

# Costs to Britain of workplace fatalities and self-reported injuries and ill health, 2015/16



## Contents

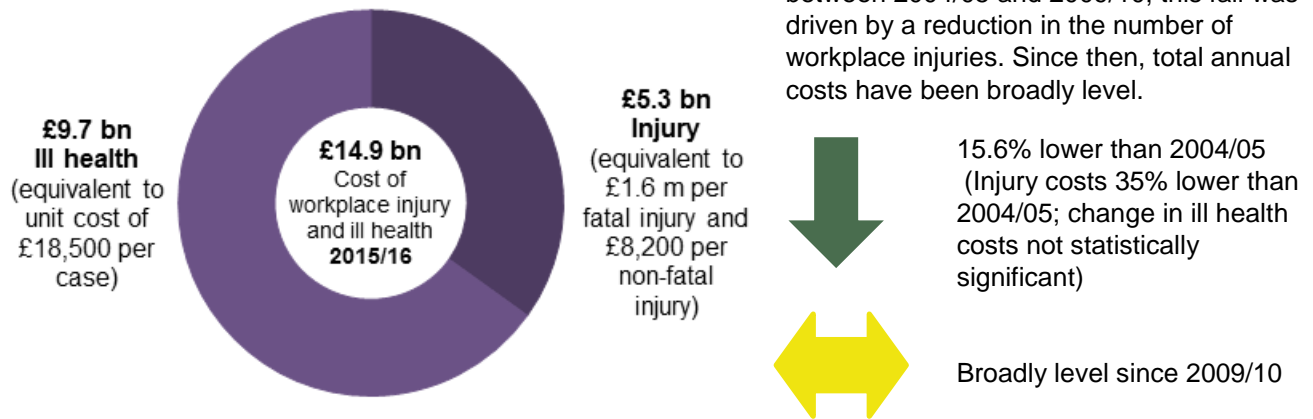
<b>Summary</b>	<b>2</b>
<b>Introduction</b>	<b>3</b>
<b>Method and data</b>	<b>5</b>
General approach	5
Cost components	5
Cost bearers	6
Accounting for 'uncertainty' in the cost model	7
<b>Number of workplace injury and work-related ill health cases</b>	<b>8</b>
Number of workplace injury cases	8
Number of new cases of work-related ill health	9
Time off work resulting from workplace injury or work-related ill health	10
'Never Returns'	10
<b>Results</b>	<b>11</b>
Total costs	11
Cost by cost bearer	11
Costs by cost component	12
Costs by type of incident	13
Costs by Industry and Region	15
Changes in cost estimates over time	17
Appraisal values, or 'Unit Costs'	18
<b>Annexes</b>	<b>19</b>
Annex 1: Costing framework: A description of the different cost components by cost bearer	19
Annex 2: Detailed breakdown of costs by cost bearer in 2015/16 (2015 prices)	23
Annex 3: Glossary of economic terms and concepts	25
<b>Links</b>	<b>26</b>

# Summary

Each year, significant numbers of workers are injured or made ill by their work. These cases impose ‘human’ costs (in terms of the impact on the individual’s quality of life and, for fatal injuries, loss of life), as well as the ‘financial’ costs, such as loss of production due to absence from work, and healthcare costs. The total costs of workplace injuries and ill health includes both the financial costs and a valuation of the human costs.

Latest estimates show that annually between 2014/15 and 2016/17 an average of 614,000 workers were injured in workplace accidents and a further 521,000 workers suffered a new case of ill health which they believe to be caused or made worse by their work.<sup>1</sup>

## The estimated Costs to Britain of these cases



Source: HSE Costs to Britain Model

These costs provide a good representation of the costs of ill health and injury arising from current working conditions.<sup>2</sup>

The majority of costs fall on individuals, while employers and government/taxpayers bear a similar proportion of the remaining costs of workplace injury and ill health.



Source: HSE Costs to Britain Model

<sup>1</sup> Source: Labour Force Survey(non-fatal injuries) and RIDDOR (fatal injuries), annual average estimate 2014/15-2016/17

<sup>2</sup> Restricting the estimate of ill health cases to self-reports of newly occurring ill health allows us to best capture those cases arising from current working conditions. HSE has recently published research which estimates the costs of new cases of work-related cancer arising from past working conditions. Available at: <http://www.hse.gov.uk/research/rrhtm/rr1074.htm>

# Introduction

This report presents latest estimates of the **Costs to Britain of workplace injuries and ill health resulting from current day working conditions**.

Each year, significant numbers of workers are injured or made ill by their work. These cases impose 'human' costs (in terms of the impact on the individual's quality of life and for fatal injuries, loss of life), as well as the 'financial' costs, such as loss of production due to absence from work, and healthcare costs. Estimating the total economic costs of workplace injuries and ill-health by accounting for these impacts allows us to:

- estimate the overall scale of health and safety failings, taking into account the impacts that fall on different groups (individuals, employers and government/taxpayers);
- provide a high-level indicator of movements in the performance of the health and safety system;
- provide unit costs (or 'appraisal values') for cases of workplace injuries and work-related ill health for use in regulatory impact assessments and other economic appraisals. This allows us to compare the costs, in monetary terms, of workplace injury and ill health with other costs and benefits associated with an intervention policy.<sup>3</sup>

Since these 'Costs to Britain' estimates aim to **reflect the costs of workplace ill health and injury occurring today arising from current working conditions**, they do not include costs of ill health cases occurring in the current year caused by historical working conditions. In particular, this excludes long latency work-related ill health such as cancer, since, by and large, these cases will result from past working conditions.<sup>4</sup>

