ystadegau ar gyfer cymru statistics for wales

Statistical Bulletin

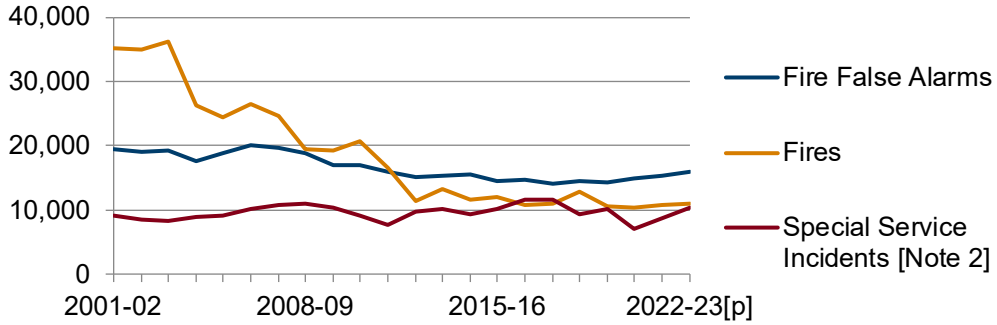
Llywodraeth Cymru Welsh Government

Fire and rescue incident statistics 2022-23

26 Oct 2023
SB 35/2023

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 2022-23, where the 2022-23 data are currently provisional.

Figure 1: Number of fire, SSI and fire false alarm attendances 2001-02 to 2022-23 [Note 1]



Description of Figure 1: Line chart showing number of fires, fire false alarms and Special service incidents since 2021-02. Numbers of fires fell dramatically up to 2012-13 and have been relatively stable since.

[Note 1] revised 2021-22 data

[Note 2] See Key Quality Information regarding change to SSI data Collection.

[p] Provisional data

- Numbers of fires have fallen by almost 70% since 2001-02 but over the last ten years numbers have been relatively stable staying around 10,000 to 13,000. The number of fire false alarms has also fallen but to a lesser extent, only decreasing by 18% since 2001-02. Numbers of SSIs have fluctuated throughout the time series, 2022-23 saw a 19% increase compared with the previous year.
- Compared with 2021-22, numbers of fires rose by 3% in 2022-23; numbers of primary fires fell by 1% whilst numbers of secondary fires increased by 6%.
- There were 14 fatal casualties from fires in Wales in 2022-23 (table 9).
- There were 422 non-fatal casualties in 2022-23, a decrease of 12% compared with 2021-22 (table 10).
- There were 1,805 deliberate grassland woodland and crop fires in 2022-23, a decrease of 1% compared with 2021-22.

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.

This report covers the financial year from April 2022 to March 2023, and comparisons are made with April 2021 to March 2022 a period within the coronavirus (COVID-19) pandemic. Any increase or decrease in numbers should be considered within this context.

In this bulletin

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Fires, Fire false alarms and Special Service Incidents

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

Table 1: Number of fire, fire false alarm and special service attendances 2013-14 to 2022-23 [Note 1]

	Fire false alarms	Fires	Special Service Incidents [Note 2]	**All attendances**
2013-14	15,312	13,169	10,118	**38,599**
2014-15	15,485	11,651	9,289	**36,425**
2015-16	14,491	12,108	10,151	**36,750**
2016-17	14,790	10,750	11,676	**37,216**
2017-18	14,161	11,023	11,584	**36,768**
2018-19	14,485	12,911	9,278	**36,674**
2019-20	14,281	10,587	10,125	**34,993**
2020-21	14,879	10,326	7,020	**32,225**
2021-22 [r]	15,319	10,740	8,676	**34,735**
2022-23 [p]	16,008	11,066	10,353	**37,427**
Percentage change 2021-22 to 2022-23	4%	3%	19%	8%

Description of Table 1: A table showing a timeseries since 2013-14 of fire false alarms, fires and Special Service Incidents for Wales. All incident types saw an increase in 2022-23 compared with 2021-22.

