ystadegau ar gyfer cymru statistics for wales

Statistical Bulletin

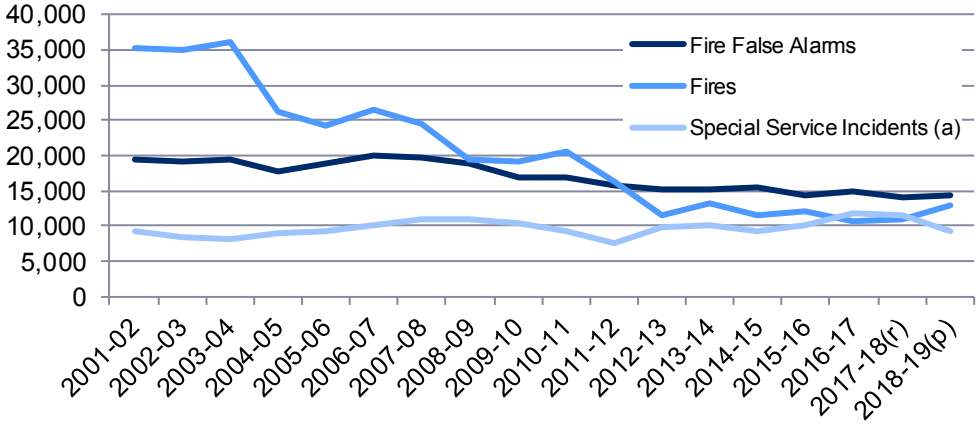
Llywodraeth Cymru Welsh Government

# Fire and rescue incident statistics 2018-19

28 Aug 2019
SB 33/2019

Analysis includes details on location, cause, motive, casualties, fire false alarms and Special Service (non-fire) Incidents (SSIs) attended in financial years 2001-02 to 2018-19, where the 2018-19 data are currently provisional.

**Chart 1: Number of fire, SSI and fire false alarm attendances**




(a) SSIs prior to 2004-05 were collected by the Department for Communities and Local Government. Data from 2004-05 to 2008-09 are taken from the annual Operational data collection; 2009-10 data onwards are taken from IRS. Further details are available in Key Quality information.
(r) Revised data.
(p) Provisional data

- Numbers of fires have seen a downward trend since 2001-02, falling by 63 per cent, and by 34 per cent over the last 10 years. However in recent years the trend has become less clear with numbers staying around the 11,000 to 13,000 mark. The number of fire false alarms has also fallen but to a lesser extent, only decreasing by 26 per cent since 2001-02. Numbers of SSIs have fluctuated throughout the time series, however the 2018-19 figure is only 1 per cent higher than in 2001-02 (chart 1).
- Compared with 2017-18, numbers of fires rose by 17 per cent in 2018-19; a 30 per cent increase in secondary fires being the main driving force.
- There were 20 fatal casualties from fires in Wales in 2018-19 (table 8).
- There were 396 non-fatal casualties in 2018-19, a decrease of 25 per cent compared with 2017-18 (table 9). The decrease is due to a fall of 33 per cent in those people receiving first aid or sent for precautionary checks.
- There were 2,862 deliberate grassland, woodland and crop fires in 2018-19, an increase of 75 per cent compared with 2017-18.

## About this bulletin

The bulletin provides in-depth analysis of all incidents attended by the three Fire and Rescue Authorities (FRAs) in Wales.

The Welsh Government compiles the statistics in this bulletin from reports submitted by FRAs to the Home Office.

## In this bulletin



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## Fires, Fire false alarms and Special Service Incidents

Fires are classed as primary, secondary or chimney fires.

**Primary fires** include all fires in non-derelict buildings and vehicles or in outdoor structures, or any fire involving casualties or rescues, or fires attended by five or more appliances.

**Secondary fires** are mainly outdoor fires including grassland and refuse fires unless they involve casualties or rescues, or are attended by five or more appliances. They include fires in single derelict buildings, derelict road vehicles and derelict outdoor structures.

**Chimney fires** are reportable fires in occupied buildings where the fire was confined within the chimney structure and did not involve casualties or rescues or are attended by 5 or more appliances.

**Fire False Alarms** are events in which the Fire and Rescue Authority was called to a reported fire which turned out not to exist.

**Special Services Incidents** (SSIs) are non-fire incidents attended by Fire and Rescue Authority and include, for example, road traffic accidents, flooding incidents and medical incidents. Further detail is available in the glossary. SSIs may or may not involve fatalities, casualties and rescues.

### Incidents attended

In 2018-19 Welsh FRAs attended 36,677 incidents (fires, fire false alarms, SSIs and SSI false alarms), a slight decrease (91 fewer incidents but no percentage change) compared with 2017-18. Of all attendances 12,912 (35 per cent) were at fires, of which 4,392 were primary fires (12 per cent), 8,185 secondary fires (22 per cent) and 335 chimney fires (1 per cent). There were also 14,487 fire false alarm incidents (39 per cent of attendances) and 9,278 SSIs including SSI false alarms (25 per cent).

Since 2001-02 all types of attendances except SSIs have fallen; numbers of primary fires falling by 65 per cent, secondary fires by 62 per cent, chimney fires by 63 per cent and fire false alarms by 26 per cent. Numbers of SSIs have varied since 2001-02; overall there has been an increase of 1 per cent since 2001-02, but a 20 per cent fall compared with 2017-18 (see pages 34 – 35).

Whilst there is an overall downward trend in the numbers of fire false alarms and secondary fires, they have been erratic and prone to fluctuation. Analysis on pages 17 to 22 focuses on whether the fire was accidental or deliberate and highlights that the fluctuation in the number of secondary fires is due to those started deliberately.

## Table 1: Number of fire, fire false alarm and special service attendances (a)

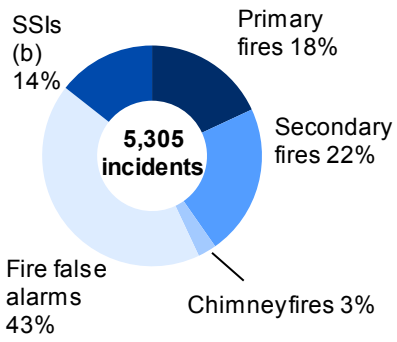
| | False alarms | Primary fires | Secondary fires | Chimney fires | Special Service Incidents | **All attendances** |
|---|---|---|---|---|---|---|
| 2009-10 | 16,901 | 6,800 | 11,562 | 790 | 10,288 | **46,341** |
| 2010-11 | 17,006 | 6,414 | 13,503 | 771 | 9,187 | **46,881** |
| 2011-12 | 15,874 | 5,687 | 10,162 | 615 | 7,659 | **39,997** |
| 2012-13 | 15,088 | 4,745 | 5,922 | 771 | 9,725 | **36,251** |
| 2013-14 | 15,312 | 4,790 | 7,801 | 578 | 10,118 | **38,599** |
| 2014-15 | 15,485 | 4,561 | 6,541 | 549 | 9,289 | **36,425** |
| 2015-16 | 14,491 | 4,678 | 6,998 | 432 | 10,151 | **36,750** |
| 2016-17 | 14,790 | 4,757 | 5,576 | 417 | 11,676 | **37,216** |
| 2017-18(r) | 14,161 | 4,316 | 6,301 | 406 | 11,584 | **36,768** |
| 2018-19(p) | 14,487 | 4,392 | 8,185 | 335 | 9,278 | **36,677** |
| Percentage change 2017-18 to 2018-19 | 2 | 2 | 30 | -17 | -20 | **0** |

(a) Data for fire false alarms and fires from 2001-02 onwards are available on StatsWales.
(r) Revised data.
(p) Provisional data.

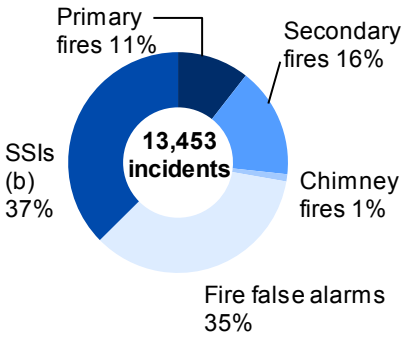
In both North Wales and South Wales the largest category of incident type were fire false alarms (over two fifths of attendances). However in Mid and West Wales SSIs made up the largest category.

### Incidents attended in 2018-19, by Fire and Rescue Authority(p):

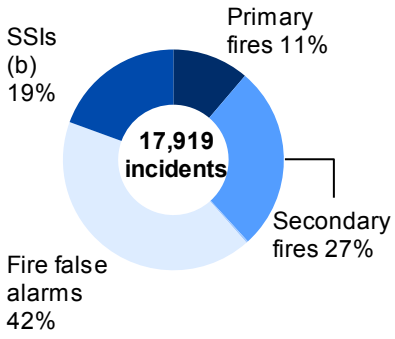
#### Chart 2a: North Wales




#### Chart 2b: Mid and West Wales




#### Chart 2c: South Wales (a)



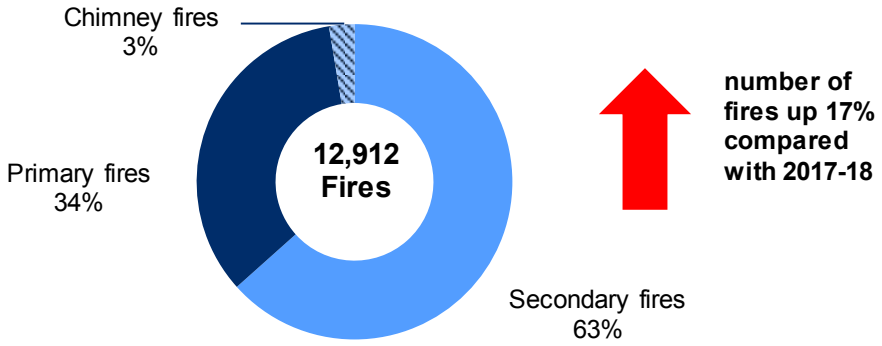

(a) The 48 chimney fires in South Wales equated to less than 0.5% of incidents in the region in 2018-19.
(b) SSI data include numbers of SSI false alarms.
(p) Provisional data.

## Fires

In 2018-19 there were 12,912 fires attended in Wales, an increase of 17 per cent compared with 2017-18. Since 2001-02 the number of fires has fallen by 63 per cent.

In 2018-19 secondary fires accounted for 63 per cent of all fires, primary fires accounted for 34 per cent and chimney fires 3 per cent. In recent years secondary fires have accounted for fewer than 6 in 10 fires each year; the 2018-19 figure sees a return to the proportions seen prior to 2012-13.

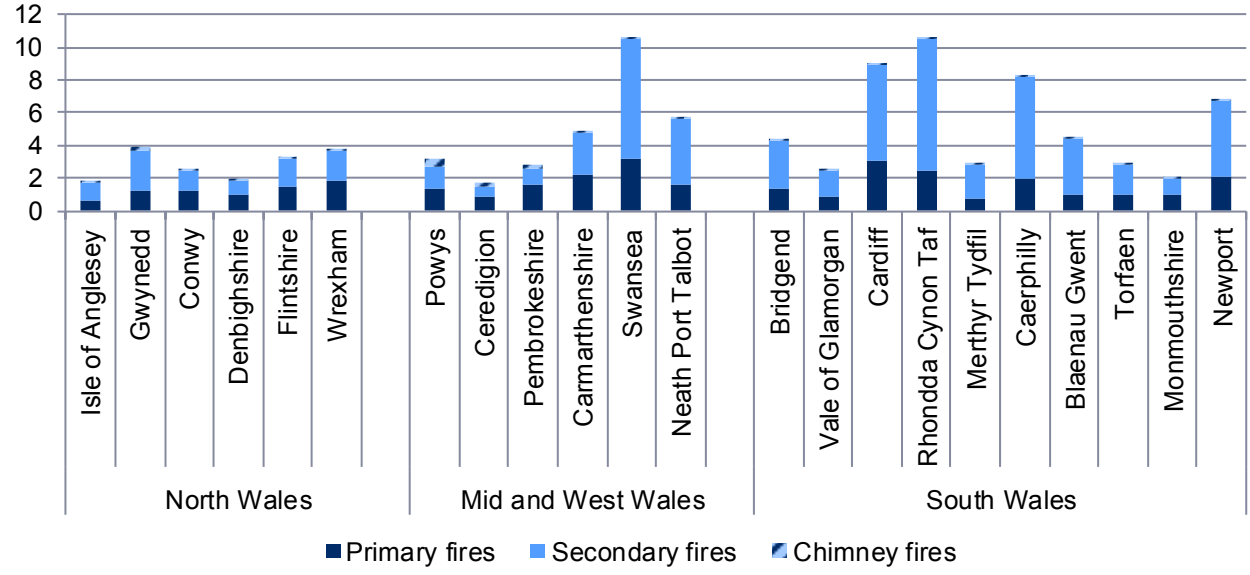
**Chart 3: Fires by fire type as a percentage of all fires, 2018-19(p)**




(p) Provisional data.

In 2018-19, Rhondda Cynon Taf and Swansea each accounted for around 1 in 10 fires in Wales, whilst Cardiff had 9 per cent of the total. The lowest proportions were in Isle of Anglesey, Denbighshire, Ceredigion, the Vale of Glamorgan and Monmouthshire each with 2 per cent of fires attended.

**Chart 4: Proportion of fires by Local Authority and type of fire, 2018-19 (p)**




(p) Provisional data

Further data on this topic is available on StatsWales

## Fires by type

### Primary fires

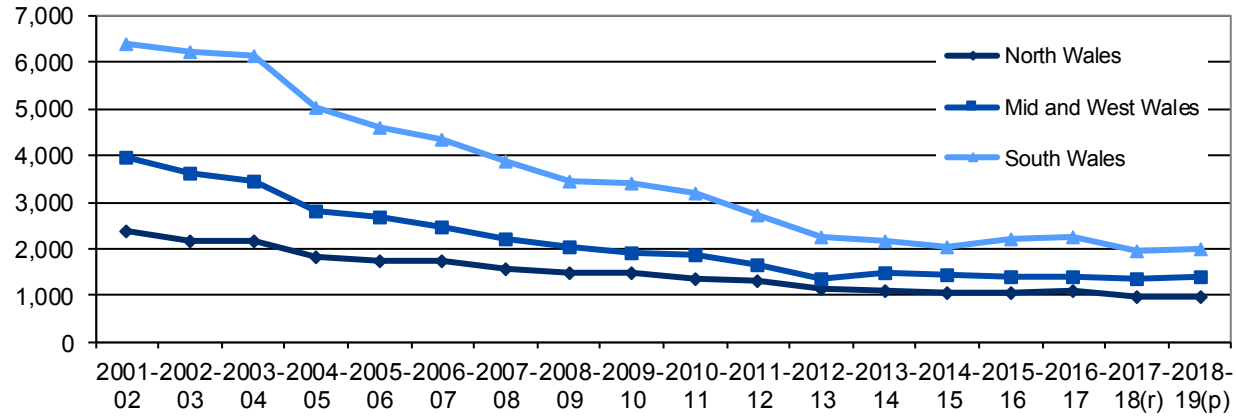
In 2018-19 provisional figures show the number of primary fires increased by 2 per cent compared with the previous year, to 4,392. Only North Wales saw a decrease (4 per cent) in the number of primary fires; Mid and West Wales and South Wales saw increases of 4 per cent and 3 per cent respectively.

**Table 2: Number of primary fires by Fire and Rescue Authority (a)**

| | North Wales | Mid and West Wales | South Wales | **Wales** |
|---|---|---|---|---|
| 2009-10 | 1,490 | 1,914 | 3,396 | **6,800** |
| 2010-11 | 1,348 | 1,862 | 3,204 | **6,414** |
| 2011-12 | 1,307 | 1,648 | 2,732 | **5,687** |
| 2012-13 | 1,144 | 1,353 | 2,248 | **4,745** |
| 2013-14 | 1,117 | 1,498 | 2,175 | **4,790** |
| 2014-15 | 1,063 | 1,443 | 2,055 | **4,561** |
| 2015-16 | 1,049 | 1,409 | 2,220 | **4,678** |
| 2016-17 | 1,085 | 1,411 | 2,261 | **4,757** |
| 2017-18(r) | 995 | 1,362 | 1,959 | **4,316** |
| 2018-19(p) | 960 | 1,421 | 2,011 | **4,392** |
| Percentage change 2017-18 to 2018-19 | -4 | 4 | 3 | **2** |

(a) Data from 2001-02 onwards are available on StatsWales and in the accompanying Excel tables.
(r) Revised data.
(p) Provisional data.

**Chart 5: Number of primary fires by Fire and Rescue Authorit**



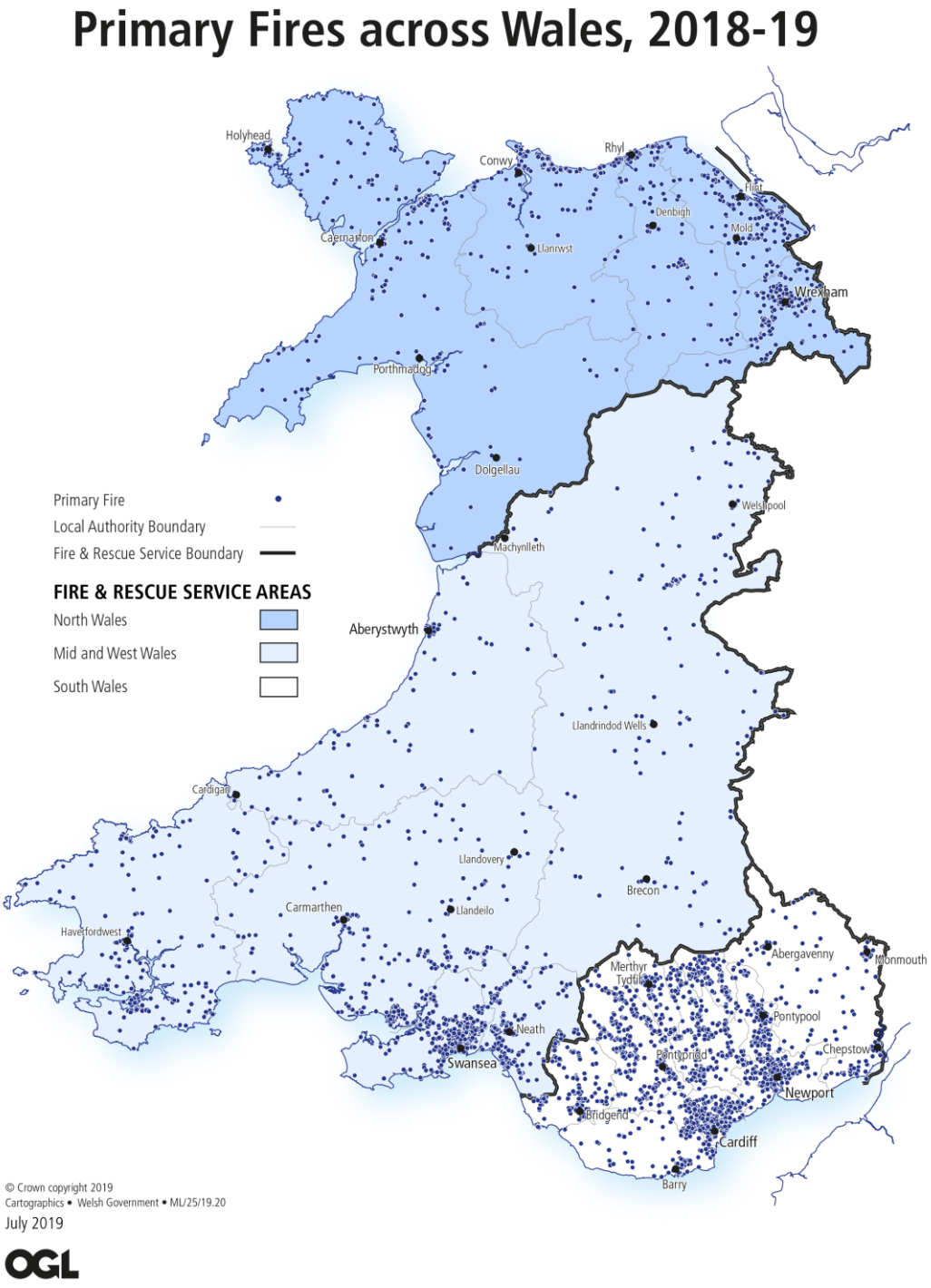

(r) Revised data.
(p) Provisional data.

Since 2001-02 both Mid and West Wales and South Wales have seen falls around two-thirds in the number of primary fires. In North Wales the number has fallen by 60 per cent. The FRAs in Wales have a number of ongoing fire safety campaigns[1] and community fire safety work (such as home

[1] South Wales Fire and Rescue Service
North Wales Fire and Rescue Service
Mid and West Wales Fire and Rescue Service

safety checks and school visits[2]) and these may be a contributory factor in the overall falling numbers of fires although no all-Wales evidence is currently available.

The map below shows the high concentration of primary fires in the south Wales region and other urban areas.




[2] Home Fire Safety Check StatsWales tables

## Table 3: Number and percentage of primary fires by location(a)

| | Dwellings (b) | | Other buildings | | Road vehicles | | Outdoors | |
|---|---|---|---|---|---|---|---|---|
| | Number | Percentage | Number | Percentage | Number | Percentage | Number | Percentage |
| 2009-10 | 2,202 | 32 | 1,477 | 22 | 2,663 | 39 | 458 | 7 |
| 2010-11 | 2,108 | 33 | 1,423 | 22 | 2,216 | 35 | 667 | 10 |
| 2011-12 | 2,022 | 36 | 1,159 | 20 | 1,820 | 32 | 686 | 12 |
| 2012-13 | 1,911 | 40 | 985 | 21 | 1,518 | 32 | 331 | 7 |
| 2013-14 | 1,910 | 40 | 995 | 21 | 1,482 | 31 | 403 | 8 |
| 2014-15 | 1,808 | 40 | 1,034 | 23 | 1,432 | 31 | 287 | 6 |
| 2015-16 | 1,775 | 38 | 963 | 21 | 1,573 | 34 | 367 | 8 |
| 2016-17 | 1,858 | 39 | 931 | 20 | 1,669 | 35 | 299 | 6 |
| 2017-18(r) | 1,617 | 37 | 922 | 21 | 1,504 | 35 | 273 | 6 |
| 2018-19(p) | 1,554 | 35 | 881 | 20 | 1,486 | 34 | 471 | 11 |
| Percentage change 2017-18 to 2018-19 | -4 | . | -4 | . | -1 | . | 73 | . |

(a) Data from 2001-02 onwards are available on StatsWales and in the accompanying Excel tables.
(b) Includes caravans, houseboats and other non-building structures used solely as a permanent dwelling.
(r) Revised data.
(p) Provisional data.
. not applicable

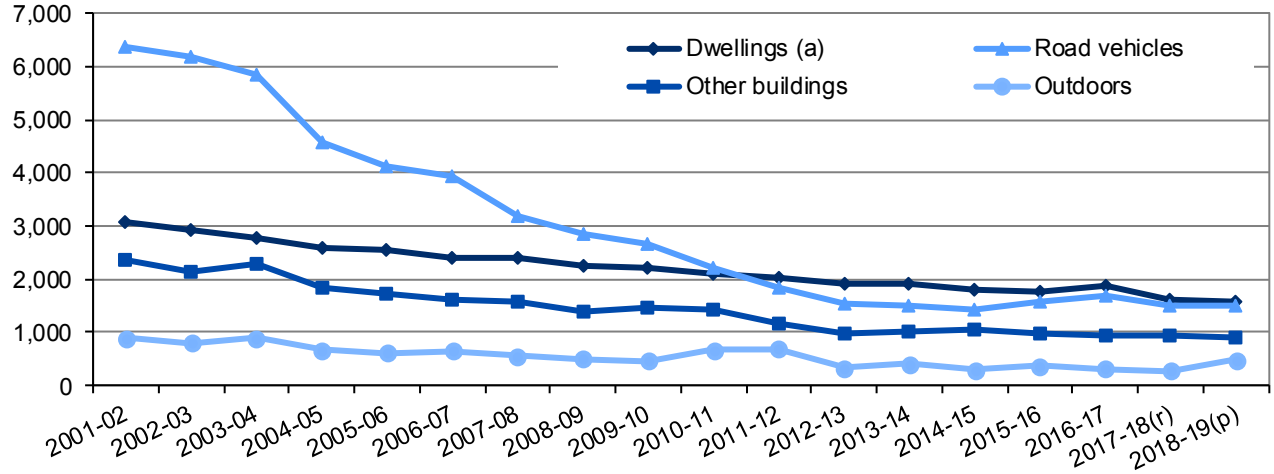
In Wales in 2018-19, 35 per cent of all primary fires were in dwellings, 34 per cent in road vehicles, 20 per cent in other buildings and 11 per cent were outdoor fires. All location types except outdoors primary fires saw decreases in the number of primary fires, with dwelling fires falling by 4 per cent, other buildings by 4 per cent and road vehicle fires by 1 per cent. These decreases have been driven by falls in the number of accidental dwelling fires and deliberate road vehicle fires. Primary fires in outdoor locations rose by 73 per cent, mainly driven by an increase in the number which were deliberate; more analysis of fires by motive can be found on pages 17-22.

