

Short impact assessment: Falls from height decision matrix

<p>Description of the intervention:</p>	<p>The development of a simple and user friendly web based tool to enable users, especially small and medium enterprises, (SMEs), and self-employed enterprises to make informed safety decisions about working at height. It is also the intention to supplement this tool with an ‘information database’ which will provide assistance with the interpretation of the Working at Height Regulations (WAHR).</p>
<p>Objectives:</p>	<p>HSE experience has indicated a strong demand for specific working at height advice. It is intended that the decision making tool and information database will increase HSE’s reputation for delivering authoritative advice. In addition, safer working practices will be encouraged by assisting the user in selecting the most appropriate common access equipment for working at height given their individual work circumstances and job specification.</p>
<p>Calculation of costs:</p>	<p><u>DUTY HOLDERS</u></p> <p>Given that the use of the decision making tool and information database is voluntary and specifically aimed at SMEs and the self employed, it is not anticipated that the entire population currently working from height will make use of the tools. Based on the fact that the decision making tool and information database will be promoted via HSE’s Falls website¹, it is reasonable to assume that use of the tools will be limited to visitors of this website.</p> <p>Average monthly visitor numbers to the falls website have been estimated as 24,000². This average is based on visitors who have demonstrated active use of the website and although it may include non-target users from larger firms, such visitors may still wish to use the tool. Of this total, an average of 1,500 visitors per month made use of the working at height solutions webpage³, which demonstrates that they are actively seeking advice on working at height. Policy experts anticipate that there will be considerably more than 1,500 users of the decision tool, given that it will be actively promoted as part of the Shattered Lives Phase 2 campaign. At the same time, it is unlikely that 100% of the current visitors (or 24,000) will use the decision making tool. It has therefore been estimated that a usage rate of 30% may be achieved (i.e. 8,000 potential users).</p>

¹ HSE Falls from Height website. Available at: <http://www.hse.gov.uk/falls/index.htm>

² This average has been calculated based on 280,000 visitors to the Falls website in 2007/08 and a further 80,000 in the first 3 months of 2008/09.

³ HSE Working at Height Solutions webpage available at: <http://webcommunities.hse.gov.uk/inovem/inovem.ti/WorkAtHeightSolutions/groupHome>

Opportunity cost of using the decision making tool

The opportunity cost of using the tool is the lost output arising from spending time using the tool instead of on the next best alternative.

HSE policy experts estimate that it will take site visitors 5 minutes to decide whether to use the tool, and then 15 – 30 minutes to arrive at a solution. The average total time spent on the tool is assumed to be 30 minutes.

According to the ASHE survey 2007⁴, the mean gross hourly salary for a skilled construction / building trade worker is £10.87. Although there are a range of occupations required to work at height outside of the construction industry and for whom the decision making tool is more directly relevant, it is felt that the construction wage will provide a reasonable proxy for the wages of the average individual who works at height. The wage has been inflated by 30% to reflect the true economic cost of employment.⁵

Thus, the costs to industry of using the tool are estimated as:

$$24,000 \times 0.3 \times ((10.87 \times 1.3) / 2) = \underline{\underline{£50,872 \text{ per month.}}}$$

$$50,872 \times 12 = \underline{\underline{£610,459 \text{ per annum}}}$$

Using an appraisal period of 5 years to reflect the likely useful life span of the decision tool, and a standard discount rate of 3.5%,⁶ the present value of the total costs is equal to **£2,756,254**

N.B The time taken to decide whether to access the HSE Falls webpage is assumed to have already occurred by the time the decision making tool is accessed and so is not a direct cost of the project.

Opportunity costs of using the information database

The use of the additional information database is optional. It is intended that it will support the decision making tool and will be accessed via the Work at Height Solutions

⁴ Annual Survey of Hourly Earnings 2007. Table 2.5a, Hourly Pay – Gross For all Employees. Available at: http://www.statistics.gov.uk/downloads/theme_labour/ASHE_2007/tab2_5a.xls

⁵ In line with standard Economic Advisory Unit practice, wage rates are inflated by 30% to reflect the additional costs associated with employment such as the proportion of building overheads, IT support and so on.

⁶ Based on HM Treasury Greenbook Guidance. Appraisal and Evaluation in Central Government. Available at: <http://www.hm-treasury.gov.uk/Search.aspx?terms=greenbook>

website. It is anticipated that users will access the information as and when a query arises and will not create an obligation of use. The information database will be a series of example questions and answers and so will be quick and easy to use on an ad-hoc basis. For this reason, HSE policy experts anticipate that the information database will not entail significant costs for workers or employees.

Costs to Business of Implementing Advice

The main source of costs to duty holders is their response to the recommendations provided by the decision matrix. If, for example, a duty holder identifies from use of the decision tool that they should introduce the use of mobile platforms instead of ladders, then this would incur significant costs if carried out. There are myriad combinations of actions that duty holders may take after using the decision matrix, including doing nothing, but also undertaking significant expenditure on new capital equipment. In order to quantify these costs, numerous assumptions would be necessary and due to the large uncertainties that would arise, no quantification of these costs has been made.

