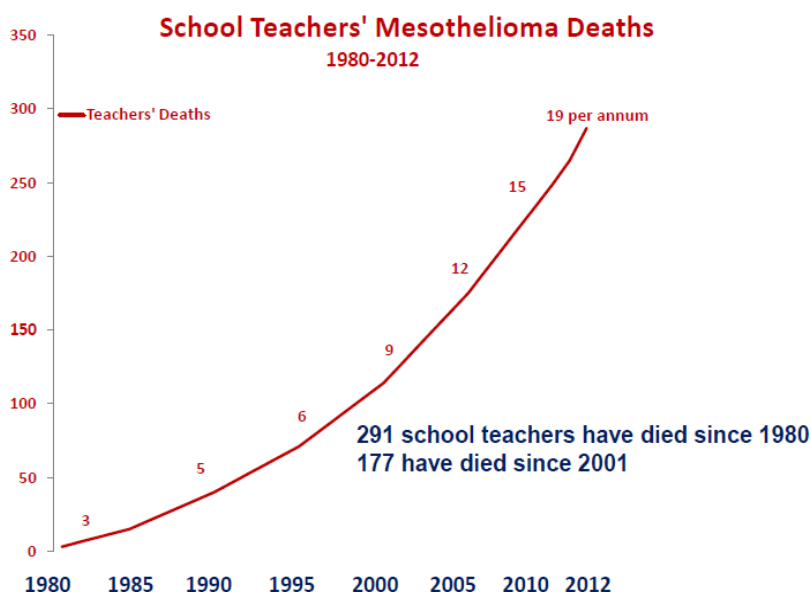


## Increasing mesothelioma deaths amongst school staff and former pupils

The 2003 to 2012 mesothelioma statistics for the Education Sector show an ever increasing rise in the number of school teachers dying from mesothelioma.<sup>1</sup> 22 school teachers died in 2012.<sup>2</sup> 177 have died since 2001 and 291 have died since 1980. 3 school teachers died on average each year in the 1980s. They are now dying at a rate of 19 a year.<sup>3</sup>



Perhaps some school teachers have been exposed to asbestos elsewhere, but many are known to have been exposed at school and because of teachers' career pattern the occupation recorded on their death certificate is likely to be the occupation in which the exposure occurred.<sup>4</sup>

The occupational statistics do not include mesothelioma deaths above the age of 74, although almost as many people die of mesothelioma above that age as below. Studies have shown that lower exposures on average have longer latencies,<sup>5</sup> and therefore in a profession such as teaching it

<sup>1</sup> See Annex 1. Male and female mesothelioma deaths and PMRs aged 16-74 for selected occupations in the health and education sectors in Great Britain, 2003-2012 Freedom of Information Request Reference No: 201420002. 7 Jan 2015.

<sup>2</sup> HSE: Male and female mesothelioma deaths aged 16-74 for selected occupations in the education and medical sectors 2012. FOI Freedom of Information Request Reference No: 2014100437 27 Nov 2014

<sup>3</sup> See Annex 3. HSE: Male and female mesothelioma deaths aged 16-74 for selected occupations in the education and medical sectors 2012. FOI Freedom of Information Request Reference No: 2014100437 27 Nov 2014. HSE Mesothelioma Occupation Statistics Male and female deaths aged 16-74 in Great Britain 2002-2010 Mar 2013 <http://www.hse.gov.uk/statistics/causdis/mesothelioma/mortality-by-occupation-2002-2010.pdf> . HSE Mesothelioma occupational statistics: Male and female deaths aged 16-74 1980-2000 Table 3,4 Southampton Occupation Group. 5 year time period 1980-2000 excluding 1981. HSE: Male and female mesothelioma deaths aged 16-74 for selected occupations in the education and medical sectors 2012. FOI Freedom of Information Request Reference No: 2014100437 27 Nov 2014. E-mail HSE Statistics Unit/Lees 15 Jul 2008. Mesothelioma deaths in the education sector for males and females 2001-2005. HSE Mesothelioma mortality in Great Britain: Analyses by Geographical area and occupation 2005 Tables 11, 13 (2002-2005)

<sup>4</sup> E-mail DCSF Workforce Group /Lees 27 January 2010 15:47 Case Reference 2010/0004693 "The average length of service for full-time teachers is about 30 years". And Scottish Parliamentary written answer S2W-15080 18 Mar 2005

<http://www.theyworkforyou.com/spwrrans/?id=2005-03-18.S2W-15080.h> Death certificate is based on last occupation. Therefore occupation on retirement or death. Average length of service at retiring age, early retirement or because of ill health is about 33 years.