Since 2001-02 numbers of dwelling fires have halved (chart 6). In recent years FRAs have targeted their programmes of Home Fire Safety Checks (HFSCs) at dwellings with identified risk factors (e.g. age, sensory/mobility impairment, domestic violence etc.) In 2017-18 FRAs in Wales completed almost 54,000 HFSCs, with 90 per cent occurring in properties with at least one risk factor[3]. A further 1,500 HFSCs were completed by non-FRA organisations.

2011-12 was the first year in the time series in which numbers of primary dwelling fires outnumbered numbers of primary fires in road vehicles in Wales and this has continued to be the case in subsequent years. Numbers of primary fires in road vehicles in Wales have fallen by over three quarters since 2001-02. More analysis of fires in road vehicles can be found in the section 'Fires by motive'.

[3] For more information on risk factors see the Community Fire Safety data collection form.

## Chart 6: Number of primary fires by location




(a) Includes caravans, houseboats and other non-building structures used solely as a permanent dwelling.
(r) Revised data.
(p) Provisional data.

## Secondary fires

Secondary fires are the majority of outdoor fires. These secondary fires include grassland and refuse fires unless such fires involve casualties or rescues, property loss or are attended by five or more appliances. They also include fires in single derelict buildings, derelict road vehicles and derelict outdoor structures.

Secondary fires are the most common category of fire attended by Welsh FRAs, accounting for 62 per cent of all fires since 2001-02 and 63 per cent of those attended in 2018-19. In 2018-19 numbers of secondary fires increased by 30 per cent compared with 2017-18. All 3 FRSs saw large increases in secondary fires as seen in table 4.

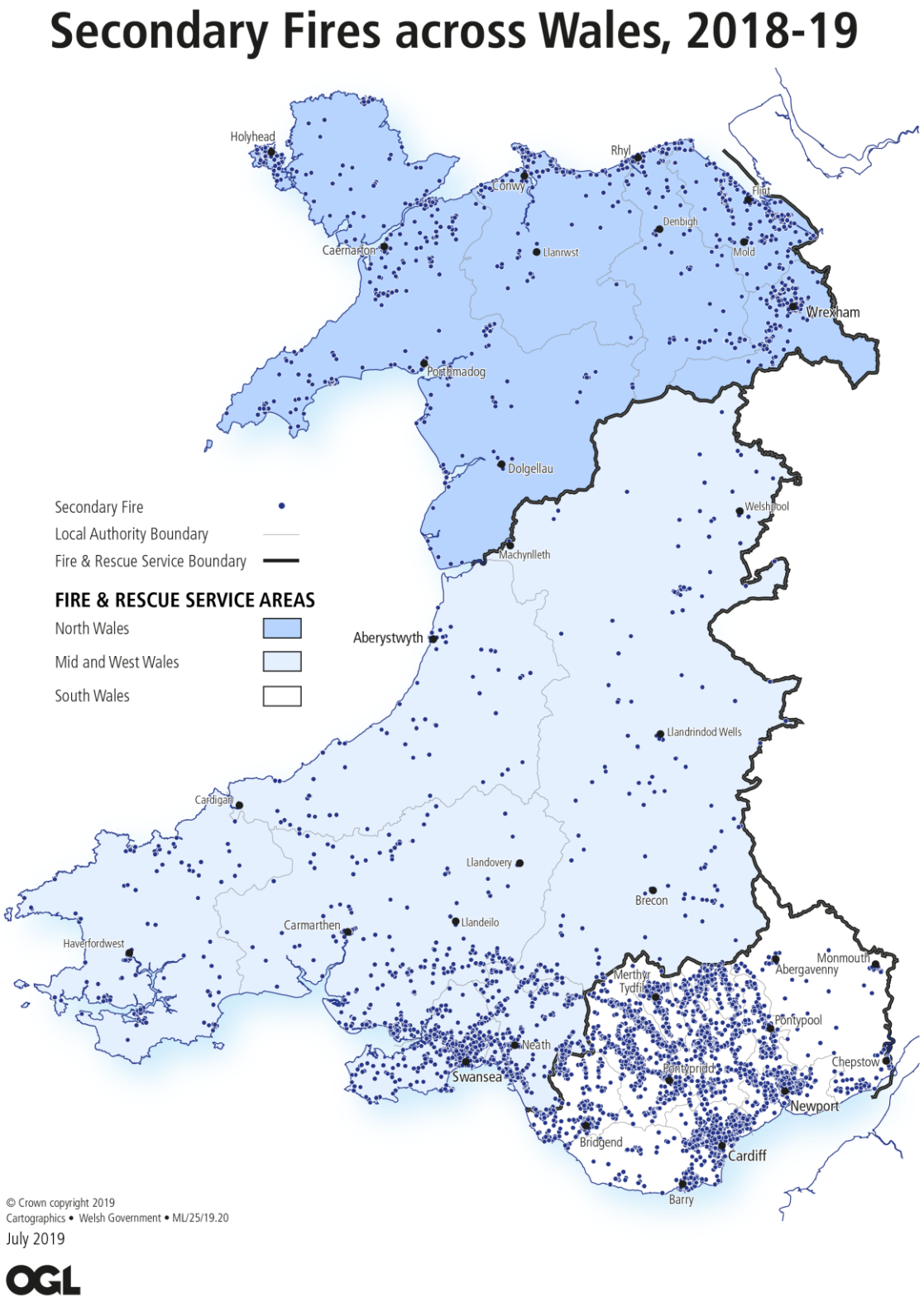
Numbers of deliberate fires are explored in more detail in the section 'Fires by motive' (page 17).

## Table 4: Number of secondary fires by Fire and Rescue Authority(a)

| | North Wales | Mid and West Wales | South Wales | **Wales** |
|---|---|---|---|---|
| 2009-10 | 1,543 | 2,834 | 7,185 | **11,562** |
| 2010-11 | 1,626 | 3,426 | 8,451 | **13,503** |
| 2011-12 | 1,625 | 2,610 | 5,927 | **10,162** |
| 2012-13 | 887 | 1,552 | 3,483 | **5,922** |
| 2013-14 | 1,087 | 2,151 | 4,563 | **7,801** |
| 2014-15 | 964 | 1,826 | 3,751 | **6,541** |
| 2015-16 | 918 | 1,797 | 4,283 | **6,998** |
| 2016-17 | 779 | 1,329 | 3,468 | **5,576** |
| 2017-18(r) | 893 | 1,640 | 3,768 | **6,301** |
| 2018-19(p) | 1,176 | 2,170 | 4,839 | **8,185** |
| Percentage change 2017-18 to 2018-19 | 32 | 32 | 28 | **30** |

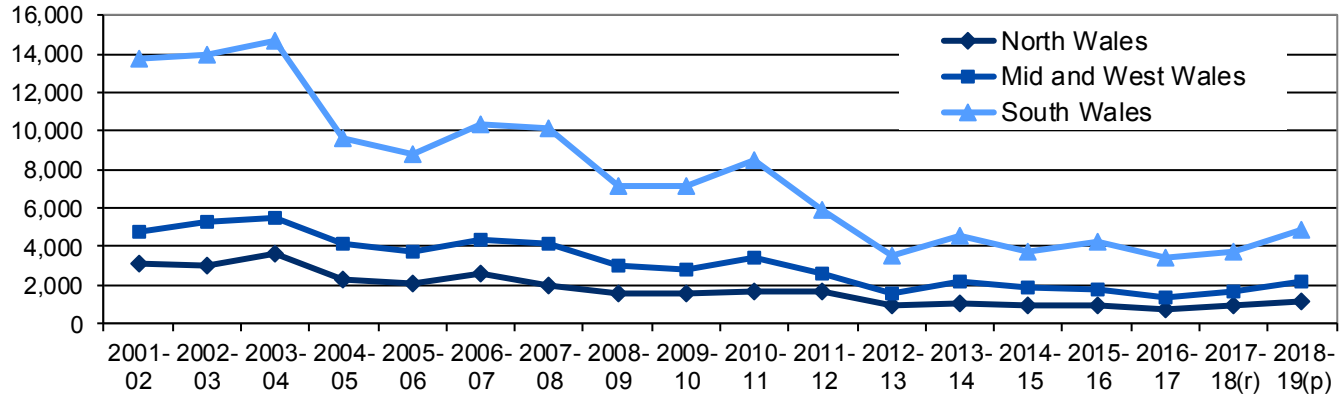
(a) Data from 2001-02 onwards are available on StatsWales and in the accompanying Excel tables.
(r) Revised data.
(p) Provisional data.

The map below shows the high concentrations of secondary fires, noticeably around Cardiff, Swansea and Newport (which could also be seen in chart 4).



Provisional figures show the Welsh FRAs attended 8,185 secondary fires in 2018-19, an increase of 30 per cent on 2017-18. This is the highest number of secondary fires since 2011-12 and the largest year on year increase since 2013-14 when numbers increased by 32 per cent compared with the previous year. Compared with the previous year, all Welsh FRAs saw increases. However numbers of secondary fires in all 3 Welsh FRAs have seen substantial falls since 2001-02; 62 per cent in North Wales, 55 per cent in Mid and West Wales and 65 per cent in South Wales. In South Wales secondary fires accounted for 71 per cent of fires in the area in 2018-19. In North Wales and Mid and West Wales the proportions were 55 per cent and 60 per cent respectively.

**Chart 7: Number of secondary fires by Fire and Rescue Authority**




(r) Revised data
(p) Provisional data

In 2018-19, the majority of secondary fires (59 per cent) occurred in South Wales. Mid and West Wales accounted for 27 per cent of all secondary fires and 14 per cent were in North Wales.

**Grassland fires**: In 2018-19, 3,762 (46 per cent of) secondary fires occurred on grassland, woodland, cropland[4], whilst 41 per cent occurred on 'other land'. These numbers increased by 86 and 8 per cent respectively compared with the previous year (equating to almost 2,000 more fires). The number of these fires is likely to have been influenced by weather conditions; for example, 2012-13 saw the second lowest number of secondary fires in the time series and was also the second wettest financial year since 1910-11; it also saw the least hours of sunshine since 1991-92. However, not all fluctuations can be explained by the weather which may suggest the impact that the FRS-run schemes and initiatives have had a positive effect. Further analysis using weather data is shown in the section 'fires by motive' (page 17).

Aside from those occurring on grassland, woodland, crops and other land, a further 11 per cent of secondary fires took place in outdoor structures, whilst those in derelict buildings, outdoor machinery and equipment and derelict road vehicles made up a total of 2 per cent.

**Refuse fires**: In 2018-19, 46 per cent of secondary fires were classed as refuse fires[5]. The number of these fires increased by 4 per cent from 3,651 in 2017-18 to 3,803 in 2018-19. Overall there has been a downward trend in refuse fires, falling by 26 per cent since 2009-10, although this is the

[4] Data on grassland, woodland and crop fires can be found in StatsWales table Primary and secondary grassland, woodland and crop fires by month and financial year
[5] Data on refuse fires can be found in StatsWales table 'Fires by detailed location and motive'

third consecutive increase and this most recent figure is the highest since 2011-12. As with other outdoor fires, numbers are likely to be affected by weather conditions. Around 8 in 10 refuse fires in 2018-19 occurred on loose refuse. A number of projects including 'Tidy Towns[6]' and 'Fly Tipping Action Wales[7]' are attempting to address the issues of litter and fly-tipping. In 2017-18, the number of fly-tipping incidents (recorded by local authorities) in Wales decreased by 8 per cent compared with the previous year, and is 35 per cent lower than in 2006-07. Keep Wales Tidy is also aiming to prevent litter from occurring through education and awareness raising via the Eco-schools programme[8]. This is an international initiative which encourages pupils to engage with environmental and also sustainable development issues.

More Data on fly-tipping in Wales can be found on the Statistics and Research website and in StatsWales tables.

### Chimney fires

Chimney fires are any fire in an occupied building where the fire was confined within the chimney structure (and did not involve casualties or rescues or attendance by five or more appliances).

During 2018-19, there were 335 chimney fires in Wales, a decrease of 17 per cent compared with 2017-18. The majority of these fires occurred in dwellings (96 per cent).

Both Mid and West Wales and South Wales FRAs saw decreases in the number of chimney fires, 28 per cent and 29 per cent respectively; North Wales saw an increase of 3 per cent on the previous year (as shown in table 5).

**Table 5: Number of chimney fires by Fire and Rescue Authority (a)**

| | North Wales | Mid and West Wales | South Wales | **Wales** |
|---|---|---|---|---|
| 2009-10 | 351 | 330 | 109 | **790** |
| 2010-11 | 325 | 337 | 109 | **771** |
| 2011-12 | 254 | 260 | 101 | **615** |
| 2012-13 | 319 | 340 | 112 | **771** |
| 2013-14 | 212 | 265 | 101 | **578** |
| 2014-15 | 217 | 220 | 112 | **549** |
| 2015-16 | 173 | 186 | 73 | **432** |
| 2016-17 | 151 | 197 | 69 | **417** |
| 2017-18 | 141 | 197 | 68 | **406** |
| 2018-19(p) | 145 | 142 | 48 | **335** |
| Percentage change 2017-18 to 2018-19 | 3 | -28 | -29 | **-17** |

(a) Data from 2001-02 onwards are available on StatsWales and in the accompanying Excel table.
(p) Provisional data.

[6] Keep Wales tidy – tidy towns
[7] Fly-tipping Action Wales
[8] Keep Wales Tidy – Eco schools

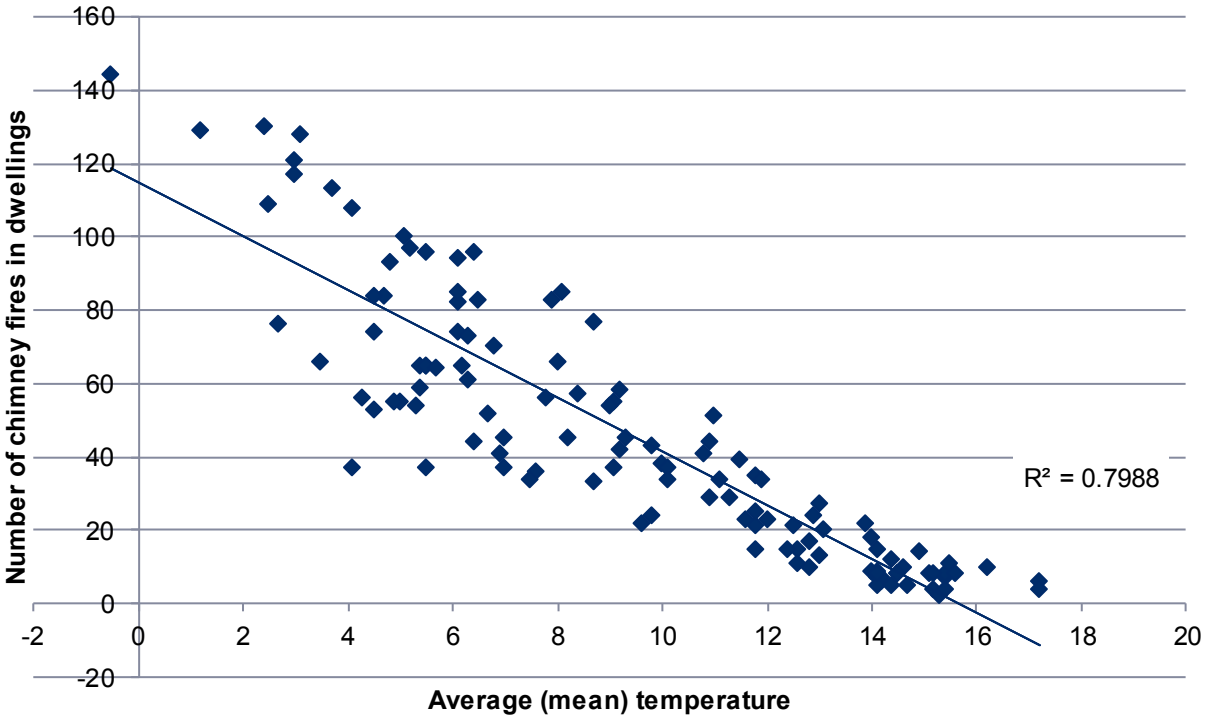
## Statistical analysis of chimney fire and temperature data

Since there appears to be a link between the mean temperature and the number of chimney fires, it is worth investigating this relationship further by looking at the statistical correlation between the two datasets.

The correlation coefficient, denoted by '$R^2$', tells us how closely data in a scatterplot fall along a straight line. The $R^2$ value ranges from 0 to 1, the closer the value is to 1 the stronger the relationship. A value close to 0 implies no relationship.

The scatter plot below shows how closely the relationship between the temperature data and chimney fire numbers are correlated. The data in the chart shows the monthly mean temperature plotted against the number of chimney fires (in dwellings) seen in that month for the years 2009-10 to 2018-19. The $R^2$ value of 0.8 indicates a strong correlation in the data which is also intuitive, that in colder months the FRAs are required to attend more chimney fires. The graph also shows a tighter cluster of data points around the higher temperatures and getting looser as the temperature falls. This suggests that as it gets colder considerations other than the temperature (e.g. poverty, environmental concerns, availability of fuel etc.) may also factor in whether a householder lights a fire in their home.

**Chart 8a Scatter plot showing statistical correlation between numbers of chimney fires in dwellings and mean temperature**

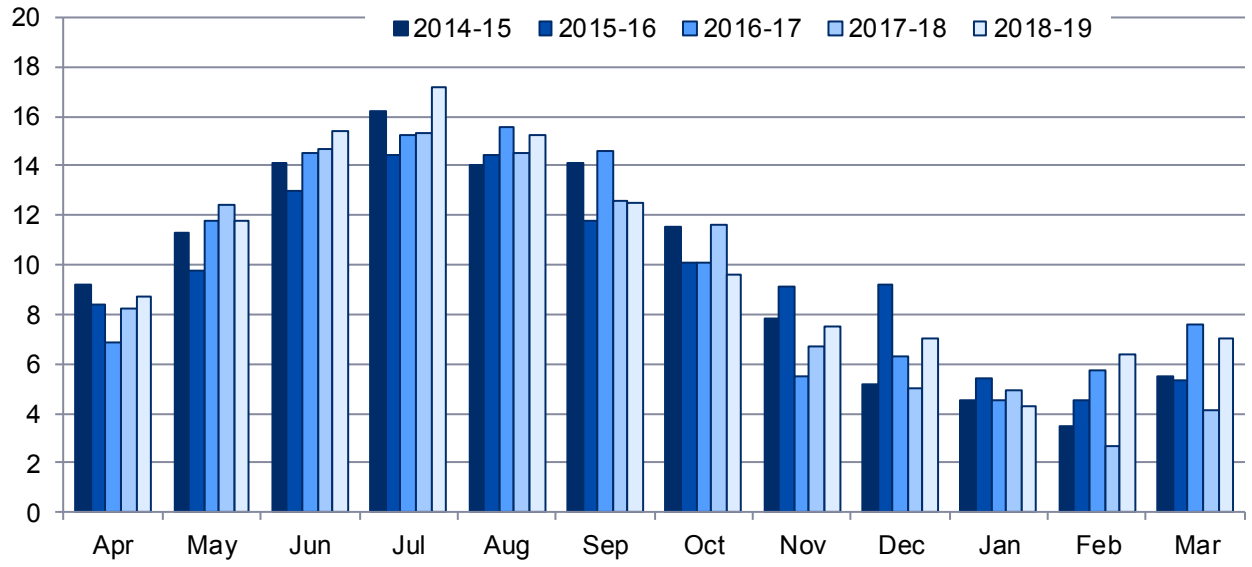



Source: Mean temperature data from the Met Office

This relationship can also be seen by comparing monthly data for chimney fires and mean temperatures.

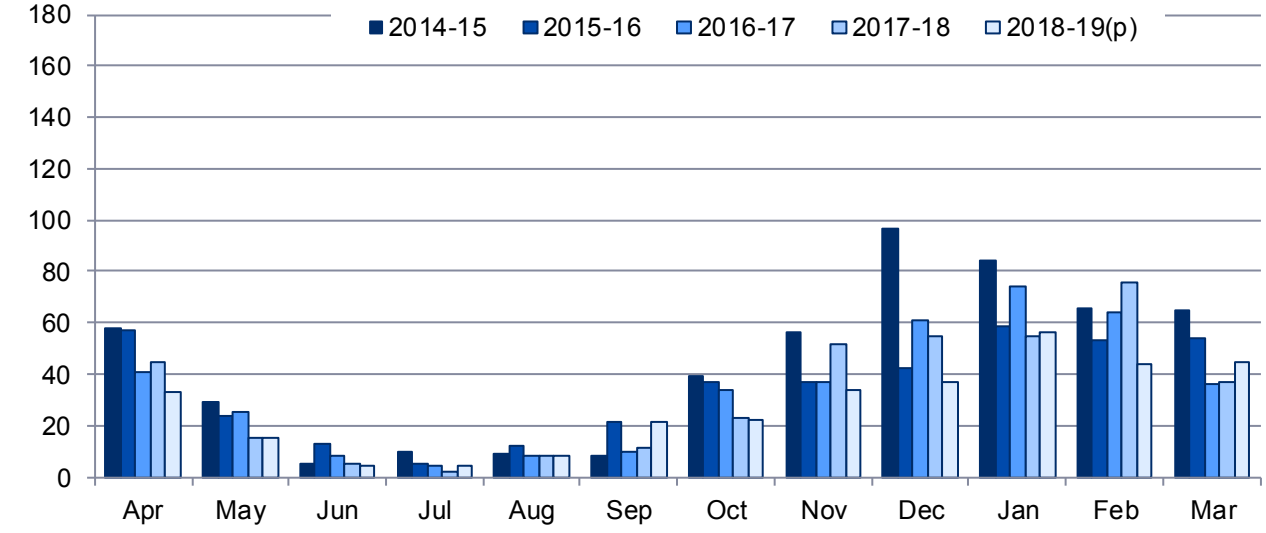
As might be expected, the number of chimney fires in dwellings is higher in the winter and colder months, for example in the charts 8b and 8c we see that Feb 2018 was relatively cold and saw more chimney fires in comparison to February in the other years shown. Conversely March 2017 saw the highest temperature for March (of those shown) and corresponds to the fewest number of chimney fires. Whilst the pattern does not hold for all months, further examples can be seen throughout the time series.