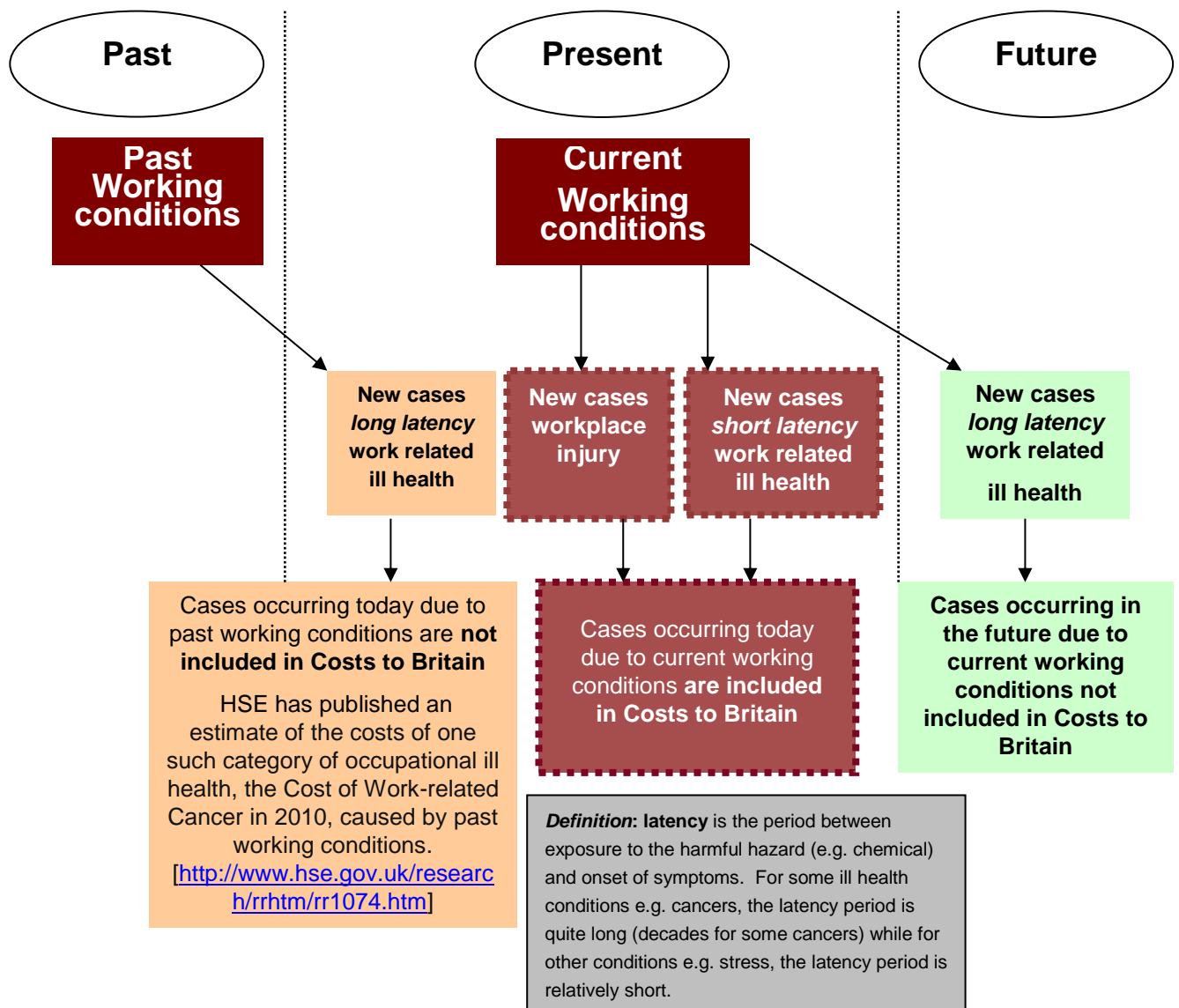
**Figure 1** (next page) shows the injury and ill health cases that are included in the Costs to Britain estimate.

---

<sup>3</sup> It is important to note that the cost estimates presented in this report do not include the costs associated with implementing measures to improve health and safety standards and complying with health and safety regulations.

<sup>4</sup> HSE has recently published research which estimates the costs of new cases of work-related cancer arising from past working conditions. Available at: <http://www.hse.gov.uk/research/rrhtm/rr1074.htm>

**Figure 1: Workplace injury and ill health cases included in 'Costs to Britain'**



**Note:** boxes outlined with a dashed line indicate cases of workplace injury and work-related ill health included in the 'Costs to Britain' estimates.

# Method and data

## General approach

The general principle for estimating costs is to apply the formula:

$$\text{Cost} = \text{Quantity} \times \text{Unit price}$$

where 'quantity' is the number of workplace injury or ill health cases, by severity category, and 'unit price' is the appropriate monetary value per case for each impact accounted for in the model. Costs are estimated separately using this basic formula and grouped into the different cost components summarised below.<sup>5</sup>

Information on the number of workplace injury and ill health cases ('quantity') is taken from two sources: statutory reports under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) for estimates of fatal injuries; and survey estimates from the Labour Force Survey<sup>6</sup> of self-reports of non-fatal injury and new cases of work-related ill health. This data is discussed in more detail in the section 'Number of workplace injury and work-related ill health cases'.

## Cost components

The 'Costs to Britain' include estimates of both:

- **'financial' costs incurred** - either in terms of payments made for services or income/production that is lost due to injury or ill health.
- **monetary value of the impact on quality and loss of life** of affected workers (referred to as the 'human costs') - often the greatest impact of ill health and injury. Estimating these costs in monetary terms allows them to be represented alongside other costs, in order to give a more complete indicator of the total economic burden of workplace injuries and work-related ill health.

Costs are structured into five broad categories, as shown in **Figure 2** below. See Annex 1 for details of the composition of these cost categories.

**Figure 2 – Cost categories**



<sup>5</sup> Some costs are only available at the 'total' level (e.g. Employers Liability Compulsory insurance) and are included directly into the cost model. For these cost components, assumptions are used to apportion the total cost between injury and ill health cases.

<sup>6</sup> Labour Force Survey Performance and Quality Monitoring Reports see: <http://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/methodologies/labourforceperformanceandqualitymonitoringreports>

Information on **financial costs** needed to quantify the different cost categories comes from a wide range of sources including ONS surveys on earnings, NHS data on treatment costs and DWP figures on benefit rates. Some cost elements are limited by availability of suitable data to quantify the impact, for example 'presenteeism', whereby a worker's health impairment results in reduced productivity while present at work. A lack of robust data means that we cannot reliably quantify this cost at present, so it is omitted from the cost model, though presenteeism costs are likely to be significant.

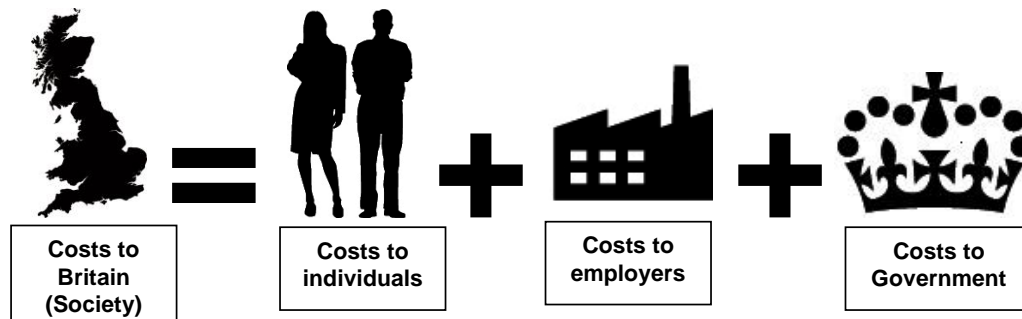
**Human costs** are based on the value that individuals would be willing to pay for a small reduction in the risk of injury or death, over and above any direct financial costs, aggregated across the population to derive an average value for society as a whole. The cost model uses a well-established value, used by other Government Departments, to estimate society's willingness to pay for avoided risk of fatality.<sup>7</sup>

It should be noted that this is a measure of the value that society places on reducing risks to life or health, rather than the value of a life *per se*, and does not represent what individuals would accept in compensation for suffering. It can never fully capture the losses to victims and their families of actual work-related fatalities. A full description of the method used in the cost model to estimate human costs is provided in Annex 3 of the detailed methodology report.<sup>8</sup>

## Cost bearers

**Costs for the different cost components fall to three distinct groups** or 'cost bearers' (individuals, employers and government/taxpayers)....

**... and combining the costs to these three groups gives an estimate of the total cost to society, sometimes referred to as the 'Costs to Britain'**



In some cases, a cost to one group is an equal and opposite benefit for another group. For example sick pay represents a cost to the employer but is an equal and opposite benefit to the individual who receives it, so at the societal level the sick pay cancels out to zero. These are 'transfer payments': a cost from employers transferred as a benefit to individuals.




Total costs to Britain, estimated by summing across the three groups, are net of transfers between groups. The Cost Structure summary at Annex 1 explicitly shows the monetary inflows and outflows included in the HSE Cost to Britain Model and provides a brief description of each; the actual monetary values for workplace injuries and ill health in 2015/16 relating to these inflows and outflows are shown in **Annex 2**.

