Development-led Archaeology

Health and Safety Injury Survey 2021-22

FAME Health and Safety Survey Series

Development-led Archaeology Health and Safety Injury Survey 2021-22. Version 1, June 2023.

Principal Authors: *Doug Rocks-Macqueen & James White* with input from the FAME *Health and Safety Working Group*

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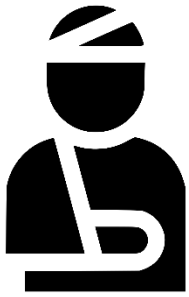
- Near-miss: From FAME's Near-miss guide

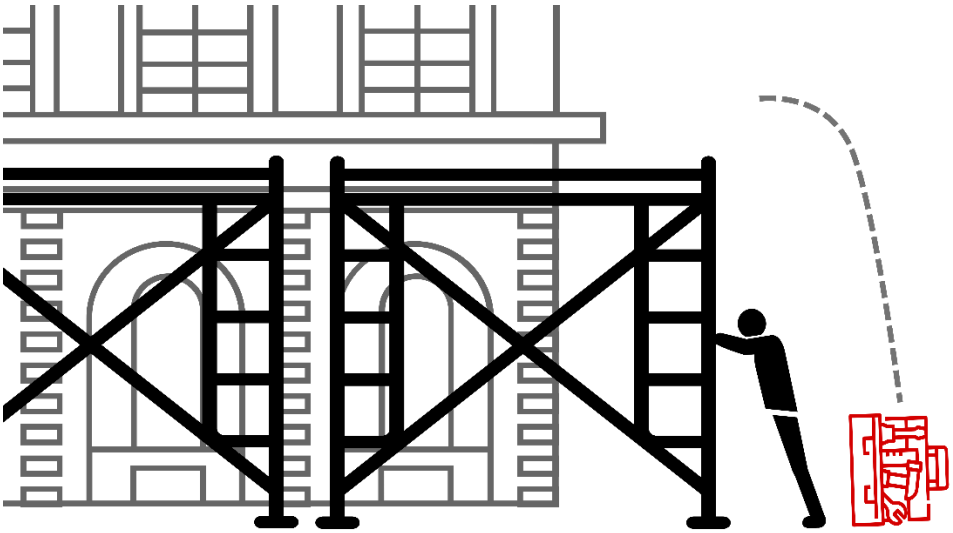
Three Key Findings

1. Archaeology has comparable RIDDOR accident rates to the construction industry.



2. There is no standard for mental health reporting or support.

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 fifth Health and Safety Injury Survey; the first was for the 2009-10 financial year, and since 2018-19 we have undertaken these surveys annual. This report covers the financial year 2021-22, and only covers archaeologists working in the UK.

Methods

The questions used for this survey were included in the 2021-22 State of the Archaeological Market Survey. A total of 24 responses were received[1] from organisations employing 1829.85 fulltime equivalent[2] positions. This represents 38% of the estimated 4800 FTE 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].

[1] not all respondents to the SoAM survey 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 2018-22, for Development-led archaeology.

Type	2018-19	2019-20	2020-21	2021-22	2018-22 average
Specified injuries (including fatality)	4	1	0	0	1.25
Injuries resulting in over 7 days absence	3	2	3	1	2.25
Occupational diseases[5]	0	0	5	0	1.25
Occupational disease other[6]	0	0	0	0	0
Specified dangerous occurrences	0	1	1	0	0.5
Total (*n*=)	7	4	9	1	5.25

Non-Reportable Accidents and Near Misses

In order to gather data on incidence of commonly occurring accidents/incidents across the sector, respondents were asked to report the number of accident book entries, which were not RIDDOR reportable (Table 2).

Table 2: Non-RIDDOR accidents and near misses from 2018-22.

