Health and safety statistics for the construction sector in Great Britain, 2017

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Summary

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

80,000 workers suffering from work-related ill health each year. (LFS)

30 fatal injuries to workers in 2016/17 (RIDDOR)

64,000 non-fatal injuries to workers each year (LFS)

Work-related ill health by illness type
(Source: LFS annual average estimate 2014/15-2016/17)

- Musculoskeletal disorders: 65%
- Stress, depression or anxiety: 15%
- Other illness: 20%

Fatal injuries to workers by most common accident kind
(Source: Fatal injuries reportable under RIDDOR, 2012/13-2016/17)

- Falls from a height: 49%
- Trapped by something collapsing/overturning: 10%
- Stuck by moving vehicle: 10%

Non-fatal injuries to employees by most common accident kind
(Source: Non-fatal injuries reported under RIDDOR 2014/15-2016/17)

- Slip, trip or falls on same level: 24%
- Injured while handling, lifting or carrying: 21%
- Falls from a height: 18%
- Stuck by moving, including being dragged, object: 13%

Note:
LFS: Labour Force Survey
RIDDOR: Reporting of Injuries Diseases and Dangerous Occurrences Regulations
The most common accident kinds included in the charts above are those 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 are usually specialised in one aspect common to different structures. For example: demolition, electrical and plumbing installation, joinery installation, 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. This is important when reviewing the detailed breakdowns provided in this report and the tables on the HSE website.

The construction industry is a major employer accounting for around 7% of the UK workforce². About 42% of the construction workforce are self-employed. This report considers current health and safety in the sector, focusing on:

1. 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.

2. The profile of workplace risks in the sector;

3. 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 https://www.ons.gov.uk/methodology/classificationsandstandards/ukstandardindustrialclassificationofeconomicactivities/uksic2007 for more detail.
Work-related ill health

Overall scale

Figure 1: Estimated annual number of cases of self-reported work-related ill health in construction by:

(i) Illness kind

- Musculoskeletal disorders 65%
- Stress, depression or anxiety 15%
- Other illness 20%

(ii) Detailed industry grouping (Estimated annual number of cases)

- Construction of buildings: 26,000 cases
- Specialised construction activities: 47,000 cases
- Civil engineering: 7,000 cases


Between 2014/15 and 2016/17:
- Each year around 80,000 construction workers in GB suffer 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:
- 52,000 were cases of musculoskeletal disorders (MSD), of which just under a third were new conditions;
- 12,000 were cases of stress, depression or anxiety, of which around 60% were new conditions;
- 16,000 were cases of other illness (such as skin or respiratory conditions).

Or by the different divisions of construction:
- 26,000 (32%) were to workers in Construction of buildings
- 47,000 (59%) were to workers in Specialised construction activities; and
- 7,000 (9%) were to workers in Civil engineering.

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

(i) Construction

- Construction (F): 3.530 (3.5%)
- Construction of buildings (41): 3.050 (3.1%)
- Civil engineering (42): 2.100 (2.1%)
- Specialised construction activities (43): 4.550 (4.4%)
- All industries: 3.130 (3.1%)


- Each year, between 2014/15 and 2016/17, around 3.5% of workers in construction in GB suffered from an illness that they believed was caused or made worse by their work in the sector.
  - This proportion is not significantly different to the rate for workers across all industries (3.1%).
Within construction, there is a broad range of jobs, some more hazardous than others. Some groups of these workers are more likely to be at risk of work-related ill health.

- The occupation group Skilled construction and building trades is an example.
- Each year, between 2014/15 and 2016/17, around 4.8% of workers in this occupational group suffer from an illness that they believe was caused or made worse by their work in the sector.
  - This proportion is statistically significantly higher than that for workers across all occupations (3.1%).

Data from a GP reporting scheme of new cases of occupational ill health presenting at GP surgeries (THOR-GP) provides an alternative source of intelligence on work-related ill health. 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 ill health cases to the LFS, suggests the rate of work-related illness in the Construction sector to be slightly higher than that seen across all industries.