<sup>7</sup> See Department of Transport's DfT Webtag databook July 2017, A4.1.1 <https://www.gov.uk/government/publications/webtag-tag-data-book-july-2017> which provides the source for the value of prevented fatalities used in the model.

<sup>8</sup> HSE Research Report RR897 (2011). The costs to Britain of workplace injuries and work-related ill health in 2006/07 - Workplace fatalities and self-reports. Prepared by Risk Solutions for the Health and Safety Executive [www.hse.gov.uk/research/rrhtm/rr897.htm](http://www.hse.gov.uk/research/rrhtm/rr897.htm)

**Table 1** summarises how the various cost components fall to the different cost bearers.

**Table 1: Summary of cost components by cost bearer**

Cost Category	Cost bearer		
	Individuals 	Employers 	Government/ taxpayer 
Productivity Costs	✓	✓	✓
Health and rehabilitation costs	✓	✓	✓
Admin and legal costs	✓	✓	✓
Employers' Liability Compulsory Insurance	✓	✓	
Human costs	✓		

### Accounting for 'uncertainty' in the cost model

The cost estimates are subject to three main sources of uncertainty: sampling error in the estimated number of annual ill health and injury cases;<sup>9</sup> measurement error; and uncertainty in the prices and assumptions used to assign costs. The cost model accounts for sampling error and estimates are often expressed as 95% confidence intervals – the range of values which has a 95% chance of containing the true value (discounting other sources of error). When comparing costs over time, it is important that any judgement on change in costs is based on a consideration of the confidence interval, rather than the central estimate itself.

We are unable to quantify the uncertainty associated with measurement error in self-reported injury and ill health cases, or uncertainty in the 'price data'. The latter is expected to be considerable, particularly in the case of human costs, which are inherently difficult to value and can only provide an indication of the true costs.

<sup>9</sup> Non-fatal workplace injury and ill health estimates (including never returns) are based on the Labour Force Survey, a sample household survey. Like all sample survey estimates, these estimates of injury and ill health are subject to uncertainty arising from the sampling process – if a different sample of households had been selected it would be highly unlikely we would achieve exactly the same estimate.

## Number of workplace injury and work-related ill health cases

The number of annual cases of workplace injury and work-related ill health are important drivers of the total cost estimates. In addition to this, the associated time taken off work from these cases is important in determining costs. Estimates of lost income and lost production are directly related to lost working time. Other impacts, such as healthcare costs and human costs, use time taken off work to infer the severity of cases and the associated costs.

The 2015/16 cost estimates presented in this report are based on average annual number of workplace injuries and work-related ill health for the three years 2014/15 to 2016/17.

### Number of workplace injury cases



Figure 3: Breakdown of injury incidence by injury severity category, annual average 2014/15-2016/17





## Number of new cases of work-related ill health

**521,000 new cases of work-related ill health\*  
annually in workers**

Annual average 2014/15-2016/17

Source: Labour Force Survey

\* To best capture ill health from current working conditions, the ill health estimate is based on new cases to those who worked in last 12 months.

**Figure 4: New cases of work-related ill health by severity category, annual average 2014/15 – 2016/17**



### *Change in estimate of new cases between 2014/15 and 2015/16 three-year averages*

The central estimate of the total number of workplace injuries has fallen slightly by around 1% between 2014/15 (three year average of 2013/14, 2014/15 and 2015/16) and 2015/16 (three year average of 2014/15, 2015/16 and 2016/17), while the corresponding estimate of work-related ill health cases has also fallen by 1%.<sup>10</sup> Underlying movements in the severity categories are more pronounced. Cases resulting in 7 or more days off work have increased by 9% for injuries and by 4% for ill health, while cases resulting in up to 6 days off work fell by 4% and 6% respectively. None of these changes was statistically significant.

As demonstrated by Figures 8 and 9 (see page 13), more severe injuries and ill health (i.e. those resulting in over 7 days absence from work) contribute disproportionately to total costs, with less severe cases (up to 6 days absence) accounting for only a small share of total costs.

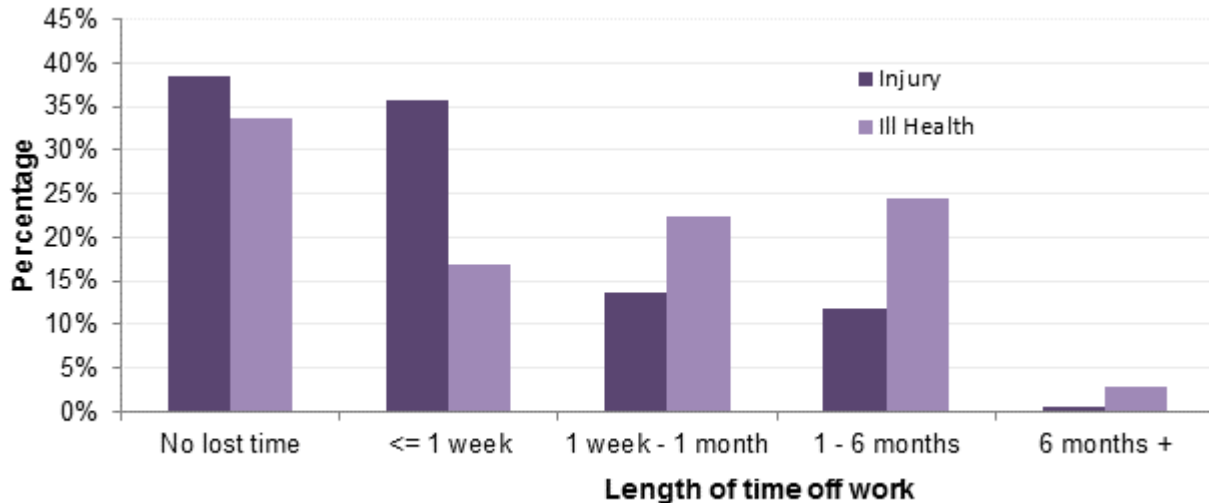
<sup>10</sup> These comparisons are based on reweighted LFS data sets (2013/14-2015/16) to reflect the latest population estimates.

## Time off work resulting from workplace injury or work-related ill health

**Time taken off work due to a case of work-related ill health (18 days) is on average greater than the time taken off due to a workplace injury (8 days)**

Source: Labour Force Survey

**Figure 5: Percentage breakdown of workplace injury and new cases of work-related ill health by length of time off work, annual average 2014/15 – 2016/17**



Source: Labour Force Survey

### 'Never Returns'

Workers who permanently leave the labour market as a result of their workplace injury or work-related ill health are an important sub-set of workplace injury and ill health cases, since they incur large costs. Their withdrawal from the labour market will result in lost income and production for the remainder of their working lives. Further, we expect these injuries and ill health will have a larger impact on quality of life as they are likely to be more severe. We would also expect these cases to incur greater healthcare costs.

It is difficult to estimate the numbers who permanently withdraw from the labour market both now and in the future as a result of a workplace ill health or injury arising from current working conditions. The LFS currently provides the best source for estimating the number, and is used to provide the estimate below. However, it is recognised to be an imperfect measure, since it requires individuals responding to the survey to predict whether their injury or ill health will result in them never working again.

