

# **The costs to employers in Britain of workplace injuries and work-related ill health in 2005/06**

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# **Disclaimer**

The views in this paper are the author's own and do not necessarily reflect those of the Health and Safety Executive.

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# Executive Summary

## Objectives

The Health and Safety Executive (HSE) has published three estimates of the costs to Britain of workplace accidents and work-related ill health. The first two estimates were for 1994 and 1999, and the third was an interim update for 2001/02. In all three publications, the costs were divided into three categories: costs to individuals, costs to employers and costs to society.

The objective of this paper was to:

- Review the methodology used in previous HSE estimates of the costs to employers;
- Present updated estimates of the costs to employers category for 2005/06.

Estimates of the costs to employers of workplace injuries and work-related ill health have several important uses. These include:

- To provide an economic incentive for employers to reduce workplace risks originating in health and safety, and to comply with regulations. The magnitude and characteristics of these costs can influence the strength of incentives to invest in risk reduction measures;
- To inform economic appraisal and evaluation of policy proposals within and outside the HSE. The cost estimates constitute important information that can help inform decisions regarding the allocation of resources to such activities.

## Summary of results

It should be noted that the estimates of the costs to employers presented in this paper are not comparable to previous HSE publications. This is because the cost of damage caused by workplace injuries and non-injury accidents<sup>1</sup> has been excluded. The title of this paper, “The costs to employers in Britain of workplace injuries and work-related ill health in 2005/06”, reflects this significant modification.<sup>2</sup>

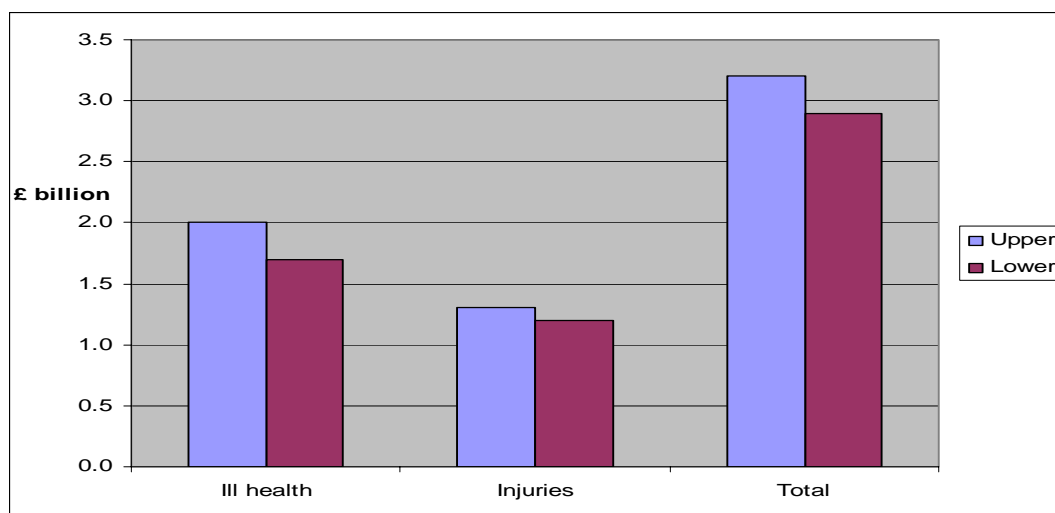
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<sup>1</sup>Non-injury accidents are defined by the HSE as “any unplanned event that results in damage or loss to property, plant, materials, or the environment or a loss of business opportunity, but does not result in an injury.”

<sup>2</sup> Title of previous publication was “The costs to Britain of workplace accidents and work-related ill health in 1995/96”, Davies *et al* (1999). Section 2.5.2, p.31 explains the factors that motivated this decision.

The total cost to employers in Britain of workplace injuries and work-related ill health in 2005/06 has been estimated at approximately **£2.9 billion to £3.2 billion**. Of this total, work-related ill health is estimated to have generated costs to employers of £1.7 billion to £2 billion, while workplace injuries are estimated to have generated costs of £1.2 billion to £1.3 billion. These estimates are presented in Figure 1.

**Figure 1: Costs to employers of workplace injuries and work-related ill health in 2005/06**



The costs to employers of workplace injuries and work-related ill health are based on four cost components: sick pay, administrative costs, recruitment costs and compensation and insurance costs. These costs are presented in Table 1.

**Table 1: Costs to employers, by component cost**

<b>Sick Pay</b>	£1.6 to £1.8 billion
<b>Recruitment costs</b>	£13 million
<b>Administrative costs</b>	£29 to £32 million
<b>Compensation &amp; Insurance</b>	£1.3 billion
<b>Total</b>	<b>£2.9 to £3.2 billion*</b>

\* Totals may not sum due to rounding

The estimates presented in this paper incorporate significant improvements to the methodology, and can be considered to be more robust than previous HSE estimates.

# 1. Introduction and Background

## 1.1 Background

The Health & Safety Executive (HSE) first published estimates of the costs to Britain of workplace accidents and work-related ill health in 1994 (Davies and Teasdale, 1994). This report provided estimates for 1990. This publication was updated in 1999 (Davies *et al*, 1999), and provided estimates for 1995/96. An interim update was completed in 2004, to provide estimates for 2001/2<sup>3</sup>.

Estimates of the costs of workplace accidents and work - related ill health are used for a range of purposes by the HSE and other stakeholders. They have been used:

- In speeches to encourage employers to take preventative action;
- In HSE press releases;
- To inform strategic policy and evaluate HSE's impact;
- For briefings within the HSE, as well as other government departments;
- In the media;
- In the private sector;
- In academic papers and research.

The wide usage of these cost estimates underscores the need for a robust methodology that utilises the available data most appropriately.

However, ongoing work within the HSE's Economic Analysis Unit has revealed limitations in the quality of data and methodology applied in past HSE estimates. Further, new data sources are now available which could provide a more robust evidence base.

## 1.2 Purpose

The purpose of this paper, therefore, is to:

1. Review in depth the methodology and evaluate the robustness of previous HSE estimates of the costs to employers in Britain of workplace injuries and work-related ill health<sup>4</sup>;
2. Propose alternative methods for quantification where necessary;
3. Present updated estimates of the costs to employers in 2005/06.

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<sup>3</sup> Available from: <http://www.hse.gov.uk/statistics/pdf/costs.pdf>.

<sup>4</sup> Hereafter referred to as 'the costs to employers'.