[Note 1] Data for fire false alarms and fires from 2001-02 onwards are available on StatsWales.

[Note 2] Includes SSI false alarms.

[r] Revised data.

[p] Provisional data.

In 2022-23 Welsh FRAs attended 37,427 incidents (fires, fire false alarms, SSIs and SSI false alarms), an increase of 8% compared with 2021-22. It is the highest figure since 2013-14 but no percentage increase on the average between 2013-14 and 2018-19.

Of all attendances, 11,066 (30%) were at fires, 16,008 were fire false alarm incidents (43% of attendances) and 10,353 SSIs including SSI false alarms (28%).

Since 2001-02 fire attendances have fallen, by 69% from 35,203 to 11,066. Fire false alarms have also fallen but to a lesser extent (dropping by 18%). Numbers of SSIs have varied since 2001-02;

overall there has been an increase of 13% since 2001-02. Further analysis of SSI numbers are shown in figures 22 to 25 and tables 16 and 17.

Whilst there is an overall downward trend in the numbers of fire false alarms since 2001-02, the figures have fluctuated. The number of fire false alarms has risen each year since 2019-20.

Incidents attended in 2022-23, by Fire and Rescue Authority[p]:

Figure 2a: North Wales

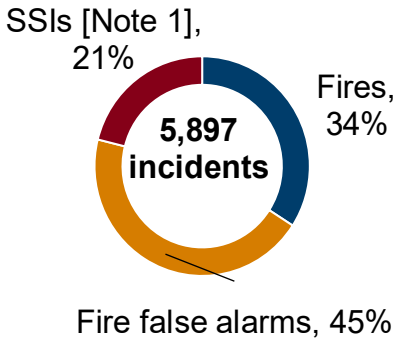


Figure 2b: Mid and West Wales

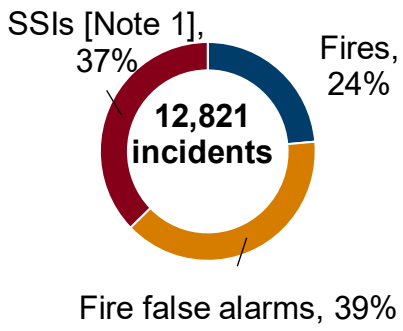
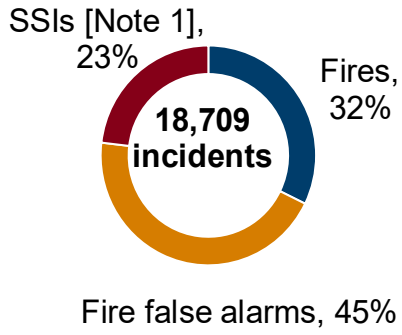


Figure 2c: South Wales



Description of Figures 2a, 2b and 2c: A series of doughnut charts showing the proportion of fires, fire false alarms and SSIs attended in 2022-23 for each FRA. In all three FRAs the largest category of incident type were fire false alarms (around two fifths or more of attendances). In North Wales and South Wales, fires make up the second largest category but in Mid and West Wales SSIs are the second largest group.

[Note 1] SSI data include numbers of SSI false alarms.

[p] Provisional data.

Fires

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.

Table 2: Number of fires by type, 2013-14 to 2022-23

	Primary fires	Secondary fires	Chimney fires	All fires
2013-14	4,790	7,801	578	13,169
2014-15	4,561	6,541	549	11,651
2015-16	4,678	6,998	432	12,108
2016-17	4,757	5,576	417	10,750
2017-18	4,316	6,301	406	11,023
2018-19	4,392	8,184	335	12,911
2019-20	4,279	5,978	330	10,587
2020-21	3,796	6,197	333	10,326
2021-22 [r]	3,944	6,496	300	10,740
2022-23 [p]	3,918	6,871	277	11,066
Percentage change 2021-22 to 2022-23	-1%	6%	-8%	3%

Description of Table 2: A table showing a timeseries since 2013-14 of primary, secondary and chimney fires for Wales. Primary and chimney fires saw a decrease in the latest year whilst secondary fires saw an increase which resulted in an overall increase in the number of fires.