<sup>5</sup> Asbestos exposures in malignant mesothelioma of pleura; a survey of 557 cases Bianchi Industrial health 2001,39, 161-167 . Malignant mesothelioma due to environmental exposure to asbestos: follow up of a Turkish cohort living in a rural area. Chestp2228. Metintas Mesothelioma: cases associated with non-occupational and low dose exposures Hillerdal Occup Environ Med 1999;56:505-513

is reasonable to assume that as many, or perhaps more, teachers have died over the age of 74. If so, the occupational statistics significantly understate the actual numbers of teachers who have died.

16 Educational assistants, 8 school secretaries and 8 nursery nurses and assistants died between 2003 and 2012. School caretakers, cleaners and cooks have also died of the cancer,<sup>6</sup> but the occupational statistics are generic and do not record their deaths under schools.

Former pupils are also dying of mesothelioma. For every teacher there are 20-30 children. The Committee on Carcinogenicity (CoC) concluded that children are more vulnerable to exposure to asbestos than adults, the younger the child the greater the risk. The lifetime risk of developing mesothelioma for a five year old child is about five times greater than an adult aged thirty.<sup>7</sup> A leading epidemiologist, and member of the CoC, estimated that between 200 and 300 people could die each year of mesothelioma because of their asbestos exposure as children at school.<sup>8</sup> That would equate to between 4,000 and 6,000 mesothelioma deaths over a twenty year period because of asbestos exposure as a child at school.

Although the estimates were based on the levels of exposure during the 1960s and 1970s, most of the asbestos remains in place and so does the risk. All of it is now old and much is deteriorating as the school stock has been poorly maintained. The evidence is that asbestos incidents continue, consequently staff and pupils are still being exposed to asbestos, in some cases over a prolonged period of time. Therefore the deaths will continue for many years to come.

School teachers' deaths are higher than other comparative occupations and far higher than occupations where much of the time is spent outdoors. The Proportional Mortality Ratio (PMR) gives a comparison with other occupations. Between 2003 and 2012 the PMR for female primary school teachers was 129.9, which is more than three times greater than had there been no asbestos exposure.<sup>9</sup> This compares to a PMR of 79.1 for female nurses. (There are a similar number of female nurses as there are female teachers.) The PMR for male secondary teachers for 2003 to 2012 was 71.1. This compares to 46.7 for doctors. The statistics for 2001-2010 show that in outdoor occupations the PMRs are far lower at 17 for male farm workers and 24 for forestry workers.<sup>10</sup>

The statistics add to the evidence that people are being exposed to asbestos in buildings. Teaching is an occupation where one should expect minimal or no asbestos exposure. The mesothelioma deaths amongst school teachers, support staff and former pupils show there has been a significant, and increasing, exposure to asbestos in schools.

HSE advise the Government that the risks from asbestos to staff and pupils in schools are "very low."<sup>11</sup> There are few people who would agree with HSE when hundreds of teachers and support staff and thousands of former pupils have died, and will die, from the simple act of attending school. HSE advice to the Government is profoundly wrong.

*Michael Lees*  
*17<sup>th</sup> January 2015*

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<sup>6</sup> See: Asbestos in Schools. The scale of the problem and the implications. P34-42

<http://www.asbestosexposureschools.co.uk/pdfnewslinks/AiSreportonASBESTOSINSCHOOLS.pdf>

<sup>7</sup> Committee on Carcinogenicity Statement on the relative vulnerability of children to asbestos compared with adults. 7 June 2013

<sup>8</sup> Education Select Committee hearing asbestos in schools 13 Mar 2013 Q 13 . Personal correspondence Professor Peto/Lees 3 May 2013