**An estimated 16,000 workers withdraw permanently from the labour market annually as a result of a workplace injury or work-related ill health**

Annual average 2008/09 to 2011/12, 2014/15 to 2016/17

Source: Labour Force Survey

In order to estimate costs of injury and ill health separately, we need to estimate which of these 'never returns' arise from workplace injuries and which arise from work-related ill health. The Labour Force Survey suggests that the majority of 'never returns' are due to cases of work-related ill health and so within the model a greater proportion of 'never returns' cases (around four-fifths) are allocated as 'ill health' than 'injury'.

## Results

### Total costs

**Injuries and ill health in workers in Great Britain resulting largely from current working conditions cost around £14.9 billion in 2015/16 (2015 prices)**

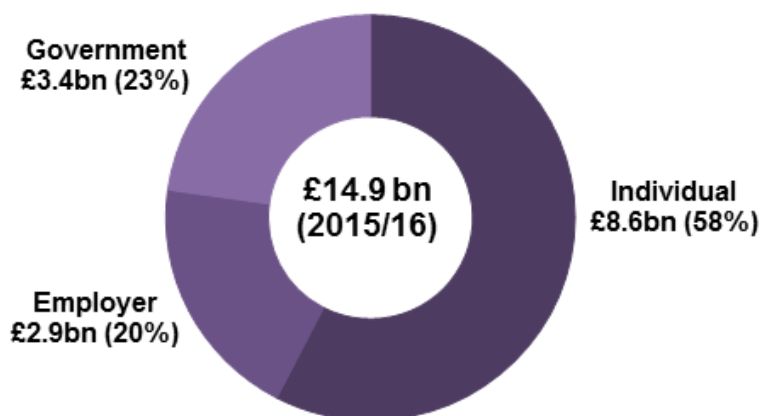
Source: HSE Cost to Britain Model

To put this number in context, the Department for Transport (DfT) estimate of the cost of reported road casualties (which uses a similar costing methodology) was £11.5 billion in 2016.<sup>11</sup>

### Cost by cost bearer

**Figure 6** shows that somewhat over half of the total cost in 2015/16 fell on individuals whilst the remainder was shared between employers and government – a similar profile as in earlier years. This distribution is useful for understanding the proportion of costs each group bears, once transfers such as compensation payments and state benefits are accounted for.

**Figure 6: Costs to Britain of workplace injury and work-related ill health by cost bearer 2015/16 (in 2015 prices)**



Source: HSE Costs to Britain Model

See **Figure 7** below for information on how the different cost components fall to each of the cost bearers. To look at data on cost by cost bearer for earlier years see [table COST03](#) on the HSE website.

<sup>11</sup> [www.gov.uk/government/statistical-data-sets/ras60-average-value-of-preventing-road-accidents](http://www.gov.uk/government/statistical-data-sets/ras60-average-value-of-preventing-road-accidents). (Table RAS60003) The figure quoted excludes damage to property and damage only incidents, to give a comparable figure to estimates in this report. If the DfT's estimate of the costs of accidents not reported to the police is included (around £19.9 billion), the costs of road casualties (excluding damage to property and damage only incidents) amounted to some £31.3 billion. This document is available from [www.hse.gov.uk/statistics/](http://www.hse.gov.uk/statistics/)

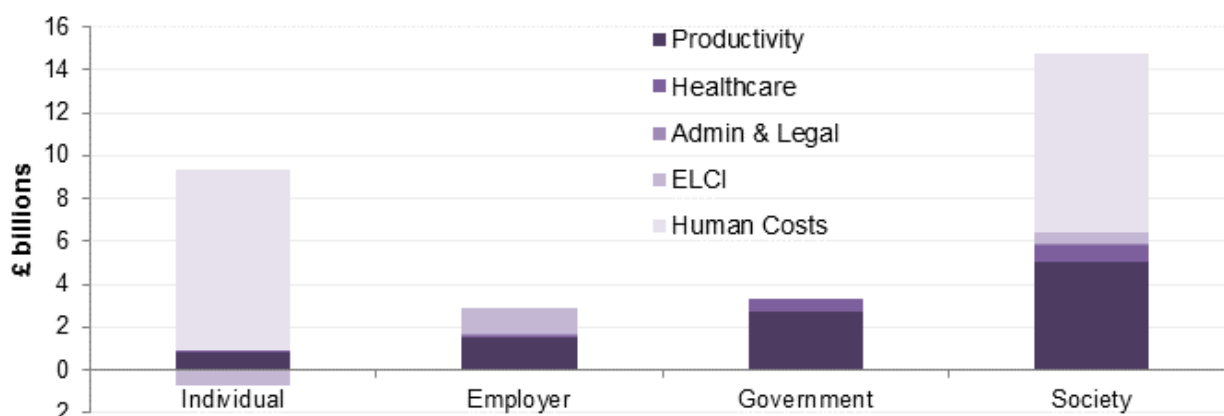
## Costs by cost component

Costs to the different cost bearers can be further broken down by cost component.

**The major components of total costs to society are human costs (£8.4bn) and the financial costs associated with productivity (£4.9bn)**

Source: HSE Cost to Britain Model

**Figure 7: Costs to Britain of workplace injury and new cases of work-related ill health by cost bearer and cost component 2015/16 (in 2015 prices)**



Source: HSE Costs to Britain Model

- Individuals:** Human costs account for almost all the costs borne by individuals. Individuals' financial losses arising from lost income, healthcare costs and administrative costs are – on average – offset by the state benefits and sickness payments (captured within 'Productivity costs') and Employers' Liability Compulsory Insurance (ELCI) payments. ELCI for individuals shows as negative since it is an inflow to the individual.
- Employers:** The major costs to employers arise from productivity costs (equivalent to the occupational/statutory sick pay payments made) and ELCI premiums.
- Government/taxpayer:** Lost income (under 'Productivity costs'), in terms of state benefits paid and lost tax receipts, accounts for around 80% of government costs, with the majority of the remainder attributed to 'Health and Rehabilitation' costs (NHS treatment costs).

For more information on cost breakdowns by cost component, please see Annexes 1 and 2.

## Costs by injury / ill health category

Breaking down costs by injury and ill health category can help inform strategic policy and new programme development, for example concerning interventions in the area of safety or of health. The 2015/16 cost model produces cost estimates for the following categories:

Injury	Ill health
<ul style="list-style-type: none"> <li>• fatal injury;</li> <li>• non-fatal injury                             <ul style="list-style-type: none"> <li>○ with 7 or more days absence from work;</li> <li>○ with up to 6 days absence from work.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• work-related ill health                             <ul style="list-style-type: none"> <li>○ with 7 or more days absence from work;</li> <li>○ with up to 6 days absence from work.</li> </ul> </li> </ul>

**In 2015/16, new cases of work-related ill health cost society around £9.7 billion, compared with £5.3 billion for workplace injury**