[r] Revised data

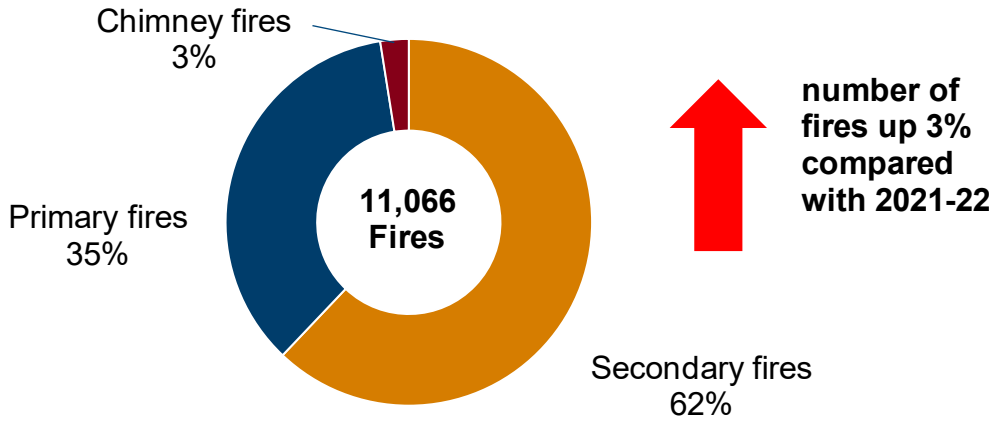
[p] Provisional data.

In 2022-23 there were 11,066 fires attended in Wales, an increase of 3% compared with 2021-22. Numbers of primary fires fell by 1% in 2022-23 compared with 2021-22; whilst the number of secondary fires increased by 6%.

Throughout the timeseries secondary fires made up the largest category of fire attendance; in 2022-23 62% of fires attendances were at secondary fires.

In 2022-23 numbers of chimney fires saw a decrease of 8% compared with the previous year.

Figure 3: Fires by fire type as a percentage of all fires, 2022-23 [p]

