Fatal injuries arising from accidents at work in Great Britain 2017

Headline results

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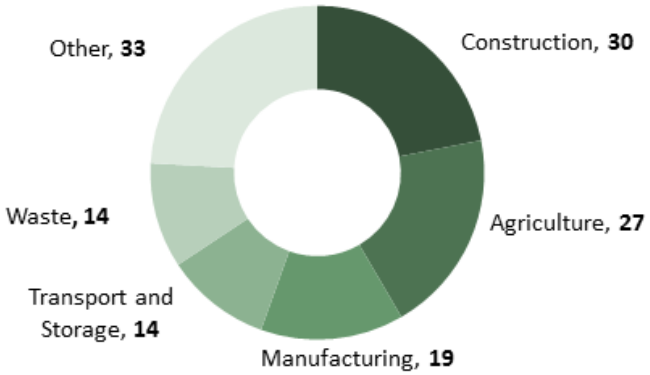

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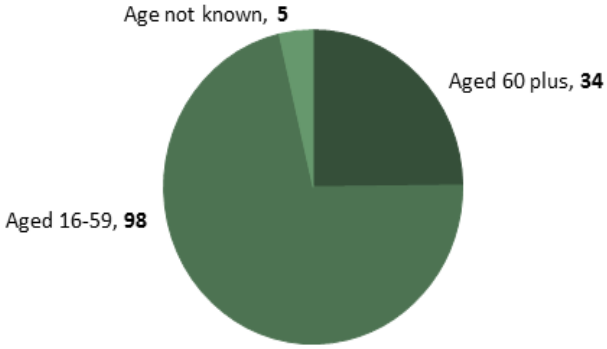

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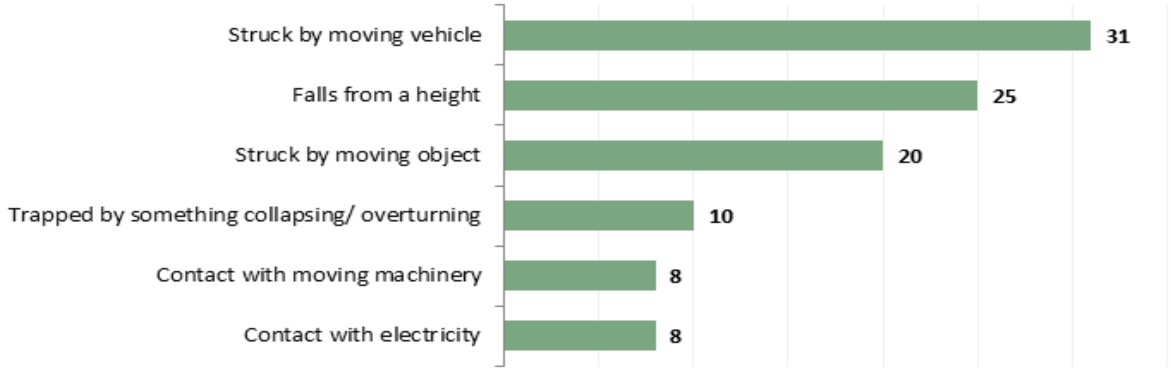

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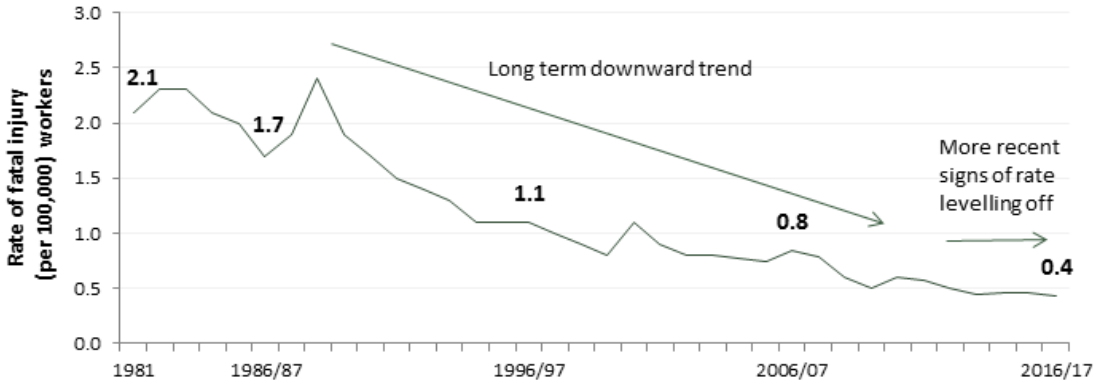

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Members of the public were killed due to work related activities in 2016/17

Introduction

This report provides headline numbers on workplace fatal injuries that were reported to enforcing authorities in 2016/17. It includes both fatal injuries to workers and to members of the public. The 2016/17 figures are currently provisional, and marked as 'p' and will be finalised in July 2018 to take account of any necessary adjustments.

Fatal injuries are thankfully rare events. There is a degree of chance and randomness to the annual count resulting in an element of natural variation from one year's count to the next. To allow for this natural variation, alongside figures for 2016/17, this report also presents the annual average estimate for the five years 2012/13-2016/17, which reduces the effect of year-on-year fluctuations and gives a more stable current picture.

The figures make up part of a long running series enabling both short and long term comparisons of change.