<sup>9</sup> HSE statistics Mesothelioma Occupational statistics 1980-2000 Interpretative issues p5

<sup>10</sup> HSE Mesothelioma Occupation Statistics Male and female deaths aged 16-74 in Great Britain 2002-2010 Mar 2013

<http://www.hse.gov.uk/statistics/causdis/mesothelioma/mortality-by-occupation-2002-2010.pdf>

<sup>11</sup> Meetings with the Schools Minister David Laws 10 Jan 2013 and 19 Nov 2013. Lees contemporaneous notes

## Annex 1

**Table 1: Male mesothelioma deaths and PMRs aged 16-74 for selected occupations in the health and education sectors in Great Britain, 2003-2012<sup>12</sup>**

Occupation description	Minor or unit group code	Observed deaths	Expected deaths	PMR	95% Confidence	
					Lower	Upper
Medical practitioners	2211	14	30.0	46.7	25.6	78.4
Nurses	3211	10	28.1	35.5	17.0	65.3
Higher education teaching professionals	2311	18	27.7	64.9	38.5	102.6
Further education teaching professionals	2312	37	41.7	88.6	62.4	122.2
Education officers, school inspectors	2313	1	4.0	24.9	0.6	138.9
Secondary education teaching professionals	2314	68	95.6	71.1	55.2	90.1
Primary and nursery education teaching professionals	2315	9	19.6	45.9	21.0	87.2
Special needs education teaching professionals	2316	3	1.9	157.4	32.5	460.0
Senior professionals of educational establishments	2317	2	4.3	46.5	5.6	168.1
Teaching and other educational professionals not elsewhere classified	2319	2	7.1	28.1	3.4	101.5
<b>Teaching professionals</b>	<b>231</b>	<b>140</b>	<b>202.1</b>	<b>69.3</b>	<b>58.3</b>	<b>81.8</b>
School secretaries	4213	0	0.3	0.0	0.0	1081.0
Nursery nurses and assistants	6121	0	0.2	0.0	0.0	2131.6
Childminders and related occupations	6122	0	0.3	0.0	0.0	1202.0
Playworkers	6123	0	0.1	0.0	0.0	2961.9
Educational assistants	6124	3	1.6	183.5	37.8	536.1
<b>Childcare and related personal services</b>	<b>612</b>	<b>3</b>	<b>2.2</b>	<b>133.9</b>	<b>27.6</b>	<b>391.4</b>
School midday assistants	9244	1	0.1	969.4	24.5	5401.2

<sup>12</sup> Male and female mesothelioma deaths and PMRs aged 16-74 for selected occupations in the health and education sectors in Great Britain, 2003-2012 Freedom of Information Request Reference No: 201420002. 7 Jan 2015.

**Table 2: Female mesothelioma deaths and PMRs aged 16-74 for selected occupations in the health and education sectors in Great Britain, 2003-2012<sup>13</sup>**

Occupation description	Minor or unit group code	Observed deaths	Expected deaths	PMR	95% Confidence	
					Lower	Upper
Medical practitioners	2211	2	2.6	76.6	9.3	276.8
Nurses	3211	55	69.6	79.1	59.6	102.9
Higher education teaching professionals	2311	1	2.0	49.1	1.2	273.6
Further education teaching professionals	2312	6	5.6	107.4	39.4	233.7
Education officers, school inspectors	2313	0	0.7	0.0	0.0	525.1
Secondary education teaching professionals	2314	7	13.3	52.8	21.2	108.8
Primary and nursery education teaching professionals	2315	66	50.8	129.9	100.5	165.3
Special needs education teaching professionals	2316	0	2.1	0.0	0.0	176.7
Senior professionals of educational establishments	2317	2	2.0	100.1	12.1	361.7
Teaching and other educational professionals not elsewhere classified	2319	2	3.7	54.6	6.6	197.2
<b>Teaching professionals</b>	<b>231</b>	<b>84</b>	<b>80.1</b>	<b>104.8</b>	<b>83.6</b>	<b>129.8</b>
School secretaries	4213	8	5.9	135.7	58.6	267.5
Nursery nurses and assistants	6121	8	6.2	129.8	56.0	255.8
Childminders and related occupations	6122	4	5.2	76.8	20.9	196.5
Playworkers	6123	0	1.4	0.0	0.0	269.4
Educational assistants	6124	13	10.7	121.8	64.9	208.3
<b>Childcare and related personal services</b>	<b>612</b>	<b>25</b>	<b>23.4</b>	<b>106.8</b>	<b>69.1</b>	<b>157.6</b>
School midday assistants	9244	14	12.7	110.4	60.3	185.2