**Chart 8b: Mean temperature by month**




Source: Met Office[9]

**Chart 8c: Number of chimney fires in dwellings by month**




(p) Provisional data

Further data on this topic is available on StatsWales.

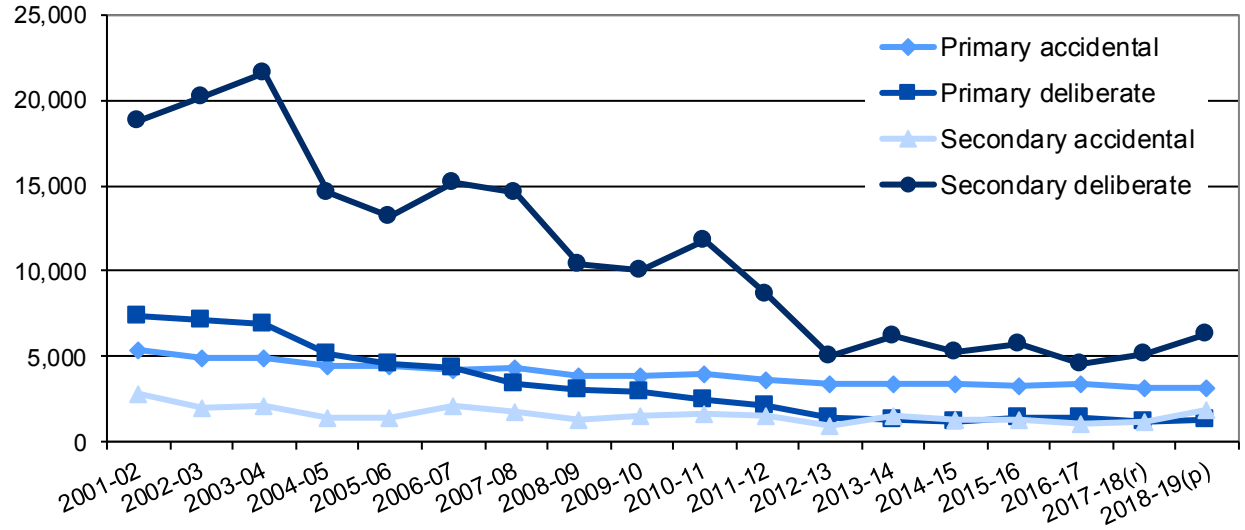
[9] Met Office datasets

## Fires by motive

This section looks at motive, in particular whether fires were caused accidentally or deliberately. Accidental fires are defined as fires where the fire was ignited by accident or the cause of the fire is not known or unspecified. Deliberate fires are defined as fires where the fire was ignited deliberately or if it is suspected or recorded as 'doubtful' by the FRA.

The chart below shows that numbers of deliberate secondary fires have been prone to fluctuation, whilst the other categories shown are less volatile.

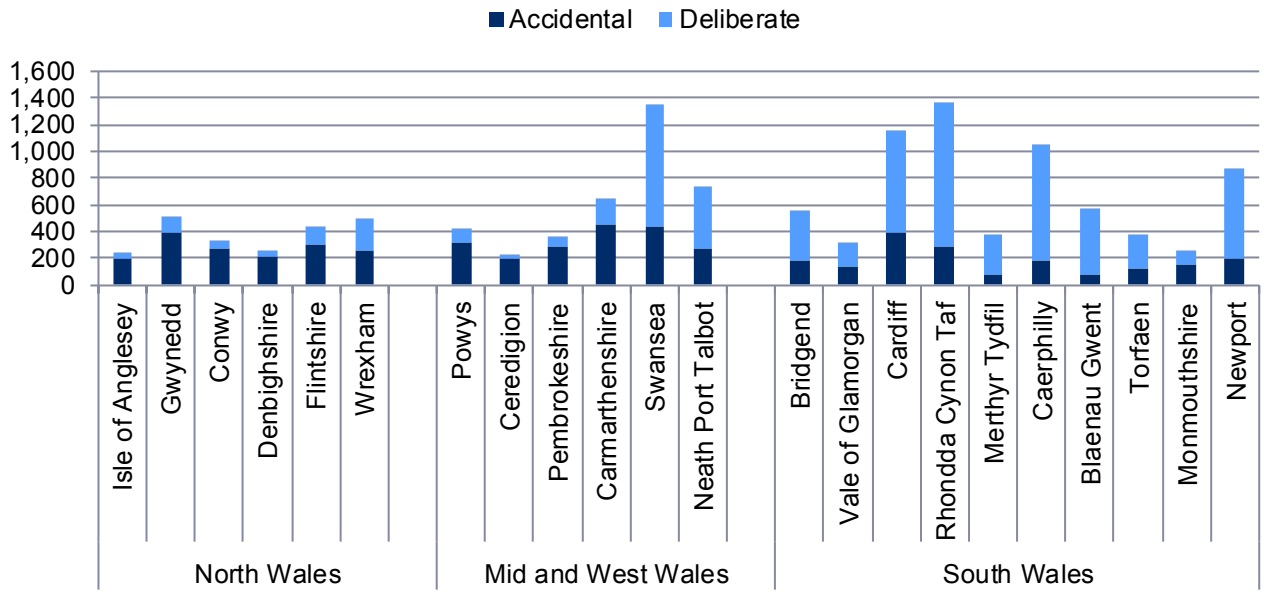
**Chart 9: Number of fires by type and motive**




(r) Revised data.
(p) Provisional data.

Chart 10 shows that in those local authorities with high numbers of fires (Cardiff, Swansea, Newport, Rhondda Cynon Taf and Caerphilly), a large proportion were started deliberately.

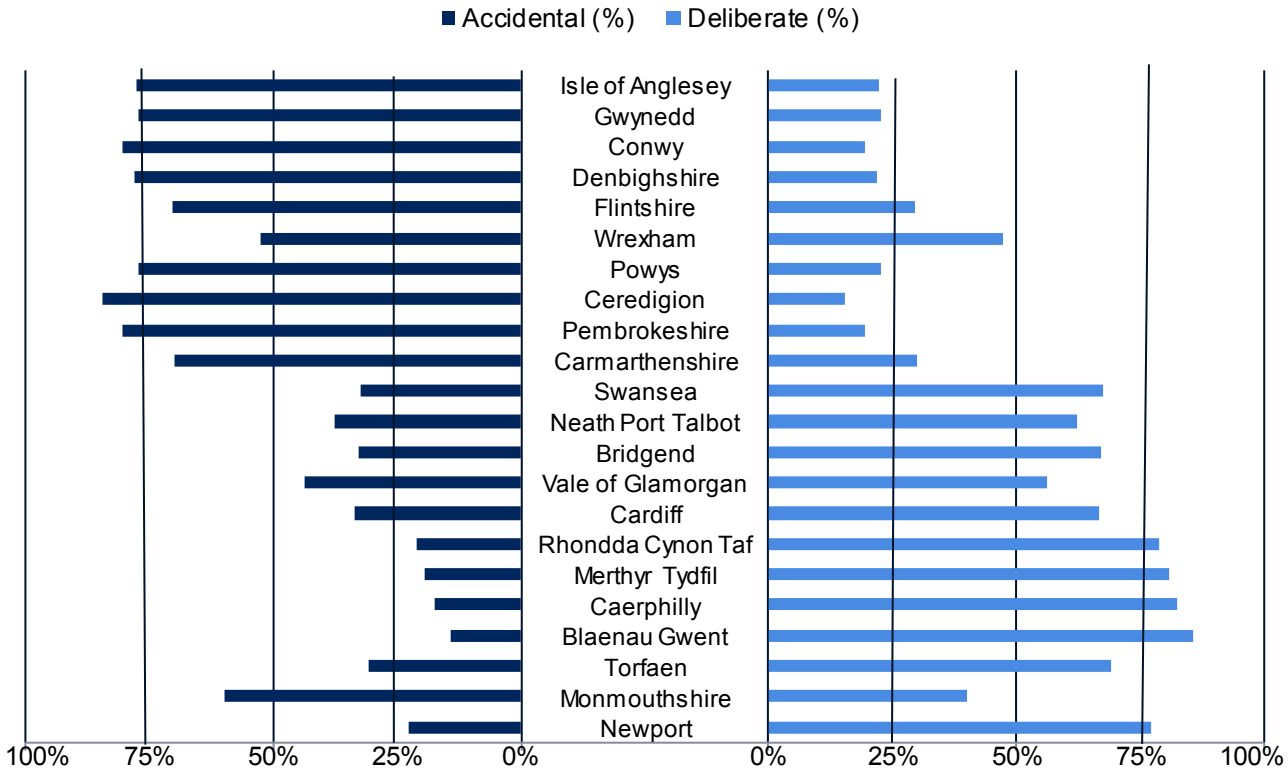
**Chart 10: Number of accidental and deliberate fires by Local Authority 2018-19(p)**




(p) Provisional data

Chart 11 further shows in 3 local authorities (Blaenau Gwent, Caerphilly and Merthyr Tydfil) over 80 per cent of fires were started deliberately, (where Blaenau Gwent has the highest percentage at 86 per cent). In 3 Local Authorities (Pembrokeshire, Ceredigion and Conwy) less than 20 per cent of fires were started deliberately, where Ceredigion has the lowest percentage (15 per cent).

**Chart 11: Percentage of accidental and deliberate fires by Local Authority 2018-19(p)**




## Accidental fires

In 2018-19, the number of accidental fires rose by 16 per cent compared to the previous year, (equating to 740 more accidental fires), however since 2001-02 the number has fallen by 41 per cent. Accidental fires accounted for 42 per cent of all fires attended in 2018-19, around the same proportion as in the previous year. 71 per cent of all primary fires and 23 per cent of secondary fires were accidental. Almost all chimney fires in 2018-19 were accidental.

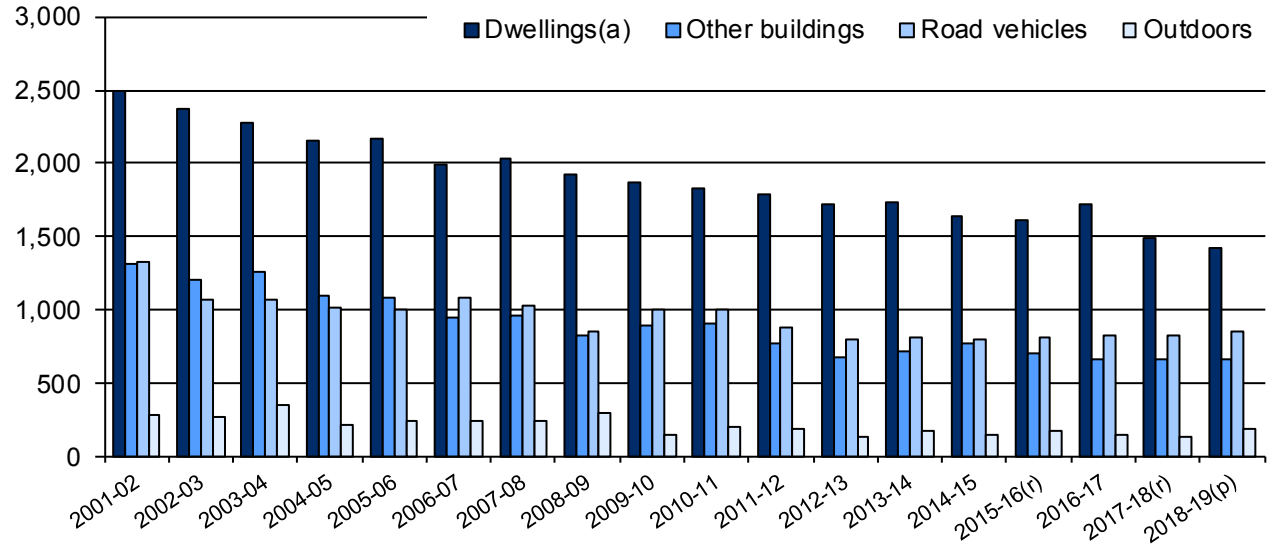
In 2018-19 the number of accidental primary fires increased by 1 per cent whilst the number of accidental secondary fires rose by 71 per cent (compared with 2017-18). The increase in accidental secondary fires is almost solely due to an increase in those occurring outdoors.

A large proportion of accidental primary fires occur in dwellings, equating to between 46 per cent and 52 per cent for each year since 2001-02. The number of accidental dwelling fires fell by 4 per cent to 1,429 in 2018-19, continuing the general downward trend in these fires (as can be seen in chart 12), dropping by 43 per cent between 2001-02 and 2018-19. Most dwelling fires (92 per cent) started accidentally in 2018-19, similar to the proportion seen in recent years but more than 10 percentage points higher than in 2001-02.

Since 2001-02 the number of accidental fires in road vehicles has fallen by 36 per cent, although in 2018-19 the number rose by 3 per cent (compared with the previous year).

The increase in proportion of dwelling fires and road vehicle fires starting accidently can be largely attributed to the decreases in deliberate dwelling and road vehicle fires. See page 20 for more information on deliberate fires.

**Chart 12: Number of accidental primary fires by location**




(a) Includes caravans, houseboats and other non-building structures used solely as a permanent dwelling.
(r) Revised data.
(p) Provisional data.

In 2018-19 North Wales and Mid and West Wales saw decreases in the number of accidental primary fires in dwellings compared with the previous year, as shown in table 6. Only South Wales saw an increase.

**Table 6: Number of accidental primary fires in dwellings by Fire and Rescue Authority(a)(b)**

| | North Wales | Mid and West Wales | South Wales | **Wales** |
|---|---|---|---|---|
| 2009-10 | 478 | 584 | 802 | **1,864** |
| 2010-11 | 469 | 605 | 752 | **1,826** |
| 2011-12 | 476 | 555 | 758 | **1,789** |
| 2012-13 | 455 | 525 | 745 | **1,725** |
| 2013-14 | 479 | 572 | 681 | **1,732** |
| 2014-15 | 401 | 579 | 655 | **1,635** |
| 2015-16 | 385 | 542 | 682 | **1,609** |
| 2016-17 | 433 | 595 | 691 | **1,719** |
| 2017-18 | 386 | 532 | 567 | **1,485** |
| 2018-19(p) | 327 | 527 | 575 | **1,429** |
| Percentage change 2017-18 to 2018-19 | -15 | -1 | 1 | -4 |

(a) Data from 2001-02 onwards are available on StatsWales and in the accompanying Excel tables.
(b) Dwellings include caravans, houseboats and other non-building structures used solely as a permanent dwelling.
(p) Provisional data.

Over a third of accidental dwelling fires occurred between the hours of 5pm and 10pm[10]. Analysis on page 45 relates to cause and source of ignition and shows that, cooking appliances were the main source of ignition, being responsible for almost half of the accidental dwelling fires in 2018-19. In 8 per cent of accidental dwelling fires alcohol or drugs were recorded as a contributory factor to the start of the fire.

There was a 37 per cent increase in primary accidental outdoor fires from 139 in 2017-18 to 190 in 2018-19; over a third of these fires occurred in July 2018.

### Deliberate fires

Over the years there have been a number of national programmes for dealing with deliberate fires. The Wales Arson Reduction Strategy (WARS) first reported in 2007, with a review in 2009, and updated strategies for 2012-15 and most recently 2019[11]. A delivery plan from WARS III resulted in a multi-agency taskforce 'Operation Dawns Glaw' being established in 2015 and aiming to reduce the number of deliberate grassland fires.

More information on the Joint Arson group and associated initiatives can be found on the webpages of Mid and West Wales Fire Service.

The original WARS report noted that vehicle crime had continued to fall, and reflected that vehicles are designed and built more securely. According to police recorded crime data (not currently National Statistics) published by the Office for National Statistics[12], offences against vehicles in Wales have fallen by 73 per cent and thefts or unauthorised taking of vehicles have fallen by 77 per cent between 2002-03 and 2018-19. However in 2018-19 vehicle theft increased by 11 per cent compared with 2017-18, the third annual increase in a row. Deliberate primary fires in road vehicles have seen some fluctuation in recent years, but have decreased for two years in a row, down 6 per cent on 2017-18 numbers to the second lowest figure in the time series.

Ongoing targeted programmes continue, for instance the South Wales FRA Bernie campaign which specifically targets primary school children to engage with and educate them on the potential consequences of deliberately setting grass and mountain fires. The Fire Service in North Wales, in conjunction with North Wales Police and the British Transport Police, launched a deliberate fires awareness campaign in March 2016. The theme of the campaign is to encourage fire and potential fire starters to think about the consequences of deliberately starting grass and mountain fires.

More intensive programmes such as 'Crimes and Consequences' and 'Phoenix' operate throughout the year and across Wales.

Over 107,000 children and young people received Fire Safety talks[13] at school in 2017-18.

[10] Data on time of accidental dwelling fires can be found in the StatsWales table 'Fires and casualties by time'
[11] Wales Arson Reduction Strategy
[12] ONS Crime Statistics 2018-19
[13] StatsWales table - Children and Young People Interventions by Participant and Interventions

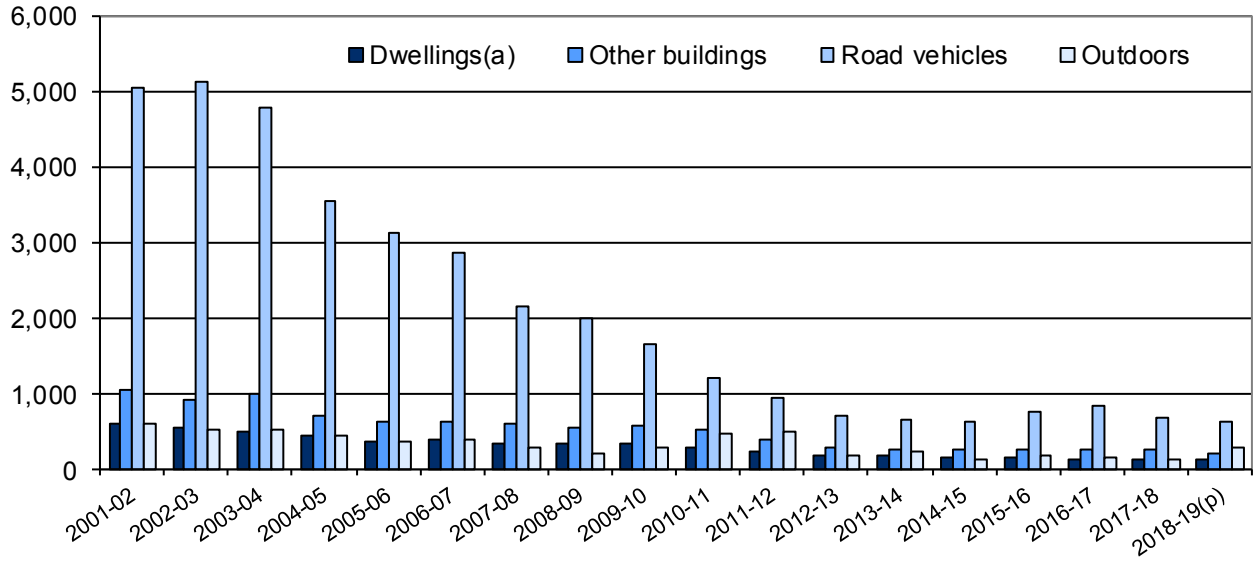
Work has also been done to inhibit the spread of fires; Natural Resources Wales has examined how changes in land and forestry management methods can be used to make grasslands less conducive to fires or be better structured to control the spread of fires and firefighters have also been involved in developing firebreaks on some of our valleys' hillsides, using the latest techniques learned internationally.

There were 1,259 deliberate primary fires in 2018-19, 5 per cent more than in 2017-18 but 83 per cent fewer than in 2001-02. Deliberate primary fires accounted for 29 per cent of all primary fires in 2017-18.

Grassland, woodland and crop fires continue to be a focus of many of these programmes. In 2018-19 there were 2,862 deliberately set grassland fires. Of these 94 per cent were secondary fires.

While half of all deliberate primary fires in 2018-19 occurred in road vehicles, the numbers of such fires have reduced substantially since 2001-02 (by 87 per cent).

**Chart 13: Number of deliberate primary fires by location**




(a) Includes caravans, houseboats and other non-building structures used solely as a permanent dwelling.
(p) Provisional data.

In 2018-19, there were 6,262 deliberate secondary fires, an increase of 21 per cent on the previous year and the highest number since 2011-12. This equates to over three quarters of secondary fires being set deliberately.

46 per cent of all deliberate secondary fires were classed as 'Other outdoors (including land)' in 2018-19 and numbers rose by 4 per cent compared with the previous year. The majority of these fires (93 per cent) occurred on loose refuse.

Fires on grassland, woodland or crops accounted for 43 per cent of deliberate secondary fires in 2018-19 and numbers of these fires rose by 69 per cent compared with the previous year. Chart 14 shows the usual peaks for these fires tend to occur in March, April and May, and since 2009-10 these 3 months have accounted for 65 per cent of the deliberate secondary fires on grassland,

woodland and crops. The chart shows the numbers for these months can be variable and this may be due to a number of factors, including weather and the date on which Easter falls.

**Table 7: Number of deliberate secondary fires by location(a)**

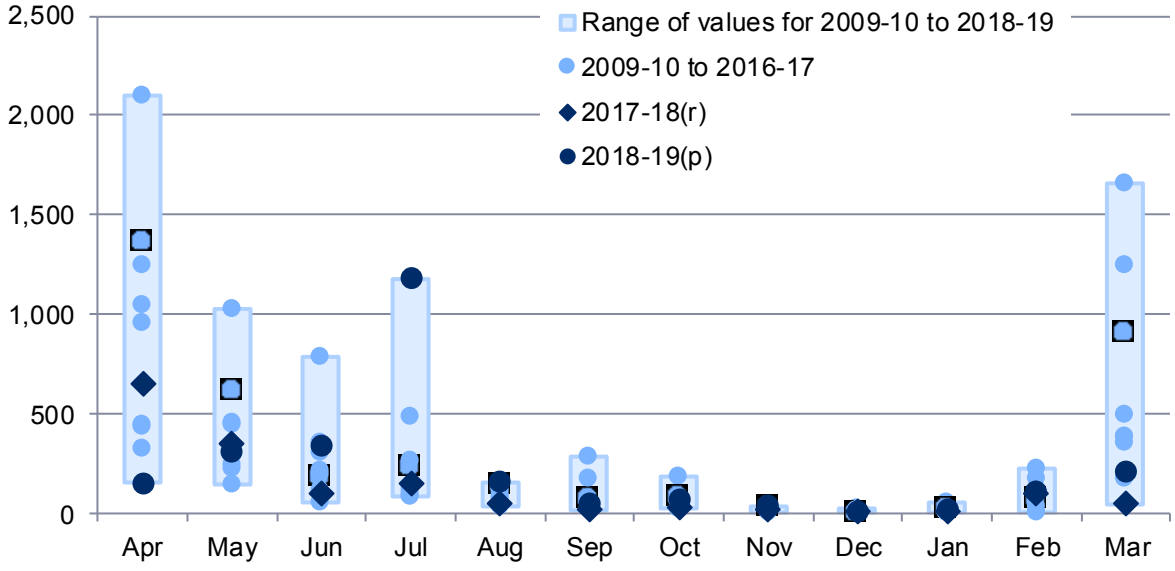
| | 2014-15 | 2015-16 | 2016-17 | 2017-18(r) | 2018-19(p) |
|---|---|---|---|---|---|
| Derelict building | 60 | 56 | 95 | 100 | 71 |
| Derelict road vehicle | 28 | 26 | 66 | 43 | 36 |
| Outdoor (b) | 5,132 | 5,675 | 4,379 | 5,031 | 6,155 |
| Grassland, woodland and crops | 1,910 | 2,518 | 1,270 | 1,588 | 2,686 |
| Outdoor structures | 682 | 653 | 650 | 654 | 574 |
| Outdoor equipment and machinery | 6 | 8 | 9 | 10 | 4 |
| Other outdoors (including land) (c) | 2,534 | 2,496 | 2,450 | 2,779 | 2,891 |
| **All deliberate secondary fires** | **5,220** | **5,757** | **4,540** | **5,174** | **6,262** |

(a) Fires in non-derelict buildings, non-derelict road vehicles and non-derelict transport vehicles are primary fires.
(b) Outdoor fires include 3 secondary fires in 2010-11, 1 secondary fire in 2011-12, 1 secondary fire in 2012-13 and 3 in 2013-14, in derelict 'other transport vehicles'.
(c) Other outdoors includes the following locations: loose refuse, river/canal, lake/pond/reservoir, sea, road surface/pavement, railway, airfield/runway, cycle path/public footpath/bridleway, cemetery, park, beach, landfill site, wasteland, mines and quarries (excluding buildings above ground), golf course, playground (excluding equipment)/recreational area.
(r) Revised data.
(p) Provisional data.