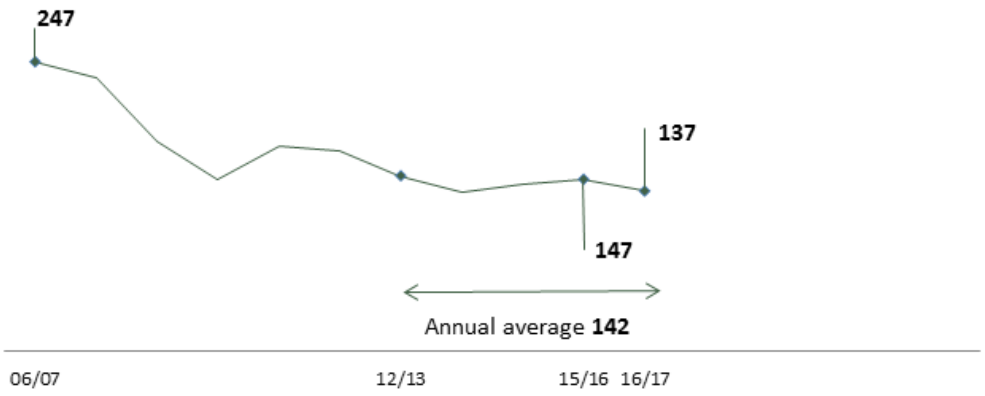
The information includes only those cases of fatal injury that the enforcing authorities have judged as meeting the reporting criteria as set out in the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR). Two notable exclusions from these statistics are fatal diseases and fatal accidents on non-rail transport systems. (See Technical note for more details).

Fatal injuries to workers

Headline figures

A total of 137 workers were killed at work in Great Britain in 2016/17p. Although this represents a reduction of 10 fatalities from 2015/16, **it is possible that this change can be explained by natural variation in the figures**. It is the second lowest year on record after 2013/14. However, in statistical terms the number of fatalities has remained broadly level in recent years – the average annual number of workers killed at work over the five years 2012/13-2016/17p is 142.

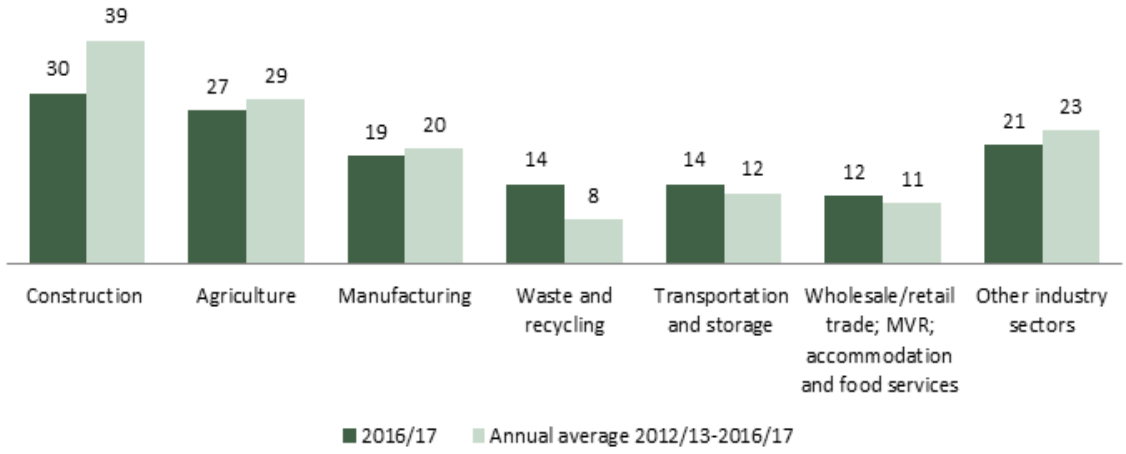
Figure 1: Fatal injuries to workers: GB 2006/07 - 2016/17p



Injuries by industry[1]

There are two ways of looking at fatality numbers. The first is to look at the **absolute count**. On this basis, construction and agriculture tend to come out worst as they account for the greatest number of fatalities each year.

Figure 2: Number of fatal injuries by main industry group, 2016/17p and annual average for 2012/13-2016/17p



- The number of fatalities in construction in 2016/17p (30) is the lowest number on record for the sector. However, over the last five years the number has fluctuated, with 47 fatalities in 2015/16 compared with 35 in 2014/15. The annual average for the past five years is 39.

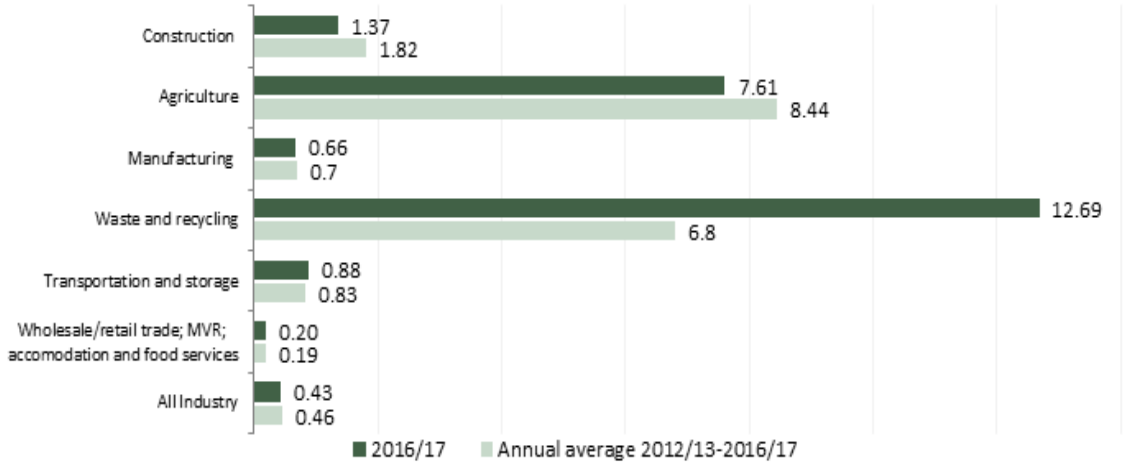
- The number of fatal injuries in waste and recycling in 2016/17p (14) is almost double the annual average for the past five years (8) and compares with 6 deaths in 2015/16. While fatal numbers for the sector have fluctuated in recent years, this increase in the current year is largely explained by a single incident which resulted in 5 deaths in 2016/17.