Musculoskeletal disorders and Stress, depression or anxiety

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

- Each year around 2.2% of workers in the sector suffer from a musculoskeletal disorder they believe was work-related.
  - This rate is statistically significantly higher than the rate across all industries (1.3%)
- This rate is highest in Specialised construction activities (2.7%).

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3 Occupations are defined using the 2010 Standard Occupational Classification. For more detail see [www.ons.gov.uk/methodology/classificationsandstandards/standardoccupationalclassificationsoc/soc2010](http://www.ons.gov.uk/methodology/classificationsandstandards/standardoccupationalclassificationsoc/soc2010)

4 THOR – The Health and Occupation Reporting network – see [Annex 1](#)
(ii) ‘Skilled Construction and building trade’ workers


For workers in Skilled construction and building trade occupations the rate of work-related musculoskeletal disorders is more than double that seen in workers across all occupations (3% compared with 1.3% for all occupations).

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

Source: THOR GP, 2012-2014

Data from the GP reporting scheme suggests the rate of work-related musculoskeletal disorder in the Construction sector to be almost twice the rate across all industries, broadly confirming the findings from the Labour Force Survey of an elevated risk in this sector.

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

(i) Construction


Note: estimates for Civil engineering and Specialised construction activities are based on less than 30 sample cases so there is a larger margin of sampling uncertainty on this estimate compared to other estimates.

- Each year around six in each thousand workers in the sector reported suffering from stress, depression or anxiety they believed was work-related.
  - This rate is statistically significantly lower than the proportion across all industries (1.2%)
- This lower rate is evident across the industry sub-sections of the Construction sector, though the difference for Civil engineering is not statistically significant.
(ii) ‘Skilled Construction and building trade’ workers

Within workers in skilled construction and building trade jobs, the rate of work-related stress, depression or anxiety is also statistically significantly lower than the average rate across all workers.

A research report published by the Office for National Statistics\(^5\) 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.

Other work-related ill health conditions

Self-reports of work-related ill health from the Labour Force Survey gives 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.

Occupational lung disease

Breathing and lung problems

Between 2009/10 and 2016/17:

- 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 (0.1%)
- When asked about exposures contributing to their illness conditions, almost 20% of workers reporting work-related breathing and lung problems identified ‘dusts from stone, cement, bricks or concrete’ as contributing to their condition. These exposures are often associated with construction. (Source: Labour Force Survey 2009/10-2011/12)

Occupational asthma

- The construction sector is not among those industries with high rates of occupational asthma according to reports from the chest physician reporting scheme for occupational respiratory disease (THOR-SWORD)\(^6\).
- However, small numbers of cases associated with certain construction-related jobs, eg carpenters and joiners, have been reported through THOR-SWORD.\(^7\)


\(^6\) See table THORR05 for more detail.

\(^7\) See table THORR04
Silicosis

Both the Industrial Injury Disablement Benefit (IIDB\(^5\)) 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).
- Other construction-related occupations (25% of actual reported cases).

Chronic Obstructive Pulmonary Disease (COPD)

- Smoking is a particularly important factor for COPD, but occupational exposure to dusts, gases and fumes, environmental air pollution and certain other factors also play a role.
- Epidemiological evidence suggests an association between work in construction and an increased risk of COPD which could be due to past exposure to several agents including respirable crystalline silica, welding fumes, chemicals such as isocyanates and wood dust.
- It is, however, not clear, based on currently available evidence, how many COPD deaths may be attributed to such exposures.

**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](http://www.hse.gov.uk/statistics/causdis/cancer/index).

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

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

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Estimated Cancer Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>3,500</td>
</tr>
<tr>
<td>Other Industries</td>
<td>4,500</td>
</tr>
</tbody>
</table>

**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. This equates to about 8,000 cancer deaths and 13,500 new cancer registrations each year.

- Of the occupational cancer deaths:
  - The construction industry has the largest number of deaths – about 3,500.
  - The majority of these were caused by **past exposure** to asbestos (over 2,500 annual deaths from mesothelioma) and silica. These two carcinogens are associated with lung cancer and mesothelioma.