Source: HSE Cost to Britain Model

Figure 8: Breakdown of cases by injury and ill health category

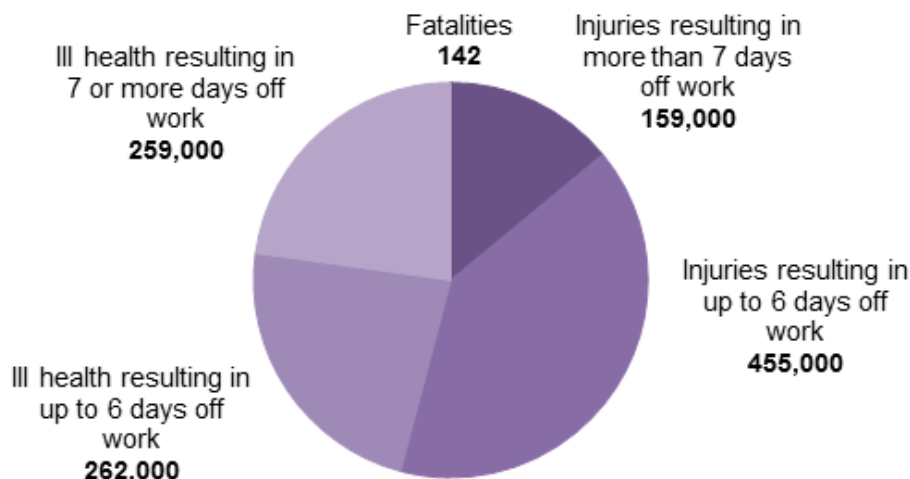
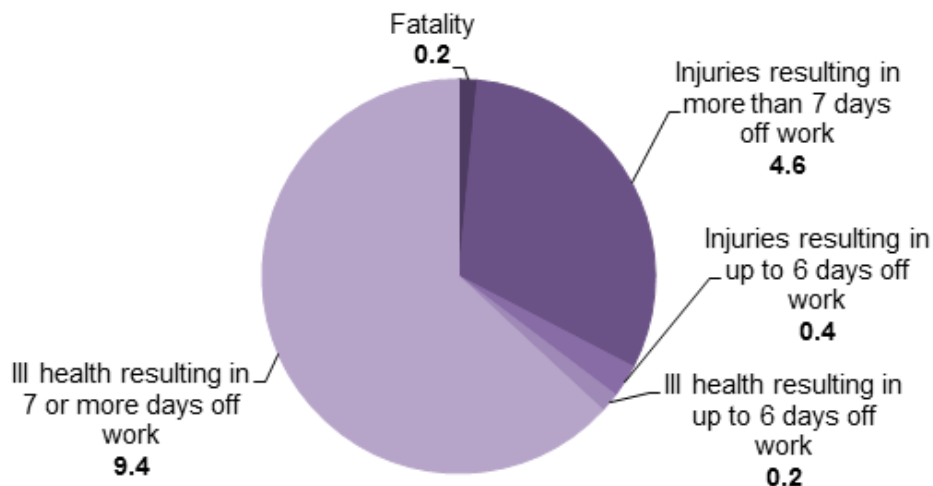


Figure 9: Breakdown of costs by injury and ill health category (£ billions)



**Source:** RIDDOR & Labour Force Survey (injury/ ill health cases); HSE Costs to Britain Model

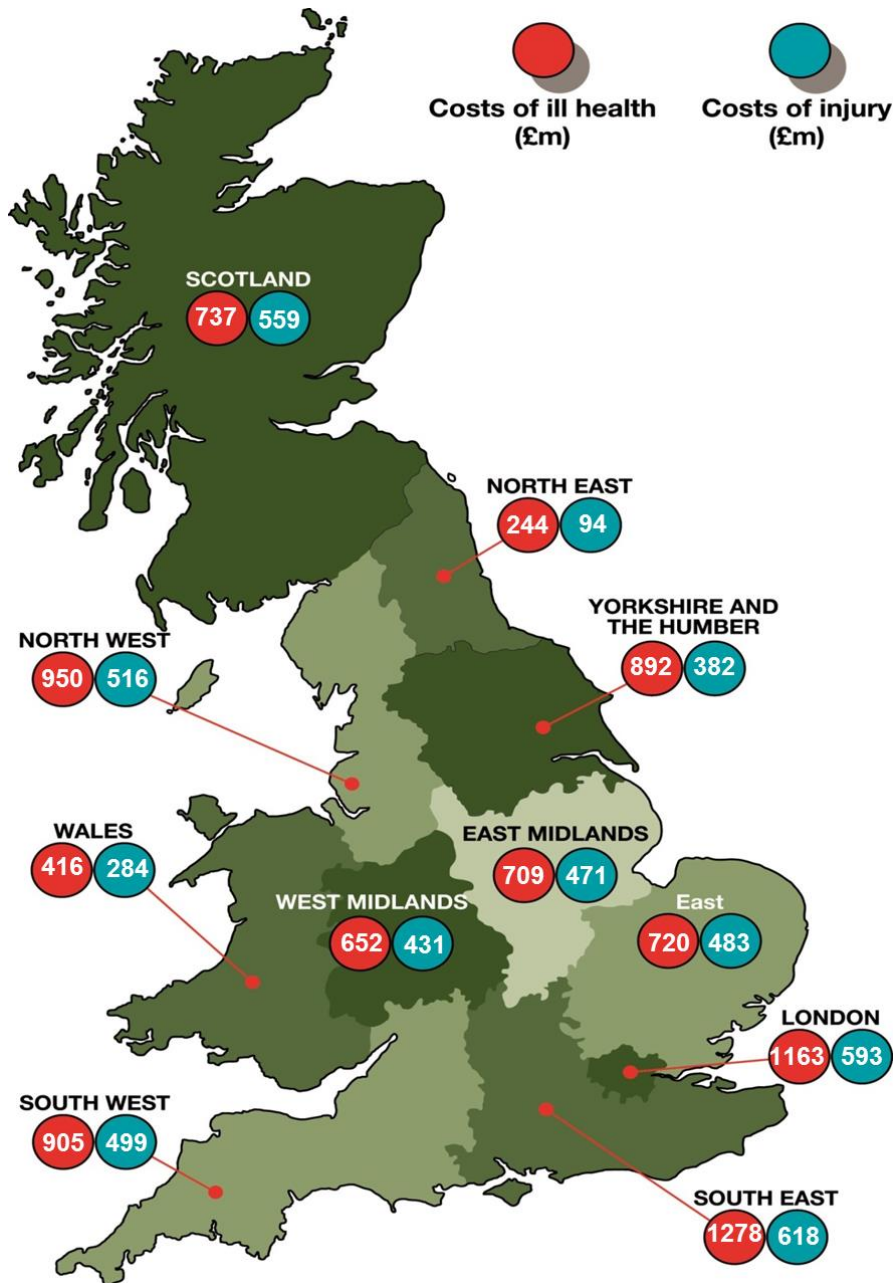
Whilst non-fatal injury and work-related ill health with up to 6 days off work account for just under 65% of all incidence cases, their contribution to total costs is small (<5%). In contrast, incidence cases with 7 or more days off work contribute a disproportionately high amount to total costs. The number of ill-health cases resulting in over 7 days off work represents just over 20% of all incidence cases but account for nearly 65% of the total costs. Similarly, although injury cases resulting in over 7 days off work represent less than 15% of all incidence cases, they account for just over 30% of the total costs.

For further information on costs by incident type, please see [table COST02](#) on the HSE website.

## Costs by Region and Industry

Figures 10 and 11 below show the regional and industry breakdowns of the 2015/16 costs estimates. These breakdowns are important in demonstrating the 'local' case for health and safety. Note however, the difference in costs between regions/industries do not in themselves indicate differences in risk and will largely be driven by the number of people working in the region/industry. Costs in Figures 10 and 11 should therefore only be used to observe the costs for a particular region or industry of interest and should not be used to make comparisons of levels of risk.

