Development-led Archaeology

Health and Safety Injury Survey 2022-23

FAME Health and Safety Survey Series

Development-led Archaeology Health and Safety Injury Survey 2022-23. Version 1, February 2025.

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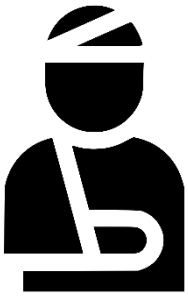
Near-miss: From FAME's Near-miss guide

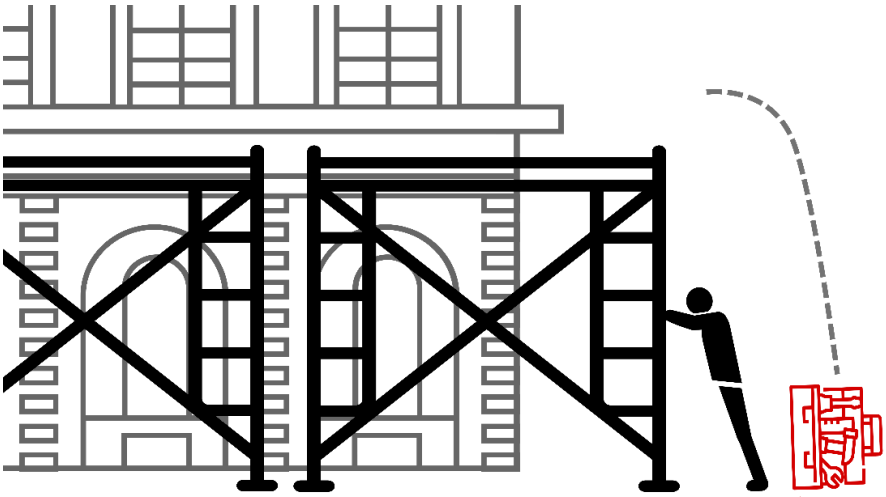
Three Key Findings

1. Archaeology has lower RIDDOR accident rates than the construction industry.



2. £8.1 million is lost each year in development-led archaeology to ill health, injury and stress.

3. Near misses – are under-reported in the sector.



Background

A goal of FAME's Health & Safety strategy is to assemble industry injury and accident data to assist with the development of preventative measures and improved ways of working. This is FAME's sixth Health and Safety Injury Survey; the first was for the 2009-10 financial year, and since 2018-19 we have undertaken these surveys annually. This report covers the financial year 2022-23, and only covers archaeologists working in the UK.

Methods

The questions used for this survey were included in the 2022-23 State of the Archaeological Market Survey. A total of 25 responses were received[1] from organisations employing 2069.7 fulltime equivalent[2] positions. This represents 43% of the estimated 4851 FTE (full time equivalent) archaeologists working in UK development-led archaeology[3] as contractors and consultants – curators are not included in this total. This survey samples the sector and assumes that the rates for this sample are reflective of the whole sector – a safe assumption given the ~40% coverage.

Results

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR)

In the UK, RIDDOR is the legal instrument that requires employers, and those in charge of work premises, to report and keep records of:

- work-related accidents which cause deaths
- work-related accidents which cause certain serious injuries (reportable injuries)
- diagnosed cases of certain industrial diseases; and
- certain 'dangerous occurrences' (incidents with the potential to cause harm)

Respondents were asked about their RIDDOR reportable injuries, and their responses can be found in Table 1[4]. Development-led archaeology again had a low year of RIDDOR reportable injuries which has lowered the average.

[1] not all respondents to the SoAM survey (36) responded to the H&S questions.
[2] 37.5 hours per week, 52 weeks per year
[3] Due to low responses from Irish organisations to SoAM these data focus only on the UK
[4] The Regulations were last updated in 2013. The 2013 changes mean that the 2009-10 data from the first FAME Health and Safety Injury Survey are mostly not comparable to the data collected by FAME since 2018 and thus not included in any of the tables.

Table 1: Reported number of different RIDDOR injuries from 2018-23, for development-led archaeology.