The Regulator (HSE)

Production and set up costs – decision tool

The production phase for HSE can be split into the following stages: information gathering, information analysis and case study preparation. The development of this prototype has been budgeted to cost £51,813.

The Communications Delivery Service is currently working with a contractor to convert the prototype into a web-friendly tool and additional costs of approximately £6,000 have been budgeted for this.

In addition HSE policy experts estimate that an additional month of HSE Band 4 employee's time will also be required. The average gross salary for an HSE Band 4 employee is £28,000 per annum or £2,358 per month. The true economic cost of this employment is:

$$£2,358 \times 1.3 = \underline{£3,065}$$

Thus, the total production and set up costs for the decision making tool will be:

$$£51,813 + £6,000 + £3,065 = \underline{£60,878}$$

Production and set up costs – information database.

It is anticipated by policy experts that it will take approximately two months of HSE Band 4 time to produce the database. Assuming an average gross salary of £2,358 per month and an economic cost of £3,065 the cost to HSE of performing this work will be:

$$£3,065 \times 2 = \underline{£6,130}$$

Publicity

According to policy experts, the publicity for the decision making tool will form part of the Shattered Lives Phase 2 campaign and no direct additional costs will be required to promote the decision making tool.

The information database will be accessed via the current Work at Height Solutions webpage and there will not be any additional costs incurred with respect to the promotion of the database.

Total costs to the Regulator (HSE)

$$£60,878 + 6,130 = \underline{£67,008}$$

Cost Savings for Regulator (HSE)

It is anticipated by HSE policy experts that the decision making tool will reduce the number of questions regarding working at height safety which are currently received by HSE. It is estimated that this might save 5 person hours a week at HSE Band 4 level (based on current experience at the Rose Court offices in London).

Assuming an average Band 4 salary of £2,358 per month and a true economic cost of £3,065, the average economic cost per day is £139.32, based on a calculated average of 22 working days per month.

Thus, the anticipated cost saving to HSE is:

$$£139.32 \times 5 \times 52 = \underline{£36,223}$$

This saving assumes that the time which is currently spent answering queries is an opportunity cost to HSE and can

	<p>be spent on alternative productive work. It is assumed that the queries will be received on a continual basis, and so although absence of the employee will necessarily occur, the total volume of queries and so the associated costs will be unaffected by the employees work pattern.</p> <p>Assuming that the number of queries received by HSE continue to be reduced each year compared to the current level, then over a 5 year appraisal period and at a discount rate of 3.5%, the present value of the cost savings is <u>£163,548</u></p> <p>Total Costs The total costs of the decision making tool and information database, net of cost savings are:</p> <p>$£2,756,254 + £67,008 - £163,548 = \mathbf{£2,659,714}$</p>
<p>Impact on industry (including any effect on the Admin Burdens Baseline):</p>	<p>All industries are exposed to the risk of falls from height although the level of incidence varies considerably. The calculations in the Working At Height Regulations (WAHR) Regulatory Impact Assessment⁷ use the British Ladder Manufacturing Association estimates of between 2.5 and 3 million people in a job where the use of a ladder is essential. The construction industry employs 1.6 million workers, all of whom are assumed to work at height and will already be covered by the Construction, (Health, Safety and Welfare) Regulations 1996, (CHSWR). The majority of the costs and benefits associated with the decision making tool / information database will fall to the self employed and small firms in the maintenance and repair sector outside of construction.</p>
<p>Benefits (quantified where possible):</p>	<p>In 2007/08, 58⁸ people died and 3623⁹ suffered serious injury as a result of a fall from height in the workplace. By introducing the decision making tool the intention is to improve the choices made by duty holders about working at height. If duty holders actually implement the advice provided via the decision making tool then it is possible that injuries will be reduced, delivering considerable benefits.</p>

⁷ HSE produced Regulatory Impact Assessment for the Working at Height Regulations. Available at: <http://www.hse.gov.uk/ria/wah/ria.pdf>

⁸ Agreed to RIDDOR data per HSE Statistics Website, table KIND5, available at: <http://www.hse.gov.uk/statistics/tables/kind5.htm>

⁹ Agreed to RIDDOR data per HSE Statistics Website. Totals agree to tables KIND1 (injuries to employees by kind of accident, severity of injury and industry, 2007/08, available at: <http://www.hse.gov.uk/statistics/tables/kind1.htm>); and to table KIND2 (injuries to the self employed by kind of accident, severity of injury and industry 2006/07, available at: <http://www.hse.gov.uk/statistics/tables/kind2.htm>)

	<p>However, given that it is not possible to describe all the possible changes which might be made to working practices and which could lead to a reduction in the injury rate, it is not possible to quantify the likelihood of injury reduction with any certainty.</p> <p>So, although it is likely that benefits will arise should the decision making tool lead to improved working practices at height, due to uncertainty over the nature of these improvements and how they will be translated into reduced injury rates, it has not been possible to quantify the benefits.</p>
Consultation:	This approach has been discussed with HSE's Chief Economist and the Better Regulation Team.
Chief Economist's comments:	
Recommendation:	That based on proportionality, a full impact assessment is not produced.

Signed:..... **Date:**

HSE's Chief Economist