Chart 14 shows that both April 2018 and March 2019 (which usually have the highest proportion of deliberate grassland fires each year) saw relatively few fires in this category in 2018-19 with only 6 per cent and 8 per cent of the annual total respectively. July 2018 had the largest proportion with 44 per cent of the annual total and 8 times as many in July 2017. The weather in July 2018 is likely to have had an influence on the number of fires, with almost half the rainfall and over 40 per cent more hours of sunshine compared with July 2017.

Nine months saw annual increases in the number of deliberate secondary grassland, woodland and crop fires compared with 2018-19 , the exceptions being April 2018 (down 76 per cent), May (down 12 per cent) and December (down 31 per cent).

**Chart 14: Number of deliberate secondary grassland, woodland and crop fires by month**




(r) Revised data.
(p) Provisional data.

## Casualties and rescues

### Fatal casualties from fires

A fatal casualty is defined as a person whose death is attributed to a fire, even if the death occurred weeks or months later.

Provisional figures show there were 20 fatal casualties during 2018-19 (see table 8). This is 5 more than in the previous year although a similar number to those seen prior to that. The overall trend since 2001-02 has been downward, however numbers are small and prone to fluctuation (see chart 15). In 2018-19 North Wales had the highest fatality rate and saw its highest rate since 2012-13. The rate in Mid and West Wales fell compared with 2017-18 (albeit from a relatively high rate in 2017-18) whilst the rate in South Wales rose but was still the lowest of the Welsh FRSs.

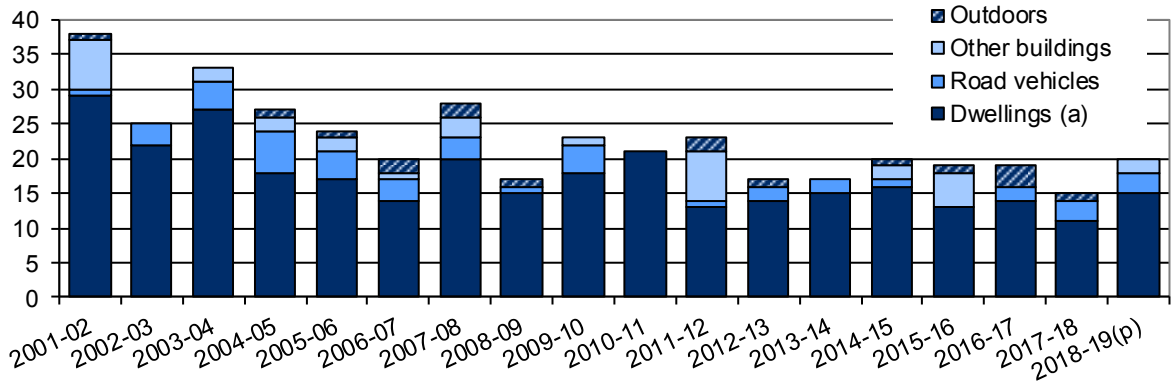
**Table 8: Number and rate of fatal casualties from fires by Fire and Rescue Authority**

| | North Wales | | Mid and West Wales | | South Wales | | **Wales** | |
|---|---|---|---|---|---|---|---|---|
| | Number(a) | pmp(b) | Number(a) | pmp(b) | Number(a) | pmp(b) | **Number(a)** | **pmp(b)** |
| 2009-10 | 8 | 11.7 | 11 | 12.4 | 4 | 2.7 | **23** | **7.6** |
| 2010-11 | 10 | 14.6 | 7 | 7.9 | 4 | 2.7 | **21** | **6.9** |
| 2011-12 | 8 | 11.6 | 8 | 9.0 | 7 | 4.7 | **23** | **7.5** |
| 2012-13 | 8 | 11.6 | 3 | 3.3 | 6 | 4.0 | **17** | **5.5** |
| 2013-14 | 3 | 4.3 | 8 | 8.9 | 6 | 4.0 | **17** | **5.5** |
| 2014-15 | 5 | 7.2 | 8 | 8.9 | 7 | 4.7 | **20** | **6.5** |
| 2015-16 | 6 | 8.7 | 4 | 4.4 | 9 | 6.0 | **19** | **6.1** |
| 2016-17 | 5 | 7.2 | 7 | 7.8 | 7 | 4.6 | **19** | **6.1** |
| 2017-18 | 2 | 2.9 | 11 | 12.2 | 2 | 1.3 | **15** | **4.8** |
| 2018-19(p) | 8 | 11.5 | 7 | 7.7 | 5 | 3.3 | **20** | **6.4** |

(a) Numbers of fatalities from 2001-02 onwards are available on StatsWales and in the accompanying Excel tables.
(b) Per million population. Population data are taken from ONS Mid-Year Estimates and are revised periodically and so rates are subject to change between publications.
(p) Provisional data.

In the 18 years since 2001-02, 77 per cent of fatal casualties occurred in dwelling fires, equating to a total of 312 out of 406 fatalities. Three quarters of fatalities occurring in 2018-19 were the result of dwelling fires, a similar proportion to that seen in the previous two years.

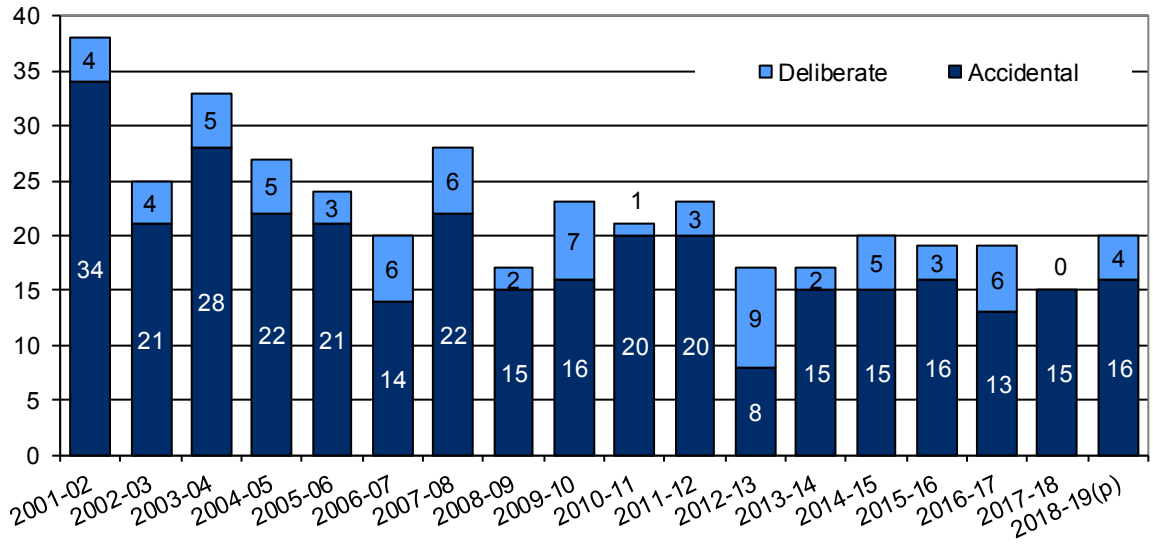
**Chart 15: Number of fatal casualties from fires by location**




(a) Includes caravans, houseboats and other non-building structures used solely as a permanent dwelling.
(p) Provisional data.

16 of the fatalities in 2018-19 were the result of accidental fires, 14 of which occurred in dwellings.

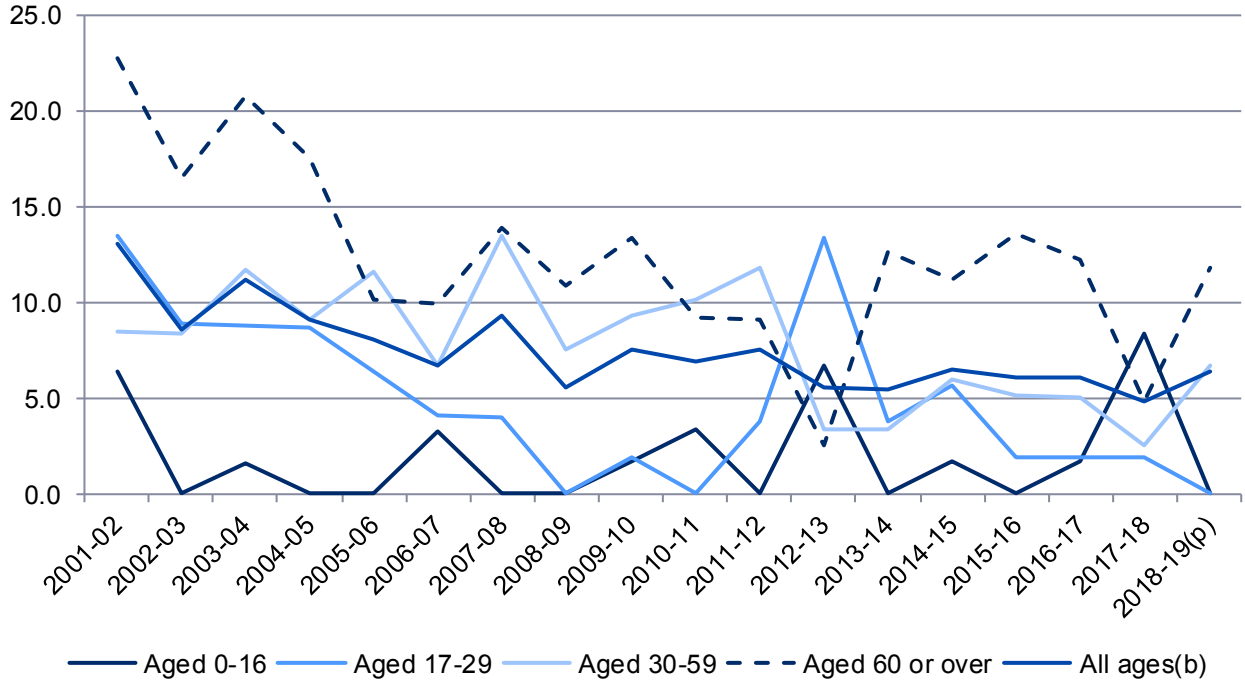
**Chart 16: Number of fatal casualties from fires by motive**




(p) Provisional data.

In 2018-19 all fatalities were aged over 30. For most of the available time series the age group '60 or over' had the highest fatality rate, and this is once again seen in 2018-19 with the rate rising from 4.8 in 2017-18 to 11.9. Those aged 30-59 also saw a rise in the rate from 2.5 to 6.8. It should be noted that numbers and rates of fatalities were low in 2017-18 and these rises are more in line with the earlier time series.

**Chart 17: Fatalities per million population(a), by age group**

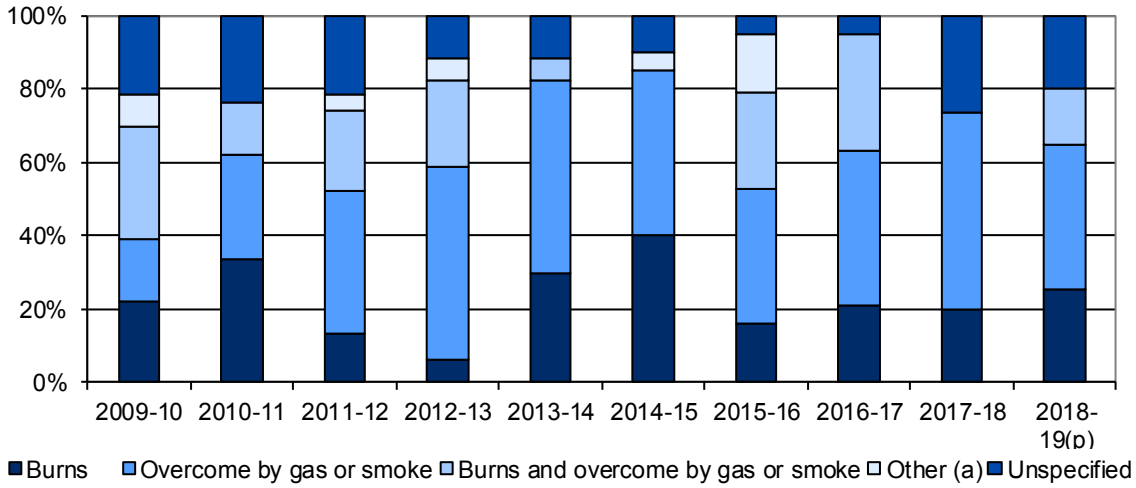



(a) Population data are taken from ONS Mid-Year Estimates revised periodically and so rates are subject to change between publications. Rates are calculated per age group.
(b) Includes fatalities of unknown age.
(p) Provisional data.

During 2018-19 only three causes of death from fires in Wales were recorded, those being overcome with smoke or gas (8 fatalities), burns (5 fatalities), and a combination of the two (3 fatalities). There were a further 4 fatalities who did not have their cause of death recorded by time of publication.

Since 2001-02 'being overcome by smoke or gas' has accounted for 46 per cent of fatalities, 'burns' accounted for 22 per cent of fatalities and a combination of the two caused 19 per cent of fatalities.

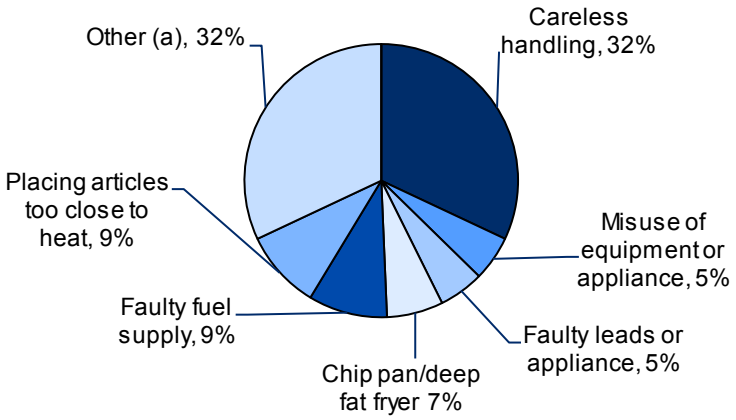
**Chart 18: Percentage of fatal casualties by cause of death**




(a) Other includes cardiac arrests and other physical injuries.
(p) Provisional data.

Of the 331 fatalities occurring in accidental fires from 2001-02 to 2018-19, 36 per cent died in fires where the cause of the fire was recorded as 'careless handling'. Looking at the last 5 years only, this proportion has decreased to 32 per cent, although the proportion with causes listed as 'other' has increased, in many cases the fire is still being investigated.

**Chart 19: Percentage of fatal accidental fires by cause in the last 5 years (2014-15 to 2018-19)**




(a) Other includes playing with fire and causes listed as 'other'.

### Non-fatal casualties from fires

From April 2009 non-fatal casualties are recorded as being in one of four classes of severity as follows:

(i) Victim went to hospital, injuries appear to be serious

(ii) Victim went to hospital, injuries appear to be slight

(iii) First aid given at scene

(iv) Precautionary check recommended – this is when an individual is sent to hospital or advised to see a doctor as a precaution, having no obvious injury or distress.

Due to these changes and the introduction of a 'fire-related injury' marker there is a possible discontinuity in the number of non-fatal casualties, further information on this is available in the Quality Information section.

In 2018-19 there were 396 non-fatal casualties, the lowest number (and rate) in the time series. The overall trend over the last ten years has been downward, although in recent years the numbers and associated rates have fluctuated. All FRAs saw reductions in the number (and rate) of non-fatal casualties and South Wales had the lowest rate per million population.

**Table 9: Number and rate of non-fatal casualties from fires by Fire and Rescue Authority**

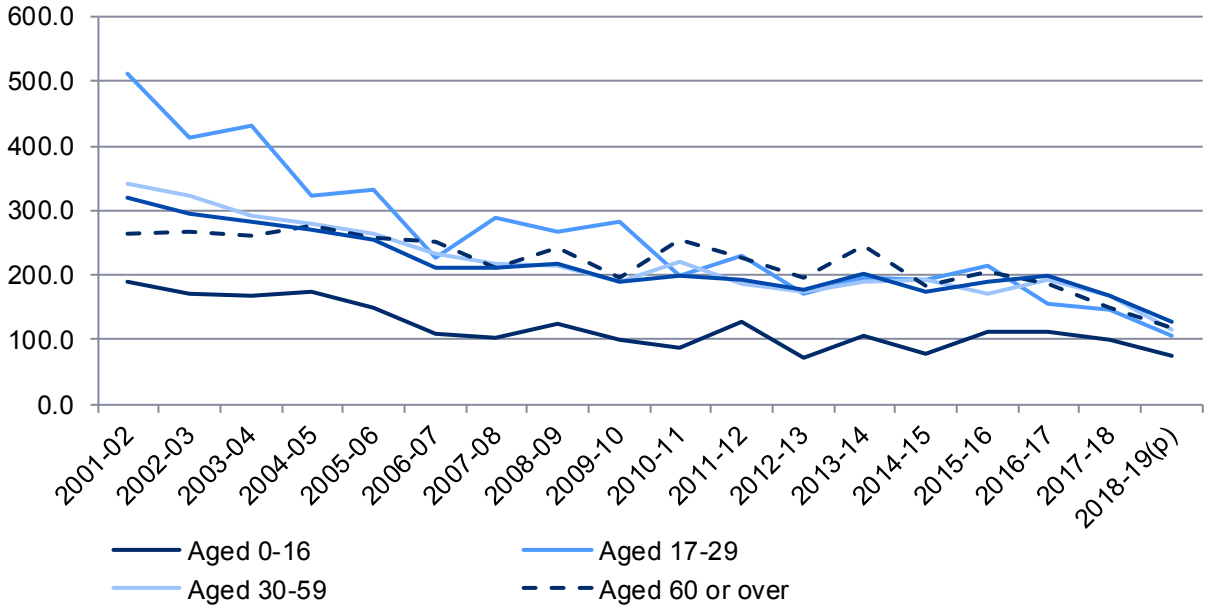
| | North Wales | | Mid and West Wales | | South Wales | | **Wales** | |
|---|---|---|---|---|---|---|---|---|
| | Number(a) | pmp(b) | Number(a) | pmp(b) | Number(a) | pmp(b) | **Number(a)** | **pmp(b)** |
| 2009-10 | 234 | 341.8 | 158 | 178.1 | 183 | 124.7 | **575** | **189.2** |
| 2010-11 | 281 | 409.7 | 132 | 148.3 | 194 | 131.6 | **607** | **199.0** |
| 2011-12 | 228 | 331.2 | 184 | 205.9 | 180 | 121.5 | **592** | **193.2** |
| 2012-13 | 213 | 308.7 | 151 | 168.5 | 177 | 118.9 | **541** | **176.0** |
| 2013-14 | 276 | 399.3 | 167 | 186.3 | 183 | 122.4 | **626** | **203.1** |
| 2014-15 | 194 | 279.9 | 194 | 216.0 | 155 | 103.3 | **543** | **175.6** |
| 2015-16 | 213 | 307.2 | 177 | 196.9 | 202 | 134.1 | **592** | **191.0** |
| 2016-17 | 194 | 279.2 | 153 | 169.6 | 274 | 180.7 | **621** | **199.5** |
| 2017-18 | 156 | 224.5 | 144 | 159.6 | 226 | 149.1 | **526** | **169.0** |
| 2018-19(p) | 117 | 167.5 | 118 | 130.0 | 161 | 105.0 | **396** | **126.2** |

(a) Numbers of non-fatal casualties from 2001-02 onwards are available on StatsWales and in the accompanying Excel tables.
(b) Per million population. Population data are taken from ONS Mid-Year Estimates revised periodically and so rates are subject to change between publications.
(p) Provisional data.

The number of non-fatal casualties recorded in 2018-19 fell 25 per cent compared with the previous year. This decrease was driven by a fall in the numbers of those receiving first aid or advised to have a precautionary check, down a third compared with 2017-18. Over the same time period numbers of those sent to hospital fell by 12 per cent. In 2018-19, over half the number of non-fatal casualties received first aid or were advised to have a precautionary check-up. 36 per cent of non-fatal casualties were taken to hospital with slight injuries and the remaining 11 per cent were taken to hospital with severe injuries.

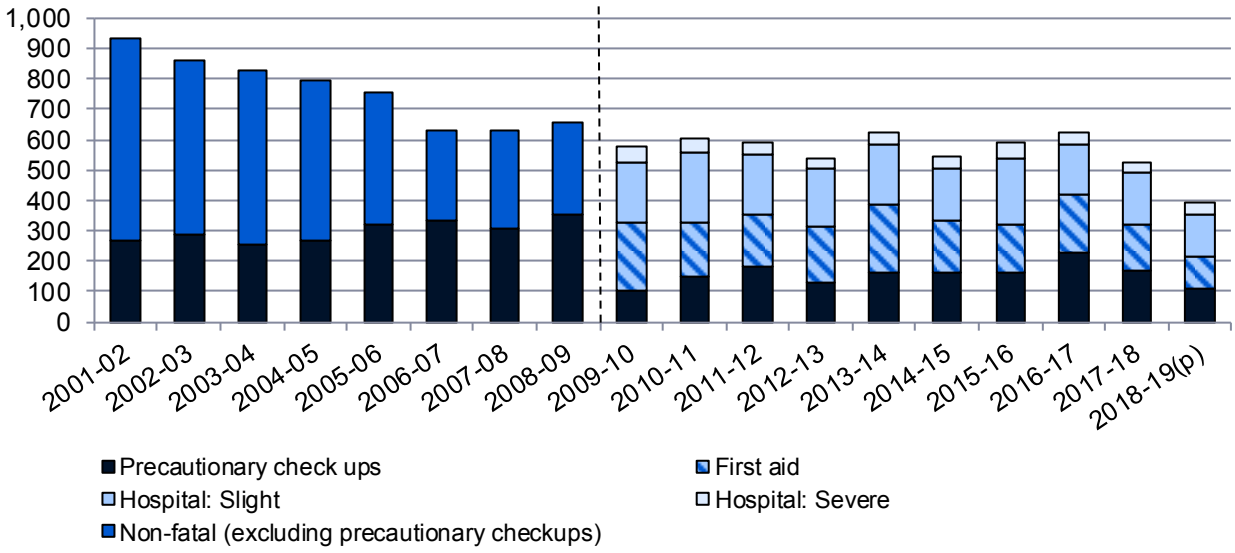
Those aged 16 and under have consistently had the lowest non-fatal casualty rate per million population, with 73.9 in 2018-19. At the beginning of the time series the highest rate of casualties per million population occurred in the 17-29 age group, but over recent years the rate has dropped to be more in line with the other age groups shown. All age groups had relatively low rates in 2018-19, with those aged 0-16 seeing the second lowest rate since 2001-02, and the other age groups all seeing their lowest rates in the time series.

