** of workers suffered from work-related ill health (new or long-standing cases).
- This rate is not statistically significantly different to that for workers across all industries (**3.2%**).

Source: LFS, annual average 2015/16-2017/18.
95% confidence intervals are shown on the chart.

Changes over time



Source: LFS annual, from 2001/02 to 2017/18.



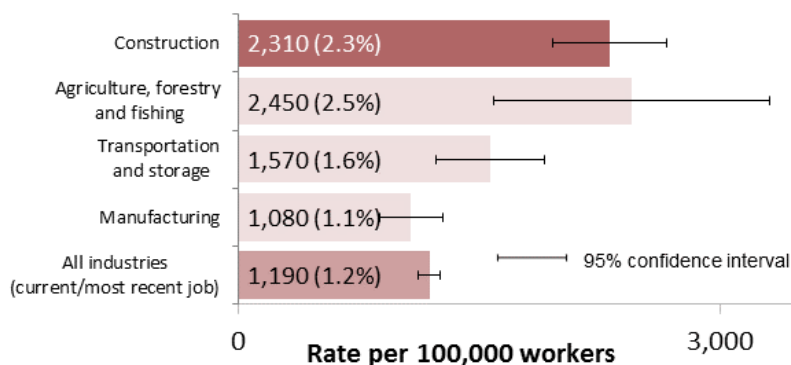
Work-related ill health

Musculoskeletal disorders

In Construction there were an estimated **51,000** work-related cases of musculoskeletal disorder (new or long-standing). This is about three fifths of all ill health in this Sector.

Source: LFS, annual 2017/18

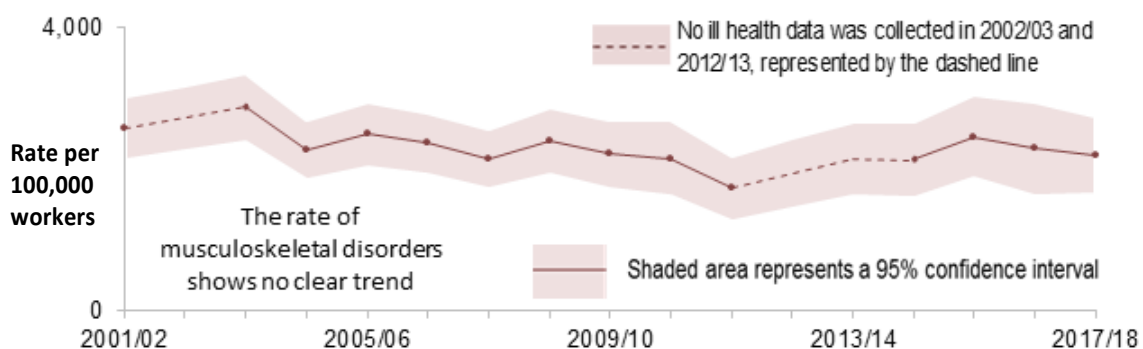
Construction compared with other industries



- Around **2.3%** workers in the sector reported suffering from a musculoskeletal disorder they believed was work-related. (New or long-standing cases).
- This rate is statistically significantly higher than the rate for workers across all industries. **(1.2%)**

Source: LFS, annual average 2015/16-2017/18. 95% confidence intervals are shown on the chart.

Changes over time



Source: LFS annual, from 2001/02 to 2017/18.



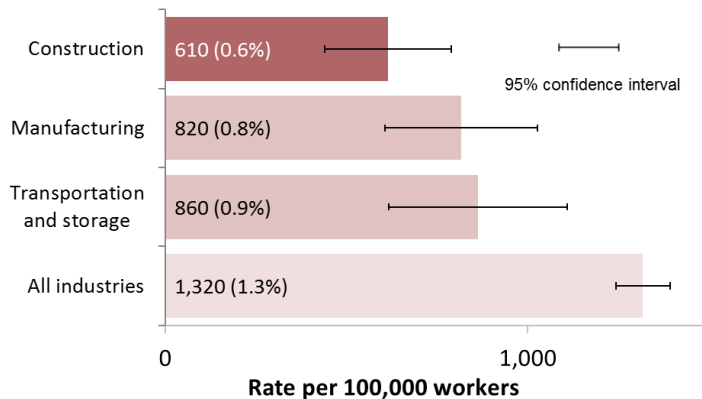
Work-related ill health

Stress, depression or anxiety

In Construction there were an estimated **14,000** work-related cases of stress, depression or anxiety (new or long-standing), about one sixth of all ill health in this Sector.