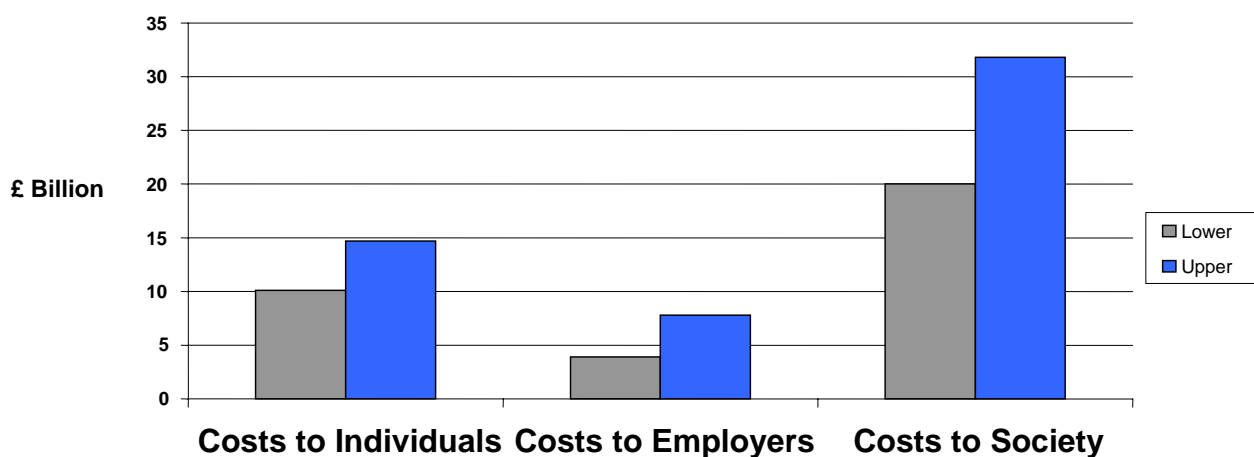
Previous HSE estimates divided the costs to Britain of workplace accidents and work-related ill health into three categories: costs to individuals, costs to employers and costs to society. This paper will focus attempts on quantifying the costs to employers.

The total cost to employers has been estimated on the basis of the following component costs: costs of absence, recruitment, administration and compensation and insurance. Past estimates have also included the cost of damage from injury and non-injury accidents. However, this cost is not included in this paper.<sup>5</sup>

### 1.3 Why costs to employers?

The cost estimates for 2001/02, presented in Figure 1, show that employers bear a relatively small proportion of the total costs<sup>6</sup>. “Society” bears the largest cost burden (comprising loss of output, medical costs, costs to the Department for Work and Pensions of administering benefit payments, and HSE and local authority investigation costs), followed by individuals (in terms of loss of income, extra expenditure of dealing with injury or ill health, and subjective costs of pain, grief and suffering).

**Figure 1: Costs to Britain of workplace accidents and work-related ill, 2001/02**



Although the costs of workplace injuries and work-related ill health are attributable to the activities of the business, Figure 1 illustrates that the bulk of these costs in 2001/02 fell ‘externally’ on individuals and society. Economic theory highlights that the presence of such external costs (‘externalities’) create a divergence between the incentives of individual decision makers (employers) and the interests of wider society.

<sup>5</sup> See 2.5.2 for a discussion on the factors that motivated this decision.

<sup>6</sup> Presented in ‘upper’ and ‘lower’ bounds to highlight data uncertainties.



So long as employers do not bear the full costs of workplace injuries and work-related ill health, they will continue to have weaker than optimal incentives to act to reduce workplace risks to health and safety. This externality provides a “market failure”<sup>7</sup> justification for policy intervention in workplace health and safety. Identifying the costs of incidents would indicate whether the costs of implementing a policy aimed at correcting this market failure would be proportional to the anticipated benefits of improving workplace health and safety. The estimates therefore indicate the potential scale of cost savings.

The HSE also undertakes appraisal and evaluation of proposed policy interventions through Impact Assessments. Robust information on the costs to businesses (and other affected groups) is a crucial component of this.

The motivation for businesses to reduce workplace risks could be influenced by whether business-level benefits exceed costs. Both financial and intangible costs and benefits will influence this. Estimates of the costs to employers could, therefore, motivate employers to act to reduce workplace risks to health and safety. For this reason, the HSE has sought to increase awareness of the costs to employers of workplace injuries and work-related ill health.

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<sup>7</sup> Market failure is a condition where the allocation of goods and services by a free market is not efficient.

## **1.3 Data and sources of information**

### **1.3.1 Main sources of data**

Information on workplace injuries and work-related ill health is provided by the Self Reported Work-related Injuries and Ill health (SWI) module<sup>8</sup> contained within the Labour Force Survey (LFS), 2005/06. Information on the number of fatalities is provided by the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)<sup>9</sup>. These are the core sources of data that are used in this paper.

Other sources used include the HSE's Survey of Workplace Absence Sickness and Ill Health (SWASH) (2005), the Department for Work and Pensions' Routes into Incapacity Benefits Survey (2008), and the Association of British Insurers (2006). Further details on these sources are provided in the relevant sections, and are summarised in Appendix 1.

### **1.3.2 Alternative estimates of the costs of sickness absence**

The Confederation of British Industry (CBI) undertakes an annual survey of the costs of sickness absence. The most recent survey estimated the costs of sickness absence to employers at £12 billion. However, this survey does not identify the proportion, or associated costs, of sickness absence that is attributable to workplace injuries and work-related ill health. The sample size and response rates for this survey are also small, which raises uncertainties about the reliability of this estimate.

The Sainsbury Centre for Mental Health (2007) estimates the cost of poor mental health at work to be £26 billion. However, this only paints part of the picture. Mental health is just one of the causes of ill health in the workplace, and the costs due to workplace injuries are not included in this figure. Also, this estimate accounts for the loss of productivity, which drives more than half of the total cost. This paper concludes on the basis of existing evidence that it is not plausible to assign monetary values to the cost of lost productivity. This is explained in Sections 2.1.1 to 2.1.2.

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<sup>8</sup> A module of questions is included in the Labour Force Survey (LFS) to gain a view of work-related illness and workplace injury in the last 12 months. The LFS is a household survey consisting currently of 50 000 responding households in Great Britain (see <http://www.hse.gov.uk/statistics/lfs/technicalnote.htm> for more details).

<sup>9</sup> Reporting of Injuries, Diseases and Dangerous Occurrences Regulations. Employers, self-employed and those in control of premises must report specified workplace incidents.

## **2. Costs to employers of workplace injuries and work- related ill health**

Previous HSE estimates of the costs to employers of workplace injuries and work-related ill health considered five main categories:

- Absence costs
- Administrative costs
- Recruitment Costs
- Damage from injuries and non-injuries (excluded from this update)
- Compensation and insurance costs

In the following sections, each of these categories is described, and evidence relating to the associated costs is reviewed with the aim of presenting cost estimates for 2005/6. The costs of damage from injuries and non-injury accidents are excluded. The reasoning for this is presented in Section 2.5.

## 2.1 Absence costs

Workplace injuries and work-related ill health typically result in a period of sickness absence of the affected employee, during which his contribution to production is lost. According to the 2005/06 LFS, there were a total of 6.1 million days lost due to workplace injuries and 24.3 million days lost due to work-related ill health.

There are a number of potential employer responses to the sickness absence of employees. For example, the employer could:

- Seek to maintain the level of output by: recruiting temporary part-time staff, paying current employees to work overtime, or encourage increased work intensity among current employees. In this scenario, the cost of recruiting temporary staff or paying for overtime to maintain output could be expected to be approximated by the wage of the absent employee.
- Accept a decline in output equivalent to the foregone output of the absent employee. In this scenario, the cost of lost output can be expected to be approximated by the value of the incremental gross value added that would otherwise result from the work effort of the absent employee. Value added includes not just wages, but any returns to capital and other assets accruing from the productive activity.

Davies *et al* (1999) utilise findings from a case study of five firms from different business sectors, undertaken by the HSE's Accident Prevention Unit (APAU) in 1993<sup>10</sup>, to inform assumptions on employer responses to sickness absence. This study found that on average, among the case study firms, employers compensated for the absence of a worker by some medium of extra effort of existing employees rather than through an increase in formal overtime working.

