

An Economic Analysis of the Cost of Employee Smoking borne by Employers

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Executive Summary

Smoking imposes a large burden on the UK working population. The high death rates attributable to smoking explain the recent regulations imposed on employers to restrict smoking in the workplace. However the costs of employees who smoke can still fall on employers in various ways

Until now there has been no study which has detailed the cost of smoking to UK businesses either in total or indeed since the smokefree workplace legislation has come into effect. This report undertakes this calculation.

The continued cost that smoking by employees imposes on employers is attributed to the cost of productivity losses due to both excess sickness absence in smoking employees, from smoking breaks taken by smoking employees, and the cost of commercial fire damage attributable to smoking at work.

This is outlined in the following calculation:

$$CSE = A + B + F$$

where:

CSE = cost of smoking borne by employers

A= cost of productivity losses due to smoking related illness absences

B= cost of productivity losses due to smoking breaks

F= cost of commercial fire damage attributable to smoking

Total Direct Cost of Smoking Borne by Employers in 2008 = £2.1 billion = £1.1 billion from smoking related illness absence + £914 million from smoking related breaks + £133 million in fire damage

Alongside these direct costs are various indirect costs such as lost customer satisfaction from employees being on sickness absence due to smoking, loss of customer satisfaction through employees smoking in places adjacent to their workplace and the loss of goodwill from fellow non-smoking employees at the workplace. **Indirect costs** borne by employers from employees smoking are extremely difficult to quantify, but an attempt has been made to calculate them within this report.

1. Background

Smoking imposes a large burden on the UK working population. It is estimated that some 43,930 deaths amongst individuals of working age are attributable to smoking. Such high death rates explain the recent intense use of regulation to restrict smoking through various measures including the introduction of smokefree legislation that removes secondhand smoke from virtually all enclosed work and public places. However costs of employees who smoke can still fall on employers in various ways. The aim of this report is quantify these costs.

While the timing of the introduction of the prohibition on smoking in all enclosed workplaces and public places varied, by July 2007 comprehensive smokefree legislation was in place across the UK. The introduction of smokefree legislation is considered one of the most significant public health measures the UK has seen for many generations, and is a response to the significant scientific evidence that now exists around the health harms from exposure to secondhand smoke.

The results of the introduction of smokefree legislation have been impressive. Over 70% of individuals believe that the laws have been beneficial, according to a Department of Health report (DH, 2008). The same report details that compliance has been high with over 95% of businesses fully complying and over 80% of businesses fully supporting the legislation. Indeed just under 90% of businesses reported that the transition to a smokefree workplace had been achieved with little disruption and 40% had noted a positive impact on their business, while only 3% had reported a negative impact. Similar findings on the percentage of workplaces complying with the ban were given in Lader (2008) who reports that over 90% of workers surveyed by the ONS in a study comparing behaviour and attitudes to smoking after the introduction of the workplace ban were now employed in smokefree buildings and that over 30% were in workplaces where smoking was not allowed in the grounds either. The Department of Health study also found a 20% increase in demand for smoking cessation programmes run through the NHS which they attributed to the increased awareness and support associated with the legislation.

Despite its prohibition from enclosed parts of workplaces, smoking continues to have a detrimental impact on the UK workforce – and consequently on UK businesses. While there is an extensive literature on the various burdens that smoking imposes on society, what has until now gone largely unexplored is the cost of smoking to UK employers. While employers face a compliance cost in ensuring that the smokefree legislation is upheld in their workplaces (and face a substantial fine for failing to do so), there remains a strong commercial case for employers to further reduce smoking prevalence among their employees, including through the introduction of workplace smoking cessation programmes.

This case is partially related to the continued cost that smoking by employees imposes on employers. These costs are attributed to the cost of productivity losses due to both excess sickness absence in smoking employees and from smoking breaks taken by smoking employees, the cost of commercial fire damage attributable to smoking at work and the indirect costs imposed on employers from employee smoking; arising for example from the loss to company image from smoking employees smoking outside the premises which gives rise to a loss in customer satisfaction, or to the dissatisfaction felt by non-smoking workers who perceive smoking colleagues to be shirking as they take smoke breaks, or the general loss in goodwill attributable to continued workplace smoking.