- The 21 fatal injury cases in Other sectors in 2016/17 include cases in
  - Communication, Business Services and finance (8 fatalities);
  - Public administration; education; human health and social work activities (6 fatalities);
  - Mining and quarrying (4 fatalities);
  - Electricity, Gas, Steam and Air Conditioning (3 fatalities).

[1] Industry is defined using the 2007 Standard Industrial Classification. See annex 1 for more details.

The second approach of looking at fatality numbers is to consider the **fatal injury rate** in terms of the number of fatalities per 100,000 workers employed.

Figure 3: Rate of fatal injuries by selected main industry group, 2016/17p and annual average for 2012/13-2016/17p



Based on the annual average rates for 2012/13-2016/17p (as this reduces the effect of year-on-year fluctuations and gives a more stable picture):

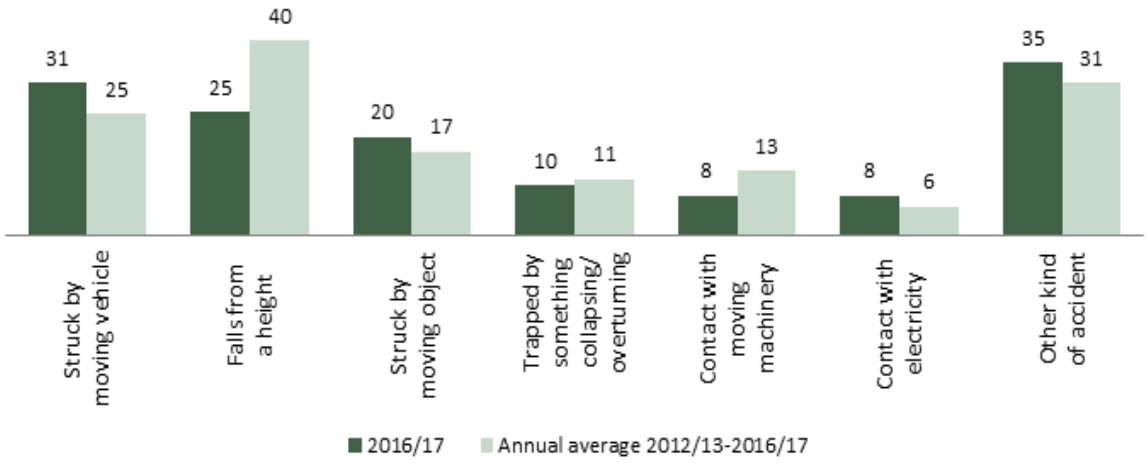
- Agriculture and Waste and recycling come out worst, with a rate of injury some 18 times and 15 times higher than the average across all industries respectively.
- The rate of fatal injury in Construction, while around 4 times higher than the rate across all industries, is considerably less than the rate in either agriculture or waste and recycling, despite accounting for a greater number of cases than these sectors.
- In both the manufacturing sector and the transportation and storage sector the fatal injury rate is around twice the all industry rate.
- Although not shown in figure 3 above, the rate of fatal injury in mining and quarrying is around 4 times greater than the all industry rate and similar to that seen in construction.
- While the combined Wholesale/retail trade; vehicle repair; accommodation and food services sector account for around 7% of fatal injuries, in terms of rate the sector is relatively low risk with an injury rate less than half the all industry rate.

For more details of fatal injuries by main industry sector, see Table 1, www.hse.gov.uk/statistics/tables/ridfatal.xlsx

Injuries by accident kind

Around three-quarters of fatal injuries in both 2016/17p and the combined five year period 2012/13-2016/17p were accounted for by just 6 different accident kinds. Being struck by moving vehicles, falls from a height and being struck by a moving, including flying or falling, object continue as the three main causes of fatal injury, between them accounting for over half of all fatal injuries each year since at least 2001/02.

Figure 4: Number of fatal injuries to workers by accident kind, 2016/17p and annual average for 2012/13-2016/17p



- In 2016/17p, 25 fatal injuries to workers were due to falls from a height. This is the lowest number on record and compares to 37 in 2015/16 and an annual average over the period 2012/13-2016/17p of 40. It is possible that the sharp drop in the most recent year can be explained by natural variation in the figures.

- Being struck by a moving vehicle accounted for 31 fatal injuries to workers in 2016/17p compared with 28 in 2015/16 and an annual average of 25 over the period 2012/13-2016/17p.

- The number of fatal injuries caused by being struck by a moving, including flying or falling, object has fluctuated between 14 and 20 in each of the last five years, with an annual average of 17 over the period 2012/13-2016/17.