Type	2018-19	2019-20	2020-21	2021-22	2018-22 average
Total number of non-reportable accidents	147	159	235	285	206.5
Total number of near misses reported	140	133	132	90	123.75
Total (*n*=)	287	292	370	375	331

Respondents were also asked about the types of accidents these were (Table3)[7]. They could add comments and two clarified that the other category for them was - "Various minor injuries and incidents, mostly minor cuts and equipment damage." and “Minor cuts and abrasions treated by on-site first aid”. Those two organisations represented half of the other category responses.

Injury Frequency Rate and Incident Rate

There are two primary injury figures: Incident Rate and Frequency Rate[8]. The Injury Frequency Rate indicates the number of Reportable Injuries employees are likely to have for every 1,000,000 hours worked.[9] The Incident Rate is the number of injuries per 100,000 employees[10]. With the sample representing 1829.85 FTE archaeologists the estimated Injury frequency[11] and Incident rates for the sector were calculated and can be found in Table 4.

[5] including carpal tunnel syndrome, tendonitis and occupational dermatitis
[6] caused by exposure to carcinogens, mutagens & biological agents (including occupational cancers)
[7] In 2018-19, it was optional to respond to this question and did not separate out incidents from near-misses, why only 60 of the 287 reported accidents and near misses are categorised.
[8] for more information see http://www.hse.gov.uk/statistics/adhoc-analysis/injury-frequency-rates.pdf
[9] Calculated - (Number of Reportable Injuries in the period / Total hours worked (by all employees) during the period) X 1,000,000
[10] Calculated - (Injuries per year / employed) * 100,000
[11] Using 37.5 hrs per week x 52 weeks x 1829.85

Table 3: Types of Non-RIDDOR accidents and near misses from 2018-2022.

	2018-19	2019-20		2020-21		2021-22	
Type	**All**	**Incidents**	**Near misses**	**Incidents**	**Near misses**	**Incidents**	**Near misses**
Ergonomic / manual handling	23	78	8	84	5	44	3
Slip, trip or fall	9	6	13	56	25	57	3
Contact with or knocking into object	7	34	14	20	4	13	1
Vehicle accident[12]	3	10	49	6	66[13]	16	52
Musculoskeletal injury[14]						26	0
Other	18	31	49	72	32	129	31

Table 4: Estimated injury frequency and incident rate of respondents to the survey.

	2018-19		2019-20		2020-21		2021-22	
RIDDOR	**Injury frequency rate**	**Incident rate**	**Injury frequency rate**	**Incident rate**	**Injury frequency rate**	**Incident rate**	**Injury frequency rate**	**Incident rate**
Specified injuries (including fatality)	2.01	342	0.16	31.83	0	0	0	0
Injuries resulting in over 7 days absence	1.51	256	0.33	63.65	0.96	187.5	0.2805	54.64
Occupational diseases	0	0	0	0	1.60	312.5	0	0
Occupational disease other	-	-	-	-	-	-	-	-
Specified dangerous occurrences	-	-	0.16	31.83	0.32	62.5	0	0

[12] travelling on work business, including to or from site

[13] The 2020-21 vehicle incidents were updated so all the results were like for like; one of the organisations has unique way of recording incidents that placed near misses into incidents for vehicles. This was discovered this year and retrospectively fixed.

[14] sustained over a period of time rather than due to a specific accident, e.g. repetitive strain injury, tendonitis, chronic back pain. Collected for the first time in 2021-22

Table 5: Estimated injury frequency and incident rate of respondents to the survey, average between 2018-22.

	average 2018-22	
RIDDOR	**Injury frequency rate**	**Incident rate**
Specified injuries (including fatality)	0.5425	93.4575
Injuries resulting in over 7 days absence	0.770125	140.4475
Occupational diseases	1.60	104.17
Occupational disease other	-	-
Specified dangerous occurrences	0.24	47.17

Compared to Other Sectors

Given how incident rates are calculated - as figures per every 100,000 workers - and the size of the development-led archaeological industry, with ~4-5k people working in it, one reported accident can greatly alter the results. As such, individual surveys have shown archaeology having both apparently very high and low accident rates; this was a 'low' year, but this means the averages over several years should be considered, rather than focussing on individual years.