This report gives estimates of these direct and indirect costs of continued workplace smoking as borne by UK businesses. The individual components of these costs and their calculation is detailed below where we estimate **the total direct costs** of smoking employees as borne by the employer to be **£2.1 billion** in the year 2008.

The direct costs borne by employers of smoking employees might also give rise to indirect costs as noted above. These are extremely difficult to quantify but three different methods, detailed below, are adopted to indicate the importance of these indirect costs. The impact on the valuation of indirect costs is as follows:

(i) A recent Confederation of British Industry report (CBI, 2008) estimated the indirect costs attributable to lost customer satisfaction arising from general employee absence. Using their estimate of such indirect costs (£263 per employee per year), indirect costs borne by employers for smoking employees can be calculated as £1.1 billion

(ii) If, alternatively, indirect costs are based on the imputed value of investments in health programmes within the workplace that the employer might use to compensate employees for working with smoking colleagues the indirect costs would be valued at £159 million

(iii) While if the indirect costs are based on an estimate of the level of monetary compensation employers would have to give to smoking employees to stop them smoking during work time, the indirect costs are estimated at £3.7 million

This range of values reflects the conceptual difficulties and the different means of calculating indirect costs. However, these do remain substantial regardless of the indirect cost estimate used.

2. Relevant related literature

There is a large literature on the overall costs of smoking to society as well as on the costs associated with smoking cessation programmes. There is a much smaller literature on the actual costs of smoking borne by employers with the majority of studies having been undertaken outside of the UK. One US study found workers' absenteeism to cost US\$80 billion in 1991 prices, with a further loss of \$10.5 billion from lost future income caused by premature death (Kaiserman, 1997). A second US study focussed on smoking related costs within the US Department of Defence at \$346 million per annum in 1995 prices arising from lost productivity as a result of smoking breaks and absenteeism and from hospitalisations where the costs of these were borne through the employers health insurance (Helyer and Brehm, 1998). An Australian study put the cost of tobacco use to employers at A\$3.386 million in 1992 prices through absenteeism and reduced productivity (Collins and Lapsley, 1996). A Canadian study found the cost to employers to be \$2,525 per smoker per year in 1995 figures (Canadian Conference Board, 1995). A recent study estimated the cost to employers of smoking in the workplace in Scotland. Based on a telephone survey the estimated cost of smoking related absence was £40 million per annum (1990 prices). Total productivity losses were estimated to be £450 million per annum and the loss to employers of smoking related fire damage was estimated at £4 million (Parrott et al, 2000). While these reports are not directly comparable as their methodologies differ substantially and the base year for their costs differ, they do highlight the significant impact that smoking has on employers globally.

There has however been no study which has detailed the cost of smoking to UK businesses either in total or indeed since the smokefree workplace legislation has come into effect. This report undertakes this calculation. The report proceeds by identifying the various cost components which aggregate to the total cost of smoking to UK businesses, then outlines the methodology, assumptions and data sources adopted used to estimate each of these before reporting the aggregate estimate.

3. Counting the cost of smoking borne by employers

It is presumed that there are a number of direct costs associated with smoking by employees which fall on employers. These can be specified in the following formulae:

$$\text{CSE} = \text{A} + \text{B} + \text{F}$$

where:

CSE = cost of smoking borne by employers

A= cost of productivity losses due to smoking related illness absences

B= cost of productivity losses due to smoking breaks

F= cost of commercial fire damage attributable to smoking

The direct costs borne by employers are dominated by productivity losses which are attributable to smoking employees having more sickness absences than non-smoking employees and from smoke breaks during work-time. Additionally commercial fire damage will occur as a direct result of careless smoking habits. These costs are, in the main, straightforward to quantify drawing on various estimates of excess sickness time taken by smoking employees over non-smoking employees and surveys of the number of smoke breaks taken by smoking employees. These are detailed below. Fire damage is more difficult to quantify but some indication can be given drawing on various figures relating to commercial fire damage in the UK as outlined below.

Indirect costs are by their very nature more difficult to quantify and three different methodologies are adopted below in response to this greater uncertainty over quantification.

4. Elements of the cost formulae for workplace smoking

To gain estimates of the cost of smoking to UK employers this study considers direct costs and indirect costs. Concentrating on the direct costs first we have three components. The cost of lost productivity to UK businesses from excess sickness of smokers in the workforce attributable to smoking, the lost in productivity attributable to smoke breaks taken at work; and the cost of smoking related commercial fire damage.