**Chart 20: Non-fatal casualties per million population(a), by age group**




(a) Population data are taken from ONS Mid Year Estimates revised periodically and so rates are subject to change between publications. Rates are calculated per age group.
(b) Includes casualties of unknown age.
(r) Revised data.
(p) Provisional Data

**Chart 21: Number of non-fatal casualties from fires by severity of injury(a)**




(a) The introduction of IRS in 2009-10 led to a change in the way non-fatal casualties were recorded and a possible discontinuity, notably in the number of those receiving precautionary checks. See the 'Comparability' section in Key quality information for further clarification.
(r) Revised data.
(p) Provisional data.

Of the 396 non-fatal casualties in 2018-19, 299 (76 per cent) were the result of in dwelling fires, 50 (13 per cent) in other buildings, 33 (8 per cent) from road vehicle fires and 14 (4 per cent) in outdoor fires.

Most non-fatal casualties (80 per cent) were from accidental fires and 63 per cent were the result of accidental dwelling fires.

Cooking (excluding chip pans) was responsible for 68 non-fatal casualties in accidental fires in 2018-19; as in other years this was the largest single cause of non-fatal casualties in accidental fires in 2018-19 (21 per cent). Chip pan related casualties accounted for a further 10 per cent of those in accidental fires.

### Non-fatal casualties (excluding precautionary check-ups) from fires

In 2018-19, 184 non-fatal casualties were sent to hospital, a decrease of 12 per cent compared with the previous year. Of these 184 non-fatal casualties, three quarters were from accidental fires and around 6 in 10 occurred in accidental fires in dwellings.

141 (77 per cent) casualties who were sent to hospital had slight injuries.

The most common injury of non-fatal casualties who were sent to hospital was ‘being overcome with smoke or gas’ relating to 66 non-fatal casualties and 36 per cent of those sent to hospital. This has been the most common injury for casualties sent to hospital since 2009-10, accounting for 43 per cent of all non-fatal casualties sent to hospital since this time. There were 47 casualties in 2018-19 with burns, accounting for 26 per cent of those sent to hospital.

## Rescues from fires

In 2018-19, 184 people were rescued from fires, 76 (41 per cent) of whom were not injured, 9 were fatalities (rescued but later died from fire-related injuries) and 99 were non-fatal casualties. In total this is a 14 per cent decrease in the number of rescues compared with the previous year.

In 2018-19, the majority (85 per cent) of rescues (including those injured) from fires were from dwelling fires, a further 10 per cent were rescued from other buildings, 3 per cent from road vehicles and 2 per cent from outdoor locations.

### Table 10: Number of casualties and rescues by location

| | Dwelling | Other building | Road vehicle | Outdoors | **All** |
|---|---|---|---|---|---|
| 2016-17 | | | | | |
| Fatalities | 14 | 0 | 2 | 3 | **19** |
| *of which were rescued* | *4* | *0* | *0* | *0* | ***4*** |
| Non-fatal casualties (a) | 512 | 47 | 38 | 24 | **621** |
| *of which were rescued* | *117* | *11* | *3* | *0* | ***131*** |
| Rescued (non-injured) | 82 | 11 | 4 | 1 | **98** |
| Total rescued | 203 | 22 | 7 | 1 | **233** |
| 2017-18 | | | | | |
| Fatalities | 11 | 0 | 3 | 1 | **15** |
| *of which were rescued* | *4* | *0* | *2* | *0* | ***6*** |
| Non-fatal casualties (a) | 407 | 65 | 32 | 22 | **526** |
| *of which were rescued* | *92* | *10* | *4* | *2* | ***108*** |
| Rescued (non-injured) | 90 | 8 | 3 | 0 | **101** |
| Total rescued | 186 | 18 | 9 | 2 | **215** |
| 2018-19(p) | | | | | |
| Fatalities | 15 | 2 | 3 | 0 | **20** |
| *of which were rescued* | 9 | 0 | 0 | 0 | **9** |
| Non-fatal casualties (a) | 299 | 50 | 33 | 14 | **396** |
| *of which were rescued* | *88* | *4* | *6* | *1* | ***99*** |
| Rescued (non-injured) | 59 | 15 | 0 | 2 | **76** |
| Total rescued | 156 | 19 | 6 | 3 | **184** |

(a) Includes casualties where it is unknown whether they were rescued.
(p) Provisional data.

In 2018-19, 49 per cent of those rescued were male, equalling the percentage that were female; there were 3 persons rescued whose gender was not recorded. A third of those rescued were aged between 30 and 59, and almost a quarter were aged 60 or over.

For those rescued from fires but not injured, males accounted for 51 per cent (females accounted for 47 per cent). People aged 30-59 accounted for 3 in 10 of those who were rescued but not injured, and a further 18 per cent were aged 60 or over.

**Table 11: Number of casualties and rescues by gender and age**

| | Male | Female | 0-16 | 17-29 | 30-59 | 60 or over | **All (a)** |
|---|---|---|---|---|---|---|---|
| 2016-17 | | | | | | | |
| Fatalities | 9 | 10 | 1 | 1 | 6 | 10 | **19** |
| *of which were rescued* | *3* | *1* | *1* | *0* | *2* | *1* | ***4*** |
| Non-fatal casualties (b) | 341 | 258 | 66 | 82 | 225 | 154 | **621** |
| *of which were rescued* | *81* | *50* | *8* | *14* | *51* | *46* | ***131*** |
| Rescued (not injured) | 64 | 34 | 7 | 24 | 32 | 28 | **98** |
| Total rescued | 148 | 85 | 16 | 38 | 85 | 75 | **233** |
| 2017-18 | | | | | | | |
| Fatalities | 11 | 4 | 5 | 1 | 3 | 4 | **15** |
| *of which were rescued* | *4* | *2* | *0* | *1* | *3* | *2* | ***6*** |
| Non-fatal casualties (b) | 282 | 239 | 60 | 77 | 197 | 124 | **526** |
| *of which were rescued* | *58* | *50* | *8* | *10* | *41* | *35* | ***108*** |
| Rescued (not injured) | 63 | 38 | 10 | 11 | 27 | 34 | **101** |
| Total rescued | 125 | 90 | 18 | 22 | 71 | 71 | **215** |
| 2018-19(p) | | | | | | | |
| Fatalities | 13 | 7 | 0 | 0 | 8 | 10 | **20** |
| *of which were rescued* | 6 | 3 | 0 | 0 | 4 | 4 | **9** |
| Non-fatal casualties (b) | 212 | 178 | 44 | 55 | 135 | 99 | **396** |
| *of which were rescued* | 46 | 51 | 12 | 14 | 35 | 24 | **99** |
| Rescued (not injured) | 39 | 36 | 6 | 11 | 23 | 14 | **76** |
| Total rescued | 91 | 90 | 18 | 25 | 62 | 42 | **184** |

(a) Includes those whose gender and/or age was unknown or not specified.
(b) Includes casualties where it is unknown whether they were rescued.
(p) Provisional data

Further data on this topic is available on StatsWales.

## Fire false alarms

The data in this section refer to false alarms related to fires, data on SSI false alarms appear in the SSI section.

A fire false alarm is defined as an event in which the FRA was called to a reported fire which turned out not to exist. Fire false alarms are categorised as follows:

Malicious - where the call is deliberately for a non-existent fire-related event

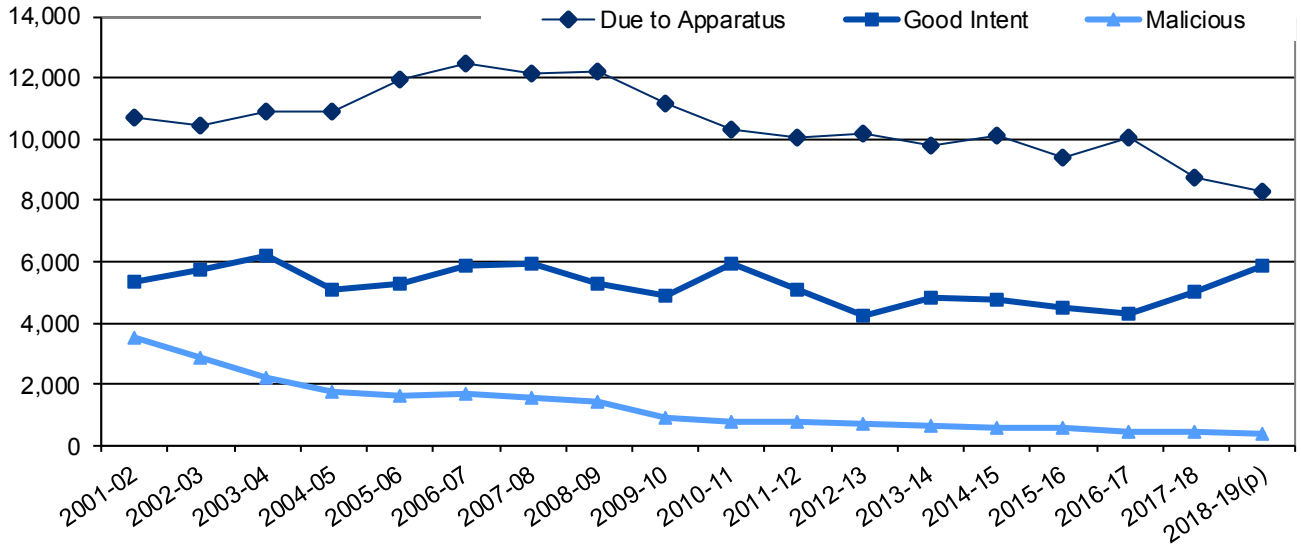
Good intent - in which the call was made in good faith in the belief that there was a fire to attend

Due to apparatus - in which the call was initiated by the operation of fire alarm and fire-fighting equipment

In 2018-19 there were 14,487 fire false alarms in Wales, up from 14,161 in 2017-18, an increase of 2 per cent. However this is the second lowest number in the time series. Since 2001-02 the number of fire false alarms attended has fallen by 26 per cent. FRAs suggest successful call challenging is a factor in this long-term fall (information taken from internal call logging systems).

Only good intent fire false alarms saw an increase in 2018-19 compared with the previous year (17 per cent). Fire false alarms due to apparatus fell by 6 per cent whilst malicious fire false alarms fell by 11 per cent.

**Chart 22: Number of fire false alarms by reason**




(p) Provisional data.

Overall there has been a downward trend in the number of malicious fire false alarms, falling by 89 per cent since 2001-02 and since 2011-12 numbers have fallen each year. In 2018-19, only North Wales saw a rise in the number of malicious fire false alarms compared with 2017-18 (up 5 per cent). In Mid and West Wales and South Wales there were falls of 27 per cent and 5 per cent respectively.

## Table 12: Number of malicious fire false alarms by Fire and Rescue Authority(a)

| | North Wales | Mid and West Wales | South Wales | **Wales** |
|---|---|---|---|---|
| 2009-10 | 137 | 211 | 550 | **898** |
| 2010-11 | 114 | 172 | 483 | **769** |
| 2011-12 | 129 | 168 | 478 | **775** |
| 2012-13 | 105 | 178 | 406 | **689** |
| 2013-14 | 77 | 161 | 408 | **646** |
| 2014-15 | 77 | 120 | 408 | **605** |
| 2015-16 | 51 | 127 | 380 | **558** |
| 2016-17 | 48 | 103 | 290 | **441** |
| 2017-18 | 39 | 138 | 242 | **419** |
| 2018-19(p) | 41 | 101 | 230 | **372** |
| Percentage change 2017-18 to 2018-19 | 5 | -27 | -5 | -11 |

(a) Data from 2001-02 onwards are available on StatsWales and in the accompanying Excel tables.
(p) Provisional data.

## Table 13: Number of fire false alarms by location and reason

| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19(p) |
|---|---|---|---|---|---|
| Dwellings (a) | **5,409** | **5,331** | **5,605** | **5,623** | **5,798** |
| Fire alarm due to apparatus | 3,499 | 3,661 | 3,955 | 3,445 | 3,320 |
| Good intent false alarm | 1,660 | 1,456 | 1,466 | 1,991 | 2,316 |
| Malicious | 250 | 214 | 184 | 187 | 162 |
| Other buildings | **7,332** | **6,375** | **6,705** | **6,008** | **5,601** |
| Fire alarm due to apparatus | 6,640 | 5,744 | 6,109 | 5,299 | 4,931 |
| Good intent false alarm | 443 | 386 | 412 | 542 | 526 |
| Malicious | 249 | 245 | 184 | 167 | 144 |
| Road vehicles | **406** | **391** | **408** | **367** | **353** |
| Fire alarm due to apparatus | 0 | 1 | 0 | 0 | 2 |
| Good intent false alarm | 401 | 380 | 400 | 358 | 346 |
| Malicious | 5 | 10 | 8 | 9 | 5 |
| Outdoors | **2,338** | **2,396** | **2,072** | **2,163** | **2,735** |
| Fire alarm due to apparatus | 6 | 4 | 2 | 1 | 5 |
| Good intent false alarm | 2,231 | 2,303 | 2,005 | 2,106 | 2,669 |
| Malicious | 101 | 89 | 65 | 56 | 61 |

(a) Includes caravans, houseboats and other non-building structures used solely as a permanent dwelling.
(p) Provisional data.

Fire false alarms in buildings other than dwellings fell by 7 per cent and accounted for 39 per cent of fire false alarms in 2018-19, the majority of which (88 per cent) were due to apparatus. A breakdown of more detailed reasons is given in table 14. In dwellings, 57 per cent of fire false alarms were due to apparatus and 40 per cent were raised with good intent. Most (98 per cent) 'other outdoors' fire false alarms were due to good intent, and these were mainly (61 per cent) as a result of controlled burning. In April 2015 North Wales FRA introduced a new strategy which meant they didn't automatically attend Automatic Fire Alarm Systems (AFA) [14] in non-domestic properties. This led to a 78 per cent drop in false alarms due to apparatus in 'other buildings' (non-dwellings) being attended in North Wales FRA in 2015-16 (when compared to the previous year). In the following years numbers of these false alarms did start to rise again, however there have now been

[14] North Wales Fire and Rescue Service – Automatic Fire Alarms

two consecutive decreases and the 2018-19 is the lowest in the time series. Both South Wales and Mid and West Wales also saw decreases compared with 2017-18, of 6 per cent and 8 per cent respectively.

In 2018-19, 38 per cent of fire false alarms due to apparatus (in buildings) were the result of human causes, with cooking causing over 1,600 of these fire false alarms (a fifth of fire false alarms due to apparatus). Human factors triggered a greater proportion of fire false alarms in dwellings then in other buildings (46 per cent and 33 per cent respectively).

Of those fire false alarms in buildings which were due to apparatus, 36 per cent were the result of problems with safety systems (faulty, damaged, poorly maintained and poorly sited). A further 17 per cent were caused by of contaminants getting into the system. Contaminants (for example insects, dust and steam) were a bigger problem in other buildings than in dwellings, causing more than a fifth of fire false alarms due to apparatus, but a tenth of those in dwellings.

**Table 14: Number of fire false alarms due to apparatus in buildings by detailed reason**

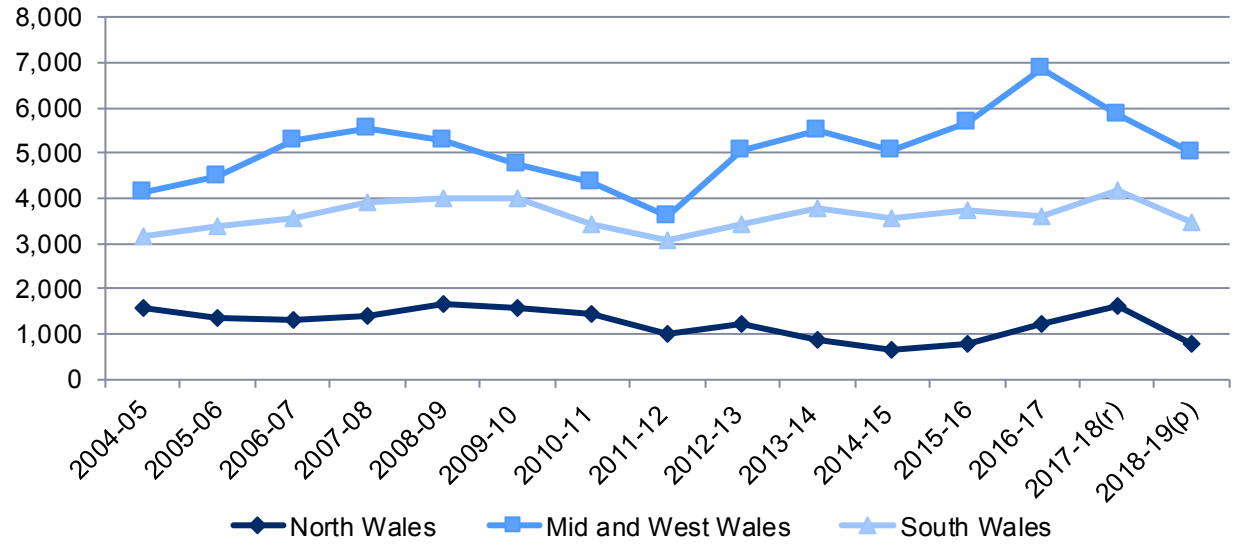
| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19(p) |
|---|---|---|---|---|---|
| Dwellings(a) | | | | | |
| Contaminants | 390 | 411 | 399 | 364 | 321 |
| External factors | 35 | 45 | 42 | 38 | 33 |
| Human | 1,651 | 1,665 | 1,748 | 1,563 | 1,532 |
| *Accidentally/ carelessly set off* | *173* | *166* | *159* | *168* | *179* |
| *Cooking/burnt toast* | *1,260* | *1,267* | *1,304* | *1,102* | *1,063* |
| *Smoking* | *102* | *112* | *146* | *184* | *139* |
| *Testing* | *68* | *95* | *92* | *86* | *97* |
| *Other* | *48* | *25* | *47* | *23* | *54* |
| System: smoke alarm | 888 | 1,059 | 1,229 | 961 | 940 |
| System: other(b) | 413 | 309 | 345 | 358 | 364 |
| Animal | 1 | 5 | 6 | 1 | 5 |
| Unknown | 121 | 167 | 186 | 160 | 125 |
| **All** | **3,499** | **3,661** | **3,955** | **3,445** | **3,320** |
| Other buildings | | | | | |
| Contaminants | 1,485 | 1,224 | 1,363 | 1,136 | 1,055 |
| External factors | 182 | 110 | 117 | 92 | 103 |
| Human | 2,130 | 1,869 | 1,845 | 1,493 | 1,631 |
| *Accidentally/ carelessly set off* | *689* | *639* | *632* | *497* | *535* |
| *Cooking/burnt toast* | *882* | *739* | *711* | *575* | *561* |
| *Smoking* | *118* | *116* | *138* | *103* | *129* |
| *Testing* | *388* | *338* | *314* | *304* | *372* |
| *Other* | *53* | *37* | *50* | *14* | *34* |
| System: smoke alarm | 1,502 | 1,388 | 1,574 | 1,300 | 1,026 |
| System: other (b) | 948 | 678 | 650 | 713 | 651 |
| Animal | 20 | 21 | 28 | 15 | 23 |
| Unknown | 373 | 454 | 532 | 550 | 442 |
| **All** | **6,640** | **5,744** | **6,109** | **5,299** | **4,931** |

(a) Includes caravans, houseboats and other non-building structures used solely as a permanent dwelling.
(b) Includes heat, sprinkler, flame and other unspecified systems.
(p) Provisional data.

## Special service incidents

In 2018-19, a quarter of all incidents attended by FRAs in Wales were SSIs. These incidents include road traffic collisions (RTCs), flooding incidents, medical incidents etc. Unlike other incident types overall numbers of SSIs haven't seen a consistent downward trend although numbers have fallen for the past two years. Overall attendance at SSIs decreased by 20 per cent in 2018-19 and all FRSs saw decreases, 53 per cent in North Wales, 15 per cent in Mid and West Wales, and 16 per cent in South Wales. The drop in attendances in North Wales is due to a fall in the number of incidents assisting other agencies. The falls in Mid and West Wales and South Wales are due to fewer medical incidents. North Wales attend the fewest SSIs, due in part to a different system of working so that attendance at medical incidents (as first responder) is not required.

**Chart 23: Number of SSIs attended by Fire and Rescue Authority(a)**




(a) SSIs by FRA are not available prior to 2004-05. From 2004-05 until 2008-09 data were collected in the operational fire data collection. From 2009-10 onwards data has been available from IRS.
(r) Revised data.
(p) Provisional data.

Following a 40 per cent reduction in attendances at medical incidents, RTCs are now the largest category of SSI (25 per cent of SSIs). Attendances at medical incidents are now the second largest category making up 21 per cent of SSI incidents. Although numbers of incidents recorded as assisting other agencies fell by 34 per cent in 2018-19, this is still the third largest single category and more than double the number of incidents in 2009-10.