**Figure 10: Costs to Britain of workplace injury and new cases of work-related ill-health by country/region of work 2015/16 (in 2015 prices)**

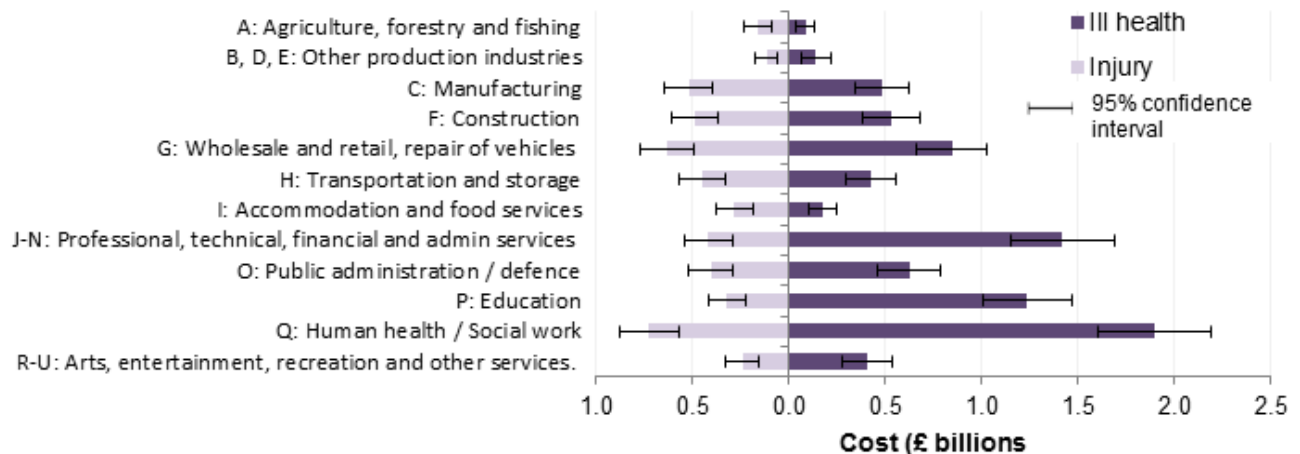


Source: HSE Cost to Britain Model

**Note:**

- (i) these regional estimates are subject to relatively wide confidence intervals, driven by the sampling uncertainty in the underlying estimates of number of workplace injury and ill health cases by region. (Typically, the confidence interval around a regional injury/ill health cost estimate is about +/- 25% of the cost estimate, but as high as +/- 40% on the injury/ill health cost estimates for the North East). Nonetheless, regional cost estimates are still a useful measure to demonstrate the local cost burden from workplace injury and ill health and thus the need for good health and safety.
- (ii) Regional breakdown of costs is for those ill health and injury cases for which we know the region of work in which they occurred. Those ill health and injury cases for which we do not know the region of work account for a further £988 million and £336 million respectively.

**Figure 11: Costs to Britain of workplace injury and new cases of work-related ill-health by industry, 2015/16 (in 2015 prices)**



Source: HSE Costs to Britain Model

**Note:**

- (i) Chart includes an error bar to show the 95% confidence interval for each cost estimate.
- (ii) Industry breakdown of costs is for those ill health and injury cases for which we know the industry associated with the ill health or injury. Those ill health and injury cases for which we do not know the industry account for a further £1,380 million and £429 million respectively.

For further information on costs by region and industry, please see tables [COSTREG](#) and [COSTIND](#) on the HSE website.



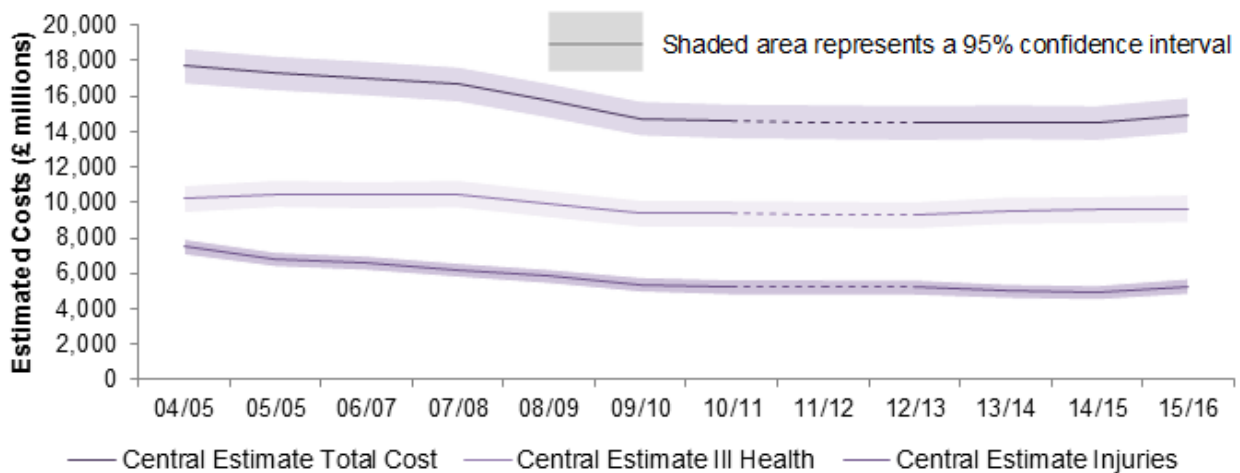
## Changes in cost estimates over time

Changes over time in the aggregate costs provide an indicator of movements in the overall performance of the health and safety system. Since the estimates focus on costs due to current working conditions, they provide a good indication of current performance.

**Between 2004/05 and 2009/10 the estimated total cost fell by 17% (£14.7billion in 2009/10 compared with £17.7 billion in 2004/05). Since then, the annual cost has been broadly level (£14.9 billion in 2015/16)**

Source: HSE Cost to Britain Model, in 2015 prices

**Figure 12: Costs to Britain of workplace injuries and new cases of work-related ill health, 2004/05 to 2015/16 (2015 prices)**



**Note:** The dotted line indicates that no estimate is available for the year 2011/12, since the LFS did not collect ill health data for this year.

Source: HSE Costs to Britain Model

Between 2004/05 and 2009/10 the estimated total cost fell by 17% (£14.7 billion in 2009/10 compared with £17.7 billion in 2004/05). Since then, the annual cost has been broadly level (£14.9 billion in 2015/16).

However, this overall trend masks a substantial difference in the movement of injury and ill health costs: between 2004/05 and 2009/10 injury costs fell 28% (from £7.5 billion to £5.4 billion) while the fall in ill health costs from £10.2 billion to £9.4 billion was not statistically significant. Since 2009/10, both injury and ill health costs have remained broadly level. Between 2014/15 and 2015/16 there has been some increase in the central estimate, driven by the higher number of injuries and ill health cases in the more severe category (7 or more days off work) in the three-year average centred on 2015/16, though this is not statistically significant.

## Appraisal values, or ‘Unit Costs’

Unit costs of workplace incidents are important in the economic appraisal of policy interventions. Policy appraisal requires comparing the costs of any proposed new health and safety interventions against the likely benefits (in terms of reduced costs associated with reduced workplace ill health and injury cases) the proposed measure is likely to deliver.

The appraisal values (or unit costs) are estimated by dividing the total cost estimate by the number of new incidence cases. This can be done for the same range of incident types as for which total cost estimates are produced, namely:

- fatal injury;
- non-fatal injury
  - with 7 or more days absence from work;
  - with up to 6 days absence from work;
- work-related ill health
  - with 7 or more days absence from work;
  - with up to 6 days absence from work.