Source: LFS, annual average 2015/16-2017/18

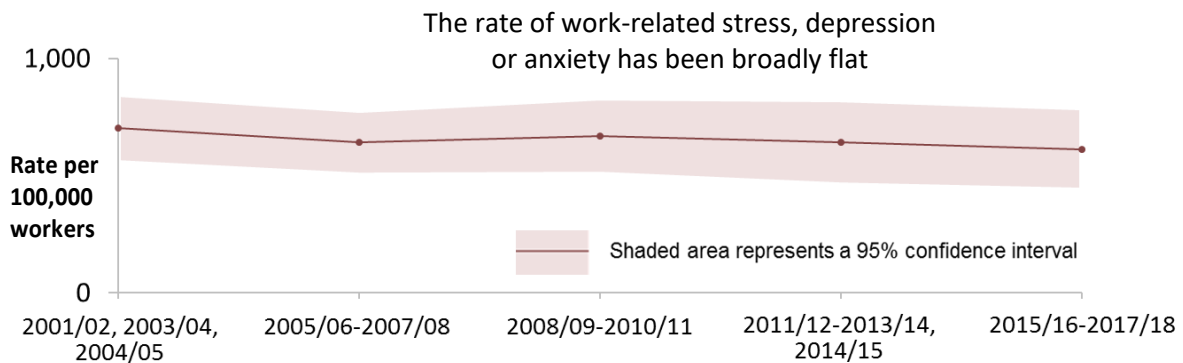
Construction compared with other industries



- Around **six in each thousand** (0.6%) workers in the sector reported suffering from stress, depression or anxiety they believed was work-related. (New or long-standing cases).
- This rate is statistically significantly lower than the rate for workers across all industries³ (1.3%).

Source: LFS, annual average 2015/16-2017/18. 95% confidence intervals are shown on the chart.

Changes over time



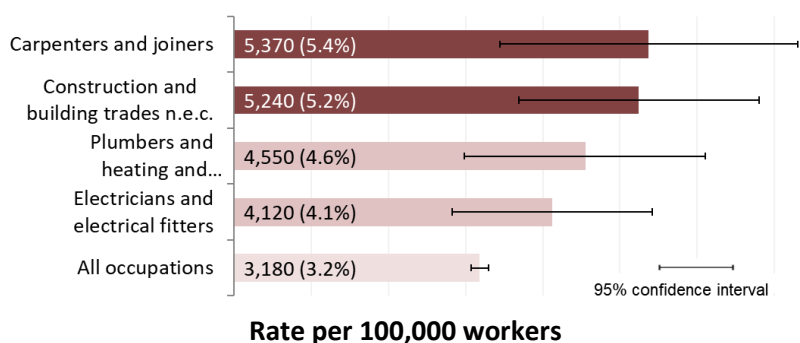
Source: LFS annual, from 2001/02 to 2017/18

³ A research report published by the Office for National Statistics indicates that the risk of suicide among low-skilled male labourers, particularly those working in construction roles, was three times higher than the male national average. It is not clear whether this increased risk is due to working within the construction industry or other socio-economic factors. See www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/suicidebyoccupation/england2011to2015



Work-related ill health

Occupation



- Within construction, there is a broad range of jobs.
- Some groups of these workers are at a higher risk of work-related ill health.

Source: LFS, annual average 2015/16-2017/18.

- The occupations⁴ shown are not exclusive to construction. For example, about 80% of carpenters / joiners and plumbers / heating and ventilating engineers work in construction. Only about half of electricians and electrical fitters work in construction.
 - 13% of carpenters and joiners work in manufacturing.
 - The remaining electricians and plumbers are widely spread across industries.
- Each year, between 2015/16 and 2017/18, 4 - 5% of workers in these occupations suffer from an illness that they believe was caused or made worse by their work.
- The rate of ill health is statistically significantly higher for carpenters/joiners and construction/building trades than for workers across all occupations (3.1%).
- For plumbers, heating/ventilating engineers and electricians/electrical fitters statistically the rate is not significantly higher than across all occupations.
- The rate of musculoskeletal disorders is also statistically significantly higher for carpenters/joiners (4.4%) and construction/building trades (3.9%) than for workers across all occupations (1.2%).
- Other occupations may also be at a higher risk, but we can only reliably estimate the rate for occupations that have a fairly large number of workers.