4.1 Excess sickness days attributable to smoking; the estimated productivity cost (A)

For the first component, excess sickness of smokers in the workforce attributable to smoking this is calculated as follows: The excess days off sick was derived from recent literature, as outlined in Table 1 in the Appendix (where references are detailed). As can be seen from Table 1, a range of figures have been reported and we have been conservative in adopting the mean value of these estimates. The average of the study estimates is 1.77 per Full Time Equivalent employee (FTE) per annum. The largest UK study, based on Whitehall civil servants, reports an estimate of 1.75 (North et al, 1993). Taking a different approach, a recent UK Local Authority report estimates of the sick days off work attributable to smoking related diseases as compared to non-sickness related diseases, returns an estimate of 1.96 excess days of work to smoking employees (Local Government Association and Local Government Employers, 2008).

This figure of the excess days of sickness was then applied to the prevalent smoking population among the employed population by age and sex in Table 2 in the Appendix . By smoker we mean current smoker, while non-smokers include both those who never smoked as well as ex-smokers. Table 2 thus outlines the total numbers employed in the UK in 2008 and estimates the proportion of smokers in various working age groups and in full-time and part-time employment, as well as the proportion of heavy and light smokers within the smoking population using data from the General Household Survey (GHS). Heavy smokers are defined by the General Household Survey (ONS, 2007) as individuals who smoke more than 20 cigarettes a day and light smokers as smoking less than a pack of 20 cigarettes a day. Out of a total working population of 29.3 million approximately 3.8 and 1.4 million full-time employees are estimated to be light and heavy smokers respectively as based on GHS estimates gained from the population of Great Britain. The estimates are 1.3 million and approximately 0.5 million for the heavy and light smokers workers in part-time employment.

The value of the lost productivity attributable to excess sickness days in the working smoking population is then estimated. This is based on an estimate of the value of the lost output attributable to excess sickness in smokers. The value of lost output is determined as the hourly wage rate paid to employees (across different age bands and by sex as the hourly wage differs by

age and sex) multiplied by the average number of hours worked per week. The average hours worked per week and the earnings per hour for age band and sex for full-time and part-time workers were taken from the Annual Survey of Hours and Earnings (ONS,2008). These figures are reported in Table 3 in the Appendix and give rise to the total lost productivity attributable to excess sickness days for smoking employees.

The calculation is therefore:

Number of smokers in the workforce X average wage X number of hours worked per day X the number of excess days off sick attributable to smoking

where “X” means “multiplied by”.

Using estimates of heavy and light smokers by age, weighted averages for full-time and part-time workers, the appropriate wage rates for full-time and part-time workers and aggregating across age groups and the estimated 1.77 excess sickness days ***the total cost of smoking related absenteeism is £1.1 billion.***

This is approximately double the figure if the Parrot et al (2000) Scottish estimates were extrapolated to the UK population level and up-dated for inflation, as they would be approximately £0.5 billion. This is largely due to a lower figure of excess sickness absence in the Parrot et al (2000) study. The figure used there was 0.9 days of excess absence compared to our base case of 1.77 days of excess absence by smokers in the workforce. If this lower figure of excess absence was used the estimate of lost productivity due to absence attributable to smoking would be £555.4 million compared to the inflation adjusted UK extrapolate based on Parrot et al (2000) of £564.9 million. That said both estimates of the excess days of sickness from work are well below the 7.3 excess days of sickness absence attributable to smokers over non-smokers estimated in the Irish study by Nelson (1986). If this figure was used as the excess sickness days the total cost of smoking related absenteeism would rise to £4.5 billion.

4.2 Lost productivity from smoke related breaks: (B)

Lost productivity associated with employee smoking at work is estimated as follows. The number of smoke breaks are assumed for heavy and light full-time and part-time workers. An estimated time of each smoke break is assumed. The total time spent on smoke breaks during the working day is estimated and costs at the relevant wage rate for men and women and full-time and part-time workers are then allocated as an estimate of the value lost productivity attributable to smoking breaks. These costs are then aggregated across a year to give the annual cost of smoking breaks on productivity loss for employers.