For more details of fatal injuries by accident kind, see Table 3, www.hse.gov.uk/statistics/tables/ridfatal.xlsx

Injuries by gender and age

Fatal injuries to workers are predominately to male workers. In 2016/17, 133 (97%) of all worker fatalities were to male workers, a similar proportion to earlier years.

In terms of age, around a quarter of fatal injuries in both 2016/17p and the combined five year period 2012/13-2016/17p were to workers aged 60 and over, even though such workers made up only around 10% of the workforce.

Figure 5: Number of fatal injuries by age group, 2016/17p

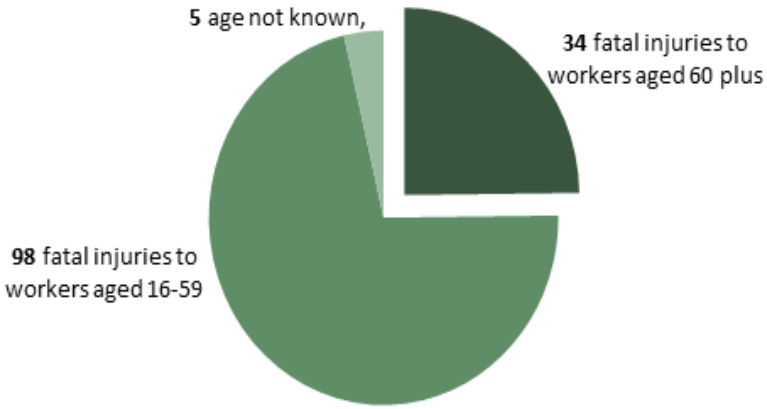
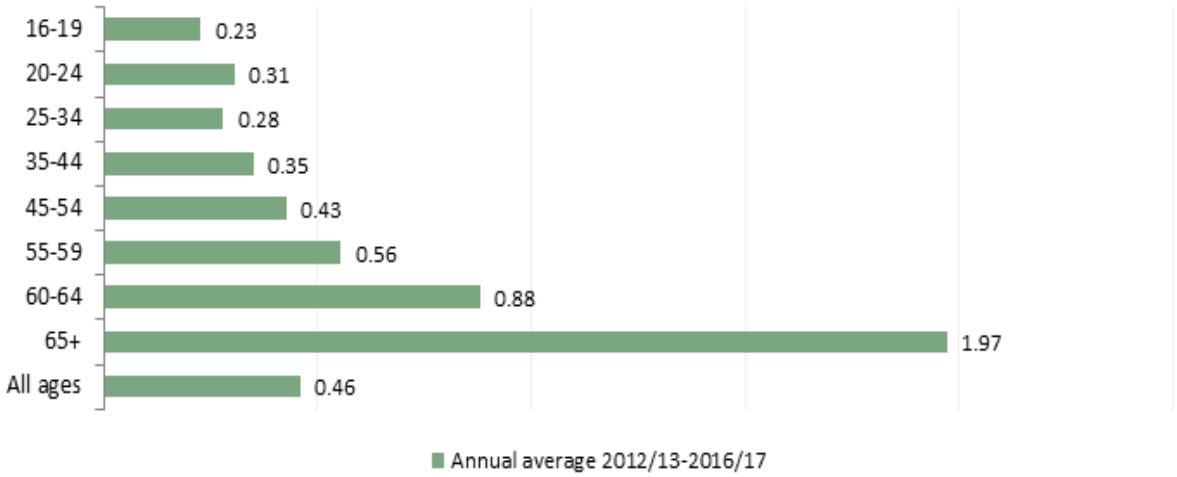


Figure 6 below shows the fatal injury rate by age group for the period 2012/13-2016/17p. This clearly shows how the rate of fatal injury increases with age, with workers aged 60-64 having a rate almost double the all ages rate, and workers aged 65 and over a rate around four times greater than the all ages rate. While this age gradient in rate is most strongly seen in agriculture, it is also present across a range of other sectors too. See www.hse.gov.uk/statistics/tables/ridagegen.xlsx and table 4 www.hse.gov.uk/statistics/tables/ridfatal.xlsx for more details.

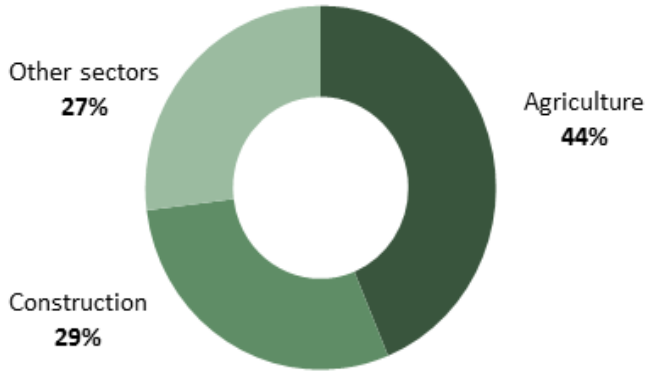
Figure 6: Rate of fatal injuries by age group, annual average for 2012/13-2016/17p