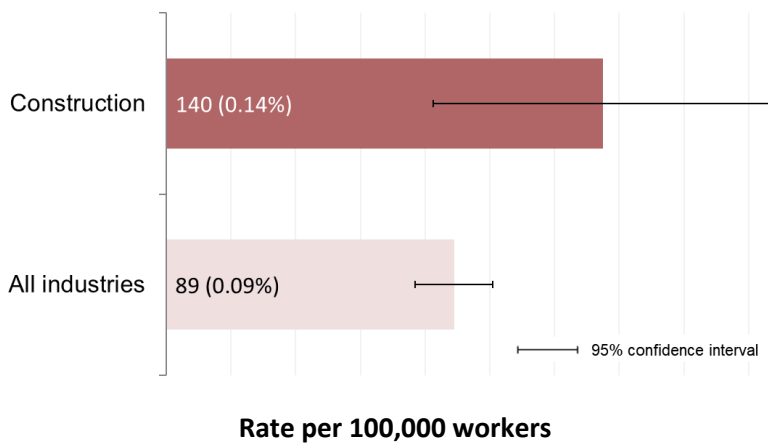
⁴ Occupations are defined within the standard occupational classification see www.ons.gov.uk/methodology/classificationsandstandards/standardoccupationalclassificationsoc/soc2010



Work-related ill health

Other conditions

Occupational lung disease



Source: LFS, seven-year average 2010/11, 2011/12, 2013/14-2017/18. 95% confidence intervals are shown on the chart.

- Each year, around 3,000 workers in construction suffer with breathing and lung problems they believe were caused or made worse by their work. This is around 0.14% of workers in the sector.
- This proportion is not statistically significantly higher than the rate for workers across all industries (0.09%).

Occupational asthma

- The rate of occupational asthma, according to reports from the chest physician reporting scheme for occupational respiratory disease, is close to the rate for all industries (0.5 compared to 0.48 per 100 000 workers, average annual rates 2015-2017p).
- Small numbers of cases are associated with certain construction-related jobs including:
 - Electricians and electrical fitters,
 - Carpenters and joiners,
 - Painters and decorators, and
- Airborne materials from spray painting, welding, or cutting/grinding metals are among the contributory factors to their ill health identified by those suffering from asthma.

Source: THOR, THORR04 & 5.

Silicosis

- Both the Industrial Injury Disablement Benefit (IIDB) and THOR data sources are likely to substantially underestimate the incidence of silicosis. The occupations most commonly associated with silicosis cases reported within the THOR scheme during the 10-year period 2006-2015 included:
 - stonemasons and bricklayers (26% of actual reported cases) and
 - other construction-related occupations (25% of actual reported cases).

See [Pneumoconiosis-and-Silicosis for further information - hse.gov.uk/statistics/causdis/pneumoconiosis/index.htm](https://www.hse.gov.uk/statistics/causdis/pneumoconiosis/index.htm)

Chronic Obstructive Pulmonary Disease (COPD)

- The most important causative factor is smoking. Other factors include occupational exposure to fumes, chemicals and dusts and environmental pollution.
- A recent analysis, based on a UK Biobank study, concluded that the prevalence of COPD was significantly higher, by at least 50% compared with all other occupations, in roofers, among other occupations.

See [Work-related Chronic Obstructive Pulmonary Disease \(COPD\) in Great Britain, 2018](#)