Type	2018-19	2019-20	2020-21	2021-22	2022-23	2018-23 average
Specified injuries (including fatality)	4	1	0	0	1	1.2
Injuries resulting in over 7 days absence	3	2	3	1	0	1.8
Occupational diseases[5]	0	0	5	0	0	1
Occupational disease other[6]	0	0	0	0	0	0
Specified dangerous occurrences	0	1	1	0	0	0.4
Total (*n*=)	7	4	9	1	1	4.4

Injury Frequency Rate and Incident Rate

There are two primary injury figures: Incident Rate and Frequency Rate[7]. The Injury Frequency Rate indicates the number of Reportable Injuries employees are likely to have for every 1,000,000 hours worked.[8] The Incident Rate is the number of injuries per 100,000 employees[9]. The estimated Injury frequency[10] and Incident rates for the sector were calculated and can be found in Table 2.

Table 2: Estimated RIDDOR injury frequency and incident rate of respondents to the survey from 2018-23.

	2018-19		2019-20		2020-21	
RIDDOR	Injury frequency rate	Incident rate	Injury frequency rate	Incident rate	Injury frequency rate	Incident rate
Specified injuries	2.01	342	0.16	31.83	0	0
Injuries resulting in over 7 days absence	1.51	256	0.33	63.65	0.96	187.5
Occupational diseases	0	0	0	0	1.6	312.5
Occupational disease other	-	-	-	-	-	-
Specified dangerous occurrences	-	-	0.16	31.83	0.32	62.5

[5] including carpal tunnel syndrome, tendonitis and occupational dermatitis
[6] caused by exposure to carcinogens, mutagens & biological agents (including occupational cancers)
[7] for more information see http://www.hse.gov.uk/statistics/adhoc-analysis/injury-frequency-rates.pdf
[8] Calculated as (Number of Reportable Injuries in the period / Total hours worked (by all employees) during the period) X 1,000,000
[9] Calculated as (Injuries per year / employed) * 100,000
[10] Using 37.5 hrs per week x 52 weeks x 2069.7 FTE archaeologists

RIDDOR	2021-22		2022-23	
	Injury frequency rate	Incident rate	Injury frequency rate	Incident rate
Specified injuries	0	0	0.25	48.32
Injuries resulting in over 7 days absence	0.28	54.64	0	0
Occupational diseases	0	0	0	0
Occupational disease other	-	-	-	-
Specified dangerous occurrences	0	0	0	0

Compared to other sectors

Given how incident rates are calculated - per every 100,000 workers - and the size of the development-led archaeological industry - ~4-5k people - one reported accident can greatly alter the results and these surveys have shown archaeology having both very high and low accident rates. This was a 'low' year, but the averages over several years should be considered, rather than focussing on individual years (Table 3).

Table 3: Estimated injury frequency and incident rate of respondents to the survey, 2018-23 average.

RIDDOR	2018-23 Average	
	Injury frequency rate	Incident rate
Specified injuries (including fatality)	0.48	84.43
Injuries resulting in over 7 days absence	0.62	112.36
Occupational diseases	0.32	62.5
Occupational disease other	-	-
Specified dangerous occurrences	0.12	23.58

The Health and Safety Executive (HSE) provide Incident Rate data for different sectors by Standard Industrial Classification codes (SIC 2007)[11]. The averaged Incident Rates for archaeology over the last five years has now dropped below those in the construction sector, which we work in and alongside (Table 4). This average Rate is significantly lower than some manufacturing sectors, though higher than the lowest sectors, like financial services.

[11] The Health and Safety Executive only reports data using the Incident Rate and does not report on Frequency Rates. However, they do provide a methodology for generating the Frequency Rates for sectors, see http://www.hse.gov.uk/statistics/adhoc-analysis/injury-frequency-rates.pdf . In past reports we have made these calculations but have stopped doing this as they have consistently shown the Frequency Rate for archaeology places the sector in a similar position as the Incident rate.