Injuries by employment status

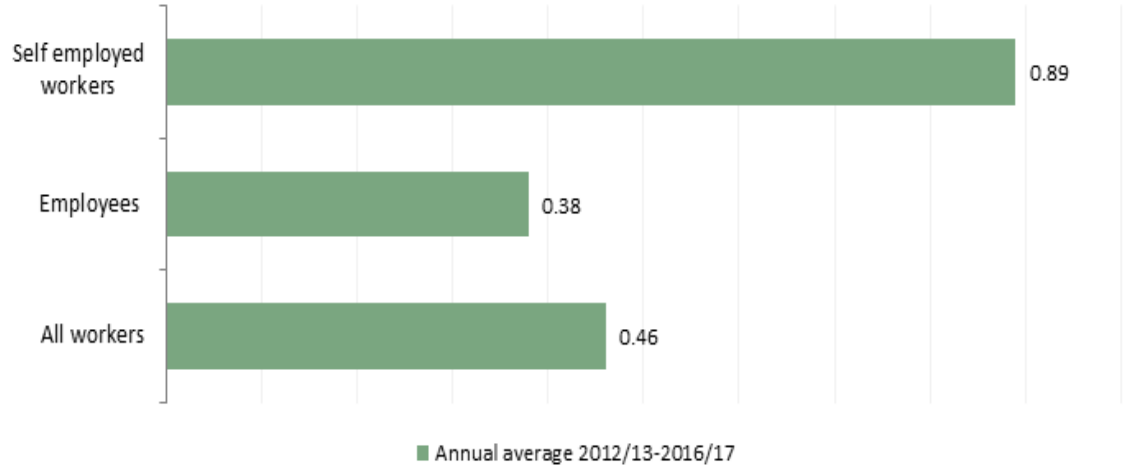
Over a quarter of fatal injuries in both 2016/17p and the five year-period 2012/13-2016/17p, were to self-employed workers, working mostly in agriculture and construction but also in other sectors including manufacturing, the wholesale/retail trade; vehicle repair; accommodation and food services sector and administrative and support service activities (such as renting and leasing activities and services to buildings and landscape activities).

Figure 7: Number of fatal injuries to self-employed by industry sector, 2012/13 - 2016/17p



The fatal injury rate for the self-employed is more than double that for employees.

Figure 8: Rate of fatal injuries to employees and self-employed workers, 2012/13 - 2016/17p

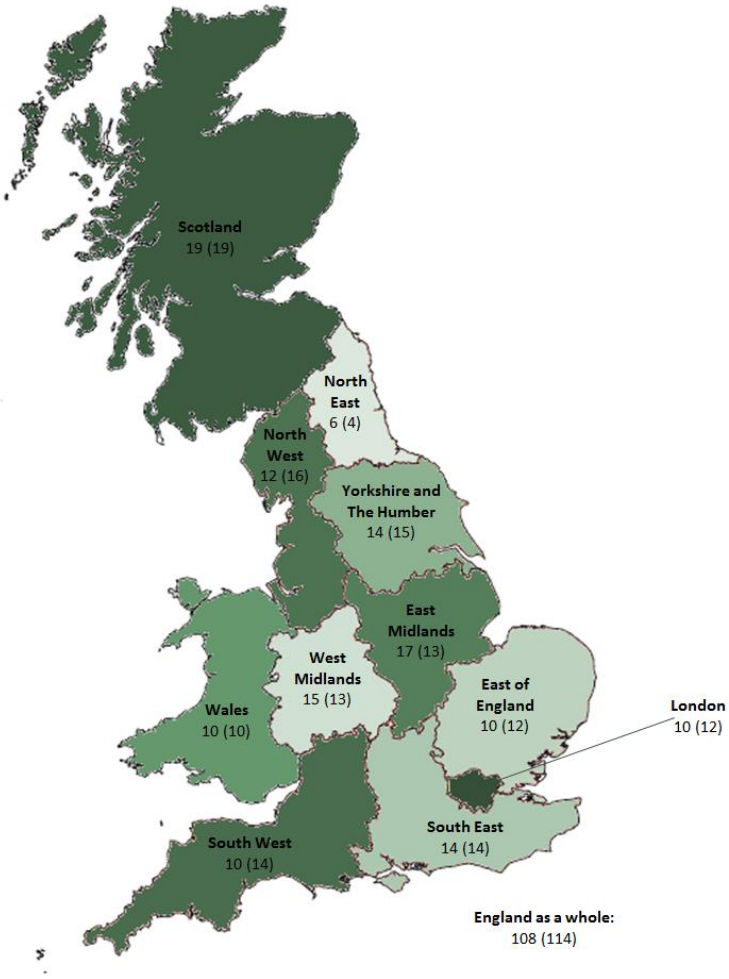


For more details of fatal injuries by employment status, see www.hse.gov.uk/statistics/tables/ridfatal.xlsx

Injuries by country and region within GB

Figure 9 below shows the country or region where the death occurred for fatalities in 2016/17. The number of fatalities in some regions is relatively small, hence susceptible to considerable variation. Accidents involving multiple fatalities can also affect annual totals. Therefore Figure 9 also shows the annual average number of deaths for the five year period 2012/13-2016/17 as this reduces the effect of year-on-year fluctuations.

Figure 9: Number of fatal injuries by country and region within GB, 2016/17p and annual average for 2012/13 - 2016/17p (annual average number in brackets)



In terms of fatal injury rate, England consistently has a lower injury rate than either Scotland or Wales. However, injury rates are strongly influenced by variations in the mix of industries and occupations. The country injury rate does not make allowance for the varying composition of the workforce between the three home nations. A recent analysis of rates adjusted for industry composition by both country and region within England can be found at www.hse.gov.uk/statistics/adhoc-analysis/standardised-fatals.pdf . This analysis shows that after standardising fatal injury rates by industry, Wales and Scotland have a fatal injury rate that is not statistically significantly different from the GB rate.

