

EAU Appraisal Values

An overview

Mark Thompson

Aims and objectives

- To describe the categories included in the EAU appraisal values of the costs of work-related accidents and ill health
- To highlight the key methodologies that underpin estimates of the appraisal values
- To present the current appraisal values used by HSE
- To provide suggestions for future changes to methodology

What are Appraisal Values?

- Economic Analysis Unit (EAU) Appraisal Values give the unit costs to society for workplace accidents and ill health
- These values can be used “to estimate the benefits of proposed measures which aim to improve occupational health and safety, and to compare such benefits with the cost of government intervention”¹

¹ Para 189, p 54, Davies *et al*, 1999, "The Costs to Britain of Workplace Accidents and Work-related Ill Health in 1995/96", HSE Books

What are the Appraisal Values used for?



- Impact assessments
- Inform policy
- Cost briefings

Appraisal Values by classification of incidents



- 1. Fatality
- 2. Non-Fatal Injury Accidents²
 - a) Major injury
 - b) Other reportable injury (over 3 days)
 - c) Minor injury
- 3. Avg. Case of Ill Health

²Hopkin and Simpson (1995), "Valuation of Road Accidents", TRL Report 163

Component Costs

A) Human Costs (pain, grief, suffering)

B) Costs of Lost Output (wages + sick pay)

C) Resource Costs (admin, recruitment,
medical treatment)

A. Human Costs

- The cost of “pain, grief and suffering to the casualty, relatives and friends, and, for fatal casualties, the intrinsic loss of enjoyment of life over and above the consumption of goods and services”³
- For fatalities we base these on the DfT value of preventing a fatality (VPF), where as for non-fatal injuries and illness we use Davies *et al* (1999) estimates

³ Para 5, p 2, Department for Transport, 2004, “High Economics Note No.1:2004”

B. Lost Output

- Assumed to be “equal to the labour cost that is normally incurred in employing the absent worker, plus any sick pay”⁴
- We also assume that the firm does not suffer any decline in output as suitable arrangements to maintain output are made

⁴ Para 110, p 37, Davies *et al*, 1999, “The Costs to Britain of Workplace Accidents and Work-related Ill Health in 1995/96”, HSE Books.

C. Resource Costs

- DWP Admin Costs
- Insurance Admin Costs
- Company Admin Costs
- Recruitment Costs⁵
- Medical Costs

⁵ Para 122-123, p 40, Davies *et al*, 1999, "The Costs to Britain of Workplace Accidents and Work-related Ill Health in 1995/96", HSE Books for further details on the methodology that underpins these calculations

Sources of data

- Data used:
 - Department for Transport (DfT) estimate of VPF
 - LFS prevalence data for ill health values
 - HCHS Pay and Prices
 - Nominal GDP per Capita[†]
 - Average Earnings Index[†]
 - GDP at Market Prices[†]

[†] Data taken from the Office for National Statistics

2006(Q3) Appraisal Values



	Human cost	Lost output	Resource costs	Total
Fatality	£991,200	£520,700	£900	£1,500,000
Major injury	£18,400	£16,200	£5,800	£40,500
Other reportable injury (O3D)	£2,700	£2,600	£500	£5,800
Minor injury	£200	£100	£50	£350
Average case of ill health	£6,700	£2,700	£800	£10,100

‡ Numbers may not sum correctly due to rounding

Current Values - Fatalities

Fatalities

Human Cost	£990,000
Lost Output	£520,000
Resource Costs	£900
Total‡	£1,500,000

‡ Numbers may not sum correctly due to rounding



Current Values – Non-fatal injuries

Non-Fatal Injury Accidents

	Major Injury	Other Reportable	Minor	Total
Human Cost	£18,400	£2,700	£200	£40,500
Lost Output	£16,200	£2,600	£100	£5,800
Resource Costs	£5,800	£500	£50	£350
Total ‡	£40,500	£5,800	£350	£46,700

‡ Numbers may not sum correctly due to rounding

Current Values – Avg. case of ill health

- 3. Avg. Case of Ill Health:

Human Cost	£6,700
Lost Output	£2,700
Resource Costs ‡	£760
DWP Admin Costs	£170
Insurance Admin Costs	£60
Company Admin Costs	£40
Recruitment Costs	£6
Medical Costs	£480
Total ‡	£10,100

‡ Numbers may not sum correctly due to rounding

Issues of method : What's new?



- Admin costs – ‘TAP’ model
- Never returns

Admin Costs – ‘Three Admin Points’⁶

Admin Points	Short absence < 21 days	Long absence > 21 days
1. Point of absence	1 hour	1 hour
2. Mid absence	30 minutes	1.5 hours
3. End of absence	1 hour	1 hour
Total Hours	2.5 hours	3.5 hours

- The total number of hours is multiplied by the average administrative clerk’s wage to give the overall admin cost

⁶Pathak(2008), “The costs to employers in Britain of workplace injuries and work-related ill health in 2005/06”

Never Returns

- The number of workers who do not return to work following an injury or illness
- 2001/02 data based on small sample size used for 2004/2005 and 2005/2006 giving 17,433 ill health 'never returns'

Cost to employers (2008):

- New data available - Routes into Incapacity Benefit (ROIB) by Davidson & Kemp 2008 – 26,611 work-related ill health 'never returns'

Also:

- New question to be inserted into LFS 2008/09

Suggestions For The Future

- Same method for illness and injuries? Work with HSE Stats Branch on how to proceed – classify ill health states by length of absence bands?
- Use QALY values for ill health as per some other departments?
- Encourage “tailoring” of estimates to suit intervention – consult EAU lead economist on appraisal
- Monitor progress on Value of Life group
- ‘Presenteeism’ & lost productivity multipliers – future research required
- Seek to achieve consistency with “aggregate” cost estimates (costs to Britain) – possible bottom-up approach?

Key references & further reading

- Davies *et al*, (1999), “The costs to Britain of workplace accidents and work-related ill health in 1995/96”, HSE books
- Pathak, M. (2008), “The costs to employers in Britain of workplace injuries and work-related ill health in 2005/06”, HSE Discussion Paper Series 002
- Department for Transport, 2007, “High Economics Note No.1 (HEN 1):2005”