Table 4: Calculated average RIDDOR Incident Rates, non-fatal, for different sectors 2018-22

Industry	Total	Specified	Over-7-day
Highest two sectors			
Other manufacturing	1799	458	1341
Waste collection, treatment & disposal activities	1410	377	1033
Archaeology & Construction			
Construction	299	114	185
Archaeology	196	84	112
Lowest two sectors			
Architectural and engineering activities	2	1	1
Activities auxiliary to financial services & insurance activities	1		

Non-Reportable accidents and near misses

In order to gather data on the prevalence of commonly occurring accidents/incidents across the sector, respondents were asked to report the number of accidents and near misses, which were not RIDDOR reportable (Table 5).

Table 5: Non-RIDDOR accidents and near misses from 2018-23.

Type	2018-19	2019-20	2020-21	2021-22	2022-23	2018-23 average
non-reportable accidents	147	159	235	285	212	207.6
near misses reported	140	133	132	90	30	105
Total (*n*=)	287	292	370	375	252	315.2

This year, for the first time, to better understanding of the seriousness of these Non-RIDDOR reportable accidents, respondents were asked to report on how many incidents resulted in a day or more of absences from work. Only 13% of those incidents resulted in any absences (Table 6) and changes the perspective of areas to focus on. For example, slips trips and falls are the most common injury but most only result in mirror outcomes.

Table 6: Non-RIDDOR accidents and near misses in 2022-23 by type and severity.

type	no days absence	1 or more days absence	near misses
slip, trip or fall	63	4	5
injured while handling, lifting or carrying	45	0	0
struck by moving object - including vehicles	21	8	5
vehicle related incident (including all business usage)	8	2	13
musculoskeletal injury (repetitive type injuries)[12]	11	6	0
Other[13]	36	8	7
Total (*n*=)	184	28	30

[12] sustained over a period of time rather than due to a specific accident e.g. repetitive strain injury, tendonitis, chronic back pain.

[13] Respondents could provide more detail on the other category and three did so – 'stats collated cover all forms of accident/near misses'; 'two incidents of heat exhaustion'; 'dirt in eye'.

Days absence

New questions were asked, this year, about days absence relating to injuries, ill health, stress/depression/anxiety and musculoskeletal disorders to better understand what are causing absences. The results show that ill health is the number one driver of absences – resulting in an average of almost five and half days lost each year for each FTE archaeologist. Stress, depression or anxiety is the next greatest factor in lost working days (Table 7).

Table 7: Days of absence and causes in 2022-23.

	2022-23	
Causes	**days absence**	**average absence per FTE**
injuries	73	0.11
ill health cases	3662	5.43
stress, depression or anxiety	526.5	0.78
musculoskeletal disorder	347	0.51
Total (*n*=)	4608.5	

Caution needs to be taken with the following analysis as these results are only based on 15 responses, representing 674.6 FTE staff. While this represents 14% of archaeologists working in consulting and contraction, a statistically strong sample, this only covers one year and the end of the COVID pandemic. More years of data will help smooth out fluctuations and give us a better understanding of what is causing absences for archaeologists.

Extrapolating out these results across the sector would indicate 32,920 days[14] were lost in the UK development-led archaeological sector (contractors and consultants), which is equal to a £8,100,000 loss[15]. The estimated profit/surplus[16] in 2022-23 was only £9,600,000 for the sector[17]. However, as discussed below, some of these absences are caused by non-work related in events i.e. the common cold and cannot be eliminated by improved health and safety are work.

Compared to other sectors

HSE collects similar statistics on missed days through the Labour Force Survey[18]. However, there are significant difference between the statistics gathered here and by HSE. HSE data are based on reporting from individuals based on their recollections of the past year – which reduces accuracy due to recall issues, while this survey data are based on actual days taken off, as recorded by employers. Moreover, the HSE data is for absences caused or made

[14] Rounded to nearest 10 and calculated by 4851 / by 0.14.
[15] Rounded to the nearest 100,000 in 2022-23. Assumed average of 260 working days a year = 126.5 FTE staff. In 2023-23 the average of turnover per member of staff was £63,780 (The State of the Archaeological Market 2023), and multiplying that times the number of staff time lost.
[16] Many organisations are charities and don't have profits but surpluses.
[17] The State of the Archaeological Market 2023 has the turnover for the sector at £309 million and the profit/surplus margin at 3.1%. This is rounded to the nearest 100,000.
[18] https://www.hse.gov.uk/statistics/lfs/index.htm

worse by their current or most recent job and this survey covers all absences, not just those caused by work. Both data sources use FTE.