It was assumed that the full-time workers heavy smokers took 8 smoke breaks a day (that is assuming approximately one cigarette an hour) and light smokers took 4 smoke breaks a day (approximately one cigarette every two hours), and that the part-time workers who were heavy smokers took 4 smoke breaks a day (approximately one cigarette every two hours) and light smoking part-timers took 1 smoke break a day (approximately one cigarette every four hours) as based on the definition of heavy and light smokers given by Robinson and Leider (2008) in their analysis of the General Household Survey where heavy smokers smoked more than 20 cigarettes a day and light smokers less than 20 cigarettes a day. A reasonable assumption is that heavy full-time smokers would smoke a minimum of 8 cigarettes per day. Heavy part-time workers would smoke half this amount, and part-time workers would some half of these amounts. In line with the study by Nelson that an average of 6 minutes per cigarette was consumed in smoking and applying age and sex relevant wage rates to the smoking working population it is estimated that ***the total cost of lost productivity from smoking breaks was approximately £1 billion per annum (£915 million).***

The calculation to reach this number is:

Number of smokers in the workforce X average wage X cigarettes smoked per hour X time taken per hour to smoke a cigarette

where “X” means “multiplied by”.

This is lower than the £3.5 billion per annum gained from up-dated and extrapolating the Parrot et al (2000) Scottish figures to the UK working smoking population. The Parrot et al estimate was based on a different methodology and assumed, amongst other things, 50% of workplace buildings were smokefree and 50% had smoke-rooms with subsequent attendant increases in cost arising from greater time lost in smoking. As such direct comparison is difficult. A recent study by Ryan and Crampin (2006) estimated that smoking workers smoked on average 6.4 tobacco products per day and used 10 minutes doing so. Using these figures, and assuming light smokers in the working population and smokers working part-time smoked at half this rate the value of lost productivity from smoking breaks rises to £1.2 billion per annum.

4.3 Cost of commercial fire damage attributable to smoking: F

Estimates of the cost of commercial fire damage are difficult to obtain. We adopt two approaches. In the first an estimate is gained through reference to the average cost of a commercial fire as calculated by the Office of Deputy Prime Minister (2004), and the number of fires in buildings attributed to tobacco smoke materials taken from the Communities and Local Authority Fire

Statistics (2006). The average cost of fire damage to commercial buildings and related estimates of lost output as a result of the fire is calculated to be £30,798. The number of fires in buildings estimated to be related to tobacco materials was 3905, or approximately 7% of all fires, in 2006. On this basis, updating to 2008 prices, *the cost of smoking related fires in commercial property is estimated to be £133 million*. Of course this may be an overestimate as the smoking prohibition at the workforce regulations came into full effect in 2007, so the number of fires for the last year for which there is data (2006) on fires in commercial buildings may be an overestimate. Indeed Fire Statistics Monitor (2009) records a fall of 11% over the year 2007-08, this would reduce the cost of smoking related fire damage in commercial premises to £118.4 million per annum.

In our second calculation we draw on evidence from the Association of British Insurers (ABI). According to the ABI in 2008 commercial fires cost the nation £865 million of which £33 million were related to schools (ABI News Release, March 2009). Assuming the rest to reflect the cost of fire damage in commercial and public buildings £832 million can be attributed to fire damage relating to places of employment. It is estimated, from our own calculation, that of all fire-related treatments undertaken by the NHS 15% are attributable to smoking related fire damage based on the total number of fire related deaths given by the Hospital Episode Statistics (HES,2009) and the relative risk of smoking in the general population. Assuming this proportion applies to the cost of fire damage returns *smoking related fire damage at the workplace of £124.8 million*. If more conservative figures of 10% or 5% or 1% of commercial fire damage is attributable to smoking the estimate falls to £83.2 million, £41.6 million and £8.32 million per annum respectively. Regardless of the assumption the cost of smoking related fire damage on these assumptions is minimal compared to the value of productivity losses attributed to smoking.

Thus ***the base case range of smoking related fire damage to commercial property lies between £124.8 million and £133 million*** depending on the methodology adopted and assumptions used. In either case even these top-end figures are a small proportion of the overall cost of smoking related costs currently borne by employers.

4.4 Indirect costs

There are other indirect costs which are borne by employers and attributable to employee smoking as borne by the employer. The type of costs envisaged here are those arising from the loss to company image from smoking employees smoking outside the premises which gives rise to a loss in customer satisfaction for example, or to the dissatisfaction felt by non-smoking workers who perceive smoking colleagues to be shirking as they take smoke breaks, or the general loss in goodwill attributable to continued workplace smoking.