According to the APAU case studies, the following actions to maintain output would be taken in the case of an absence:

Maintain output

- Reorganisation of tasks
- Extra effort
- Accept decline in quality
- Overtime
- Hire temporary /part-time workers

Davies *et al* (1999) assume on the basis of these case studies (despite the small sample of case study firms considered) that employers would, on average, take some form of action to maintain output during the absence of an

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<sup>10</sup> This qualitative study was limited to employee absences of less than three days, thus employer reactions to absences greater than three days may differ.

employee, rather than accept a decline in output. This assumption is applied in this paper.

This approach implies that the cost of maintaining output equals the labour cost of the absent employee,<sup>11</sup> and that there is no change in the production costs to the employer. If the cost of maintaining output were to be greater than the normal cost of output, this output would be forgone by the employer. Hence the actual cost of absence to employers is assumed to be the amount of sick pay (or occupation sick pay) paid.

There are however limitations with this approach. In certain circumstances it would be difficult for employers to maintain output. For example, consider the following situations:

- Presenteeism - when a worker continues/returns to work with an illness or injury with a subsequent reduced level of productivity ;
- The impact of different production processes and working arrangements on productivity. It may not be possible to perfectly adjust working arrangements to compensate for the lost output associated with the absence of an employee

The potential cost of lost productivity in the above situations is considered further in the following sections.

### **2.1.1 Productivity impacts : presenteeism**

Presenteeism occurs when a worker continues/returns to work with an illness or injury, but with a reduced level of productivity. Factors causing presenteeism range from reputation safeguards, work pressure and management incentives to the simple failure in self-assessment of health or an optimism bias. Evidence from the literature<sup>12</sup> indicates that improved health can lead to improved productivity. This implies that poor health could lead to diminished productivity. As a consequence, employers may incur further costs due to a decline in productivity and a subsequent higher average unit cost of production.

Presenteeism may also lead to higher rates of employee turnover (Parry, 2007). The Sainsbury Centre for Mental Health (2007) suggests that presenteeism caused by poor mental health leads to a loss of working time nearly 1.5 times greater than that due to sickness absence. However, this study apart, there is limited evidence on the quantification of the cost of presenteeism to employers.

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<sup>11</sup> The assumption that the cost of maintaining output is equal to the labour cost of the absent employee is consistent with conventional economic theory.

<sup>12</sup> Refer to Bell *et al* (2008), "An empirical analysis of the effect of health on aggregate income and individual labour market outcomes in the UK".

NERA (2006) further supports the argument that the level of productivity is dependent on the workers' health. In the presence of perfectly competitive markets with full information of the workers health, the wage could be set to reflect workers' productivity. Since productivity is influenced by the health status of the worker (as well as factors such as education, training, experience), when a worker continues to work/returns to work with poor health, there would be an intrinsic cost to the business. This is because the worker possesses (and withholds) greater information<sup>13</sup> regarding the condition of his health than the employer, thereby constraining the employer from taking action to maintain output to the expected level. In this situation, the wage would no longer reflect the expected (or actual) level of productivity. The cost of 'presenteeism' would thus be reflected in the reduced level of output of the worker.

The scale of presenteeism may be significant. The HSE SWASH Survey (2005), for example, reports that 41% of workers surveyed claim to have worked when they were ill to the extent that they should have taken sick leave<sup>14</sup>. This suggests that presenteeism may have a significant impact on the costs to employers. However, given the current literature and data availability, it is difficult to estimate or monetise this cost.

### **2.1.2 Productivity impacts: different production processes**

In many cases of employee absence, it may not be possible to maintain output (particularly when a perfect substitute is unavailable). In cases where it is not possible to arrange temporary cover<sup>15</sup>, the extent to which the absence of a worker distorts the level of productivity is summarised in the following situations:

- If the production process is such that the absence of one employee results in reduced productivity of co-workers. For example, this may arise in a team-based production process where the absent worker has a supervisory role or possesses a skill that is unique to the team;
- If a penalty is incurred, such as loss of contract/harm to reputation for failure to achieve target output (time-sensitive production).

The cost of lost productivity in such instances could lead to costs that are potentially far greater than the wage rate.

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<sup>13</sup> In economic theory, such a situation is termed as 'asymmetric information'. This refers to a situation where an individual possesses more information than another and distorts an optimal or efficient outcome.

<sup>14</sup> This survey did not indicate the proportion of these workers who considered their ill health to have been caused or made worse by work.

<sup>15</sup> Consider instances such as high employment, where skilled labour may be in short supply and may therefore lengthen the recruitment process. The wage costs of such workers would also rise to reflect this shortage.

Using survey data from over 800 employers, Nicholson *et al* (2006) modelled lost productivity based on the employee's occupation, the degree to which employees work in teams and the time-sensitivity of the worker's output. The regression analysis they developed estimated lost-productivity multipliers for thirty five occupations and found that on average, lost productivity costs associated with a two-week absence were 61% greater than reflected by the employee's wage alone.

The study constructed wage multipliers for productivity across different sectors. The multipliers were found to vary within a significant range: \$11.40 for every \$ in construction engineering and \$1.40 for every \$ in aviation services (e.g. flight attendants). Only the retail outlet sector had a proportionate ratio of \$1 to \$1.

This evidence indicates that the HSE approach is only applicable in the case of workers at the lower end of the wage scale. Such workers possess lower levels of skill and experience and are easily covered for in the case of an absence. While the true costs to employers should reflect lost productivity, this may not be accurately measured by the wage rate of the absent employee.

The literature review, however, has indicated a distinct lack of any robust analysis in this area. Considering industry based productivity multipliers (such as Nicholson *et al*), to account for lost productivity costs, warrants further research. At present, however, it is not possible to quantify this cost, therefore it is not accounted for in this paper.

The wage rate is therefore the most suitable and readily available proxy for productivity. Assuming that employers are able to maintain output in the absence of the affected employee, the net cost to employers of maintaining output would thus be approximated by sick pay plus non wage costs, less Statutory Sick Pay (SSP) reimbursements from the government. Economic appraisal principles also usually indicate that only wage and non-wage cost should be estimated when costing for employee time.<sup>16</sup>

Sick pay (or 'occupational sick pay'), together with the costs of compensation and insurance, is the most important element of the costs to employers and is indicative of the extent to which employers bear the cost burden of workplace injuries and work-related ill health. Methods for estimating the costs of sick pay are presented in the following section.

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<sup>16</sup> See 'The Green Book (2003), p.59, paragraphs 14-17.

### 2.1.3 Sources of data used for estimating the cost to employers of sick pay

There are a number of different sources of data and information that can be considered in assessing the costs of sick pay to employers, and these are summarised in Table 1.

The “full pay” category in Table 1 reflects the percentage of workers that are estimated to have received their normal wage during their sickness absence. The “part pay” category reflects workers who receive a reduced wage. The third category reflects workers who receive only “Statutory Sick Pay (SSP)”. The length of absence categories in this context are important as they indicate the duration up to which these three categories of income are received.