HSE provides broad industry statistics, averaged over several years, and we have included those from Construction (Table 8) as a comparison as it is the sector we work in/with. The results show that archaeologists have similar absence levels to all workers for stress, depression or anxiety and for musculoskeletal disorders for Construction. For all absences, archaeologists have more but this is likely due to the HSE data covering only incidents caused by work and this surveys data covering all absences, thus coving the common cold, the flu, etc. which will cause absences but are not work related, usually.

Table 8: Average days of absence by source from this survey compared to HSE data.

	2022-23 average days lost per worker		
Source	**This survey 2022-23**	**HSE All 2022-23**	**HSE construction 2021-24**
All illness	6.83	1.22	1.11
Musculoskeletal disorders	0.51	0.24	0.42
Stress, depression or anxiety	0.78	0.68	0.26

Mental health

This is the second year we have asked questions about mental health provision. Respondents covering 92% of the FTE staff do track staff mental health concerns (Table 9). This is a fall from the previous year (98.7%) but within the expected year to year fluctuations.

Table 9: Respondents tracking staff mental health 2021-23.

	2021-22		2022-23	
Tracking mental health concerns of staff	**n**	**FTE staff**	**n**	**FTE staff**
Yes	16	1577.75	11	1391.5
No	3	20.1	6	120.1
Total (*n*=)	19	1597.85	17	1511.6

The respondents track mental health incidents and levels in the following ways:

- Anonymously, through mental health reporting
- Via HR Manager
- Through line managers, key contacts and HR
- Stress questionnaires at regular intervals
- By line manager reporting.
- Reporting system, 121 check ins.

- Absence management through worksheets and sickness records - tracked on a quarterly basis.
- Sickness reporting Category.
- Anonymous reporting to Mental Health 1st Aiders (MHFAs); Wellbeing surveys run quarterly.
- Mental Health First Aiders log a (confidential/anonymised) record of their time spent and basic information on each case.

Those same organisations provide the following mental health provisions:

- Mental Health First Aiders (x8).
- Specialist support helplines (x2).
- EAP (Employee Assistance Programme) (x4).
- Mental Health Awareness training (x2) .
- Support through private insurance.
- Sign Posting.
- Policies.
- Referrals to specialist therapy providers.
- Well Being Champions.
- Drop-in sessions on the larger sites where staff can discuss MH concerns in person.

Discussion

The data, average of several years now, indicates that archaeology has better incident rates than the construction industry that we work in. To put those findings into perspective, an individual working for 40 years full-time in archaeology would only have a 0.04 frequency rate for a RIDDOR reportable injury 'resulting in over 7 days absence'[19]. That means they would be unlikely to ever experience one. While non-RIDDOR reportable incidents are more frequent, the vast majority of them do not result in any absences from work.

As highlighted in the last two reports, there is concern about the tracking of near misses. FAME has issued a guide on tracking near misses, as they are an excellent way to identify and stop problems before someone gets hurt. However, there should be significantly more near-misses reported than accidents – the Health and Safety Executive believes there are ninety near-misses for every one injury, which this survey is not close to capturing.

The new survey questions have highlighted that:

- some non-RIDDOR incidents are more rare, but more significant in terms of absences they causes e.g. musculoskeletal injury sustained over a period of time;
- absences from illness and injury has a significant financial impact on the sector.

Additional years of data need to be collected to average out these numbers but they indicate promising avenues to improve both staff health and the financial health of the sector.

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[19] This assumes 37.5 hours per week, for 48 weeks per year (assumed four weeks of holiday), for 40 years = 72,000 hours. With a 0.61 frequency rate per 1,000,000 hours worked that is 0.04 chance of injury during that time.