By their very nature these indirect costs attributable to smoking and borne by employers are difficult to quantify. There is no doubt however that they do exist. The Office for National Statistics Survey on Attitudes to Smoking did find that approximately 60% (59%) of non-smokers do mind if smokers smoke close to them (Lader, 2008 for ONS). That said 48% of smokers did not smoke at all if the environment contained non-smokers and 33% of smokers said they smoked less. Respondents to the survey reported that 93% of individuals worked in smokefree premises, while 31% stated smoking was also banned from the grounds of the workplace.

Given the difficulty in valuing these indirect costs we propose to give *indicative* values as gained from three competing and mutually exclusive methods. The aim is to place a monetary value on the indirect costs borne by employers from continued employee smoking. The first way in which this is done is to draw on existing estimates from the Confederation of British Industry (CBI) of lost consumer satisfaction from absenteeism. The second is to assume that employers wish to compensate employees for the fact that there continues to be employees who smoke during work and estimate an imputed value based on employer investments in health programmes. Finally an imputed value of indirect costs to employers is based on the amount of money employers would have to compensate smokers to stop smoking in workplace environs; note that 60% of individuals are still allowed to smoke outside on work grounds (Lader, 2008).

The first measure is based on the CBI estimates of indirect costs associated with lost customer satisfaction from general employee absenteeism. The CBI survey estimates such indirect costs to be £263 per employee per year. Applying this figure to a weighted full-time and part-time working smoking population and to the excess days lost attributable to smoking alone ***the indirect cost estimate would be £1.1 billion.***

A second means of valuing indirect cost of smoking to the employer is to impute a value based on the investments in health programmes within the workplace that an employer might use to compensate employees for working with smoking colleagues. Assuming such investments would be offered to smokers and non-smokers alike and applying a cost of £267, which is the estimated cost per employee of providing a full physical activity programme as estimated by Bending et al (2008), This estimate is at the upper end of such programmes as Bending et al also estimate it costs £57 per employee for a low level health programme based on a health promotion consultation.. Further assuming that the up-take of such a programme would be 5% in full-time employees and 1% in part-time employees ***the indirect cost estimate would be £159 million.*** If up-take rose to 10% in the full-time employees and 5% in part-time employees the value indirect costs of smokers in the employed population would rise to £349 million.

A third and final method to calculate the imputed value of indirect costs of smokers in the employed population as borne by the employer is to estimate the monetary amount smokers would have to be compensated by the employer not to smoke at all at the workplace. This can be estimated through calculating “consumer’s surplus” which is the value consumers place on a good over and above what they have actually paid for it. If smokers were told to give up all smoking they would lose the value of this consumer’s surplus associated with consuming the cigarettes they would have smoked at work. This value can be thought of as the amount of monetary compensation employers would have to give smokers to stop them smoking at the workplace entirely.

This can be estimated through calculating the rise in price of a cigarette that would be required to induce smokers to cut down smoking by the number of cigarettes they smoke at work. Using the current price of cigarettes, the number smoked at work and the “price-elasticity” of cigarettes (the responsiveness of smokers to price changes in cigarettes) this can be estimated as half this price rise times the number smoked. On this basis ***the indirect costs of smoking at the workplace are estimated to be £3.7 million per year.***

5. Estimates of Costs to Employers through Employee Smoking by Industrial Sector and UK Region

Using the same calculations as described above in sections 4.1 and 4.2 we can calculate the excess cost of absence by employees who smoke and the cost of smoking breaks by the industrial sector of occupation and by UK region. The only differences are that the calculations by industrial sector uses hourly wages and hours worked by Industrial Standard Classification to calculate the excess direct costs imposed on employers by sickness absence attributable to smoking and from smoking breaks at work. All other assumptions are the same. The results are reported in Table 4 in the Appendix. Interestingly for both direct costs the largest impact by industrial sector is associated with corporate managers (approximately a fifth of the cost of smoking relating absences and smoking break costs respectively). This appears to be because, not only is this a relatively large employment classification as it is a broad group of employees, but smoking prevalence is not seen to be much lower than average and wage costs are substantially higher than most other groups leading to a higher value of lost time at work attributable to smoking.