**Table 1 : Data sources available for estimating sick pay costs**

Source	Details	Length of absence categories	Full Pay	Part Pay	SSP Only
<b>Survey of Workplace Absence Sickness and Ill Health (SWASH, HSE, 2005)</b>	The SWASH is a Great Britain-wide telephone survey with responses from a sample of 10,193 employed individuals. Respondent's experiences of absence over a 12-month reference period prior to the date of their interview were recorded, for 2005.	1 - 3 days 4 days - 28 weeks	77% 45%	- 16%	13% 16%
<b>EEF: Sick Pay Survey, 2005 (taken from the survey of Absence and Labour turnover)</b>	The EEF survey registered responses from 1,344 businesses in the manufacturing and technology sectors regarding rates of sick pay (full pay, SSP only, part pay) split by manual and non manual workers and sick pay entitlement by length of service.	1 - 3 days up to 11 weeks (77 Days)	90% 90%	- -	- -
<b>Chartered Institute for Professional Development Absence Management Survey(CIPD, 2007)</b>	The CIPD surveyed people management professionals by post and online. This included questions about the cost of absence (sick pay, normal pay) but the response rate was low : 4.4% for the postal survey and 7.9% online, amounting to a sample size of 819.	1 - 3 days up to 15 weeks (105 days)	87% 87%	- -	- -
<b>Labour Force Survey (ONS) 1990</b>	A module contained within the 1990 LFS, asked individuals their source of income, categorised by length of absence from work.	See Appendix 2			

In this paper, data from the SWASH (2005) is used as this is the most reliable in terms of scope, sample size, and relevance to workplace health and safety. The method used to estimate the costs of sick pay is described in the next section.



### 2.1.4 Estimating the cost to employers of sick pay

The 2001/02 estimates of the costs to employers of sick pay are based on updated values of the estimates presented in Davies *et al* (1999). These estimates are based on the proportions of income when absent, categorised by length of absence, sourced from the 1990 LFS module listed in Table 1. This module has not been repeated in subsequent periods, hence estimates based on this are extremely dated.

In order to address the above issue, the 1990 LFS estimates of the proportions of income when absent have been modified for this paper using the SWASH survey (2005). However, this survey did not ask about proportions of income for absences greater than twenty eight weeks. To fill this gap, information from the 1990 LFS module for the proportion of income for the twenty eight weeks<sup>17</sup> and above absence bands has been used.<sup>18</sup>

Table 2 summarises the modified weightings that have been applied to the days lost data. There are now only three length of absence categories, which is consistent with the SWASH survey. This also simplifies the methodology.

**Table 2 : Modified days lost bands used for estimating sick pay costs**

Days lost bands	Full pay	Part pay	SSP only
1 to 3 days	77%	0%	0%
4 to 197 days	45%	15%	15%
198 or more days	10%	30%	0%
Note: Part pay is taken as 75% of full pay			

The 4 to 197 days category covers a wide range of absence durations. An indication of more precise time bands could be derived from the EEF and CIPD surveys. These surveys show that on average, 89% of full pay is paid to workers on sickness absences of between 4 to 105 days. However, this length of absence category has not been used in this paper as it has been derived by combining separate absence categories. Instead, the estimate of 45% of full pay for the 4 to 197 days category, derived from the SWASH survey, has been used since it is more reliable and close to the original 1990 LFS weightings<sup>19</sup>.

Further, no distinction has been made between occupational sick pay (OSP) and statutory sick pay (SSP). It is assumed that employers pay either OSP or part pay, or a combination of OSP and SSP, contrary to what has been

<sup>17</sup> In precise terms, the LFS 1990 length of absence category is for 196 or more days.

<sup>18</sup> It is also important to note that most employees absent for duration beyond twenty eight weeks would be eligible for incapacity benefit and move off SSP.

<sup>19</sup> See Appendix 2. Also, note that for calculation purposes the part pay and SSP proportions for the 4 to 197 days category have been rounded to 15%.

assumed in Davies *et al* (1999). Total SSP reimbursements paid to employers by Her Majesty's Revenue and Customs (HMRC) are deducted from the final sick pay cost estimates. This provides a simplified and more reliable total cost estimate.

In 2006, the average wage for all full time employees in the UK economy is estimated to be £88.15 per day. This calculation is based on an average weekly wage of £440.90 and for an average working week of five days (Annual Survey of Hours and Earnings 2006, Office for National Statistics). Multiplying this figure by 1.3, to include non-wage employment costs<sup>20</sup>, gives a mean average cost per day of approximately £114. If part pay is assumed to be 75% of full pay, this is estimated to be approximately £86 per day. This is under the assumption that the employer is paying sick pay at the full wage rate. These results are displayed in Table 3.

**Table 3 : Cost of sick pay, per day**

Costs to Employer	Cost per day (£)	Method
<b>Full Pay</b>	114	£88.15 (average wage as per ASHE 2005/06) *1.29 (non wage cost)
<b>Part Pay</b>	86	Assume 75% of pay for employees receiving part pay. (£88.15*0.75)*1.3

Applying the cost per day estimate and full pay/part pay weightings to the total number of days lost in each length of absence category gives the total cost of sick pay to employers.

The total cost to employers of occupational sick pay in 2005/06 is estimated at approximately £1.6 billion to £1.8 billion. Work-related ill health is the largest driver of the overall costs of sick pay, representing up to three times the cost due to workplace injuries<sup>21</sup>. These estimates are presented in Table 4.<sup>22</sup>

<sup>20</sup> The Green Book (2003) recommends a 30% mark up for non wage costs.

<sup>21</sup> It should be noted however that whilst the absence duration for cases of work-related ill health includes absences from *all* episodes of the illness over the previous 12 months, for injuries only the time lost from the accident occurring to returning to work is included. All subsequent absences resulting from the workplace injury are excluded.

<sup>22</sup> It is important to note that data available for the number of days lost in the 198 or more length of absence category for injuries is based on fewer than 20 sample cases. For this reason it has not been utilised, and would make only a small contribution to the upper total cost.

**Table 4: The cost to employers of sick pay**

	<b>Lower (£)</b>	<b>Upper (£)</b>
<b>Ill Health</b>	£1,250,000,000	£1,490,000,000
<b>Injuries</b>	£330,000,000	£440,000,000
<b>Total*</b>	<b>£1,570,000,000</b>	<b>£1,840,000,000</b>

\*Totals may not sum due to rounding

It should be noted that the SWI number of days lost data is used exclusively to estimate the costs of OSP. Davies *et al* (1999) and the 2001/02 interim update, on the other hand, combine SWI prevalence (ill health) <sup>23</sup> and incidence (injuries) <sup>24</sup> rates with the days lost data. This paper therefore makes a major diversion.<sup>25</sup>

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<sup>23</sup> Prevalence: the measure of a condition in a population at a given point in time.

<sup>24</sup> Incidence: the number of new occurrences in a population over a period of time.

<sup>25</sup> Davies *et al* (1999) and the Interim 2004 update used incidence/prevalence rates in order to partition days lost groupings. It has not been possible to apply this procedure in this paper due to data constraints. The implications of this is that for someone taking off in excess of 3 days, the whole period has been costed at a single rate and this may ultimately result in an underestimate of sick pay.

## 2.2 Administrative Costs

Employers typically incur a cost in dealing with the administrative tasks associated with sickness absence. These tasks can be expected to include the following:

Administrative tasks -----→ Calculation of sick pay.  
-----→ Processing sick leave requests, certificates.  
-----→ Reorganisation of tasks, staff.