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5 IIDB - Industrial Injuries Disablement Benefit – see [Annex 1](#)
Figure 8 (ii) Estimated number of cancer registrations in 2004 that could be attributed to the ten leading occupational carcinogens

- Construction: 5,500
- Other industries: 8,000

Source: HSE Research report

- Of the estimated 13,500 occupational cancer registrations each year:
  - The construction industry had the largest number of occupational cancer registrations – 5,500.
  - Like cancer deaths, the majority of these registrations in Construction (about 3,500) were caused by past exposure to asbestos and silica.
  - An additional 1,300 cancer registrations per year are attributed to solar radiation, coal tars and pitches, mostly causing non-melanoma skin cancer.

Mesothelioma

The cancer burden research includes estimates of the asbestos-related cancer, mesothelioma. Separate occupational analyses of mesothelioma deaths based on HSE’s mesothelioma register reinforce the important role of past occupational asbestos exposures in construction-related jobs such as carpenters, plumbers and electricians in the current burden of this cancer.

Skin Disease and other ill health conditions

Skin disease

- Data on new assessments for IIDB suggest an elevated incidence of contact dermatitis for workers in the construction industry, whereas reports from dermatologists participating in a surveillance scheme for occupational skin disease (THOR-EPIDERM) suggest the incidence is similar to that for all industries. However, THOR-EPIDERM does suggest that certain specific construction-related occupations may have a higher incidence, particularly floorers and wall tilers, painters and decorators and carpenters and joiners.

- A substantially elevated risk among bricklayers and masons was clearly seen prior to 2008. This is likely to have been due to the presence of chromates in cement. A recent analysis of trends in cases attributed to chromates suggests that this risk may now have been substantially reduced following EU restrictions on their use.

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)

- 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.
Changes over time

Figure 9: Prevalence rate of self-reported work-related ill health in construction:

(i) All work-related ill health

(ii) Musculoskeletal disorders

(iii) Stress, depression or anxiety

Within Construction:

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

- The overall rate of musculoskeletal disorders has been broadly flat.

- The overall rate of work-related stress, depression or anxiety has also remained broadly flat.

Source: Labour Force Survey
Workplace Injury

Fatal injuries

Figure 10: Main injury kinds for fatal injuries to workers in the Construction sector by injury kind, last 5 years

- Falls from a height: 97
- Trapped by something collapsing/overturning: 19
- Struck by moving vehicle: 19
- Struck by moving, including flying/falling object: 16
- Contact with electricity or electrical discharge: 14
- Contact with moving machinery: 9

Source: RIDDOR

There were 30 fatal injuries to workers in the Construction sector in 2016/17, around 30% lower than the five-year average for 2011/12-2015/16 (43).

This brings the total number of fatal injuries to workers in the sector over the last five years to 196.

Almost half of the fatal injury cases were caused by fall from a height.

There were also four fatalities to members of the public involving construction work in 2016/17.

Figure 11: Rate of fatal injuries to workers in the Construction sector per 100,000 workers, 2016/17

- Construction: 1.37
- All industries: 0.43

Source: RIDDOR

The worker fatal injury rate in construction (1.37 per 100,000 workers) is over 3 times the average rate across all industries (0.43 per 100,000 workers).
Non-fatal injuries

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

(i) Duration of time off work

- 29,000 cases resulting in 4-7 days off work
- 14,000 cases resulting in over 7 days off work
- 21,000 cases resulting in 4-7 days off work

(ii) Detailed industry grouping

<table>
<thead>
<tr>
<th>Construction of buildings</th>
<th>Specialised construction activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>21,000 cases</td>
<td>37,000 cases</td>
</tr>
<tr>
<td>Civil engineering</td>
<td>6,000 cases</td>
</tr>
</tbody>
</table>


Between 2014/15 and 2016/17:
- Each year, around 64,000 construction workers in GB sustained an injury at work.
- Over a fifth (22%) of these cases resulted in absence from work of over 7-days.

Of these 64,000 workplace injuries, around:
- 21,000 (32%) were to workers in Construction of buildings
- 37,000 (58%) were to workers in Specialised construction activities; and
- 6,000 (10%) were to workers in Civil engineering.

But remember that there is some overlap between these types of construction.