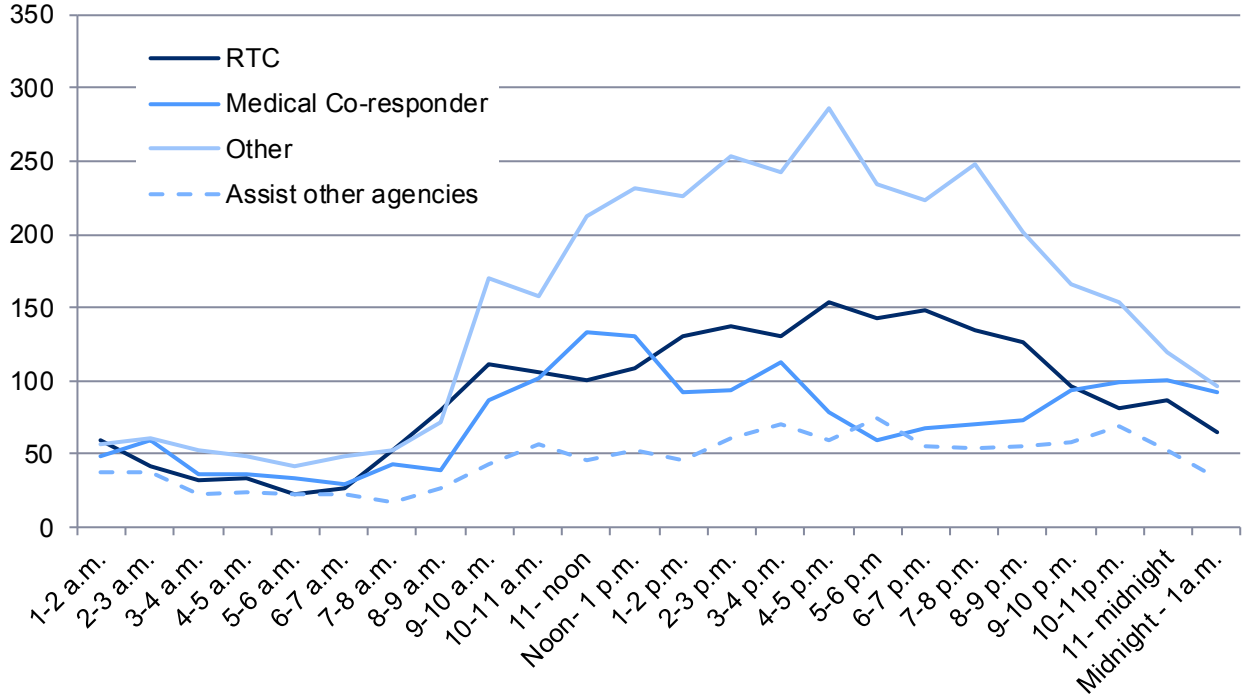
## Table 15: Number of SSIs by type

| | 2014-15 | 2015-16 | 2016-17 | 2017-18(r) | 2018-19(p) |
|---|---|---|---|---|---|
| Road traffic collision | 2,564 | 2,614 | 2,393 | 2,331 | 2,202 |
| Flooding | 385 | 650 | 546 | 586 | 571 |
| Rescue or evacuation from water | 80 | 141 | 123 | 117 | 98 |
| Other rescue/release of people | 228 | 296 | 281 | 376 | 327 |
| Animal assistance incidents | 351 | 314 | 328 | 317 | 305 |
| Making Safe | 258 | 332 | 233 | 265 | 283 |
| Lift release | 346 | 372 | 399 | 401 | 360 |
| Effecting entry | 556 | 540 | 581 | 671 | 563 |
| Medical incident - Co-responder/First responder | 2,382 | 2,725 | 4,174 | 3,023 | 1,809 |
| Assist other agencies | 451 | 468 | 988 | 1,672 | 1,098 |
| Other(a) | 1,288 | 1,280 | 1,202 | 1,250 | 1,147 |
| **All Special Service Incidents** | **8,889** | **9,732** | **11,248** | **11,009** | **8,763** |
| All Special Service False Alarms | 575 | 575 | 575 | 575 | 515 |

(a) Other includes 'other transport incident', 'hazardous materials incidents', 'spills and leaks', 'removal of objects from people', 'suicide/attempted suicide', 'evacuation', 'water provision', 'advice only', 'standby' and 'services not required'.
(r) Revised data.
(p) Provisional data

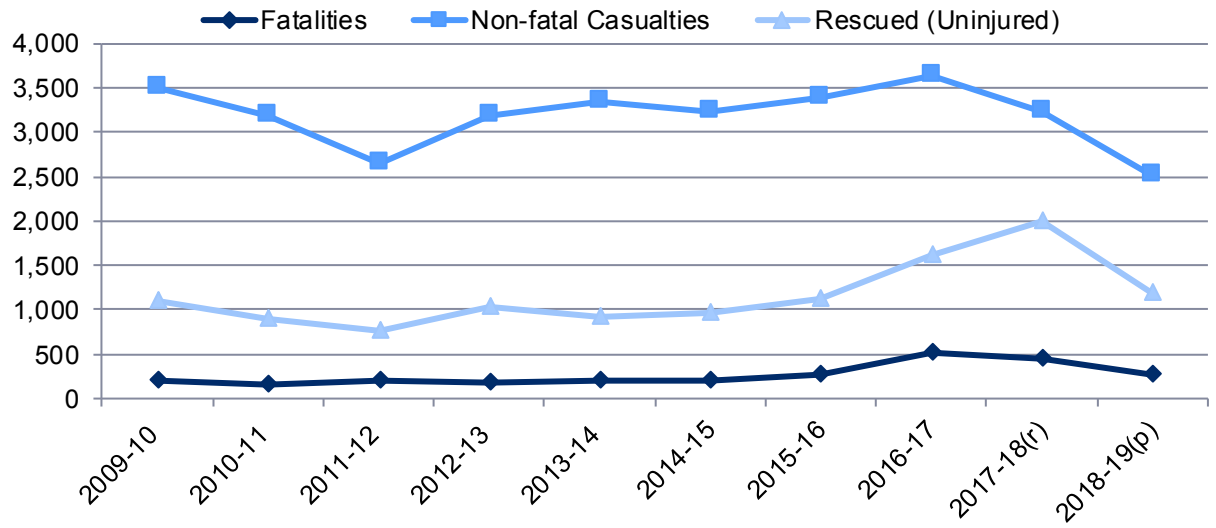
The chart below shows the majority of SSIs are attended in the day, between 9am and 10pm, with almost three quarters occurring between these times. Numbers of RTCs show rising numbers between 6 a.m. and 9 a.m. a small peak around 5 p.m. to 7 p.m. perhaps to be expected coinciding with rush hours.

### Chart 24: Number of RTCs, Medical responder incidents and others attended by time of day, 2018-19



There are consistently more casualties and rescues from SSIs than from fires, though numbers of casualties in SSIs include where the fires service are assisting the ambulance services. In 2018-19 there were 277 fatalities from SSIs, a 38 per cent decrease, but still the third highest number in the time series (from 2009-10). Half the number of SSI fatalities occurred in medical incidents whilst RTCs account for 21 per cent of fatalities. There were 2,518 non-fatal casualties from SSIs in 2018-19, a fall of 22 per cent compared with 2017-18 and the lowest number in the time series. RTCs accounted for over half number of non-fatal casualties (54 per cent), whilst medical incidents accounted for 27 per cent.

**Chart 25: Number of SSI related fatalities, non-fatal casualties and rescues**




(r) Revised data
(p) Provisional data

**Table 16: Number of SSI related fatalities, non-fatal casualties and rescues**

| | Fatalities | | Non-fatal Casualties | | Rescued |
|---|---|---|---|---|---|
| | All | *of which were rescued* | All | *of which were rescued* | (Uninjured) |
| 2009-10 | 196 | 32 | 3,503 | 1,064 | 1,102 |
| 2010-11 | 160 | 39 | 3,190 | 1,003 | 888 |
| 2011-12 | 192 | 36 | 2,646 | 885 | 773 |
| 2012-13 | 179 | 41 | 3,174 | 1,013 | 1,025 |
| 2013-14 | 194 | 44 | 3,334 | 944 | 918 |
| 2014-15 | 208 | 47 | 3,224 | 923 | 960 |
| 2015-16 | 272 | 47 | 3,382 | 991 | 1,120 |
| 2016-17 | 515 | 45 | 3,639 | 1,033 | 1,610 |
| 2017-18(r) | 444 | 45 | 3,229 | 1,010 | 1,988 |
| 2018-19(p) | 277 | 28 | 2,518 | 909 | 1,190 |

(r) Revised data
(p) Provisional data.

In 2018-19 36 per cent of non-fatal casualties in SSIs were rescued. Of those who were rescued (but uninjured), 17 per cent occurred in incidents were the FRA was assisting another agency, 15 per cent occurred in RTCs and 14 per cent were released from lifts.

More data on SSIs can be found on StatsWales.

## Smoke alarms

This section looks at fires in dwellings attended by the FRA and the effectiveness of smoke alarms. Any fires involving alarms where no emergency call was made to the FRA will not be recorded, and therefore the figures reported should understate the effectiveness of smoke alarms.

Some buildings have multiple smoke alarms and so in this section some tables and charts refer to numbers of fires whilst others refer to numbers of smoke alarms. Chart 26, table 17, chart 27 and chart 28 refer to numbers of fires. In these charts and tables, the following hierarchy has been applied to the smoke alarm operation:

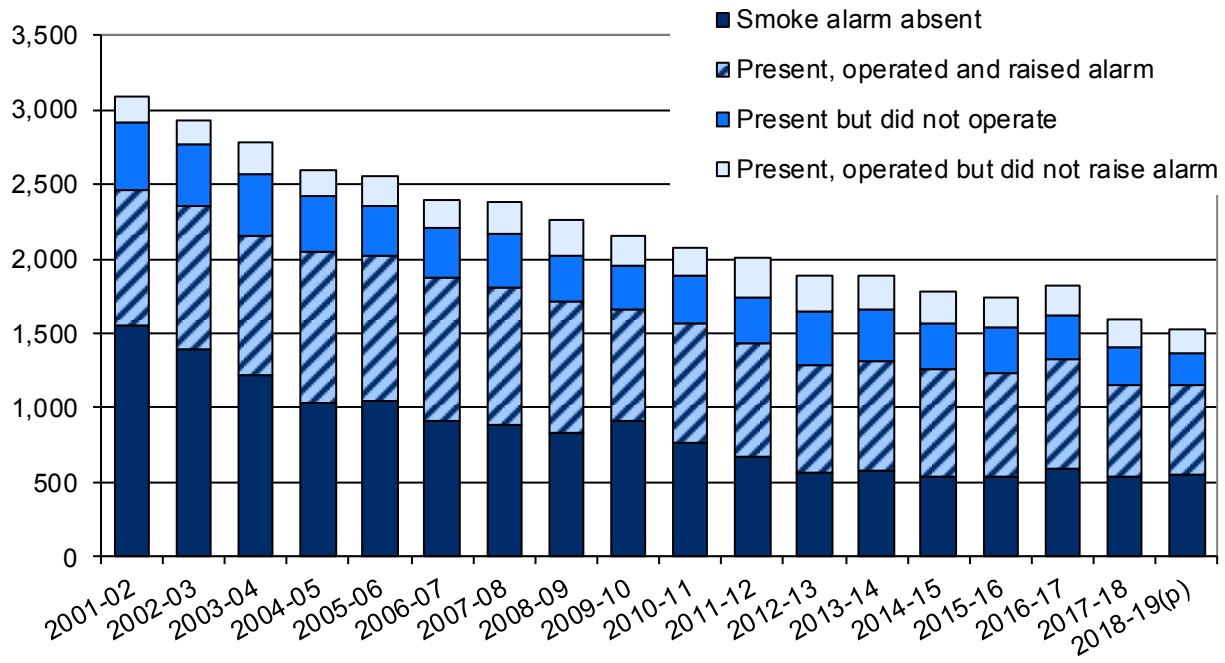
1. Present, operated and raised the alarm

2. Present, operated but didn't raise alarm

3. Present but didn't operate

Therefore an alarm which operated and raised the alarm 'outranks' one which operated but didn't raise the alarm and so on. In many cases the reason a smoke alarm that operates does not raise the alarm is that the alarm has already been raised prior to the operation of this smoke alarm.

**Chart 26: Number of fires in dwellings by presence and operation of smoke detectors(a)**




(a) Dwellings include caravans, houseboats and other non-building structures used solely as a permanent dwelling.
(p) Provisional data

A smoke alarm was present and operated correctly in almost half of the fires in dwellings occurring in 2018-19 (similar to previous years). In a further 14 per cent of cases a smoke alarm was present but failed to operate, whilst in 36 per cent of dwelling fires a smoke alarm was absent. In 2 per cent of dwelling fires it was unknown whether there was a smoke alarm. Reasons for the smoke detector not operating or raising the alarm are explored in tables 18 and 19.

Since 2001-02 the number of dwelling fires where there was no smoke alarm has fallen by almost two thirds. In only 13 per cent of dwelling fires in North Wales a smoke alarm was absent; respective percentages are higher for Mid and West Wales and South Wales (43 and 42 per cent respectively.

Table 17 shows that the number of dwellings fires where a smoke alarm was absent increased by 3 per cent to 554 in 2018-19 compared with 539 in 2017-18.

In 2018-19, only North Wales saw a decrease (23 per cent) in the number of dwelling fires where smoke alarms were absent (compared with the previous year). Both mid and West wales and South Wales saw increases, of 5 per cent and 7 per cent respectively.

**Table 17: Number of fires in dwellings where smoke alarm was absent, by Fire and Rescue Authority (a)(b)**

| | North Wales | Mid and West Wales | South Wales | **Wales** |
|---|---|---|---|---|
| 2009-10 | 121 | 279 | 509 | **909** |
| 2010-11 | 76 | 278 | 412 | **766** |
| 2011-12 | 73 | 234 | 361 | **668** |
| 2012-13 | 67 | 181 | 313 | **561** |
| 2013-14 | 75 | 225 | 273 | **573** |
| 2014-15 | 49 | 205 | 288 | **542** |
| 2015-16 | 51 | 208 | 275 | **534** |
| 2016-17 | 62 | 227 | 299 | **588** |
| 2017-18 | 61 | 224 | 254 | **539** |
| 2018-19(p) | 47 | 236 | 271 | **554** |
| Percentage change 2017-18 to 2018-19 | -23 | 5 | 7 | **3** |

(a) Data from 2001-02 onwards are available on StatsWales and in the accompanying Excel tables.
(b) Dwellings include caravans, houseboats and other non-building structures used solely as a permanent dwelling.
(p) Provisional data

For context, approximately 5 per cent of all households in Wales had no smoke alarms (National Survey for Wales 2017-18[15]).

Since 2009-10, 36 of the 131 accidental dwelling fire fatalities occurred in fires where a smoke alarm was known to be absent. 37 fatalities have occurred in accidental dwelling fires where a smoke alarm was present and raised the alarm.

Table 18 shows the number of smoke alarms which were present and operated at building fires but did not raise the alarm and the reasons for this. It includes multiple alarms in buildings which behaved in this way and so does not equate to numbers of dwellings and other building fires.

[15] National Survey for Wales – Results Viewer

**Table 18: Number of smoke alarms, which were present at building fires but did not raise alarm, by reason**

| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19(p) |
|---|---|---|---|---|---|
| Dwellings (a) | | | | | |
| Alarm was raised before system operated | 140 | 132 | 129 | 109 | 109 |
| No person in earshot | 40 | 27 | 36 | 34 | 26 |
| Occupants did not respond | 31 | 31 | 31 | 26 | 24 |
| No other person responded | 2 | 1 | 4 | 6 | 2 |
| Other | 5 | 9 | 8 | 12 | 7 |
| Unknown | 2 | 2 | 3 | 4 | 1 |
| **All dwellings** | **220** | **202** | **211** | **191** | **169** |
| Other buildings | | | | | |
| Alarm was raised before system operated | 57 | 50 | 40 | 46 | 27 |
| No person in earshot | 8 | 5 | 7 | 10 | 10 |
| Occupants did not respond | 0 | 0 | 1 | 2 | 1 |
| No other person responded | 1 | 0 | 0 | 1 | 0 |
| Other | 4 | 6 | 1 | 0 | 1 |
| Unknown | 1 | 2 | 3 | 1 | 1 |
| **All other buildings** | **71** | **63** | **52** | **60** | **40** |

(a) Includes caravans, houseboats and other non-building structures used solely as a permanent dwelling.
(p) Provisional data

In 2018-19 there were 136 smoke alarms which activated but did not raise the alarm due to the alarm having already been raised. This equates to 65 per cent of the smoke alarms which did not raise the alarm. This has consistently been the most common reason for a smoke alarm failing to raise the alarm in spite of being activated (for the available time series which dates from 2009-10).

In 2018-19, of the smoke alarms which did not raise the alarm 17 per cent were due to no one being in earshot, and a further 12 per cent were due to occupants not responding.

Table 19 includes multiple smoke alarms at building fires which did not activate and so does not equate to the number of dwelling and other building fires.

In 2018-19 the main reason for smoke alarm failures, in both dwellings and other buildings, was that the fire was not close enough to the detector (53 per cent of the smoke alarms which failed to activate in building fires). Defective or missing batteries accounted for 9 per cent of alarm failures in dwelling fires in 2018-19; there no alarm failures due to defective or missing batteries in other buildings.

## Table 19: Number of smoke alarms present in fires in buildings, which did not activate by reason

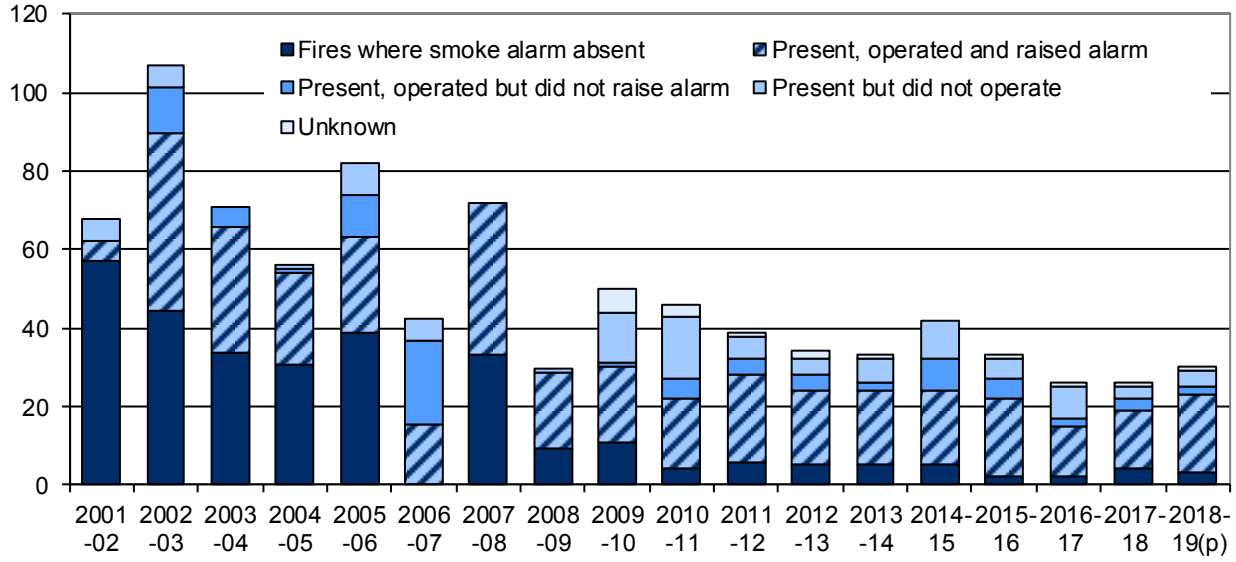
| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19(p) |
|---|---|---|---|---|---|
| Dwellings (a) | | | | | |
| Fire not close enough to detector | 153 | 165 | 149 | 138 | 126 |
| Fire in area not covered by system | 30 | 30 | 35 | 21 | 18 |
| Alarm battery missing/defective | 44 | 40 | 36 | 21 | 19 |
| Fault in system | 12 | 11 | 8 | 7 | 8 |
| Detector removed | 7 | 10 | 5 | 5 | 4 |
| Alerted by other means | 22 | 12 | 15 | 22 | 15 |
| Other (b) | 30 | 28 | 28 | 24 | 20 |
| Unknown | 9 | 5 | 11 | 13 | 7 |
| **All** | **307** | **301** | **287** | **251** | **217** |
| Other buildings | | | | | |
| Fire not close enough to detector | 64 | 46 | 47 | 46 | 33 |
| Fire in area not covered by system | 20 | 19 | 14 | 19 | 17 |
| Alarm battery missing/defective | 4 | 3 | 1 | 1 | 0 |
| Fault in system | 3 | 4 | 2 | 4 | 4 |
| Detector removed | 0 | 0 | 0 | 1 | 3 |
| Alerted by other means | 22 | 17 | 13 | 14 | 7 |
| Other (b) | 18 | 17 | 17 | 11 | 15 |
| Unknown | 2 | 14 | 11 | 5 | 3 |
| **All** | **133** | **120** | **105** | **101** | **82** |

(a) Includes caravans, houseboats and other non-building structures used solely as a permanent dwelling.
(b) Includes where system has not set up correctly, system has been damaged by fire and system was turned off.
(p) Provisional data.

### Smoke alarms in fires at schools

Of the 30 fires occurring in schools in 2018-19 a smoke alarm was present and operated correctly in 73 per cent of incidents, whilst in a further 13 per cent of cases a smoke alarm was present but failed to operate. There were 3 school fires where it was recorded a smoke alarm was not present.

### Chart 27: Number of fires in schools by presence and operation of smoke detectors

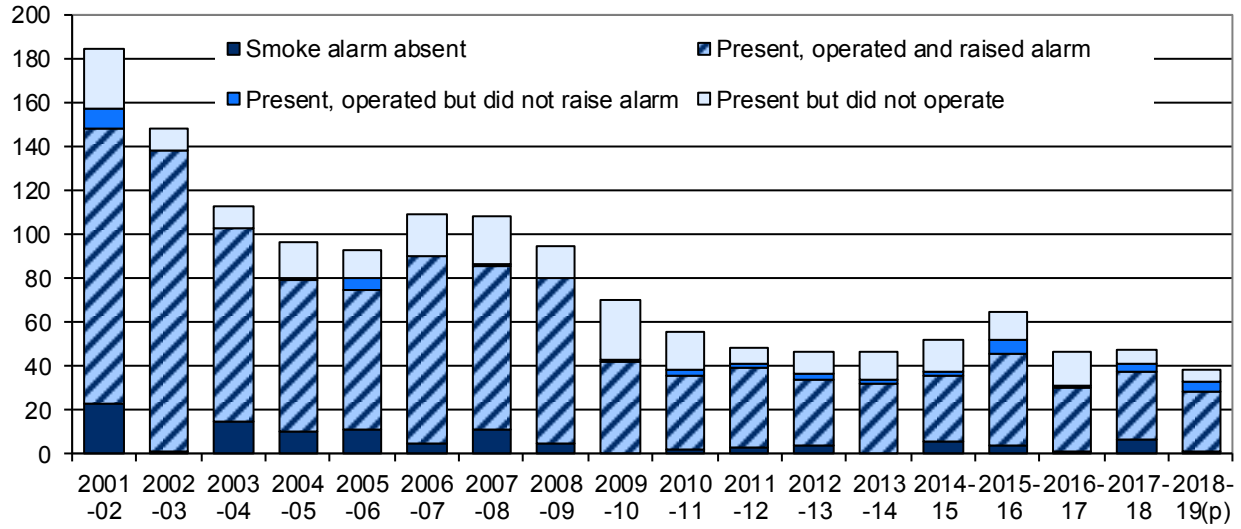



(p) Provisional data.

## Smoke alarms in fires at hospitals and medical care facilities

In 2018-19 there were 40 fires in hospitals and medical facilities[16], 8 fewer than in the previous year and a fall of 78 per cent compared with the number in 2001-02. A smoke alarm was present and operated correctly in 80 per cent of fires in hospitals in 2018-19. In 13 per cent of hospital fires a smoke alarm was present but failed to operate. In only one fire it was recorded a smoke alarm was absent.

### Chart 28: Number of fires in hospitals by presence and operation of smoke detectors(a)




(a) Includes fires at hospitals and other medical care (e.g. veterinary surgeries, dentists, day centres, GP surgeries etc,)
(p) Provisional data.

32 of the 40 hospital fires occurring in 2018-19 were accidental.

Since 2009-10 there have been no fatalities and 10 non-fatal casualties in hospital fires.

Further data is available on this topic on StatsWales.

[16] Includes GP surgeries, day centres, dentists and vets.

## Cause of fires

The **cause of fire** is the defect, act or omission leading to ignition of the fire.