Administrative costs can be estimated using the average wage of the staff that carry out these tasks. This data is available from the 2006 ASHE (Office of National Statistics).

Minor increases in administrative tasks, however, would be unlikely to distort aggregate performance, especially when the time burden is small. The wage rate may in this sense be an overestimate of the opportunity cost of time, particularly for small marginal changes in administrative burdens. Assuming that wages fully reflect marginal productivity may not always be correct, as the employee is unlikely to operate at optimum levels of productivity at all times.

Despite these issues, for consistency with Green Book (2003) guidance it is assumed that the wage rate is a reasonable proxy of the opportunity cost of the administrative burden. The UK Standard Cost Model provides an internationally agreed framework for estimating such costs. This framework is particularly useful due to its simplicity. The main elements are summarised in Table 5.

The Standard Cost Model framework underpins the two methods applied to estimate the administrative costs to employers. These methods are set out in Sections 2.2.1 and 2.2.2

**Table 5: The Standard Cost Model for estimating administrative costs**

<b>Administrative burden</b>	Price * Quantity
<b>Price</b>	(Wage costs + non wage costs) * time taken to perform the activity
<b>Quantity</b>	Number of businesses affected (the number of days lost or number of cases) * frequency (the number of occurrences annually)

## 2.2.1 Estimating the administrative costs to employers: Method one

Davies *et al* (1999) assume that on average, the administrative activities outlined above take half an hour per day to execute for the duration of the absence, at a daily estimated cost of £4.25 (National Earnings Survey, 1999). This assumption seems excessive, particularly for sickness absences of longer durations.

An alternative, to more accurately reflect actual practice and technological advances, would be to assume the tasks require only fifteen minutes. This assumption is applied in method one. The wage cost of an accounts clerk has been updated using the ASHE (2006), instead of updating the 2001/02 interim estimates. The estimated wage cost per fifteen minutes is presented in Table 6.

**Table 6: Average administrative clerk wage rate**

	<b>Wage cost</b>
<b>Admin Clerk Pay (per hour)</b>	£8.39
<b>1/4(15 minutes)</b>	£2.10
<b>Plus non- wage Costs (x1.3)</b>	<b>£2.73</b>

Source: ASHE, 2006

Applying the administrative clerk wage cost to the total number of working days lost<sup>26</sup> as reported by the SWI 2005/06, gives a total administrative cost estimate to employers of £76 million to £90 million. These results are summarised in Table 7.

**Table 7: Administrative costs estimated by applying method one\***

	<b>Lower (£)</b>	<b>Upper (£)</b>
<b>Ill Health</b>	£60,000,000	£73,000,000
<b>Injuries</b>	£14,000,000	£19,000,000
<b>Total*</b>	<b>£76,000,000</b>	<b>£90,000,000</b>

\* Totals may not sum due to rounding

The change in method leads to a fall in the administrative burden cost estimation by over half with respect to the estimates presented in Davies *et al* (1999).

<sup>26</sup> Working days lost are expressed as full day equivalent days to allow for variation in daily hours worked and includes days lost due to all non-fatal injuries and all work-related illness.

## 2.2.2 Method Two

The assumption of fixed administrative costs per day of absence, as discussed, is a limitation. An alternative approach would be to assume 'Three Administrative Points' (TAP). The three administrative points would occur at the point of absence, mid absence and end of absence. Each case of a short absence (less than twenty one days) would lead to an administrative burden in total of two and a half hours, while each case of long absence (greater than twenty one days) would lead to an administrative burden in total of three and a half hours. This approach is outlined in Table 8 below:

**Table 8: 'TAP' approach to estimating administrative costs**

Admin points	Short absence < twenty one days : 'Band one'	Long absence > twenty one days : 'Band two'
1. Point of absence	1 hour	1 hour
2. Mid absence	30 minutes	1.5 hours
3. End of absence	1 hour	1 hour
<b>Total hours</b>	<b>2.5</b>	<b>3.5</b>

The total expected administrative burden, depending on whether absence is short (less than twenty one days) or long (greater than twenty one days) is accounted for by distributing each case into the relevant length of absence category.

This approach allows for variation in administrative costs as the administrative costs are adjusted to reflect lower or higher rates of absence durations. The average administrative clerk wage per hour (ASHE, 2006), adjusted for non wage costs is estimated at £10.91. This amount is multiplied by the total hours (as per the appropriate administrative burden band) to give the typical cost per case. This figure is then multiplied by the total number of cases in each length of absence band. Summating these totals gives administrative costs for work - related ill health and workplace injuries of £29 million to £32 million. These estimates are presented in Table 9.

**Table 9: Administrative costs estimated by applying method two\***

	Lower (£)	Upper (£)
Ill Health	19,000,000	21,000,000
Injuries	10,000,000	12,000,000
<b>Total</b>	<b>29,000,000</b>	<b>32,000,000</b>

\* Totals may not sum due to rounding

Method two estimates are more reliable as they provide a better representation of how administrative costs vary with the duration of absence. They have been included in the final costs to employers' estimates.

## 2.3 Recruitment Costs

Employees suffering from workplace injuries or work-related ill health may need to be replaced by employers in the following situations:

- When the employee suffers a work-related fatality;
- When the employee is forced to change roles within an organisation;
- When the employee cannot return to work (defined as a 'never return').

Davies *et al* (1999) assume that all workers in the circumstances listed above would be replaced. They acknowledge that this may be an overestimate, but argue that this is more than offset by the inclusion of the cost of 'bringing forward' recruitment which significantly reduces the final cost estimates. The concept of 'bringing forward' recruitment is explained in Section 2.3.1.

The activities that contribute to the cost of recruitment are summarised below:

Recruitment	----->	Payroll (administrative).
	----->	Interview, training of new worker.
	----->	Marketing, screening, e.g. job advertisements and application sifting.
	----->	Fall in quality of service/productivity before and after the replacement period.

A survey carried out by the Institute for Personal Development (IPD) - now known as the Chartered Institute of Professional Development (CIPD) - was used to estimate the average cost of turnover. This survey accounts for the average cost to the employer of the recruitment activities outlined above.

Davies *et al* (1999) derive an average recruitment cost estimate of £1,918 (this has been updated in subsequent publications) by weighting the turnover costs by the number of withdrawals ('never returns') from the labour market. Estimating the number of 'never returns' has been heavily constrained by limited data availability. This issue is resolved in this paper by utilising a recent survey.<sup>27</sup>

Davies *et al* (1999) also account for instances where an employee that 'never returns' is replaced by an employee from within the organisation. This would create a vacancy for this employee's previous position and would activate a recruitment chain. Davies *et al* (1999) assume that on average, a recruitment chain of between one and four people is activated. This assumption, however, is not used in this paper as it has a negligible impact on the overall cost of recruitment and adds unnecessary complexity.

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<sup>27</sup> See p.24-25 for further details about this survey.

### **2.3.1 Bringing forward recruitment costs**

Past recruitment cost estimates produced by the HSE have been based on an assumption that accounts for 'bringing forward' the cost of recruitment. This is based on the premise that an employee would be expected to move positions eventually for reasons such as promotion, relocation or a secondment. Because of this, the employer would incur the cost of replacing the employee. A workplace injury or a case of work-related ill health leading to a long term condition, or a 'never return', would in effect 'move forward' this expected recruitment cost that was likely to be incurred later. Davies *et al* (1999) estimate on this basis that on average, a case of a 'never return' would 'bring forward' recruitment by three years.