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

(i) Construction

<table>
<thead>
<tr>
<th>Category</th>
<th>Incidence Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction (F)</td>
<td>2.940 (2.9%)</td>
</tr>
<tr>
<td>Construction of buildings (41)</td>
<td>2.520 (2.5%)</td>
</tr>
<tr>
<td>Civil engineering (42)</td>
<td>1.930 (1.9%)</td>
</tr>
<tr>
<td>Specialised construction activities (43)</td>
<td>3.580 (3.6%)</td>
</tr>
<tr>
<td>All industries</td>
<td>1.860 (1.9%)</td>
</tr>
</tbody>
</table>

(ii) ‘Skilled Construction and building trade’ workers

<table>
<thead>
<tr>
<th>Category</th>
<th>Incidence Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skilled construction and building trades (53)</td>
<td>4.050 (4.1%)</td>
</tr>
<tr>
<td>All occupations</td>
<td>1.860 (1.9%)</td>
</tr>
</tbody>
</table>


Each year around 2.9% of workers in the Construction sector in GB are injured at work.
- This proportion is statistically significantly higher than the rate for workers across all industries (1.9%).
- Specialised construction activities also have a statistically significant higher rate of injury.
- The injury estimate for Civil engineering is based on a smaller sample size, so it has a larger margin of sampling uncertainty.

4.1% of skilled construction and building trades workers are injured each year, more than twice the all industry average rate.

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\(^9\).

Changes to the reporting requirements and variations in reporting rates, both between industries and over time, make comparisons difficult. However, RIDDOR data permits analysis at a level of detail not available through the LFS, eg by the type or kind of accident.

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

Specified Injuries 36%

Over 7-day injuries 64%

Source: RIDDOR 2016/17p

- Provisional figures show over 5,000 reported non-fatal injuries to employees in construction in 2016/17.
- 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\(^{10}\)) or
  - resulting in over 7-days off work.
- Around a third of the injury reports in 2016/17 were for specified injuries.

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

### (i) Specified Injuries\(^{11}\)

<table>
<thead>
<tr>
<th>Injury Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Falls from a height</td>
<td>32%</td>
</tr>
<tr>
<td>Slips, trips or falls on same level</td>
<td>29%</td>
</tr>
<tr>
<td>Struck by moving, including</td>
<td></td>
</tr>
<tr>
<td>- falling, object</td>
<td>14%</td>
</tr>
<tr>
<td>Injured while handling,</td>
<td>7%</td>
</tr>
<tr>
<td>- lifting or carrying</td>
<td></td>
</tr>
<tr>
<td>Contact with moving machinery</td>
<td>4%</td>
</tr>
<tr>
<td>Struck by moving vehicle</td>
<td>4%</td>
</tr>
</tbody>
</table>

### (ii) Over 7-day injuries

<table>
<thead>
<tr>
<th>Injury Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Falls from a height</td>
<td>10%</td>
</tr>
<tr>
<td>Slips, trips or falls on same level</td>
<td>21%</td>
</tr>
<tr>
<td>Struck by moving, including</td>
<td></td>
</tr>
<tr>
<td>- falling, object</td>
<td>12%</td>
</tr>
<tr>
<td>Injured while handling,</td>
<td>6%</td>
</tr>
<tr>
<td>- lifting or carrying</td>
<td></td>
</tr>
<tr>
<td>Contact with moving machinery</td>
<td>6%</td>
</tr>
<tr>
<td>Struck by moving vehicle</td>
<td>1%</td>
</tr>
</tbody>
</table>

Source: RIDDOR 2016/17p

The distribution of specified and over 7-day injuries by injury kind is quite different.

**Specified Injuries:**

- Over 60% of all reported specified injuries to employees in construction are due to either falls from a height or slips, trips or falls on the same level.

**Over 7-day injuries:**

- About half of reported over 7-day injuries to employees in construction are due to either lifting/handling accidents or ‘slips, trips or falls on the same level’.

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\(^9\) It is estimated that, across all industries, just under a half of all reportable non-fatal injury to employees are actually reported, much less for the self-employed.