The Health and Safety Executive (HSE) provide Incident Rate data for different sectors by Standard Industrial Classification codes (SIC 2007)[15]. The averaged Incident Rates for archaeology over the last four years are in-line with those in the construction sector, which we work in and alongside. This average Rate is significantly lower than some manufacturing sectors, though much higher than the lowest sectors, like financial services.

Table 6: Calculated average RIDDOR Incident Rates, non-fatal for different sectors 2018-22 (note some of the non-archaeological figures may be revised later by HES)

Industry	**Total**	**Specified**	**Over-7-day**
Highest two sectors[16]			
Other manufacturing	1756	416	1340
Waste collection, treatment & disposal activities	1427	374	1053
Archaeology & Construction			
Construction	312	115	197
Archaeology	234	93	140
Lowest two sectors			
Architectural and engineering activities	2.75	1.5	1
Activities auxiliary to financial services & insurance activities	1.3	0.7	1

[15] 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.

Mental Health

New questions were asked this year about mental health tracking and provisions. 84% of respondents (16 of 19[17]), representing 98.7% of the FTE staff (1577.75 of 1597.85) actively track mental health within their workforce. They track them in the following ways:

- As category in sickness leave
- Through authority supplied process
- Anonymised data
- HR procedure
- In the same way as any physical injury with regular communication between the person and HR/Managers/other support as require
- Through appraisals and regular meetings will all staff
- Constant communication
- Annual staff reviews
- Anonymized mental health first aid reports; HR/H&S data
- They are reported via our accidents and incidents reporting system, then added to our Incident Tracker. Anonymous approaches to MHFAs are simply logged by frequency.
- Via data provided (confidentially) by MHFAs, and by individual reporting on HR Toolkit
- 1-2-1 Stress survey, Stress talking toolkit, 1:1 discussions, OH Monitoring
- Through wellbeing surveys (County Council initiative)
- Dedicated mental health awareness officer

Those same organisations provide the following mental health provisions to their staff:

- Mental Health First Aiders (x9)
- Specialist support helplines (x3)
- EAP (Employee Assistance Programme) (x2)
- Mental Health Awareness training (x2)
- Counselling Service/Staff Counsellors (x2)
- Policy and process
- Campaigns/briefings/toolbox talks as required
- Acknowledged that suitable provision would be found at the time after an assessment of need.
- Training for line-managers from supervisors to directors
- Wellbeing group which issues quarterly 'wellbeing snapshot survey', identifies wellbeing themes and follows up with various wellbeing initiatives

[17] Not all respondents answered this question

Discussion

We are becoming more confident in the calculated incident rate for development-led archaeology as we now have an average based on four years of data and it is starting to look like archaeology has better rates that the construction industry that we work in. Archaeology is still in a similar range to construction, as we are not like high injury risk fields such as manufacturing or low risk fields, such as financial services.

However, we may be reaching the end of the value of collecting such statistics, at least for RIDDOR. Given the multiple years required to average out the findings, the utility of such statistics is limited. For example, using them to monitor changes in frequency of injuries would require both those changes to be significant and to occur over half a decade or more, not ideal for tracking for intervention purposes. The FAME Health and Safety working group plans to review which data we will collect in the summer of 2023 and the future Health and Safety reports may be different (or not).

As highlighted in last year's report, 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; estimates vary, but the Health and Safety Executive (HSE) considers that on average there are ninety near-misses for every one injury. Archaeology is not close to capturing such a ratio, with three incidents to every near miss.

An individual working 37.5 hours per week for 48 weeks per year (assumed four weeks of holiday) for 40 years would work 72,000 hours over their career. With a 0.77 frequency rate for 'injuries resulting in over 7 days absence', a person with a long career in development-led archaeology would have a 5% chance of experiencing such an event.

Mental health tracking in the sector is far from standardised, through provision of support is more uniformed with many organisations using Mental Health First Aid. That lack of standardisation will make it difficult to attempt to track such numbers in the future and the FAME Health and Safety Group will discuss ways to do so at their next meeting.

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