In this paper, the cost of recruitment in three years is estimated by accounting for growth in real average earnings and applying a 3.5% discount rate<sup>28</sup> over the assumed three year period. This amount is subtracted from the present cost of recruitment to give the net cost of recruitment in present value figures.

The 'bringing forward' assumption underpins both methods applied to estimate recruitment costs. These methods are summarised in the following sections.

### **2.3.2 Estimating the costs of recruitment to employers: Method one**

In order to estimate recruitment costs, the following assumption could be applied:

"If the absence is greater than twenty eight weeks (six months) then the worker is replaced".

This is also the period up to which SSP is expected to be paid and is therefore a reasonable proxy of the length up to which, on average, employers maintain output without incurring additional recruitment costs.

This implies that cases of workplace injuries or work-related ill health that lead to a length of absence beyond twenty eight weeks activate the recruitment cost cycle (i.e. the worker is replaced).

It is important to emphasise in this scenario that although the worker is in technical terms 'replaced', the replaced worker may return to work at some point. It is therefore further assumed that a temporary worker is hired. The recruitment procedure is assumed to be similar in terms of the costs that would have been incurred when hiring a permanent worker.

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<sup>28</sup> The Green Book (2003). The 3.5% discount rate reflects social time preference, i.e. the value society attaches to present, as opposed to future, consumption.



The weighted average cost for recruitment in 2006 is estimated to at £5,900. Subtracting from this the discounted cost of recruitment in three year time, gives a figure of £286. Multiplying this amount by the estimated incidence rates for injuries<sup>29</sup> and prevalence for ill health in the 132 days or more LFS (2005/06) length of absence category yields a total cost of £10 million to £15 million. These estimates are presented in Table 10.

**Table 10: Recruitment costs, estimated by applying method one\***

	Cost of 'bringing forward' recruitment		Cost of 'bringing forward' recruitment	
	Lower	£ million	Upper	£ million
<b>Ill Health + Injuries (including fatalities)</b>				
<b>Total*</b>		10,000,000		15,000,000

\*Totals may not sum due to rounding

### 2.3.3 Method Two

Estimating the number of people who 'never return' to employment after becoming injured or ill due to work has been constrained by data limitations. For example, the 2001/02 interim update used data for workplace injuries that was presented in wide ranges. This led to a wide range between the upper and lower values of the total estimated costs in this update, which limited their usefulness.

The HSE is currently investigating the possibility that questions specific to 'never returns' may be inserted into a future module of the Labour Force Survey.

However, a recently available survey, Routes into Incapacity Benefit (ROIB), (Davidson & Kemp, 2008) sheds important light into the area of 'never returns'. The survey carried out for this study explores the reasons by which people come to claim incapacity related benefits.<sup>30</sup>

The ROIB (2008) found that:

<sup>29</sup> It should be noted that the data for injury incidence levels in the LFS 198 or more days length of absence category is based on fewer than 20 sample cases, and is unreliable due to the large sample error.

<sup>30</sup> The survey involved face-to-face, structured interviews with a representative sample of 1,843 recent claimants of Incapacity Benefit (IB) and the adjusted response rate was 56%.

- 10% of the IB claimants interviewed reported that their condition is due to work-related ill health; Of this total 32% reported they were permanently unable to work/did not expect to work again.<sup>31</sup>
- 11% of the IB claimants interviewed reported that their condition is due to a work-related injury; Of this total 24% reported they were permanently unable to work/did not expect to work again.

The above ill health/injury percentages of work-related IB claimants (11% and 10% respectively) have been applied to flow IB claimants<sup>32</sup> in 2006. The assumed “not expected to work again” proportions (32% and 24%) have been applied to the work - related ill health and injury figures to give an estimated 20,072 and 26,611 cases<sup>33</sup> of ‘never returns’ work-related IB claimants. This yields a total cost estimate of ‘bringing forward’ recruitment of £13.3 million, which is close to the central value estimate for method one. These estimates are presented in Table 11.

**Table 11: Recruitment costs estimated applying method two\***

	<b>Average costs of recruitment £ million</b>	<b>Cost of 'bringing forward' recruitment £ million</b>
<b>Total*</b>	<b>275,000,000</b>	<b>13,300,000</b>

\*Total may not sum due to rounding

Although both methods have yielded similar results, method two is more reliable in that it accounts for ‘pure’ ‘never returns’ (i.e. those who have actually withdrawn from the workforce) and avoids the complexity of the overlap between permanent and temporary recruitment. Method one, on the other hand, adheres to a more simple method and benefits from annually updated LFS data.

Given the data limitations of method one and the reliability of the ROIB (2008) data used in method two, the cost estimates derived from method two have been applied in the final cost estimates.

<sup>31</sup> Note that the 32%/24% ‘not expected to return to work’ proportions were obtained from the full set of tables of the ROIB (2008) mainstage survey. This number may include some people who, for example, consider themselves retired, rather than feeling they are permanently unable to work because of their health condition

<sup>32</sup> It should be noted that the ROIB (2008) survey interviewed people who made a claim for Incapacity benefit, but may not have necessarily been deemed eligible. This paper assumes that all respondents to the survey secure IB.

<sup>33</sup> This number includes 212 fatalities.

## 2.4 Compensation and Insurance

In many cases employers may be legally required to pay compensation to current or former employees for workplace injuries or work-related ill health. Employer's Liability and Compensation Insurance (ELCI) is a compulsory insurance policy<sup>34</sup> which all businesses must hold, and is designed to cover employers' liability to employees if the employee suffers any physical injury or death as a consequence of workplace conditions. The insurer will pay the cost of the claim.

Davies *et al* (1999) included two types of insurance costs in the costs to employers: employer's liability insurance and insurance for fire damage and business interruption. In this paper, the insurance claims associated with damage are not included in order to maintain consistency with the decision (discussed in section 2.5.2) to exclude the costs related to damage from injury and non-injury accidents.

### 2.4.1 Overview of compensation and insurance cost estimation process

The Association of British Insurers (ABI) record all ELCI claims in the UK, and this is used as the main data source for ELCI claims. The relevant assumptions applied to this data are summarised below:

ELCI -----→ Total claims data from ABI  
ABI data -----→ Assume: 1/3 of claims due to ill health  
                                    Assume: 2/3 of claims due to accidents/injuries  
                                    Add administration and profit premium (15%)

In terms of compliance with ELCI, a survey of 18,000 micro, small, medium and large firms across all sectors and regions of Great Britain<sup>35</sup> found the following level of self-reported non-compliance: 0.92% of micro firms (1 to 10 employees); 0.37% of small firms (11 to 49 employees); 0% of medium firms (50 to 249 employees); and 0.6% of large firms (250+ employees). The study concluded that there is no consistent evidence of a compliance problem. Total ELCI claims can therefore be relied upon to give an accurate representation of actual costs.

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<sup>34</sup> Insurance by employers in respect of their liability to employees for injury or disease arising out of and in the course of their employment. Evidence suggests that employers can reduce their EL premiums by demonstrating an effective understanding of risk issues and adoption and maintenance of an approach to H&S based on best practice

<sup>35</sup> See HSE's Research Report Series RR188.