For more details of fatal injuries by country and region within GB, see Table 5, www.hse.gov.uk/statistics/tables/ridfatal.xlsx

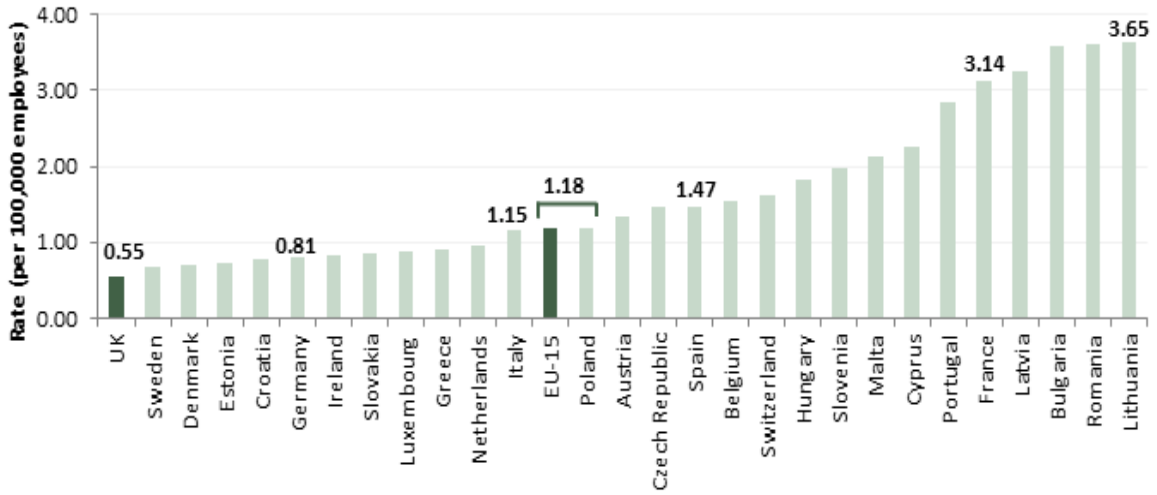
Injury comparison with other countries

Since 1990, the statistical authority for the European Union (Eurostat) has worked with member states on a harmonisation programme to give consistency to workplace injury statistics across the EU. To take account of differing industrial backgrounds across member states, Eurostat publishes industry standardised incidence rates.

The UK consistently has one of the lowest rates of fatal injury across the EU.

- In 2014 the standardised rate, at 0.55 per 100,000 employees, was the lowest of all European countries and compares favourably with other large economies such as France, Germany, Italy, Spain and Poland.
- Similarly, the UK three-year average rate for 2011-2013 (0.60 per 100,000 employees) was also the lowest of all EU member states. (For more details see www.hse.gov.uk/statistics/european/table1.xlsx).
- Standardised rates published by Eurostat are based on fatalities occurring across all main industry sectors (excluding the transport sector). Whilst road traffic accidents should not be included in these rates, their removal may not always be complete. This should be considered when reviewing rates for individual countries.

Figure 10: Standardised incidence rates (per 100,000 employees) of fatal injuries at work for 2014

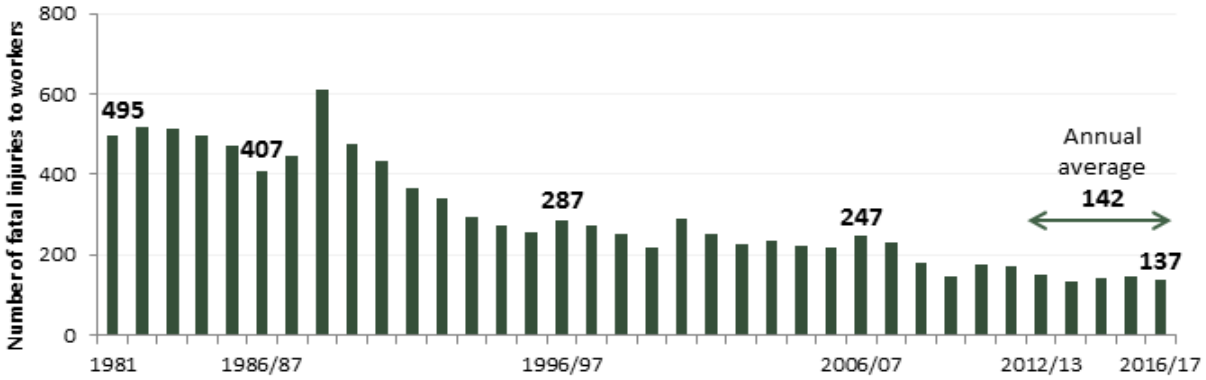


Global comparisons, for example, with the USA, Asia etc, are not available due to differences in definitions of workplace accidents and reporting systems.

Longer term trends

Despite long term reductions in the number of workers killed by work activities, each year such cases continue, with 137 such deaths in 2016/17p. This number compares with 287 twenty years ago (1996/97) and 495 in 1981 (prior to 1981 only fatal injury numbers to employees were reported to enforcing authorities).