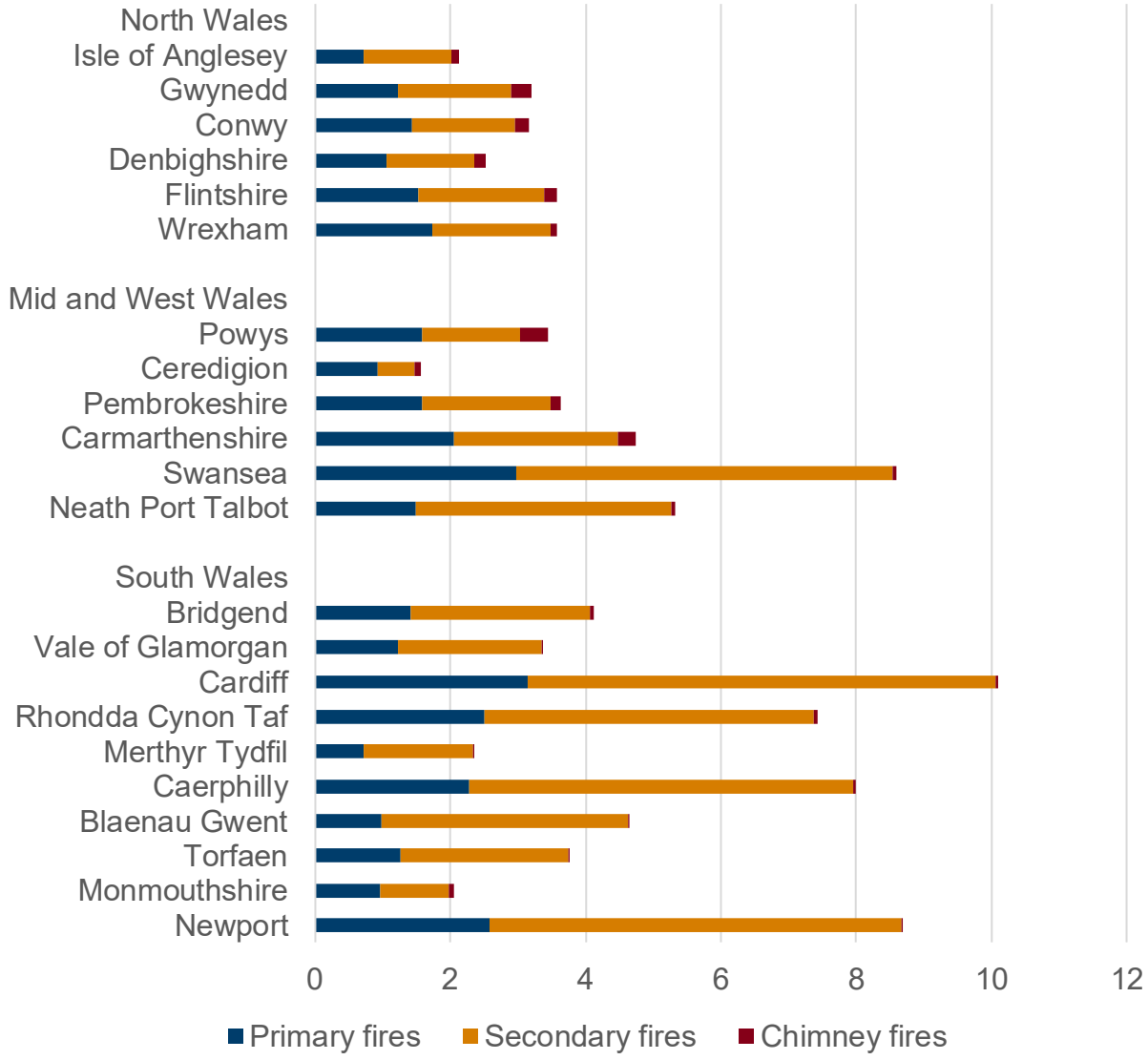


Description of Figure 3: A doughnut chart showing the percentage of incidents which are primary fires, secondary fires or chimney fires in Wales and in 2022-23 and the percentage change in the

number of fires compared with 2021-22. In 2022-23 secondary fires accounted for 62% of all fires, primary fires accounted for 35% and chimney fires 3%, similar proportions to the previous year.

[p] Provisional data.

Figure 4: Proportion of fires in Wales by Local Authority and type of fire, 2022-23 [p]



Description of Figure 4: The chart shows the percentage of fires in Wales occurring in each local authority in 2022-23, split into primary, secondary and chimney fires. Cardiff, Newport, Swansea, Caerphilly and Rhondda Cynon Taf have the most fires with a large proportion in each of these LAs being secondary fires.

In 2022-23, Cardiff had 10% of all fires in Wales, Newport and Swansea each had 9% whilst Caerphilly had 8% and Rhondda Cynon Taf 7%. The lowest proportions were in Ceredigion, Isle of Anglesey, Monmouthshire and Merthyr Tydfil, each with 2% of fires attended.

[p] Provisional data

Further data on this topic is available on StatsWales

Fires by type

Primary fires

Table 3: Number of primary fires by Fire and Rescue Authority, 2013-14 to 2022-23 [Note 1]

	North Wales	Mid and West Wales	South Wales	**Wales**
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	995	1,362	1,959	**4,316**
2018-19	959	1,422	2,011	**4,392**
2019-20	967	1,300	2,012	**4,279**
2020-21	804	1,155	1,837	**3,796**
2021-22 [r]	881	1,237	1,826	**3,944**
2022-23 [p]	854	1,175	1,889	**3,918**
Percentage change 2021-22 to 2022-23	-3%	-5%	3%	-1%

Description of Table 3: The table shows the number of primary fires by fire and rescue authority in Wales, in the years 2013-14 to 2022-23. The number of primary fires have generally reduced since 20213-14, and this have been the case in each FRA.