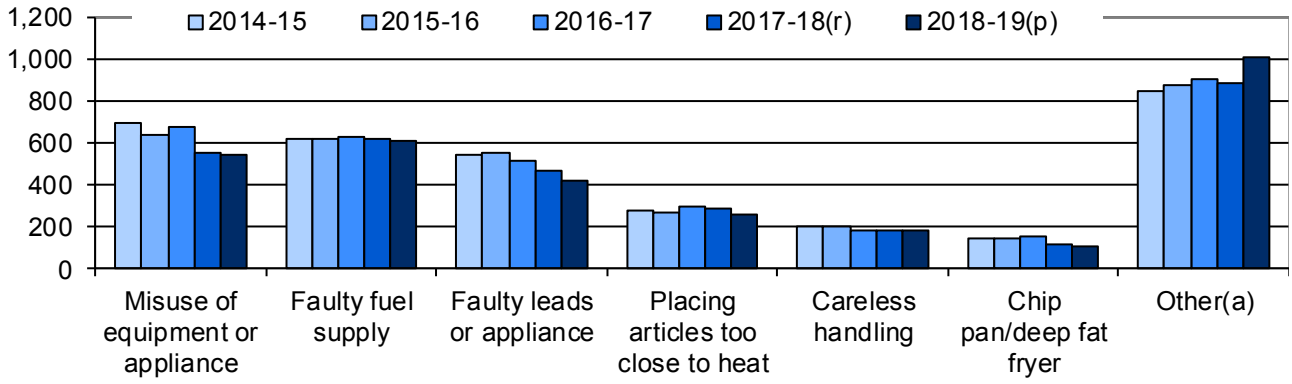
The **source of ignition** is the source of the flame, spark or heat that started the fire.

This information is collected for primary fires, but not secondary or chimney fires.

### Cause of accidental primary fires

For the second consecutive year the largest single cause of accidental fires was faulty fuel supply, accounting for 19 per cent. For most of the time series these fires were outnumbered by those caused by the misuse of equipment or appliances (17 per cent in 2018-19). Faulty leads or appliances were responsible for 13 per cent and 'other accidental' accounted for 32 per cent of accidental fires.

**Chart 29: Number of accidental primary fires by cause**




(a) 'Other' includes 'Accumulation of flammable material', 'Bonfire going out of control', 'Chimney fire', 'Natural occurrence', 'Other', 'Other intentional burning, going out of control', 'Overheating, unknown cause', 'Person too close to heat source (or fire)', 'Playing with fire (or heat source)', 'Vehicle crash or collision'.
(r) Revised data.
(p) Provisional data

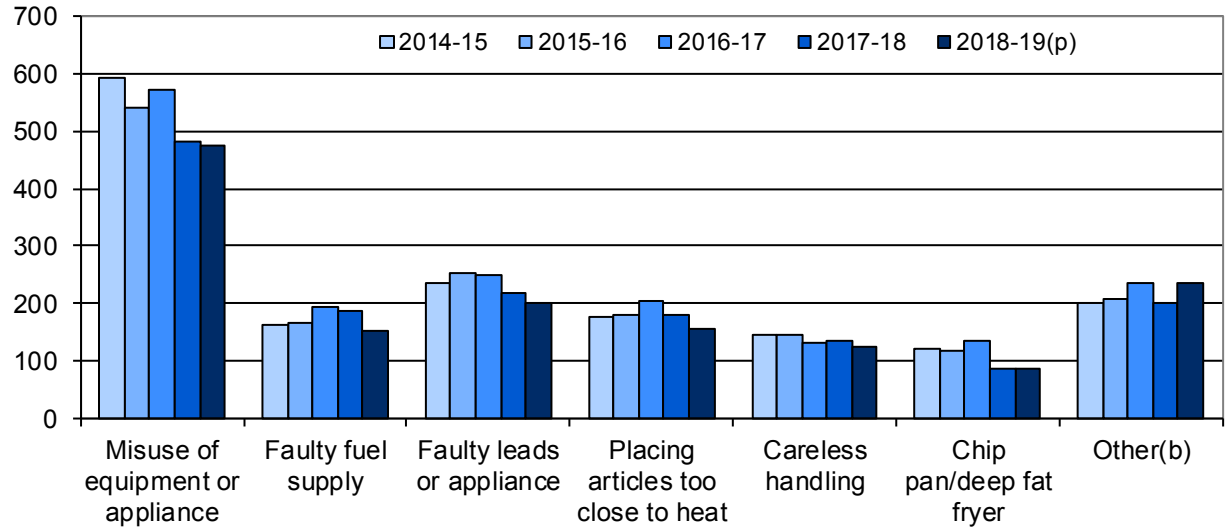
**Table 20: Number of accidental primary fires by cause**

| | Misuse of equipment or appliance | Faulty fuel supply | Faulty leads or appliance | Placing articles too close to heat | Careless handling | Chip pan /deep fat fryer | Other(a) | Total |
|---|---|---|---|---|---|---|---|---|
| 2009-10 | 838 | 741 | 636 | 310 | 215 | 235 | 921 | **3,914** |
| 2010-11 | 801 | 726 | 565 | 324 | 273 | 177 | 1,051 | **3,930** |
| 2011-12 | 828 | 629 | 551 | 300 | 201 | 169 | 942 | **3,636** |
| 2012-13 | 729 | 603 | 613 | 271 | 178 | 164 | 782 | **3,340** |
| 2013-14 | 755 | 660 | 499 | 281 | 217 | 130 | 903 | **3,445** |
| 2014-15 | 699 | 622 | 546 | 281 | 202 | 145 | 852 | **3,347** |
| 2015-16 | 640 | 617 | 558 | 271 | 204 | 142 | 876 | **3,308** |
| 2016-17 | 678 | 630 | 514 | 301 | 181 | 157 | 902 | **3,363** |
| 2017-18(r) | 554 | 618 | 469 | 286 | 186 | 117 | 887 | **3,117** |
| 2018-19(p) | 543 | 610 | 420 | 256 | 188 | 109 | 1,007 | **3,133** |

(a) See footnote (a) of chart 29.
(r) Revised data.
(p) Provisional data

The misuse of equipment or appliances was the main cause of accidental fires in dwellings, with 476 cases recorded in 2018-19. This equates to a third of accidental dwelling fires in 2018-19 and a small drop of 1 per cent compared with 2017-18. Most causes saw decreases in 2018-19 with accidental dwelling fires caused by faulty fuel supplies falling by 18 per cent in 2018-19. Only some of the categories included in 'other' saw a rise (17 per cent, equating to 35 fires).

**Chart 30: Number of accidental dwelling(a) fires by cause**




(a) Dwellings include caravans, houseboats and other non-building structures used solely as a permanent dwelling.
(b) 'Other' includes 'Accumulation of flammable material', 'Bonfire going out of control', 'Chimney fire', 'Natural occurrence', 'Other', 'Other intentional burning, going out of control', 'Overheating, unknown cause', 'Person too close to heat source (or fire)', 'Playing with fire (or heat source)', 'Vehicle crash or collision'.
(p) Provisional data.

**Table 21: Number of accidental dwelling(a) fires by cause**

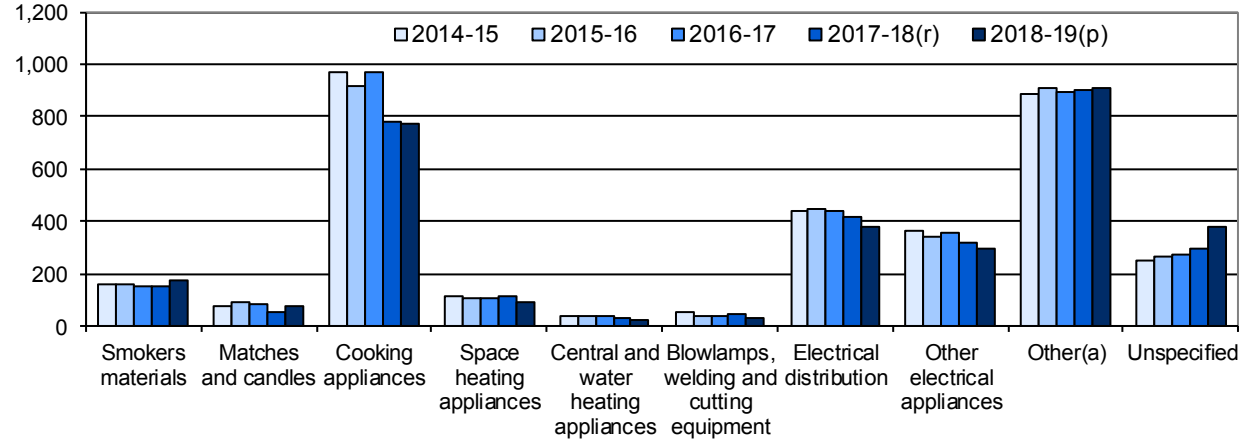
| | Misuse of equipment or appliance | Faulty fuel supply | Faulty leads or appliance | Placing articles too close to heat | Careless handling | Chip pan /deep fat fryer | Other(b) | Total |
|---|---|---|---|---|---|---|---|---|
| 2009-10 | 679 | 165 | 261 | 187 | 149 | 209 | 212 | **1,864** |
| 2010-11 | 653 | 188 | 227 | 185 | 177 | 156 | 239 | **1,826** |
| 2011-12 | 704 | 159 | 227 | 190 | 139 | 147 | 220 | **1,789** |
| 2012-13 | 623 | 170 | 285 | 181 | 133 | 140 | 193 | **1,725** |
| 2013-14 | 657 | 184 | 226 | 188 | 155 | 110 | 212 | **1,732** |
| 2014-15 | 593 | 163 | 237 | 175 | 145 | 121 | 201 | **1,635** |
| 2015-16 | 540 | 165 | 253 | 179 | 145 | 118 | 209 | **1,609** |
| 2016-17 | 572 | 193 | 248 | 205 | 131 | 133 | 237 | **1,719** |
| 2017-18 | 481 | 186 | 219 | 179 | 133 | 86 | 201 | **1,485** |
| 2018-19(p) | 476 | 153 | 199 | 157 | 123 | 85 | 236 | **1,429** |

(a) Dwellings include caravans, houseboats and other non-building structures used solely as a permanent dwelling.
(b) See footnote (b) of chart 30.
(p) Provisional data.

## Source of ignition in accidental primary fires

Cooking appliances have consistently been recorded as the main cause of accidental fires. In 2018-19 there were 775 cases (25 per cent of accidental fires), 1 per cent fewer than in the previous year. Most categories saw decreases, the exceptions being smoking materials (up 14 per cent) and matches and candles (up 32 per cent). Some smaller categories included in 'other' also saw increases.

### Chart 31: Number of accidental primary fires by source of ignition




(a) 'Other' includes 'Bombs and explosives', 'Chimney', 'Fireworks', 'Fuel/Chemical', 'Heating equipment', 'Industrial equipment', 'Naked flame', 'Natural occurrence', 'Oil and Incense burners', 'Other', 'Gardening equipment', 'Spread from secondary fire', 'Wet hay', 'Vehicle related' and other electrical appliances where the power source is not recorded as electrical.
(r) Revised data.
(p) Provisional data.

In 2018-19 there were 21 non-fatal casualties in an accidental fires in dwellings which were attributable to smokers' materials, less than half the number in the previous year. There were 7 fatalities due to smoking materials, 6 more than in the previous year but similar to earlier years. Since 2009-10, 37 per cent of fatalities in accidental fires in dwellings were caused by smokers' materials.

### Table 22: Number of accidental primary fires by source of ignition

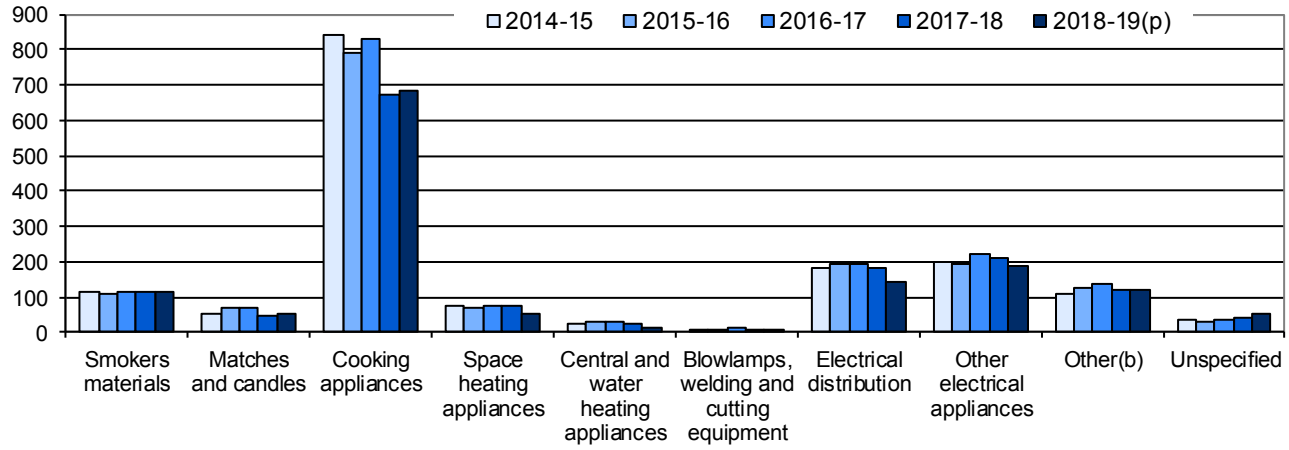
| | Smokers materials | Matches and candles | Cooking appliances | Space heating appliances | Central and water heating appliances | Blow lamps, welding and cutting equipment | Electrical distribution | Other electrical appliances | Other (a) | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 2009-10 | 188 | 80 | 1,194 | 156 | 37 | 44 | 499 | 453 | 1,038 | **3,914** |
| 2010-11 | 242 | 121 | 1,096 | 146 | 38 | 55 | 462 | 466 | 1,068 | **3,930** |
| 2011-12 | 157 | 102 | 1,129 | 114 | 24 | 39 | 461 | 366 | 1,022 | **3,636** |
| 2012-13 | 134 | 71 | 1,009 | 120 | 32 | 49 | 493 | 369 | 861 | **3,340** |
| 2013-14 | 164 | 87 | 1,012 | 114 | 28 | 44 | 483 | 354 | 926 | **3,445** |
| 2014-15 | 163 | 80 | 969 | 117 | 38 | 50 | 437 | 361 | 884 | **3,347** |
| 2015-16 | 158 | 91 | 917 | 104 | 35 | 40 | 448 | 339 | 912 | **3,308** |
| 2016-17 | 155 | 86 | 972 | 105 | 40 | 39 | 439 | 358 | 895 | **3,363** |
| 2017-18(r) | 152 | 57 | 783 | 113 | 32 | 48 | 416 | 315 | 902 | **3,117** |
| 2018-19(p) | 173 | 75 | 775 | 88 | 23 | 34 | 376 | 297 | 912 | **3,133** |

(a) See footnote (a) of chart 31.
(r) Revised data.
(p) Provisional data.

In November 2011, a new EU directive required cigarettes to meet a reduced ignition propensity (RIP) requirement, they are now manufactured to be self-extinguishable, reducing the chance that they should set fire to combustible materials. However we are not able to determine how many of the fires ignited by “smokers’ materials” are related to cigarettes.

Cooking appliances were the main source of ignition in accidental dwelling fires accounting for 48 per cent of accidental dwelling fires in 2018-19. The number of these fires has fallen by 54 per cent since 2001-02 but rose by 2 per cent compared with the previous year. Fires ignited by cooking appliances have also been responsible for 53 per cent of non-fatal casualties in accidental dwelling fires since 2009-10. Over the same period ‘Other electrical appliances’ accounted for 11 per cent of non-fatal casualties in accidental dwelling fires.

## Chart 32: Number of accidental dwelling(a) fires by source of ignition




(a) Dwellings include caravans, houseboats and other non-building structures used solely as a permanent dwelling.
(b) ‘Other’ includes ‘Bombs and explosives’, ‘Chimney’, ‘Electric lighting’, ‘Fireworks’, ‘Fuel/Chemical’, ‘Industrial equipment’, ‘Oil and Incense burners, ‘Naked flame’, ‘Natural occurrence’, ‘Office equipment’, ‘Other’, ‘Other appliance or equipment’, ‘Spread from secondary fire’, ’Vehicle related’, ‘Wet hay’ and other electrical appliances where the power source is not recorded as electrical.
(p) Provisional data.

## Table 23: Number of accidental dwelling(a) fires by source of ignition

| | Smokers materials | Matches and candles | Cooking appliances | Space heating appliances | Central and w ater heating appliances | Blow lamps, w elding and cutting equipment | Electrical distribution | Other electrical appliances | Other (b) | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 2009-10 | 126 | 47 | 1,000 | 105 | 25 | 12 | 147 | 255 | 118 | **1,864** |
| 2010-11 | 147 | 64 | 928 | 89 | 23 | 5 | 154 | 278 | 115 | **1,826** |
| 2011-12 | 103 | 63 | 975 | 81 | 18 | 8 | 181 | 204 | 127 | **1,789** |
| 2012-13 | 100 | 53 | 872 | 88 | 27 | 11 | 194 | 230 | 118 | **1,725** |
| 2013-14 | 117 | 63 | 892 | 80 | 22 | 14 | 195 | 207 | 117 | **1,732** |
| 2014-15 | 116 | 55 | 840 | 73 | 24 | 5 | 182 | 197 | 110 | **1,635** |
| 2015-16 | 109 | 69 | 789 | 68 | 28 | 5 | 191 | 196 | 124 | **1,609** |
| 2016-17 | 114 | 69 | 830 | 77 | 29 | 11 | 196 | 222 | 136 | **1,719** |
| 2017-18 | 113 | 44 | 673 | 72 | 24 | 9 | 180 | 212 | 119 | **1,485** |
| 2018-19(p) | 113 | 53 | 684 | 52 | 14 | 8 | 143 | 189 | 119 | **1,429** |

(a) Dwellings include caravans, houseboats and other non-building structures used solely as a permanent dwelling.
(b) See footnote (b) of chart 32.
(p) Provisional data.

In 2018-19 around 15 per cent of accidental fires were caused by the misuse of equipment or appliances resulting in cooking appliances igniting. Chip pans were responsible for 14 per cent of accidental fires where cooking appliances ignited.

**Table 24: Number of accidental primary fires by cause and source of ignition 2018-19(p)**

| | Misuse of equipment or appliance | Faulty fuel supply | Faulty appliances or leads | Placing articles too close to heat | Careless handling | Chip pan/ deep fat fryer | Other | **Total** |
|---|---|---|---|---|---|---|---|---|
| Smokers materials | 9 | 0 | 0 | 11 | 114 | 0 | 39 | **173** |
| Matches and candles | 6 | 0 | 0 | 26 | 17 | 0 | 26 | **75** |
| Cooking appliances | 466 | 11 | 42 | 84 | 18 | 109 | 45 | **775** |
| Space heating appliances | 12 | 6 | 12 | 33 | 5 | 0 | 20 | **88** |
| Central and water heating appliances | 0 | 5 | 10 | 2 | 0 | 0 | 6 | **23** |
| Blowlamps, welding and cutting | 9 | 0 | 2 | 12 | 2 | 0 | 9 | **34** |
| Electrical distribution | 6 | 238 | 85 | 4 | 1 | 0 | 42 | **376** |
| Other electrical appliances | 11 | 68 | 150 | 12 | 4 | 0 | 52 | **297** |
| Other | 22 | 260 | 102 | 58 | 23 | 0 | 447 | **912** |
| Unspecified | 2 | 22 | 17 | 14 | 4 | 0 | 321 | **380** |
| **Total** | **543** | **610** | **420** | **256** | **188** | **109** | **1,007** | **3,133** |

(p) Provisional data.

In 2018-19, around 3 in 10 accidental dwelling fires were caused by the misuse of equipment or appliances resulting in cooking appliances igniting. In the same year, of the 189 accidental fires in dwellings where the source was recorded as ‘other electrical appliance’, 108 (57 per cent) were due to faulty leads.

**Table 25: Number of accidental dwelling(a) fires by cause and source of ignition 2018-19(p)**

| | Misuse of equipment or appliance | Faulty fuel supply | Faulty appliances or leads | Placing articles too close to heat | Careless handling | Chip pan/ deep fat fryer | Other | **Total** |
|---|---|---|---|---|---|---|---|---|
| Smokers materials | 8 | 0 | 0 | 8 | 80 | 0 | 17 | **113** |
| Matches and candles | 6 | 0 | 0 | 23 | 11 | 0 | 13 | **53** |
| Cooking appliances | 431 | 9 | 34 | 74 | 14 | 85 | 37 | **684** |
| Space heating appliances | 5 | 6 | 5 | 20 | 3 | 0 | 13 | **52** |
| Central and water heating appliances | 0 | 5 | 6 | 1 | 0 | 0 | 2 | **14** |
| Blowlamps, welding and cutting | 2 | 0 | 0 | 3 | 0 | 0 | 3 | **8** |
| Electrical distribution | 3 | 97 | 31 | 0 | 1 | 0 | 11 | **143** |
| Other electrical appliances | 10 | 25 | 108 | 11 | 3 | 0 | 32 | **189** |
| Other | 10 | 7 | 10 | 14 | 10 | 0 | 68 | **119** |
| Unspecified | 1 | 4 | 5 | 3 | 1 | 0 | 40 | **54** |
| **Total** | **476** | **153** | **199** | **157** | **123** | **85** | **236** | **1,429** |

(a) Dwellings include caravans, houseboats and other non-building structures used solely as a permanent dwelling.
(p) Provisional data.

Further data is available on this topic on StatsWales.

## Response times

The Response times presented here are based on comparisons between the time that the first vehicle was mobilised and the first vehicle arrived at the scene. This may not be the same vehicle.

Response time data only reflect part of the process of fighting a fire, not the outcome of doing so, and so may not be a reliable measure of the performance of an FRA or the effectiveness of a firefighting response.

The urban geography of the area covered by South Wales FRA is likely to be the cause of the apparent faster response times to fires. Both North Wales and Mid and West Wales FRAs cover large areas of rural and agricultural land. The nature of the road network in these rural areas is likely to be another factor affecting the response times.

Further information about the geography, number of fires stations and population of each FRA are provided in the Quality Information Section.

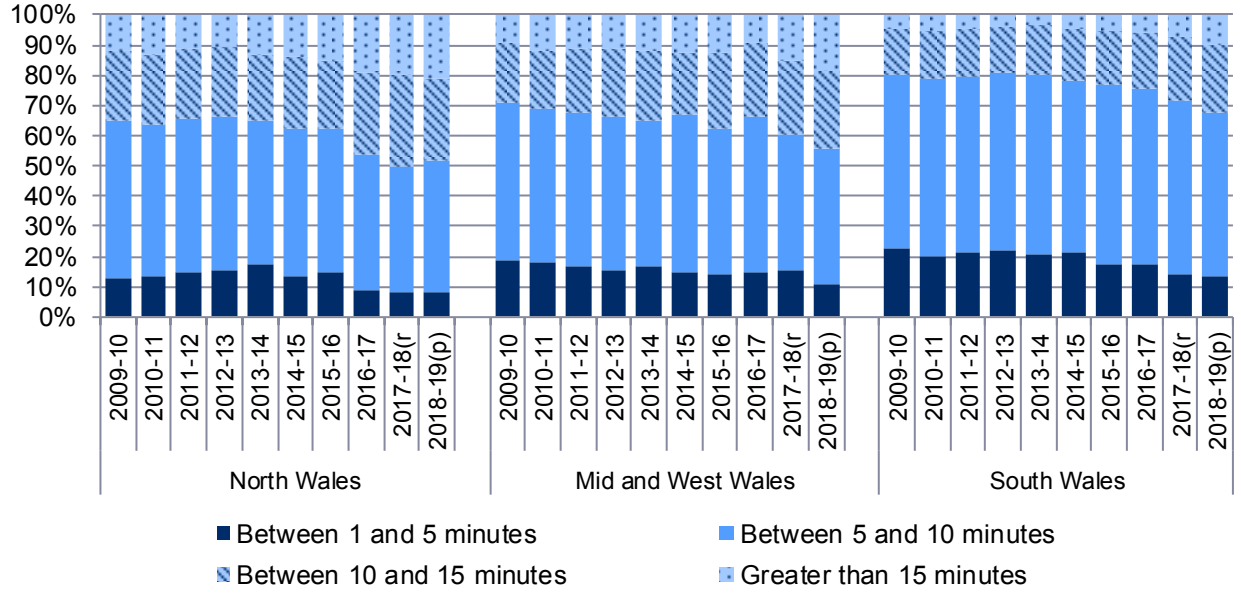
In 2018-19, 52 per cent of primary fires attended in North Wales had a response time of between 1 and 10 minutes. 56 per cent of primary fires in Mid and West Wales and 67 per cent in South Wales were attended within 10 minutes.