The assumptions regarding the percentage of total ELCI claims that are due to ill health and injury claims are based on previous ABI estimates. These indicate that occupational disease claims account for around 25% of the total. This was adjusted to one third (33.3%) by Davies *et al* (1999) to account for all ill-health claims: the remaining two thirds (66.7%) are assumed to be injury claims. It is likely that these assumptions may no longer hold, but data indicating otherwise is sparse. This paper therefore adheres to these assumptions.

Further, it is assumed that the ELCI premium reflects risk fully ( is 'actuarially fair'). This assumption implies that ELCI claims would be reflected in the premium, and that subsequent increases in claims would lead to higher premiums through adjustment in the insurance market.

This is an important assumption as it is not always the case that the claims component of ELCI is incurred by employers. Evidence analysing past ELCI premiums<sup>36</sup> indicates that the gap between premium income and underwriting losses could be significant in specific years, implying that ELCI premiums may have been held at unsustainably low levels. It has been suggested that cross-subsidisation<sup>37</sup> was supporting the low premiums in the short term, leading to higher prices for unrelated insurance products. Hence a portion of the compensation and insurance costs may have fallen indirectly on society.

For the above reasons it could be proposed that the £720 million estimate for compensation and insurance cost estimate in Davies *et al* (1999) was excessive, as a portion of these costs would be have been borne by insurers, and may have been recovered by increases in premiums for unrelated insurance products. This also challenges the assumption that a 15% profit and administration mark-up is applied to the insurance portfolio by insurance firms.

Recent evidence<sup>38</sup> suggests that insurers have now moved away from cross subsidising ELCI, highlighting that the low premium rates were unsustainable. In light of this change, the previously applied methodology can now be seen as reasonable.

Table 12 displays the results derived from applying this methodology. The total costs to employers of compensation and insurance is estimated to at £1.3 billion, of which £880 million is attributable to injuries and £440 million to ill health. This may be an underestimate as the costs associated with damage from injury and non-injury accidents have been excluded.

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<sup>36</sup> See Greenstreet Berman (2002), and Department for Work and Pensions, Review of Employer's Liability Compulsory Insurance, 2005.

<sup>37</sup> Cross subsidisation occurs when a firm charges a below economic rate for one product, and compensates by charging an above economic rate for another product.

<sup>38</sup> ABI data shows that insurers are paying more than they receive in premiums.

**Table 12: Summary of compensation and insurance costs**

	<b>Ill Health (£)</b>	<b>Injuries (£)</b>
<b>Claims</b>	£383,600,000	£765,300,000
<b>Admin &amp; profit</b>	£57,400,000	£115,000,000
<b>Total*</b>	£440,000,000	£880,000,000
	<b><i>Ill health + Injuries</i></b>	<b>£1,320,000,000</b>

\*Totals may not sum due to rounding

## 2.5 Damage from injuries and non-injury accidents

Section 2.5.1 explains the methodology and assumptions applied to previous estimates of the cost of damage due to injuries and non-injury accidents. This cost is accounted for in this paper, and the reasoning for this is summarised in Section 2.5.2.

### 2.5.1 Methodology applied to past estimates of the cost of damage from injuries and non-injury accidents

Non-injury accidents are defined by the HSE as “any unplanned event that results in damage or loss to property, plant, materials, or the environment or a loss of business opportunity but does not result in an injury.” The HSE takes the view that non-injury accidents have the potential to cause human harm and are caused by the same management failures that lead to injury accidents. This equal treatment of injury and non-injury accidents fall under the method of the “total loss approach”. Estimates of the cost of non-injury accidents have been provided in Davies *et al* (1999) and the interim 2001/02 update.

#### 2.5.1.2 Estimating the number of non-injury accidents

Past HSE estimates based the number of non-injury accidents on six case studies<sup>39</sup> which reported four individual industry ratios, and an assumed ratio of non-injury accidents to the number of injury accidents for all other industries. These ratios are presented in Table 13.

**Table 13: Ratio of injury accidents to non-injury accidents**

Sector	Ratio, injury to non injury accidents
Construction	1:64
Health and social work	1:18
Transport	1:20
Finance	1:0.6
All other industries <sup>40</sup>	1:20

Source: Davies *et al* (1999)

In order to estimate the number of non-injury accidents, the ratios presented in Table 13 were applied to LFS data for the relevant year. These estimates were then multiplied by the updated average cost of damage from non-injury accidents (see 2.5.1.3) for each sector to give to the total cost of damage from non-injury accidents.

<sup>39</sup> Five case studies reported in the Accident Prevention Unit’s “The costs of accidents at work” HS(G)96, and one from external research carried out by Monerry (1999).

<sup>40</sup> Note that for the 2001/02 interim update, the all other industries category accounted for 60% of the total estimated number of non-injury accidents.

### 2.5.1.3 Average cost of damage from injuries and non-injury accidents

The average cost of damage from injury and non-injury accidents was also estimated on the basis of the six case studies, as above. Davies *et al* (1999) divided the cost of damage from injuries and non-injury accidents into two components:

Cost of damage -----> Financial costs: damage to equipment, loss of production  
-----> Administrative costs: management time to deal with breakdowns, damages and insurance.

For injury accidents, the average financial cost of damage was divided into two categories

1. 55% of reported injuries = 'Slips and trips' → Average cost of damage from injuries (per incident) £1.20
2. 45% of reported injuries = 'Other reportable injuries' → Average cost of damage (per incident) £27.50 to £237.20

These two categories were based on RIDDOR data for 1995/96, of which 55% of reported incidents were due to slips and trips. These incidents were assumed to cause very little damage. The remaining 45% of reportable injuries were assumed to induce larger associated costs, which were assumed to be identical to the average costs incurred by non-injury accidents. These proportions were applied to the total number of LFS reportable injuries in the year relevant to the HSE cost publication, and multiplied by the corresponding average cost estimate to arrive at a total cost estimate for injury accidents.

The above cost assumptions, however, have been updated rather than modified with new data in subsequent HSE estimates, which has clear implications for reliability. For example, in 2005/06 the RIDDOR estimate for reported incidents due to slips and trips was 23%, less than half the 1995/96 estimate.

For the cost of damage from non-injury accidents, the cost estimate range for 'other' reportable injuries (excluding slips and trips) was assumed at £27.50 to £237.20 (as per the cost assigned to 'other reportable injuries'). This cost has been presented in a wide range, due to the large variability in the average cost of a non-injury accident over the five sectors listed in Table 12. Thus applying a single average cost estimate across these sectors would not reflect the variability, particularly since capital intensive sectors such as construction would incur higher costs from non-injury accidents than would, for example, the finance sector.

The cost of damage from non-injury accidents was assumed to be higher than the cost due to injuries caused by slips and trips. This is because non-injury accidents are more likely to cause damage to capital (for example, the colliding of transporters or collapsing onto equipment).

The most recent estimate of the cost to employers of damage from injury and non-injury accidents, presented in the 2001/02 interim update, was between £1.4 billion to £5.3 billion. This cost component was by far the largest driver of the total estimated costs to employers in 2001/02.

## **2.5.2 Reasoning for excluding the costs of damage due to injury and non-injury accidents**

Davies *et al* (1999) emphasise that the cost estimates based on the six case studies (discussed in Section 2.5.1) should be treated with “extreme caution.” This is an important caveat as these calculations do not emerge from a representative sample. The estimates are clearly of a limited value and it is not feasible to continue applying ratios (set out in Table 13) that are outdated and unreliable.