Contact dermatitis

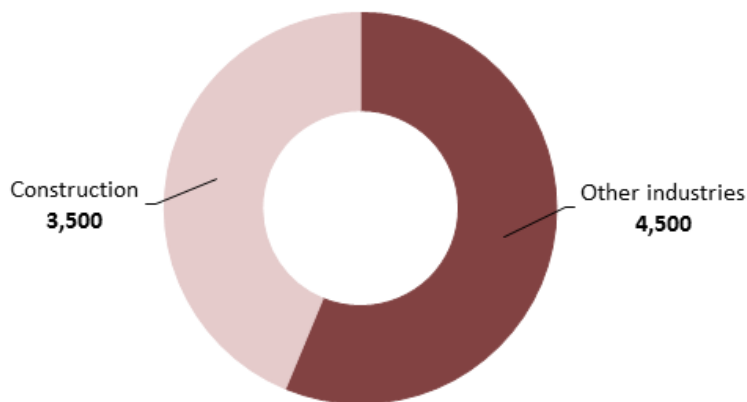
- Painters and decorators, Carpenters and joiners and Construction and building trades nec⁵ all suffer from more than twice the all industry rate of contact dermatitis.
- The rate for Floorers and wall tilers is also high, when averaged over the last 10 years. The rate for Bricklayers and masons has fallen substantially since 2004-06, probably because of reduced exposure to chromates in cement following the introduction of EU legislation in 2005.
- The rate for construction, as a whole, is similar to that for all industries (3 cp 3.2 per 100 000 workers).

Source THOR, THORSO4 & 5, annual average 2015-2017p.

⁵ Not elsewhere classified

Occupational Cancer

HSE commissioned research to look at the burden of occupational cancer in Great Britain. 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.

- This equates to about 8,000 cancer deaths and 13,500

new cancer registrations each year.

Source: Burden of occupational cancer in Great Britain
[hse.gov.uk/statistics/causdis/cancer/index](https://www.hse.gov.uk/statistics/causdis/cancer/index).

- A recent epidemiological study of mesothelioma in Great Britain suggests that about 46% of currently occurring mesotheliomas among men born in the 1940s is associated with the construction industry including carpenters, plumbers and electricians. 17% can be attributed to carpentry work alone.
- A key factor in causing the higher risks now seen in these former workers appears to be the extensive use of insulation board containing brown asbestos (amosite) within buildings for fire protection purposes.

Source: See Mesothelioma –
www.hse.gov.uk/statistics/causdis/mesothelioma/mesothelioma.pdf

Other conditions

Other conditions that can affect construction workers include:

- Occupational Deafness; and
- Hand Arm Vibration (largely made up of two conditions, Vibration White Finger and Carpal Tunnel Syndrome).

Source: Our main source of information on both these conditions is from new claims from the IIDB. The relative frequency of new IIDB assessments for these conditions is higher for workers in construction than most other sectors



Work-related injuries

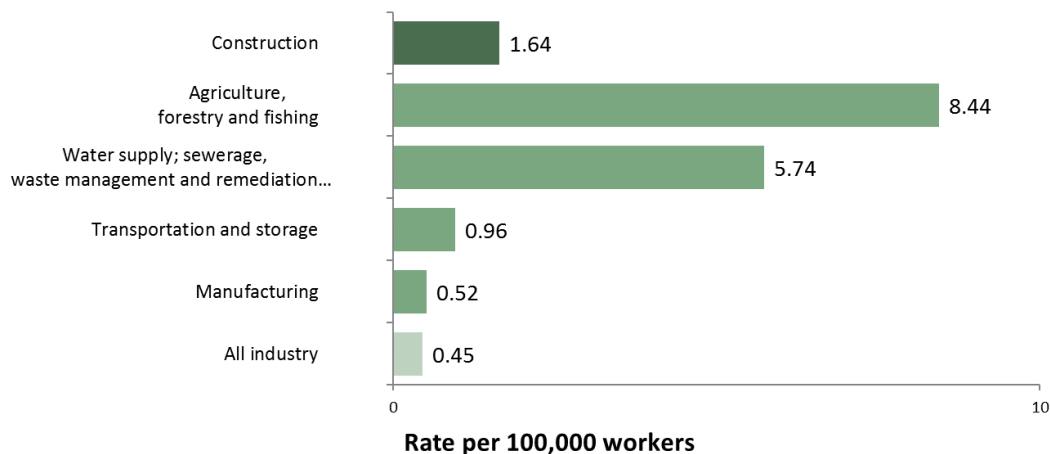
Fatalities

In Construction there were:

- **38** fatal injuries to workers and six to members of the public in 2017/18;
- **39** fatalities to workers and **four** to members of the public, on average, each year over the last five years;
- **47%** of deaths over the same five year period, were due to falls from height,
- **12%** each were due to being trapped by something collapsing or being struck by an object. ([See page 2.](#))