The average appraisal values for 2015/16 are summarised in Table 2: as well as the overall cost per case, unit costs per case are also broken down by financial and human costs. In most cases these unit (appraisal) values are the values that should be used for appraisal of HSE interventions.<sup>12</sup>

**Table 2: Cost to society (Britain) per case 2015/16 - average appraisal value estimates (2015 prices)**

	Human costs (rounded)	Financial costs (rounded)	Total costs (rounded)
<b>Fatal injuries</b>	<b>1,171,000</b>	<b>425,300</b>	<b>1,597,000</b>
<b>Non-fatal injuries</b>	<b>5,100</b>	<b>3,100</b>	<b>8,200</b>
7 or more days absence	18,800	10,400	29,200
Up to 6 days absence	330	550	880
<b>Ill health</b>	<b>9,800</b>	<b>8,700</b>	<b>18,500</b>
7 or more days absence	19,400	17,000	36,400
Up to 6 days absence	320	590	910

Source: HSE Costs to Britain model

Further information on appraisal values by cost bearer can be found at:  
[www.hse.gov.uk/economics/eauappraisal.htm](http://www.hse.gov.uk/economics/eauappraisal.htm).

<sup>12</sup> The appraisal values should be applied with care. In particular, the user should consider whether the injury and ill health classifications above are appropriate for the injury and ill health types under consideration.

# Annexes

## Annex 1: Costing framework: A description of the different cost components by cost bearer

Note: Cost components in red show money outflows; cost components in black show money inflows

Cost component	Description		
Productivity costs	<b>At the society (total) level</b>		
	Captures costs associated with productivity: Loss of output (gross loss of earnings) – the cost model assumes full employment in the economy, therefore at the macro level the effect is one less productive worker; Production disturbance (reorganisation and recruitment) (At the society level, transfer payments (e.g. sick pay, benefits, tax, national insurance) cancel out.		
	<b>How the productivity costs fall to the different cost bearers</b>		
	<b>Individual</b>	<b>Employer</b>	<b>Government / taxpayer</b>
	<p><u>(-) Loss of gross family earnings</u></p> <p>Loss of gross earnings due to absence from work (both short-term absences in the current year and absences in future years for those whose ill health or injury leads to their permanent withdrawal from the workforce).</p>		
<p><u>(+) OSP/SSP receipts</u></p> <p>Many employers offer an occupational sick pay scheme (OSP), but others offer only statutory sick pay (SSP) and the self-employed will receive nothing at all from their employer. OSP and SSP provide the individual with income to offset their lost earnings. (The OSP/SSP receipts to the individual are exactly equal and opposite to that paid out by employers and government).</p>	<p><u>(-) OSP/SSP payments net of reimbursements</u></p> <p>It is assumed that the employer maintains production at the same marginal cost prior to the individuals' ill health or injury by either rearranging work or hiring a replacement. Therefore the employers OSP/SSP payments represent an additional cost to the employer.</p>	<p><u>(-) SSP reimbursements</u></p> <p>Up until March 2014, the Government provided employers some reimbursement of their SSP payments under certain conditions (known as the percentage threshold scheme).</p>	

	<p><u>(+) State benefit receipts</u></p> <p>There are a range of state benefits available to people who are not able to work because of injury or ill health, including jobseekers allowance, industrial injuries disablement benefit, disability living allowance, housing benefit and council tax benefit. Like OSP/SSP receipts these offset individuals' lost earnings</p>		<p><u>(-) State benefit payments</u></p> <p>The State benefits paid by the Department of Work and Pensions are exactly equal and opposite to the state benefits received by individuals not able to work.</p>
	<p><u>(+) Income tax and NI savings</u></p> <p>The loss of gross income results in the individual 'saving' on their income tax and national insurance contributions to Government.</p>	<p><u>(-) NI paid on OSP/SSP</u></p> <p>Payments to absent employees continue to attract employers' class 1 National Insurance contributions.</p>	<p><u>(-) Net income tax and NI reduction</u></p> <p>The loss of income tax and NI paid by the individual to the Government is partly offset by the employer NI received on OSP/SSP payments</p>
		<p><u>(-) Work reorganisation</u></p> <p>For the first 6 months of any absence the model assumes that the employer will reorganise work to cover the absent employees' duties: this reorganisation incurs managerial/supervisory time.</p>	
		<p><u>(-) Recruitment and induction costs</u></p> <p>The model assumes that for absences of 6 months or more, the employer will recruit temporary or permanent replacement staff and provide them with suitable induction support.</p>	
Employers' Liability Compulsory Insurance	<b>At the society (total) level</b>		
	Captures the overhead cost of Employers Liability insurance, a compulsory insurance for all employers, other than Government. Cost represents the profit margin and overheads for the insurance companies and the claim value consumed in legal costs and expenses.		
	<b>How the compensation costs fall to the different cost bearers</b>		
	<b>Individual</b>	<b>Employer</b>	<b>Government / taxpayer</b>
<p>(+) Lump sum payments to individuals made from claims against Employers' Liability insurance cover.</p>	<p><b>(-) Total cost of Employers Liability insurance premiums made by employers.</b></p>		

Human costs	<b>At the society (total) level</b>		
	A monetary value of the impact on quality of life of affected workers: often the greatest impact of ill health and injury is on quality of life, including lost life. It is standard practice in the economics of public policy to place a monetary value on non-financial costs where possible.		
	<b>How the human costs fall to the different cost bearers</b>		
	<b>Individual</b>	<b>Employer</b>	<b>Government / taxpayer</b>
	(-) A monetary value of the impact on quality of life of affected workers.		
Health and rehabilitation	<b>At the society (total) level</b>		
	Total cost of health and rehabilitation associated with workplace injury and work-related ill health (whilst the majority of costs are borne by the Government through NHS funding, there are some additional costs borne by individuals (e.g. prescriptions). Added to this are the profit margins and overheads for insurance companies providing private health insurance.		
	<b>How the health and rehabilitation costs fall to the different cost bearers</b>		
	<b>Individual</b>	<b>Employer</b>	<b>Government / taxpayer</b>
	(-) Out of pocket expenses... ... including funeral expenses (for fatal injuries), prescription charges, additional travel and living costs, home modifications.		(-) NHS treatment and rehabilitation costs... ... including ambulance costs, hospital and clinic costs, GP costs, NHS prescription costs.
(-) Premiums for private medical insurance Proportion of premiums assumed to be associated with work related incidents (based on data provided by the health insurance industry).	(-) Corporate private health insurance Proportion of premiums assumed to be associated with work related incidents (based on data provided by the health insurance industry).	(+) Treatment and rehabilitation covered by private health insurance Value of medical insurance claims paid by insurers assumed to be associated with workplace incidents (based on data provided by the health insurance industry).	