Figure 11: Number of fatal injuries to workers in Great Britain, 1974-2016/17p

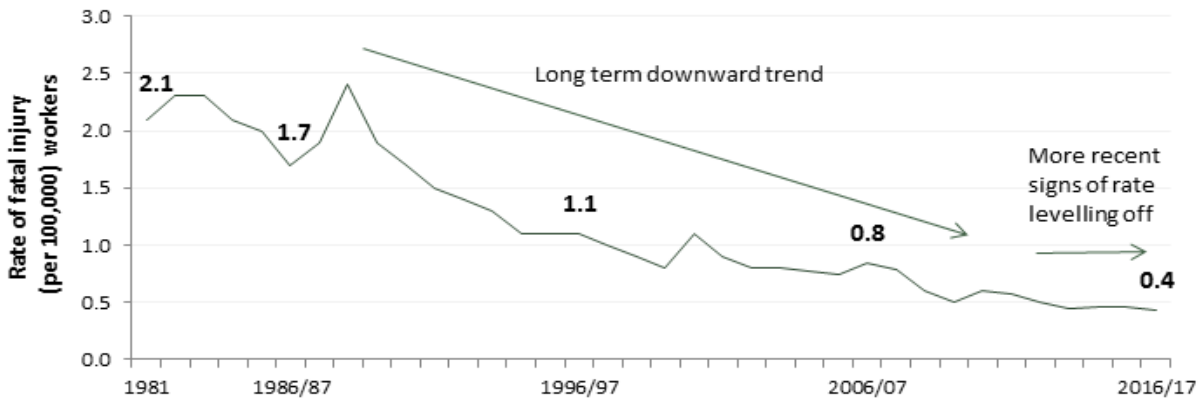


As described in the earlier section 'Headline figures', the 137 fatal injuries in 2016/17p is the second lowest on record (after 2013/14 – 136 fatalities) and represents a reduction of 10 fatalities from 2015/16. However, **it is possible that this change can be explained by natural variation in the figures**. In statistical terms the number of fatalities has remained broadly level in recent years – the average annual number of workers killed at work over the five years 2012/13-2016/17p is 142.

By natural variation we mean that if we had identical conditions between two years; identical people doing identical jobs in identical industries working in identical conditions, the number of fatalities would not necessarily be the same. This is because the final total is at least partly related to chance and randomness. Examining the causal factors behind individual fatal accidents, it is often found that an unfortunate set of chance events have occurred together with shortcomings in safety precautions. Annual counts of fatalities can also be influenced by multiple fatalities; that is one incident resulting in more than one death.

Taking employment levels into account, the 137 fatalities in 2016/17p gives rise to a fatal injury rate of 0.43 deaths per 100,000 workers. When considering trends over time it is preferable to consider the rate of injury rather than just the number of injuries as the rate accounts for changes in the numbers in employment between years. The rate of 0.43 per 100,000 is the lowest on record (as employment numbers have risen in recent years). The long-term picture for the fatal injury rate is similar to that for fatal injury numbers: a long term downward trend, with indications of levelling off in recent years.

Figure 12: Rate of fatal injuries to workers in Great Britain, 1981-2016/17p



For more details see www.hse.gov.uk/statistics/tables/ridhist.xlsx and www.hse.gov.uk/statistics/tables/ridfatal.xlsx

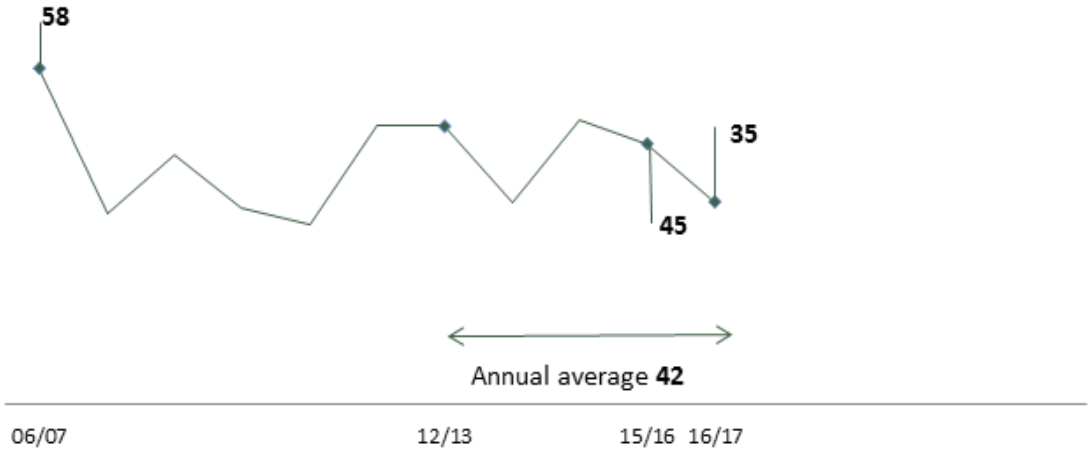
Fatal injuries to members of the public

A total of 92 members of the public were killed in 2016/17 as a result of a work-connected accident. Of these deaths, almost half (43) occurred on railways and a further 14 occurred in the health and social work sector.

Comparison of numbers between years is complicated by recent changes in reporting requirements. Since October 2013, the requirement to report suicides to members of the public on railways (which accounted for a high proportion of railway deaths) was removed. Further, since 2015/16, the fatality figure no longer includes 'patient and service users' deaths in England for premises registered with the Care Quality Commission. Previously these statistics were recorded as member of the public deaths in health and social care.