Source: RIDDOR, 2017/18; RIDDOR, 2013/14-2017/18

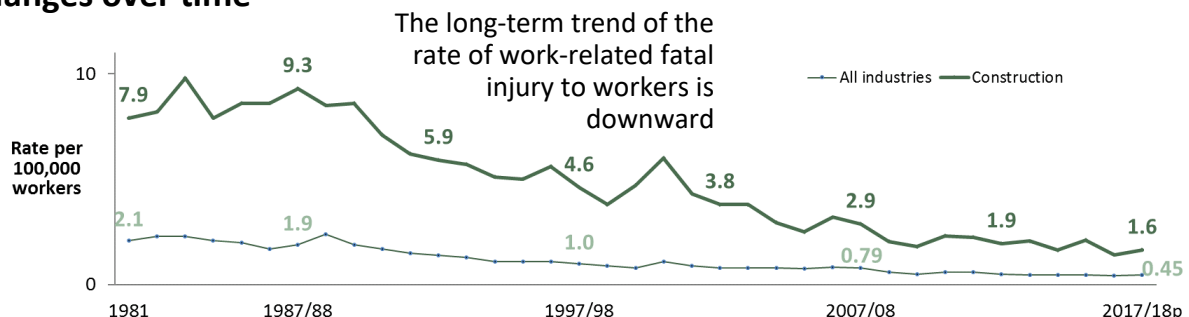
Construction compared with other industries



The fatal injury rate (**1.64** per 100,000 workers) remains high at around **four** times the All industry rate.

Source: RIDDOR, 2017/18

Changes over time



Source: NADOR and RIDDOR, 1981 to 2017/18



Work-related injuries

Labour Force Survey

HSE's preferred data source for non-fatal injuries

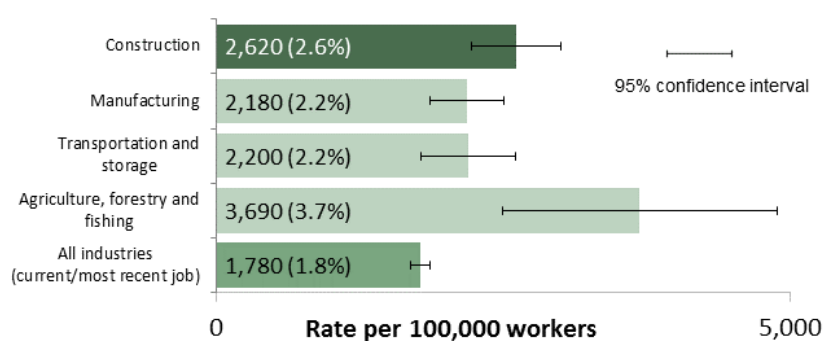
In Construction in 2017/18 there were an estimated **58,000** work-related cases of injury. Of these:

- 30% involved over three days and
- 24% over seven days absence.

The proportion of injuries involving over three or seven days absence is similar to that for all industries (33% and 26%).

Source: LFS, annual average 2015/16-2017/18

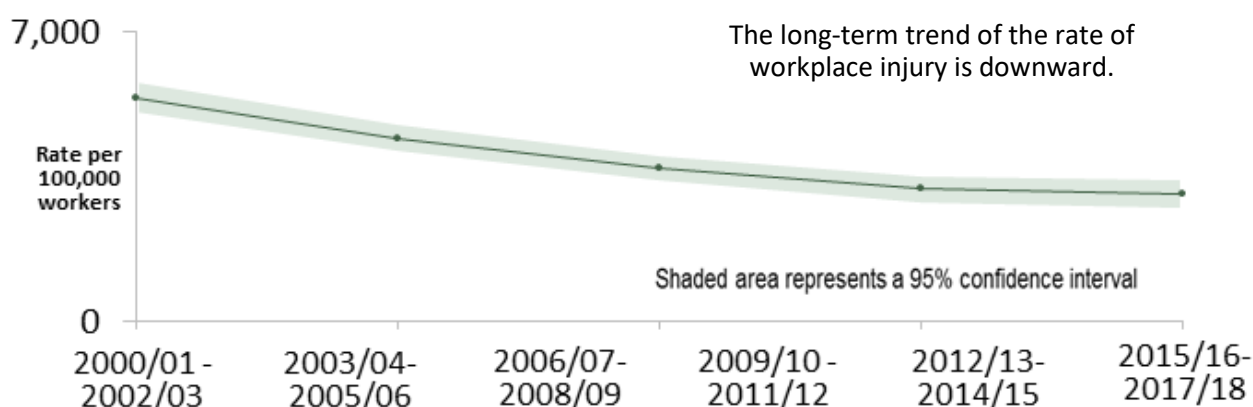
Construction compared with other industries



- Around **2.6%** of workers in this sector suffered from an injury.
- This is about **50% above** the All industries rate, and is statistically significantly higher.