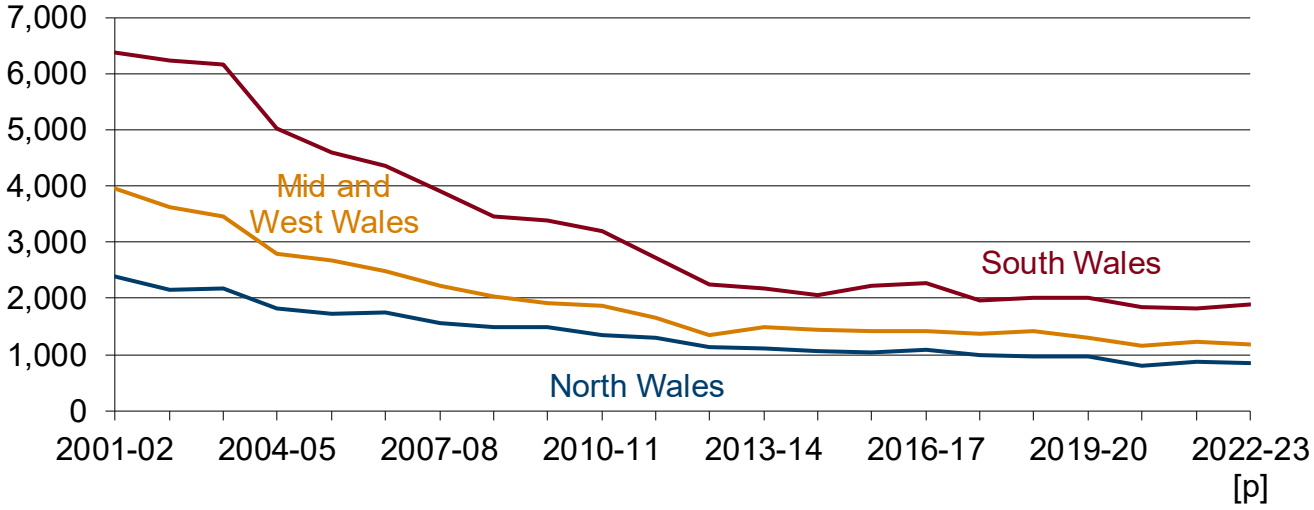
[Note 1] Data from 2001-02 onwards are available on StatsWales and in the accompanying Excel tables.

[r] Revised data.

[p] Provisional data.

In 2022-23 the number of primary fires decreased by 1% compared with the previous year, to 3,918 (the second lowest number in the time series). Only South Wales saw an increase in the number of primary fires, up 3%; North Wales and Mid and West Wales both saw decreases down 3% and 5% respectively.

Figure 5: Number of primary fires by Fire and Rescue Authority, 2001-02 to 2022-23 [Note 1]



Description of Figure 5: The chart shows the number of primary fires by fire and rescue authority since 2001-02. Numbers of fires in all three FRAs show a general downward trend with the largest decreases seen in South Wales. Throughout the time series South Wales has the highest number of primary fires and North Wales the lowest.