Table 5 gives the percentage of employee smoking direct costs, measured as the value of smoking attributable absences and smoking break at the workplace costs, by UK region. Notice that the main geographical burden falls on London and the South East of England which is perhaps surprising given that smoking prevalence is amongst the lowest in the country within these two regions (19%). However wages are particularly high in these regions, so that whilst the North West, West Midlands and Scotland all had higher smoking prevalence (at 23%, 23%, and 24% respectively) the wage costs were substantially lower so the cost of smoking related absences and smoking breaks at work were valued lower.

6. Summary

So the direct costs associated with smoking in the workplace as given by the formulae:

$$CSE = A + B + F$$

Where:

CSE = cost of smoking borne by employers

A= cost of productivity losses due to smoking related illness absences

B= cost of productivity losses due to smoking breaks

F= cost of commercial fire damage attributable to smoking

are as follows:

Total Direct Cost of Smoking Borne by Employers £2.1 billion = £1.1 billion from smoking related illness absence + £914 million from smoking related breaks + £133 million in fire damage

Although this ***total cost of employee smoking borne by employers rises to £3.3 billion*** if indirect costs of £1.1 billion are added in, becomes £2.3 billion if indirect costs of £159 million are added in and then £2.1 billion if the indirect costs are estimated at £3.7 million.

7. Conclusions

The current total estimate of the direct costs to employers of employee smoking remain high; estimated to be £2.1 billion per annum (2008 prices). These direct costs are dominated by the cost of illness absences by smokers and by smokers taking work-breaks to smoke. Both aspects have an enormous impact on the value of lost productivity and therefore output due to employees who smoke. While it is immensely difficult to estimate indirect costs of employee smoking as borne by employers a number of different approaches show that these are not as high as direct costs but could be as high as £1.1 billion. If these indirect costs are taken into account the employer borne costs of employee smoking lies in the range £2.1 billion to £3.3 billion per annum.

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Table 1 Excess days of sickness per FTE smoking employee

Study	Excess days per year
Green et al (1992)	0.48
Qun and Dobson (1992)	0.58
Bertera (1991)	0.66
Tsai et al (2005)	0.83
van Tuinen and Land (1996)	1.10
North et al (1993)	1.75
Bunn et al (2006)	1.42
Halpern et al (2001)	1.98
Ryal et al (1992)	2.19
Tsai et al (2005)	4.97
Average	1.77

Table 2 Prevalence of Smokers in Workforce

Number of smokers in these categories ('000s)
FT light FT heavy PT light PT heavy

Men

16-17	16	1	33	2
18-24	466	86	52	10
25-34	679	216	76	24
35-49	844	475	94	53
50-64(m)	495	283	55	32
65+(m)	31	15	5	2

Women

16-17	5	1	39	4
18-24	265	42	164	26
25-34	353	53	219	33
35-49	511	192	317	119
50-59(f)	229	115	142	71
60+(f)	39	13	36	12

Total	3932	1491	1230	387
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**TOTAL Smokers
in Workforce**

7041.03

Table 3 Total Productivity Cost of Smoking Related Absence

Age Groups:Men	Number of smoking workers (000s)	Male hourly wage	Average mean hrs paid	
16-17	51	£ 5.46	23.8	£ 2,346,672.18
18-24	614	£ 7.44	36.5	£ 59,132,880.12
25-34	994	£ 11.35	37.0	£ 147,925,244.41
35-49	1465	£ 17.84	36.7	£ 339,866,127.35
50-64(m)	865	£ 16.76	36.5	£ 187,406,638.20
65+(m)	54	£ 13.69	35.9	£ 9,329,466.61
		Female hourly wage		
Age Groups: Women				
16-17	48	£ 5.21	19.8	£ 1,761,231.09
18-24	497	£ 6.91	27.6	£ 33,542,385.92
25-34	657	£ 10.82	28.7	£ 72,319,337.41
35-49	1138	£ 12.90	29.8	£ 155,020,845.69
50-59(f)	557	£ 12.59	29.7	£ 73,664,506.39
60+(f)	100	£ 10.69	26.7	£ 10,147,437.32
			Total productivity cost of smoking related absence	£ 1,092,462,772.67
	Total male smokers	4,043,300		
	Total female smokers	2,997,730		
	Total smokers	7,041,030		