<sup>13</sup> Male and female mesothelioma deaths and PMRs aged 16-74 for selected occupations in the health and education sectors in Great Britain, 2003-2012 Freedom of Information Request Reference No: 201420002. 7 Jan 2015.

## Annex 2

**Table 1: Male and female mesothelioma deaths aged 16-74 for selected occupations in the education 2012<sup>14</sup>**

Standard Occupational Classification 2010	Male	Female	Total
2311 Higher education teaching professionals	4	0	4
2312 Further education teaching professionals	1	1	2
2314 Secondary education teaching professionals	8	1	9
2315 Primary and nursery education teaching professionals	0	11	11
2316 Special needs education teaching professionals	1	0	1
2317 Senior professionals of educational establishments	1	0	1
2318 Education advisers and school inspectors	0	0	0
2319 Teaching and other educational professionals n.e.c.	0	0	0
4213 School secretaries	0	2	2
6121 Nursery nurses and assistants	0	0	0
6122 Childminders and related occupations	0	0	0
6123 Playworkers	0	0	0
6125 Teaching assistants	1	3	4
6126 Educational support assistants	0	0	0
9244 School midday and crossing patrol occupations	0	2	2
<b>Total</b>	<b>16</b>	<b>20</b>	<b>36</b>

### Medical sectors in Great Britain, 2012

2211 Medical practitioners	0	0	<b>0</b>
2231 Nurses	0	3	<b>3</b>

<sup>14</sup> HSE Table 1: Male and female mesothelioma deaths aged 16-74 for selected occupations in the education and medical sectors 2012. FOI Freedom of Information Request Reference No: 2014100437 27 Nov 2014

## Annex 3

### Mesothelioma deaths School Teachers and Teachers and Lecturers 1980-2012 aged 16-74.

	1980-1985 Southampton coding <sup>15</sup>	1986- 1990	1991- 1995	1996- 2000	2001- 2010 SOC 90,2000 <sup>16</sup>	2011 <sup>17</sup>	2012 <sup>18</sup>	TOTALS 1980-2012
<b>Higher/Further Education</b>	6	12	22	26	67	4	6	<b>143</b>
<b>Rate per annum</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>5</b>	<b>7</b>	<b>4</b>	<b>6</b>	
<b>School Teachers Teachers NEC</b>	15	25	31	43	139	16	22	<b>291</b>
<b>Rate per annum</b>	<b>3</b>	<b>5</b>	<b>6</b>	<b>9</b>	<b>14</b>	<b>16</b>	<b>22</b>	
<b>TOTAL Higher/Further Education School Teachers. Teachers NEC</b>	21	37	53	69	206	20	28	<b>434</b>

<sup>15</sup> HSE Mesothelioma occupational statistics: Male and female deaths aged 16-74 1980-2000 Table 3,4 Southampton Occupation Group. 5 year time period 1980-2000 excluding 1981

<sup>16</sup> E-mail HSE Statistics Unit/Lees 21 Nov 2012 . Mesothelioma deaths in the education sector for males and females 2001-2010. HSE Mesothelioma mortality in Great Britain: Analyses by Geographical area and occupation 2005 Tables 11, 13 (2002-2005)

<sup>17</sup> E-mail HSE Corporate Science, Engineering Analysis Directorate (CSEAD)/Lees Male and female mesothelioma deaths aged 16-74 for occupations in the education sector in Great Britain, 2011. Freedom of Information Request Reference No: 2013110056 21 Nov 2013

<sup>18</sup> HSE: Male and female mesothelioma deaths aged 16-74 for selected occupations in the education and medical sectors 2012. FOI Freedom of Information Request Reference No: 2014100437 27 Nov 2014