Source: LFS, annual average 2015/16-2017/18

Changes over time



Source: LFS, annual 2000/01 – 2017/18



Work-related injuries

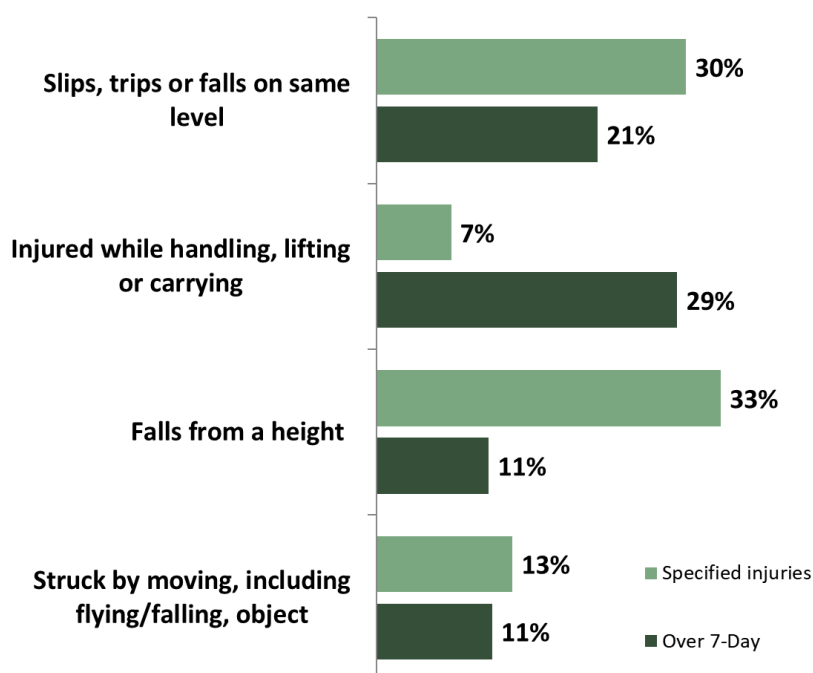
Supporting information from RIDDOR[#]

In Construction **4,919** non-fatal injuries to employees were reported. Of these:

- **1,829** (37%) were specified injuries^{###} and
- **3,090** (62%) were over 7-day injuries.

Source: RIDDOR, 2017/18

Main accident kinds for the latest three years (2015/16 – 2017/18)



Source: RIDDOR, 2015/16 - 2017/18.

[#]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. Non-fatal injuries are substantially under-reported, especially for the self-employed. 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.

^{###}For the full list of specified injuries, see www.hse.gov.uk/riddor/reportable-incidents.htm

- Carpenters and joiners are the only construction occupation that can be reliably estimated and has a statistically significantly higher rate of self-reported work-related injury than for all occupations.

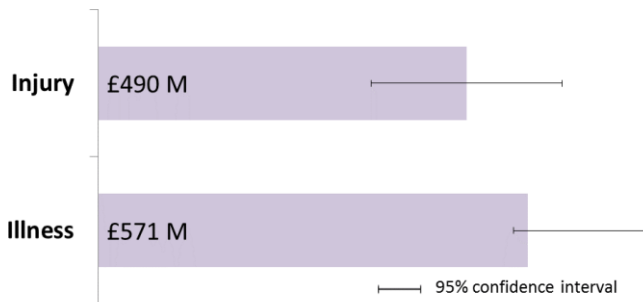
Source: LFS, annual average 2015/16- 2017/18.