**Table 26: Percentage of primary fires attended within specified time brackets (a)**

| | Between 1 and 5 minutes | Between 5 and 10 minutes | Between 10 and 15 minutes | Greater than 15 minutes |
|---|---|---|---|---|
| 2016-17 | | | | |
| North Wales | 9 | 45 | 27 | 19 |
| Mid and West Wales | 15 | 51 | 25 | 9 |
| South Wales | 18 | 58 | 18 | 6 |
| **Wales** | **15** | **53** | **22** | **10** |
| 2017-18 | | | | |
| North Wales | 8 | 41 | 30 | 20 |
| Mid and West Wales | 15 | 45 | 24 | 16 |
| South Wales | 14 | 58 | 21 | 7 |
| **Wales** | **13** | **50** | **24** | **13** |
| 2018-19(p) | | | | |
| North Wales | 8 | 44 | 27 | 21 |
| Mid and West Wales | 11 | 45 | 25 | 19 |
| South Wales | 13 | 54 | 22 | 10 |
| **Wales** | **11** | **49** | **24** | **15** |

(a) This analysis is based on comparisons between the first vehicle was mobilised and the time the first vehicle arrived at the scene. Excluded are late calls, incidents with only heat and smoke damage and response times less than 1 minute or over one hour. In the years shown above 1 per cent of primary fires in were excluded in each year due to the response time being less than 1 minute or over 1 hour.
(p) Provisional data.

## Chart 33: Percentage of primary fires attended within specified time brackets




(p) Provisional data.

In 2018-19, 63 per cent of primary dwelling fires attended in North Wales had a response time of between 1 and 10 minutes; in Mid and West Wales 65 per cent were attended in this time, whilst in South Wales the respective proportion was 78 per cent.

## Table 27: Percentage of primary dwelling fires attended within specified time brackets (a)

| | Between 1 and 5 minutes | Between 5 and 10 minutes | Between 10 and 15 minutes | Greater than 15 minutes |
|---|---|---|---|---|
| Dwelling fires(b) | | | | |
| 2016-17 | | | | |
| North Wales | 13 | 49 | 22 | 17 |
| Mid and West Wales | 16 | 56 | 23 | 6 |
| South Wales | 22 | 62 | 14 | 2 |
| **Wales** | **18** | **57** | **19** | **6** |
| 2017-18 | | | | |
| North Wales | 9 | 55 | 21 | 15 |
| Mid and West Wales | 19 | 47 | 23 | 10 |
| South Wales | 16 | 63 | 18 | 4 |
| **Wales** | **16** | **55** | **20** | **9** |
| 2018-19(p) | | | | |
| North Wales | 9 | 54 | 19 | 18 |
| Mid and West Wales | 15 | 51 | 23 | 11 |
| South Wales | 18 | 59 | 20 | 2 |
| **Wales** | **15** | **55** | **21** | **9** |

(a) This analysis is based on comparisons between the time the first vehicle was mobilised and the time the first vehicle arrived at the scene. Excluded are late calls, incidents with only heat and smoke damage and response times less than 1 minute or over one hour. Less than 1 per cent of primary dwelling fires in each year were excluded due to the response time being less than 1 minute or over 1 hour.
(b) Dwellings include caravans, houseboats and other non-building structures used solely as a permanent dwelling
(p) Provisional data.

## Great Britain comparisons

At the time of publication 2018-19 data were not available for Scotland.

In 2018-19 the total number of fires attended rose by 9 per cent in England and 17 per cent in Wales (compared with 2017-18). This increase was driven by a rise in secondary fires, up 19 per cent in England and 30 per cent in Wales. England saw a fall of 1 per cent in primary fires, whilst in Wales they rose by 2 per cent.

### Table 28: Number of fires by type and country

*Thousands*

| | England(a) | | | Scotland(b) | | | Wales | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total(c) | Primary | Secondary | Total(c) | Primary | Secondary | Total(c) | Primary | Secondary |
| 2009-10 | 241.5 | 101.2 | 132.9 | 38.7 | 14.0 | 23.0 | 19.2 | 6.8 | 11.6 |
| 2010-11 | 228.4 | 92.2 | 128.5 | 39.0 | 13.2 | 24.2 | 20.7 | 6.4 | 13.5 |
| 2011-12 | 223.9 | 87.0 | 131.1 | 32.3 | 12.4 | 18.7 | 16.5 | 5.7 | 10.2 |
| 2012-13 | 154.5 | 74.7 | 72.5 | 26.7 | 11.1 | 14.3 | 11.4 | 4.7 | 5.9 |
| 2013-14 | 171.3 | 73.2 | 92.1 | 28.0 | 10.5 | 16.4 | 13.2 | 4.8 | 7.8 |
| 2014-15 | 155.0 | 71.1 | 78.7 | 25.0 | 10.6 | 13.4 | 11.7 | 4.6 | 6.5 |
| 2015-16 | 162.3 | 73.5 | 84.6 | 26.6 | 11.0 | 14.7 | 12.1 | 4.7 | 7.0 |
| 2016-17(r) | 162.0 | 74.9 | 82.8 | 27.3 | 10.9 | 15.7 | 10.8 | 4.8 | 5.6 |
| 2017-18(p)(r) | 167.3 | 74.3 | 89.0 | 26.1 | 10.7 | 14.7 | 11.0 | 4.3 | 6.3 |
| 2018-19(p) | 182.8 | 73.2 | 106.3 | ~ | ~ | ~ | 12.9 | 4.4 | 8.2 |

(a) English data are taken from Fire statistics data tables
(b) Scottish data for 2017-18 are provisional. Scottish data are taken from 'Fire and Rescue Statistics in Scotland'
(c) Includes chimney fires.
(r) Revised data.
(p) Provisional data.
~ Data not available yet.

The fatality rate fell in England to its lowest rate in the time series. The rate in Wales increased but is in the region of previous rates. Non-fatal casualty rates were lower in Wales compared to England, for the first time in the time series. The non-fatal casualty rates in both England and Wales fell compared with 2017-18. Although 2018-19 data are not yet published for Scotland, for the years available Scotland has had the highest casualty and fatality rates.

### Table 29: Number and rate of fatalities and casualties by country

| | England(a) | | | | Scotland(a) | | | | Wales | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Fatal | | Non-Fatal | | Fatal | | Non-Fatal | | Fatal | | Non-Fatal | |
| | number | pmp(b) | number | pmp(b) | number | pmp(b) | number | pmp(b) | number | pmp(b) | number | pmp(b) |
| 2009-10 | 340 | 6.5 | 8,864 | 170 | 62 | 11.9 | 1,214 | 232 | 23 | 7.6 | 575 | 189 |
| 2010-11 | 335 | 6.4 | 9,397 | 179 | 52 | 9.9 | 1,328 | 252 | 21 | 6.9 | 607 | 199 |
| 2011-12 | 315 | 5.9 | 9,375 | 177 | 59 | 11.1 | 1,416 | 267 | 23 | 7.5 | 592 | 193 |
| 2012-13 | 286 | 5.3 | 8,429 | 158 | 46 | 8.7 | 1,319 | 248 | 17 | 5.5 | 541 | 176 |
| 2013-14 | 278 | 5.2 | 7,819 | 145 | 31 | 5.8 | 1,311 | 246 | 17 | 5.5 | 626 | 203 |
| 2014-15 | 264 | 4.9 | 7,596 | 140 | 40 | 7.5 | 1,101 | 206 | 20 | 6.5 | 543 | 176 |
| 2015-16 | 302 | 5.5 | 7,672 | 140 | 45 | 8.4 | 1,276 | 237 | 19 | 6.1 | 592 | 191 |
| 2016-17(r) | 265 | 4.8 | 7,097 | 128 | 44 | 8.1 | 1,266 | 234 | 19 | 6.1 | 621 | 199 |
| 2017-18(p)(r) | 339 | 6.1 | 7,302 | 131 | 44 | 8.1 | 1,113 | 205 | 15 | 4.8 | 526 | 169 |
| 2018-19(p) | 253 | 4.5 | 7,160 | 128 | ~ | ~ | ~ | ~ | 20 | 6.4 | 396 | 126 |

(a) For data sources see table 28.
(b) Per million population. Population data are taken from ONS Mid Year Estimates revised periodically and so rates are subject to change between publications.
(r) Revised data.
(p) Provisional data.
~ Data not available yet.

## Glossary

**Accidental** fires include those where the fire was ignited by accident or the cause was not known or unspecified.

**Buildings** are defined as all buildings including those under construction, but excluding derelict buildings, or those under demolition. Prior to 1994 'buildings' were referred to as 'occupied buildings'.

The **cause of fire** is the defect, act or omission leading to ignition of the fire.

**Chimney fires** are reportable fires in occupied buildings where the fire was confined within the chimney structure and did not involve casualties or rescues or are attended by 5 or more appliances.

**Deliberate fires** include those where deliberate ignition is merely suspected.

**Dwellings** are defined as buildings occupied by households, excluding hotels, hostels and residential institutions. From 1988, mobile homes have been specifically included in the dwelling count. In 2000, the definition of a dwelling was widened to include any non-permanent structures used solely as a dwelling, such as houseboats. All analyses from 1994 to 1998 relating to dwellings were retrospectively revised to include the new categories of dwellings.

**False Alarms** are events in which the Fire and Rescue Authority was called to a reported fire which turned out not to exist. False alarms are categorised as follows:

> **Malicious False Alarms** are calls made with the intention of getting the fire and rescue service to attend a non-existent fire-related event, including deliberate and suspected malicious intentions.
>
> **Good Intent False Alarms** are calls made in good faith in the belief that the fire and rescue service really would attend a fire.
>
> **False Alarms Due to Apparatus** are calls initiated by fire alarm and fire-fighting equipment operating (including accidental initiation of alarm apparatus by persons).

**Fatal casualty** (fire related) is a person whose death is attributed to a fire even if the death occurred weeks or months later. There are also occasional cases where it becomes apparent subsequently that fire was not the cause of death. The figures for fatalities are thus subject to revision.

**Fire Data Reports (FDR1 and FDR3)** were the method of data collection via paper forms prior to the Incident Recording System (introduced in April 2009). FDR1 was used to record primary fires, FDR3 for secondary fires, chimney fires and false alarms.

**Fire and Rescue Authorities (FRAs**) are the statutory bodies which oversee the policy and service delivery of a fire and rescue service. The three authorities in Wales are North Wales, Mid and West Wales and South Wales.

**Heat or smoke damage only incidents** are reportable fires where there is no flame damage. The damage reported may be due to any combination of heat, smoke and other which will include any water damage.

**Incident Recording System (IRS)** is the electronic based system for recording fires, false alarms and Special Service Incidents. IRS replaced the FDR1 and FDR3 paper forms in April 2009.

**Late fire call** is a fire known to be extinguished when the call was made (or to which no call was made, e.g. a fire which comes to the attention of the Fire and Rescue Authority) and which the Fire and Rescue Authority attended.

**Location** is the type of premises, property or countryside in which the fire started. This is not necessarily the type of premises in which most casualties or damage occurred as a result of the fire.

**Non-fatal casualties** are recorded as being in one of four classes of severity as follows:

(i) Victim went to hospital, injuries appear to be serious

(ii) Victim went to hospital, injuries appear to be slight

(iii) First aid given at scene

(iv) Precautionary check recommended – this is when an individual is sent to hospital or advised to see a doctor as a precaution, having no obvious injury or distress.

Non-fatal casualties marked as 'not fire-related' have not been excluded due to widespread inappropriate use of this field.

**Primary fires** include all reportable fires in non-derelict buildings, vehicles and outdoor structures or any fire involving casualties, rescues, or fires attended by five or more appliances.

**Reportable fire** is an event of uncontrolled burning involving flames, heat or smoke and which the fire and rescue authority attended.

**Secondary fires** are the majority of outdoor fires including grassland and refuse fires unless they involve casualties or rescues, property loss or five or more appliances attend. They include fires in single derelict buildings. They are reported in less detail than other fires and consequently less information concerning them is available.

The **source of ignition** is the source of the flame, spark or heat that started the fire.

**Special Service Incidents** - Non-fire incidents which require the attendance of an appliance or officer and include:

(a) Local emergencies e.g. road traffic incidents, rescue of persons, 'making safe' etc;

(b) Major disasters;

(c) Domestic incidents e.g. water leaks, persons locked in or out etc;

(d) Prior arrangements to attend incidents, which may include some provision of advice and inspections.

Where more than one activity is carried out, the incident is recorded under the most resource intensive part or what was the most appropriate e.g. a railway incident with persons trapped is likely to be recorded under ‘railway accident’ even though the FRA may be involved in ‘first aid’, ‘other rescue’ and possibly ‘making safe’.

## Key quality information

On 10 November 2004 the Fire and Rescue Services Act 2004, which devolved fire and rescue services to the National Assembly for Wales (now the responsibility of the Welsh Government), was brought into effect. In Wales, these services are provided by three Fire and Rescue Authorities (FRAs). The three FRAs cover varied geographical areas with a wide variety of risks including: fires in homes; outdoor fires; fires in business premises; road traffic collisions; rail or air crashes; chemical spills; building collapses; and trapped people or animals.

North Wales Fire and Rescue Authority provides cover for a population of almost 700,000 across a geographical area of 2,400 square miles. It employs almost 900 operational and non-operational support staff from its headquarters and its 44 fire stations.

Mid and West Wales Fire and Rescue Authority covers over half the area of Wales and a population of over 900,000. There are 58 fire stations and over 1,300 employees.

South Wales Fire and Rescue Authority serves a population of over 1.5 million people covering 1,085 square miles. It employs over 1,700 staff including over 1,400 fire-fighters who operate from 47 fire stations throughout South Wales.

### Relevance

The Welsh Government uses the information in this bulletin to monitor the trends in fires occurring in Wales and provides information on FRAs' performance and activities to citizens and communities in Wales. This helps to monitor the effectiveness of current policy, and for future policy development. The data are also used as evidence for national fire safety initiatives and campaigns.

The data are used by the fire and rescue services for comparisons and benchmarking. The data aids the allocation of resources and the provision of community safety projects.

### Accuracy

Since April 2009 incident data (relating to fires, false alarms and Special Service Incidents) have been submitted by the Fire and Rescue Authorities via the Incident Recording System (IRS). On 5 January 2016 responsibility for fire and rescue policy in England transferred from the Department for Communities and Local Government (CLG) to the Home Office, this resulted in IRS also being held by the Home Office (although there has been no change to the data collected). IRS records data submitted by FRAs in England, Scotland and Wales but does not currently collect data from FRAs in Northern Ireland.

Prior to IRS data were collected via the paper based forms FDR1 and FDR3. The change in collection method has allowed a greater volume of data to be captured:

- Data on Special Service Incidents are now recorded
- All fires are recorded; pre-IRS statistics were based on a sampled dataset.
- Some detail on secondary fires and chimney fires are now recorded; pre-IRS, only aggregates were available.

For further details of the information collected and held on IRS please see 'Further details' on page 57.

The incident data are extracted from IRS annually (usually around June/July) and marked provisional at first publication. All bulletins and StatsWales tables excluding the quarterly data published in January/February are based on this dataset. Due to the nature of the live system, whilst accurate at the time of extraction, totals may change and therefore be revised due to updated information. 2018-19 data are currently marked as provisional and may be revised in future publications.

The table below compares the provisional 2017-18 data (extracted from IRS in July 2018) which was published in August 2018 with the revised data (extracted in July 2019) detailed in this bulletin.

### Comparison of provisional data with revised data (2017-18)

| | Provisional 2017-18 (published Aug 2018) | Revised 2017-18 (published Aug 2019) | Percentage change |
|---|---|---|---|
| **All Fires and fire false alarms** | **25,181** | **25,184** | **0.0** |
| All fires | 11,020 | 11,023 | 0.0 |
| Primary Fires | 4,315 | 4,316 | 0.0 |
| Secondary | 6,299 | 6,301 | 0.0 |
| Fire false Alarms | 14,161 | 14,161 | 0.0 |
| Fatalities | 15 | 15 | 0.0 |
| Non Fatal Casualties | 526 | 526 | 0.0 |

### Percentage changes for revised data

| | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 |
|---|---|---|---|---|---|---|---|---|
| **All Fires and fire false alarms** | **1.2** | **0.2** | **0.1** | **0.1** | **0.0** | **0.0** | **0.0** | **0.0** |
| All fires | 1.7 | 0.3 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Primary Fires | 2.1 | 0.6 | 0.3 | 0.1 | 0.0 | -0.1 | 0.0 | 0.0 |
| Secondary | 1.6 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fire false Alarms | 0.5 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fatalities | 5.0 | 21.1 | 0.0 | 0.0 | -4.8 | 0.0 | 0.0 | 0.0 |
| Non Fatal Casualties | 4.7 | 1.9 | 0.7 | 0.2 | 0.0 | -0.2 | **0.0** | **0.0** |

A key piece of information that the IRS collects for all incidents is the accurate incident location. For all incidents it is mandatory to have the grid location (easting and northing co-ordinates), in addition for addressable locations the address details can be recorded.

Within the IRS forms system, for addressable locations the user locates the address using a gazetteer and this determines the co-ordinates. For non-addressable locations the user will either select the location on a map or use a mobile data terminal to determine the location.

### Rounding and symbols

Data collected via the FDR1 and FDR3 paper forms (i.e. data prior to 2009-10) are based on sampled datasets. Items and totals have been rounded separately to the nearest final digit, and therefore totals shown may differ slightly from the sum of the items. No rounding has been applied to data from 2009-10 onwards.

The following symbols may have been used in this release:

- negligible (less than half the final digit shown)

. not applicable

.. not available

~ not available yet

* disclosive or not sufficiently robust for publication

p provisional

r revised

### Timeliness and punctuality

All outputs adhere to the Code of Practice by pre-announcing the date of publication. Furthermore, should the need arise to postpone an output this would follow the Welsh Government's Revisions, Errors and Postponements arrangements.

This bulletin is usually published in the August around 5 months after the year end.

### Accessibility and clarity

Welsh fire statistics are published in an accessible, orderly, pre-announced manner on the Welsh Government website at 9:30am on the day of publication. All releases are available to download for free.

In our outputs, we aim to provide a balance of commentary, summary tables, charts and maps. The aim is to 'tell the story' in the output, without the output becoming overly long and complicated. We provide additional, detailed data on StatsWales.

### Comparability and coherence

Since 2009-10 the three Fire and Rescue Authorities have recorded all their fire incidents using the IRS. This may affect some of the incident categories especially when data are compared with years prior to 2009-10. Following a quality assurance exercise carried out by CLG on the 2009-10 and 2010-11 two possible discontinuities (due to the change in data collection method) were discovered. One relates to types of incident, notably outdoor primary fires and the second to non-fatal casualties. More information is given on this subject in the Comparability section of 2015-16 Fire Statistics publication.

Numbers of non-fatal casualties presented in this bulletin include those recorded as 'not fire related'. This is the result of an exercise CLG undertook which found that the 'not fire related' casualty marker had been widely misused. Data published by the Home Office for England and the Scottish Fire and Rescue Service for Scotland also include these casualties. However the second performance indicator (FRS/RRC/S/002) listed in Fire and Rescue Authority performance 2017-18 exclude those casualties and so the data are not directly comparable.

The Fire Statistics Quality Report covers the general principles and processes leading up to the production of our fire statistics. The report covers various topics including definitions, coverage,

timeliness, relevance and comparability. You can see a copy of the report on the Welsh Government website.

### General Data Protection Regulation (GDPR)

In order to comply with the new data protection regulations, we have published a privacy notice in relation to personal information collected by the Fire and Rescue Services when attending incidents.

### UK comparisons

Whilst England and Scotland do not publish specific grassland fires bulletins, data by location are available in their annual publications.

Data for England (published by the Home Office since April 2016):

- Fire statistics England
- Fire statistics monitor

Data for Scotland (published by Scottish Fire and Rescue Service since 2015) – not currently badged as national or official statistics.

- 2017-18 data
- Pre 2014-15 data (published by the Scottish Government)

Limited Northern Ireland data are available from Northern Ireland Fire and Rescue Service.

## National Statistics status

The United Kingdom Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Statistics.

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

All official statistics should comply with all aspects of the Code of Practice for Statistics. They are awarded National Statistics status following an assessment by the UK Statistics 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 Welsh Government's responsibility to maintain compliance with the standards expected of 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.

The statistics last underwent a full assessment against the Code of Practice in June 2012.

Since the review by the UKSA, we have continued to comply with the Code of Practice for Statistics, and have made the following improvements:

- Inclusion of response time data
- Inclusion of GB comparison data
- Increased the length of time series where possible
- Publication of data tables in Excel alongside the bulletin.
- More detailed data at regional (Local Authority) level
- Improved Key Quality information.

## Well-being of Future Generations Act (WFG)

The Well-being of Future Generations Act 2015 is about improving the social, economic, environmental and cultural well-being of Wales. The Act puts in place seven well-being goals for Wales. These are for a more equal, prosperous, resilient, healthier and globally responsible Wales, with cohesive communities and a vibrant culture and thriving Welsh language. Under section (10)(1) of the Act, the Welsh Ministers must (a) publish indicators ("national indicators") that must be applied for the purpose of measuring progress towards the achievement of the Well-being goals, and (b) lay a copy of the national indicators before the National Assembly. The 46 national indicators were laid in March 2016.

Information on the indicators, along with narratives for each of the well-being goals and associated technical information is available in the Well-being of Wales report.

Further information on the Well-being of Future Generations (Wales) Act 2015.

The statistics included in this release could also provide supporting narrative to the national indicators and be used by public services boards in relation to their local well-being assessments and local well-being plans.

## Further details

The document is available here: https://gov.wales/fire-and-rescue-incident-statistics-april-2018-march-2019

Fire Statistics Data Quality Report

Fire Statistics Guidance

More information is available in the form of StatsWales tables that accompany this release.

More detailed analysis will be published in the forthcoming outputs Grassland fires 2018-19.

## Next update

Data for selected StatsWales tables for the period April to September 2019 will be published in February 2020.

Fire and Rescue Incident Statistics 2019-20 due to be published in August 2020

## We want your feedback

We welcome any feedback on any aspect of these statistics which can be provided by email to stats.inclusion@gov.wales.

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