<b>At the society (total) level</b>			
Administration and legal	The costs of administrative activities to individuals, employers and Government associated with informing of sickness absence and processing the various money inflows and outflows from sick pay and benefit payments, compensation and insurance claims etc. The total legal costs and internal labour costs incurred by employers, HSE and Local Authorities are also a net cost to society.		
	<b>How the health and rehabilitation costs fall to the different cost bearers</b>		
	<b>Individual</b>	<b>Employer</b>	<b>Government / taxpayer</b>
	<u>(-) Administration of insurance, compensation and benefit claims</u> Individual incur costs from the administrative activities associated with initiating and managing claims for sick pay and state benefits and compensation and insurance payouts.	<u>(-) Administration of SSP/OSP, insurance and compensation claims</u> Employers incur costs from the administrative activities necessary to deal with the above payments and claims.	<u>(-) Administration of SSP and benefits claims</u> The clerical overhead associated with administering state benefits and statutory sick pay is a cost to the government.
	<u>(-) Insurance company profit margin</u> Individuals can have life insurance products to protect their income in the event of death. The cost of insurance to the individual is the net difference between premiums paid and payments received which represent the insurance companies' profit margin and overheads.		
		<u>(-) HSE or LA investigation/prosecution – internal costs + legal costs</u> Cost to employers of management time for dealing with HSE or Local Authority investigations/ prosecutions and the arising legal costs.	<u>(-) HSE or LA investigation/prosecution – internal costs</u> The internal costs borne by the HSE and Local Authorities for investigating work related incidents.
	<u>(-) Fines paid</u> The cost of any fines paid by employers due to breach of health and safety regulations.	<u>(+) Fines received</u> The cost of any fines received by government due to breach of health and safety regulations (equal and opposite to that paid by employers).	

## Annex 2: Detailed breakdown of costs by cost bearer in 2015/16 (2015 prices)

	A. Individuals and their families (including the self-employed)	£ m	B. Employers	£ m	C. Government and general taxpayer	£ m	D. Total cost to society = A + B + C
							£m
<b>Productivity costs</b>							
	Loss of gross family earnings: (i) temporary losses prior to return to work, (ii) permanent losses due to withdrawal from workforce or death	-4,894					-4,894
(Due to income losses)	OSP/SSP receipts	1,209	OSP/SSP payments net of reimbursements	-1,199	SSP reimbursements	-10	0
	State benefit receipts	1,963			State benefit payments	-1,963	0
	Income tax and NI saving due to difference between pre and post injury/ill health income, assuming all compensation payments are tax free	941	National Insurance paid on OSP/SSP	-167	Net income tax and NI reduction	-774	0
(Due to production disturbance)			Work reorganisation	-57			-57
			Recruitment and induction costs for temporary/permanent replacement staff	-62			-62
<b>Compensation</b>	EL insurance receipts, net of legal costs	726	EL insurance premiums	-1,235			-509
<b>Human Costs</b>	Monetised value of human costs	-8,423					-8,423

	A. Individuals and their families (including the self-employed)	£ m	B. Employers	£ m	C. Government and general taxpayer	£ m	D. Total cost to society = A + B + C
							£m
Health and Rehabilitation	Out of pocket funeral expenses, travel expenses, prescription charges, home expenses	-84			NHS treatment and rehabilitation costs (short and long term)	-735	-819
	Proportion of individual private health insurance premiums attributable to work related ill health/injury	-22	Proportion of corporate private health insurance premiums attributable to work related ill health/injury	-100	Value of treatment and rehabilitation covered by private health insurance claims	95	-27
Administration and Legal	Administration of insurance, compensation and benefit claims	-6	Administration of SSP/OSP, insurance and compensation claims	-20	Administration of SSP and benefits claims	-25	-51
	Insurance company profit margin and administration costs on other insurance products	-1					-1
			HSE or LA investigation / prosecution - internal costs + legal costs	-49	HSE or LA investigation / prosecution - internal costs	-29	-78
			Fines paid	-39	Fines received	39	0
<b>Total Costs</b>		<b>-8,591</b>		<b>-2,928</b>		<b>-3,402</b>	<b>-14,921</b>

Source: HSE Cost model



### Annex 3: Glossary of economic terms and concepts

Term	Explanation
'in 2015 prices'	Costs are estimated by using the basic formula 'costs=quantity x price' (see 'Methods' section). The price information used for all cost estimates presented in this report are prices that were current in 2015 (e.g. the wage data used to estimate the lost income of an individual is based on average wages in 2015; the tax and national insurance rates used are those that were in place in 2015/16). Estimating costs for all years in constant 2015 prices means comparisons of costs over time can be made free of price changes.
Cost bearer	The group in society to whom the costs fall. Within the cost model, there are three cost bearers: individuals, employers and government//taxpayer. Note that this assessment considers only where costs fall directly; it does not consider whether costs can be 'passed on' to others e.g. where businesses are able to pass on some or all of their costs in the form of higher prices to consumers.
Costs to Britain / Costs to Society	Combining the costs to the 3 different cost bearers gives a total 'Cost to Britain' (sometimes referred to as 'Cost to Society'). This total cost is net of transfers from one group to another (for example sick pay, which represents a cost to the employer but is an equal and opposite 'benefit' to the individual who receives it).
Cost component	The total cost estimate is made up of a range of different cost elements, including both financial and non-financial costs. Costs can be categorised into 5 broad groups: productivity costs, health and rehabilitation costs, administrative and legal costs, compensation and human costs. More details of each of these cost groups are given in Annex 1.
Human costs	A monetary valuation of the impact that the ill health or injury has on the quality of life (and for fatal injuries, loss of life) of the affected worker.
Financial costs	Costs other than 'human costs', where either direct payments are made for goods or services, or where costs can be readily measured using market prices e.g. income/production that is lost.
'Never returns'	Workers who expect to permanently leave the labour market as a result of their workplace injury or work-related ill health.
Appraisal values	The unit cost of a work-related injury or ill health, calculated by dividing the total cost by the number of cases. These values are used in policy appraisal (hence the term 'appraisal values'), whereby the costs of any proposed new health and safety interventions are measured against the expected benefits (in terms of reduced costs associated with reduced workplace injury and ill health cases).

© Crown copyright If you wish to reuse this information visit [www.hse.gov.uk/copyright.htm](http://www.hse.gov.uk/copyright.htm) for details. First published 11/17.

## Links

For more information about costs of workplace fatalities, injuries and ill health in Great Britain see:

- Detailed cost breakdown for years 2004/05 to 2015/16:

[www.hse.gov.uk/statistics/tables/index.htm#cost-to-britain](http://www.hse.gov.uk/statistics/tables/index.htm#cost-to-britain)

- Detailed report of the methods used to estimate economic costs:

[www.hse.gov.uk/research/rrhtm/rr897.htm](http://www.hse.gov.uk/research/rrhtm/rr897.htm)

- For more detail on the annual number of injury and work-related ill health cases, used within the cost model, see:

- For fatal injuries: [www.hse.gov.uk/statistics/tables/index.htm#riddor](http://www.hse.gov.uk/statistics/tables/index.htm#riddor)
- For non-fatal injuries and ill health: [www.hse.gov.uk/statistics/lfs/](http://www.hse.gov.uk/statistics/lfs/)

- Research report on the costs of new cases of work-related cancer in Great Britain due to past working conditions: <http://www.hse.gov.uk/research/rrhtm/rr1074.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](http://www.hse.gov.uk/statistics/sources.htm).

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

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

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

**Last updated:** November 2017

**Next update:** October 2018

General enquiries: Economist [michael.zand@hse.gov.uk](mailto:michael.zand@hse.gov.uk)

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

© *Crown copyright* If you wish to reuse this information visit [www.hse.gov.uk/copyright.htm](http://www.hse.gov.uk/copyright.htm) for details. First published 11/17.