To get an indication of changes in work-related deaths to members of the public, the chart below considers work-related deaths to members of the public excluding those that occurred on railways and in health and social care. This shows that over the last decade the number of such deaths has fluctuated each year, with no clear trend.

Figure 13: Number of work-related deaths to member of the public, excluding deaths on railways and in health and social care: GB 2006/07 - 2016/17p



Technical note

Coverage of fatal injury numbers

Fatal injuries included in this report are those that the relevant enforcing authority (namely HSE, Local authorities or the Office for Rail Regulation) have judged as reportable under the reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR).

Certain types of work-related injury are not reportable under RIDDOR, hence excluded from these figures. Particular exclusions include:

- Fatal accidents from work-related road collisions. Such incidents are enforced by the police and reported to the Department for Transport;
- Fatal accidents involving workers travelling by air or sea. These incidents are the responsibility of the Air Accident Investigation Branch and Marine Accident Investigation Branch of the Department for Transport and reported accordingly;
- Fatalities to members of the armed forces on duty at the time of accident;
- Fatal injuries at work due to 'natural causes', often heart attacks or strokes, unless brought on by trauma due to the accident.

These statistics also exclude deaths from occupational diseases, which typically occur many years after first exposure to the causative agent. The asbestos-related cancer mesothelioma is one of the few examples where deaths due to an occupational disease can be counted directly. There were 2,542 such deaths in GB in 2015- see www.hse.gov.uk/statistics/causdis/mesothelioma . Other occupational deaths usually have to be estimated rather than counted. Each year around 13,000 deaths from occupational lung disease and cancer are estimated to have been caused by past exposure, primarily to chemicals and dust, at work.

Provisional nature of the latest statistics

On first publication, RIDDOR data is classified as provisional and marked with a 'p' suffix. The following year data are finalised, denoted 'f' - finalised. The finalised figures for fatal injuries can go down as well as up, by up to +/-3% on finalisation for fatal injuries to workers. The change from provisional to final usually reflects more up-to-date information following the detailed investigations of these incidents, but also Regulation 6 of RIDDOR covers situations where someone dies of their injuries within a year of their accident. The finalised figure for 2015/16 is 147, revised from 144.

Table 1: Differences in provisional and finalised counts of fatal injuries to workers, 2012/13 - 2016/17

Year	Provisional Figure	Finalised figure	Difference
2016/17p	137	-	-
2015/16f	144	147	+3
2014/15	142	142	0
2013/14	133	136	+3
2012/13	148	150	+2

Note: The finalised figure for 2015/16 now include all 4 confirmed deaths from the incident at Didcot; only one death was confirmed in the provisional statistics. The finalised figure for 2015/16 also reflects other small changes.

Fatal injury rates

Differences in the size of the workforce will impact on comparisons of the number of fatalities, both over time and between one group and another within a year (eg between different industry groups). In order to make robust comparisons it is important to consider the rate of fatal injury. The rate is constructed by dividing the count of fatal injuries by the employment estimate. This is then multiplied by a factor of 100,000 to give a rate per 100,000 workers, in line with international standards. The source of employment data used to construct the injury rates from 2004/05 onwards is the Annual Population Survey (APS).

Statistical significance

The total fatal injury count is subject to a degree of chance and randomness; if exactly the same conditions prevail in two different years then it is likely that the annual count will differ due to natural variation. We use tests of statistical significance at the 95% confidence level to judge whether a difference between years is likely to be explained by natural variation alone or whether it represents a statistically significant difference. (Note statistical significance should not be confused with the significance of each injury. Every casualty is a tragedy and has both a social cost and a personal cost to those directly affected).

For more information see www.hse.gov.uk/statistics/sources.pdf

Annex 1 – Industry definitions

The table below presents the 2007 Standard Industrial Classification (SIC) codes used to define the top level industry groupings presented in this report.

SIC Code	Industry Description
Section A	Agriculture
Section B	Mining and quarrying
Section C	Manufacture
Section D	Electricity, Gas, Steam and Air Conditioning
Section E	Water Supply, Sewerage, Waste Management and Remediation
Division 38	- of which waste and recycling
Section F	Construction
Section G,I	Wholesale and retail trade; repair of motor vehicles and motorcycles; accommodation and food service activities
Section H	Transport and storage
Section J-N	Communication, business services and finance
Section O-Q	Public administration; education; human health and social work activities
Section R-U	Arts, entertainment and recreation; all other service activities

National Statistics

National Statistics status means that official statistics meet the highest standards of trustworthiness, quality and public value.

All official statistics should comply with the Code of Practice for Official Statistics. They are awarded National Statistics status following an assessment by the Authority's regulatory arm. The Authority considers whether the statistics meet the highest standards of Code compliance, including the value they add to public decisions and debate.

It is Health and Safety Executive's responsibility to maintain compliance with the standards expected by National Statistics. If we become concerned about whether these statistics are still meeting the appropriate standards, we will discuss any concerns with the Authority promptly. National Statistics status can be removed at any point when the highest standards are not maintained, and reinstated when standards are restored.

An account of how the figures are used for statistical purposes can be found at www.hse.gov.uk/statistics/sources.htm .

For information regarding the quality guidelines used for statistics within HSE see www.hse.gov.uk/statistics/about/quality-guidelines.htm

A revisions policy and log can be seen at www.hse.gov.uk/statistics/about/revisions/

Additional data tables can be found at www.hse.gov.uk/statistics/tables/.

Statistician: Heidi Edwards

Contact: heidi.edwards@hse.gov.uk

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