In order to examine the feasibility of collecting information on the number of non-injury accidents from a representative sample of businesses, a small scale feasibility study was undertaken by the HSE in 2007<sup>41</sup>, to examine the potential for collecting data on the number and cost of workplace non-injury accidents. This study consisted of semi-structured interviews with fourteen businesses. The findings indicated that:

- Five of the fourteen companies interviewed reported actively collecting and recording information on the number of non-injury accidents. However, none of these companies were actively collecting and/ or compiling information on its costs;
- The most commonly reported barriers to collecting information on non-injury accidents were reported as time and resources;
- Many of the companies interviewed would not be interested in considering potential costs for anything that was less than the excess on their insurance claim; in many cases this excess was £500 or more;
- Lack of an incentive that would justify the use of time and resources for collecting this type of information - incentives were suggested and could arise from perceived business benefits or compliance with regulations.

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<sup>41</sup> “The costs of non-injury accidents, scoping study”, Health and Safety Laboratory (2007).



On the basis of these findings and after further investigation, it was decided not to include the costs of damage from injuries and non-injury accidents in this paper.

It should be noted that, in terms of comparison with the 2001/02 estimates, the exclusion of the cost of damage due to injury and non-injury accidents from the cost estimates for 2005/06 may reduce the estimated costs to employers by between 35% to 70%. This has a substantial bearing on the total costs to employers (as well as the costs to society).

The cost of collecting information on the number/cost of damage from injury and non-injury accidents would not currently be justified by the uses of this information. However, there are likely to be benefits from increased understanding of the costs of damage from injury and non-injury accidents, particularly in terms of providing evidence for more effective management of health and safety. This could be investigated further through future research.

### 3. Conclusions

This paper reviewed and updated the methodology used in previous HSE estimates of the costs to employers, and presented estimates for 2005/6. The key changes, with reference to Davies *et al* (1999), are highlighted in Table 14.

**Table 14: Key changes in the costs to employers in 2005/06**

	<b>The costs to Britain of workplace accidents and work-related ill health in 1995/96</b>	<b>The costs to employers in Britain of workplace injuries and work-related ill health, 2005/06</b>
<b>Cost of absence</b>	<p>Days lost data used in conjunction with prevalence and incidence rates data.</p> <p>Statutory Sick Pay included in calculations.</p> <p>Sources of income by length of absence based on LFS (1990).</p>	<p>Days lost data used in isolation.</p> <p>Statutory Sick Pay subtracted from total costs.</p> <p>Sources of income by length of absence based on SWASH (2005).</p>
<b>Administrative costs</b>	<p>Admin burden assumed to be 30 minutes per day.</p> <p>Updated wage rates used.</p>	<p>Admin burden per day reduced to 15 minutes.</p> <p>'TAP' assumption devised.</p> <p>ASHE wage per hour for clerk as of 2005/06</p>
<b>Recruitment costs</b>	<p>LFS( SWI 94/95) used to estimate 'never returns.'</p> <p>Recruitment chain assumption included.</p>	<p>ROIB (2008) estimates applied to estimate 'never returns.'</p> <p>Recruitment chain assumption removed.</p>
<b>Damage from injury/ non injury accidents</b>	<p>APAU (1995) &amp; Monnery (1999) ratios applied.</p>	<p>Damage and non- injury accident costs excluded.</p>
<b>Compensation and Insurance</b>	<p>Damage and non-injury accident costs included.</p> <p>Updated values used.</p>	<p>Damage and non-injury accident costs excluded.</p> <p>2005/06 data from ABI used.</p>

These changes and the assumptions that have been derived, reflect to some extent the current availability of data. The most significant change is the exclusion of the costs of damage from injury and non-injury accidents. Because of these changes, the cost estimates are not comparable to previous HSE estimates.

Table 15 presents a summary of the total costs to employers of workplace injuries and work-related ill health in 2005/06. In total, these costs are estimated at between £2.9 billion and £3.2 billion.

**Table 15: Total costs to employers, 2005/06 \***

	<b>Injuries £</b>	<b>Ill health £</b>	<b>Total £</b>
<b>Sick Pay</b>	330 to 440 million	1.2 to 1.5 billion	1.6 to 1.8 billion
<b>Recruitment</b>	5.7 million	7.6 million	13.3 million
<b>Administrative</b>	10 to 12 million	19 to 21 million	29 to 32 million
<b>Compensation &amp; Insurance</b>	880 million	440 million	1.3billion
		<b>Total*</b>	<b>2.9 to 3.2 billion</b>

\* Totals may not sum due to rounding

The estimates presented in this paper highlight that workplace injuries and work-related ill health generate a considerable cost to employers in Britain. This information does not, by itself, indicate the strength of incentives that businesses may have to take action. These incentives would also depend on the costs and the effectiveness of any actions taken.

However, the information and evidence presented in this paper indicates that it is likely to be in the economic interest of employers, and society overall, to continue to identify ways to more effectively manage workplace health and safety.

### 3.1 Areas of research

This paper identified several areas that require further research. Some of the relevant themes are presented below:

- Costs of lost productivity due to sickness absence. Explore the possibility of constructing sector productivity multipliers, and a possible qualitative survey aimed at uncovering the costs of presenteeism;
- 'Never returns' due to workplace injuries and work-related ill health. The report detailing routes into Incapacity Benefit (Davidson & Kemp, 2008) presents some estimates but a specific study is needed. The Labour Force Survey may in the future include a specific question about workers who 'never return';
- The costs of damage due to injury and non-injury accidents: The Health and Safety Laboratory (HSL) findings indicate that companies need an efficient cost-effective reporting system. Pilot studies implementing such a system could yield valuable insights.

Other costs, that are difficult to monetise but which may have a significant impact on the cost to employers, include the cost of harm to reputation. Although this paper does not quantify all of the costs to employers, it makes improvements to the methodology underpinning earlier estimates. Therefore, it presents estimates for the costs to employers that are, in light of the various constraints, both reliable and robust.

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## 5. Appendix

### 5.1 Summary of sources of data used in estimating the cost of workplace injuries and work-related ill health

Issue	Ill health	Injuries	Fatalities	Sick Pay
<b>Data source(s)</b>	LFS (2005/06)– Self reported work-related illness (SWI module) (HSE)	LFS (2005/06)– ‘Self-reported workplace injury module’	RIDDOR (2005/06)	Survey of Workplace Absence Sickness and Ill Health, (SWASH) 2005
Issue	Never Returns	Administrative	Recruitment	Compensation and Insurance
<b>Data source(s)</b>	Routes into Incapacity Benefit survey (ROIB, DWP 2008)	Annual Survey of Hours and Earnings, 2006  LFS-SWI (2005/06)	Chartered Institute for Professional Development (CIPD, 2007)  ROIB (DWP, 2008)	Association of British Insurers (ABI) (2006)

### 5.2 LFS (1990) sources of income bands categorised by length of absence

Days lost bands (LFS)	Full pay	Part pay	SSP only
1 to 3 days	65%	0%	0%
4 to 9 days	45%	15%	20%
10 to 21 days	45%	15%	20%
22 to 65 days	45%	15%	25%
66 to 131 days	40%	15%	30%
132 to 197 days	10%	30%	0%
198 or more days	10%	30%	0%