Impact of health and safety failings



Economic cost

Economic cost of workplace injury and new cases of work-related ill health in Construction



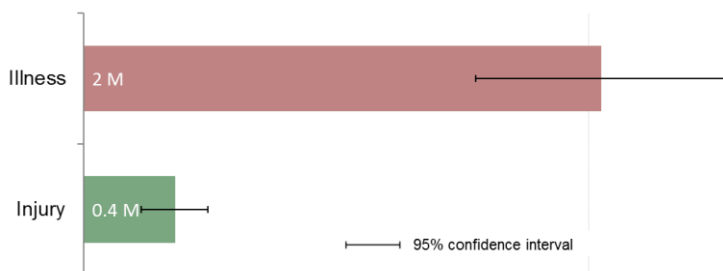
- The total cost in 2016/17 is estimated at **£1,062 million**, (95% confidence interval £856 M – £1,268 M)
- This accounts for 7% of the total cost across all industries (£14,895 M).

Source: HSE Costs to Britain, 2016/17.

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 construction around **2.4 million working days** (full-day equivalent) were lost each year between 2015/16 and 2017/18 due to:



- workplace injury (15%) and
- work-related illness (85%).

Source: LFS, annual average 2015/16-2017/18

- That is equivalent to around 1.1 working days lost per worker and similar to the average days lost per worker across all industries (0.96 days).
- Assuming a full-time working year equates to 225 working days, this is equivalent to around **10,000 full-time workers** being absent from the workforce **for the whole year**.



Enforcement

Enforcement notices issued by HSE to businesses in this Sector, 2017/18p



Provisional figures for 2017/18 show a total of **3,015 notices** issued by HSE inspectors in Construction.

- 58% were improvement notices and
- 42% were prohibition notices.
- That is about 60% of all prohibition notices issued by HSE. Slightly less than the 3,153 notices issued in 2016/17.

There were **206 prosecution cases**[#] in 2017/18, resulting in:

- 194 (94%) with a conviction for at least one offence;
- almost £19 million in total fines^{##} averaging over £98,000 per conviction.
- In 2016/17 there were 226 cases resulting in:
 - 212 convictions (94%);
 - £17 million total fines; and
 - average fines of £81,000.

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).

[#]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.

^{##} 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 used

The Labour Force Survey (LFS): The LFS is a national survey run by the Office for National Statistics of currently around 38,000 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.

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.

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.

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.

NADOR: The Notification of Accidents and Dangerous Occurrences Regulations (NADOR) 1980. These reporting requirements preceded RIDDOR.

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.

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 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.pdf

Annex 2: List of tables

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

Tables	Web Address (URL)
Work-related illness	
Ifsillind	www.hse.gov.uk/Statistics/lfs/lfsillind.xlsx
THORR04	www.hse.gov.uk/Statistics/tables/thorr04.xlsx
THORR05	www.hse.gov.uk/Statistics/tables/thorr05.xlsx
THORS04	www.hse.gov.uk/Statistics/tables/thors04.xlsx
THORS05	www.hse.gov.uk/Statistics/tables/thors05.xlsx
CAN05	www.hse.gov.uk/Statistics/tables/can05.xlsx
IIDB01	www.hse.gov.uk/Statistics/tables/iidb01.xlsx
DC01	www.hse.gov.uk/Statistics/tables/dc01.xlsx
Ifsillocc	www.hse.gov.uk/statistics/lfs/lfsillocc.xlsx
Workplace injuries	
Ifsinjind	www.hse.gov.uk/Statistics/lfs/lfsinjind.xlsx
Ifsinjocc	www.hse.gov.uk/statistics/lfs/lfsinjocc.xlsx
RIDIND	www.hse.gov.uk/Statistics/tables/ridind.xlsx
RIDKIND	www.hse.gov.uk/Statistics/tables/ridkind.xlsx
RIDHIST	www.hse.gov.uk/Statistics/tables/ridhist.xlsx
RIDFATAL	www.hse.gov.uk/Statistics/tables/ridfatal.xlsx
Costs to Britain of workplace injury and illness	
COST_Tables1516	www.hse.gov.uk/Statistics/tables/costs_tables1617.xlsx
Enforcement	
Notices	www.hse.gov.uk/Statistics/tables/notices.xlsx
Prosecutions	www.hse.gov.uk/Statistics/tables/prosecutions.xlsx
Other tables can be found at:	
	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 an assessment by the Office for Statistics Regulation (OSR). The OSR considers whether the statistics meet the highest standards of Code compliance, including the value they add to public decisions and debate.

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.

An account of how the figures are used for statistical purposes can be found at 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

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

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

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