Table 4: Cost by given industrial Sector*

		Cost of Absences		Cost of Smoking Breaks	
		% of cost	Cost	% of cost	Cost
Managers and senior officials					
Corporate managers	11	19.07%	£ 208,356,323.08	21.58%	£ 197,377,821.51
Managers and proprietors in agriculture and services	12	2.75%	£ 30,012,028.23	3.00%	£ 27,480,258.06
Professional occupations					
Science and technology professionals	21	3.76%	£ 41,122,706.14	4.27%	£ 39,011,657.47
Health professionals	22	1.19%	£ 12,971,053.70	1.14%	£ 10,423,101.31
Teaching and research professionals	23	5.75%	£ 62,865,832.01	5.41%	£ 49,456,096.91
Business and public service professionals	24	2.88%	£ 31,473,921.99	3.09%	£ 28,271,311.42
Associate professional and technical occupations					
Science and technology associate professionals	31	1.59%	£ 17,346,050.18	1.76%	£ 16,113,531.52
Health and social welfare associate professionals	32	3.42%	£ 37,377,939.21	3.11%	£ 28,418,448.71
Protective service occupations	33	2.03%	£ 22,188,187.89	2.27%	£ 20,736,601.78
Culture, media and sports occupations	34	1.42%	£ 15,475,334.19	1.34%	£ 12,264,386.58
Business and public service associate professionals	35	5.75%	£ 62,790,137.91	6.28%	£ 57,441,684.41
Administrative and secretarial occupations					
Administrative occupations	41	6.84%	£ 74,739,870.66	6.54%	£ 59,788,720.30
Secretarial and related occupations	42	1.34%	£ 14,642,519.41	1.15%	£ 10,532,415.27
Skilled trades occupations					
Skilled agricultural trades	51	0.35%	£ 3,789,258.87	0.38%	£ 3,441,258.21
Skilled metal and electrical trades	52	4.96%	£ 54,201,604.70	5.67%	£ 51,888,437.40
Skilled construction and building trades	53	2.54%	£ 27,708,948.97	2.86%	£ 26,167,407.23
Textiles, printing and other skilled trades	54	1.48%	£ 16,123,963.39	1.48%	£ 13,576,874.15
Personal service occupations					
Caring personal service occupations	61	5.88%	£ 64,251,186.82	4.29%	£ 39,267,762.56
Leisure and other personal service occupations	62	1.48%	£ 16,137,934.98	1.26%	£ 11,507,345.80
Sales and customer service occupations					
Sales occupations	71	4.50%	£ 49,132,008.60	3.03%	£ 27,757,334.10
Customer service occupations	72	1.15%	£ 12,553,825.55	1.03%	£ 9,439,200.98
Process, plant and machine operatives					
Process, plant and machine operatives	81	4.99%	£ 54,477,368.00	5.52%	£ 50,522,745.23
Transport and mobile machine drivers and operatives	82	3.25%	£ 35,493,774.11	3.53%	£ 32,289,139.21
Elementary occupations					
Elementary trades, plant and storage related occupations	91	4.95%	£ 54,120,157.82	5.37%	£ 49,131,769.61
Elementary administration and service occupations	92	6.69%	£ 73,110,836.62	4.63%	£ 42,380,552.28
		100.00%	£ 1,092,462,773.00	100.00%	£ 914,685,862.00

*Taking the IC-2 digit classification as the Base case

Table 5 - Employer Borne Costs by Region

Region	Absences attributable to smoking	Smoking breaks at work	Total cost
NE	£38,340,535	£31,938,794	£70,279,329
NW	£122,827,181	£102,697,095	£225,524,276
Yorkshire	£87,501,573	£72,636,311	£160,137,884
E Midlands	£66,304,772	£55,309,718	£121,614,490
W Midlands	£94,228,768	£79,056,961	£173,285,729
East	£91,027,823	£75,356,620	£166,384,443
London	£174,558,453	£152,163,759	£326,722,212
SE	£149,320,605	£124,870,921	£274,191,526
SW	£89,962,286	£71,477,812	£161,440,098
Wales	£44,081,958	£36,478,229	£80,560,187
Scotland	£104,856,774	£88,184,930	£193,041,704
NI	£29,452,043	£24,514,711	£53,966,754