\(^{10}\) 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)

\(^{11}\) 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 are still categorised as specified – eg most fractures and amputations).
Changes over time

Figure 16: Incidence rate of fatal injury in construction per 100,000 workers

- The number and rate of fatal injuries can vary by quite a lot from year to year.
- Overall the long-term trend for both is downward.
- The rate of change is getting slower as the number of fatalities falls.
- The rate of fatal injury is now less than a quarter of what it was in 2000/01 and a fifth of that in 1990/91.

Source: RIDDOR

Figure 17: Incidence rate of all self-reported workplace injury in the Construction sector

- There has been an overall downward trend in the rate of all workplace injury in construction for the whole period for which the data is available.
- This is a reduction of about 40% in the average rate between 2002/03 and 04/05.
- Again the rate of reduction is slowing.

Source: Labour Force Survey
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

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

- Physical risks were much more widely reported being present in construction workplaces 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’, but only around 5% of employer reported fatal and non-fatal injury were due to contact with machinery. Similarly, ‘vehicles’ is one of the top-3 self-reported risks. Struck by moving vehicle accounts for around 10% of fatal injuries and 2% of reported non-fatal injury (see figures 10 and 15).
- Lifting and moving is the second most common physical risk factor, present in around three-quarters of Construction workplaces. Lifting/handling is a significant cause of non-fatal injury.
- Increased risk of slips, trips and falls is reported by around two-thirds of workplaces. This is the most common cause of both fatal (falls from a height) and non-fatal injury (slips, trips and falls on the same level).
Impact of health and safety failings

Working days lost

Figure 19: Estimated working days lost due to work-related ill health and workplace injury in construction.

An immediate impact of workplace injury and work-related ill health (aside from the human suffering) is the lost working time due to sickness absence and its implications for business.

- An estimated 2.3 million working days (full-day equivalent) were lost each year in Construction between 2014/15 and 2016/17 due to
  - workplace injury (17%) and
  - work-related illness (83%).

- That is the equivalent of 1.1 working days lost per worker, broadly 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.

Estimated cost to society

Figure 20: Cost of workplace injury and new cases of work-related ill health in the Construction sector (2015 prices)

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

- The total cost of workplace injury and new cases of work-related ill health in Construction in 2015/16 is estimated to be £1 billion (£0.5 billion injury, £0.5 billion illness). This accounts for around 7% of the total cost across all industries — £14.9 billion.

  - In the Construction sector, injury accounts for a larger share of the total cost as compared to all industries (about half of the total cost in Construction is from injuries, compared to around a third across all industries).

This cost is shared between individuals (mainly arising from the monetary valuation of the human costs), employers (e.g. sick pay costs, insurance premiums, and production disturbance) and government/taxpayers (e.g. state benefits payments and healthcare costs).

For more information on these costs see [www.hse.gov.uk/statistics/cost.htm](http://www.hse.gov.uk/statistics/cost.htm)
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 2016/17 show a total of 3,145 notices issued by HSE inspectors in Construction.

- 1,358 improvement notices and
- 1,787 prohibition notices (including 1 deferred prohibition notice)
- That is about 60% of all prohibition notices issued by HSE.
- Slightly more than the 3,053 notices issued in 2015/16.

There were 219 prosecution cases\textsuperscript{12} in 2016/17, resulting in:

- 206 (94%) with a conviction for at least one offence
- almost £16 million in total fines
- averaging over £77,000 per conviction.

In 2015/16 there were 265 cases resulting in:

- 246 convictions (93%);
- almost £8 million total fines; and
- average fines of £32,000\textsuperscript{13}.

\textsuperscript{12} This figure reflects proceedings completed by HSE, and in Scotland, the Crown Office and Procurator Fiscal Service in a particular year. 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.

\textsuperscript{13} 2016/17 is the first full year where new sentencing guidelines have been in effect. 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 37,000 households each quarter. HSE commissions annual questions in the LFS to gain a view of work-related ill health 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 for more details.

Self-reported work-related ill health: 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 each year 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 each year 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 each year (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 each year 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 each year 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
National Statistics

National Statistics status means that official statistics meet the highest standards of trustworthiness, quality and public value.

All official statistics should comply with the Code of Practice for Official Statistics. They are awarded National Statistics status following an assessment by the Authority’s regulatory arm. The Authority 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 Authority 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/.

Last updated: November 2017
Next update: October 2018

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