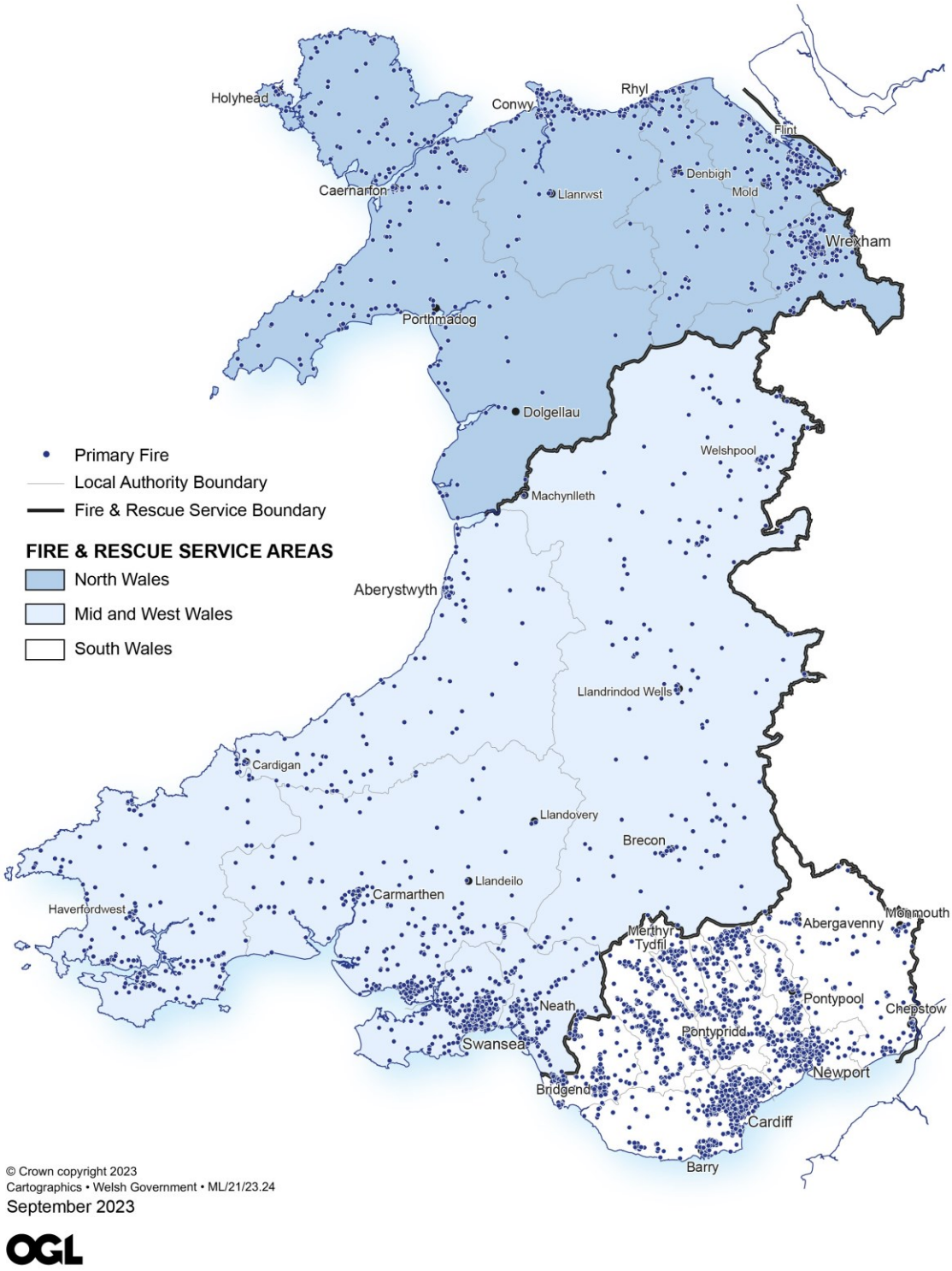
[Note 1] 2021-22 data revised.

[p] Provisional data.

Since 2001-02 all three FRSs have seen substantial falls in the number of primary fires; South Wales and Mid and West Wales have seen falls of 70% and in North Wales the number has fallen by 64%. The FRAs in Wales have a number of ongoing fire safety campaigns[1] and community fire safety work (such as home safety checks and school visits) and these may be a contributory factor in the overall falling numbers of fires although no all-Wales evidence is currently available.

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

FIGURE 6: **Primary fires across Wales, 2022-23**



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September 2023

Description of figure 6: Map showing locations of primary fires in Wales in 2022-23. The map shows the high concentration of primary fires in the south Wales region and other urban areas.

Table 4: Number of primary fires by location, 2013-14 to 2022-23 [Note 1]

	Dwellings [Note 2]	Other buildings	Road vehicles	Outdoors	All primary fires
2013-14	1,910	995	1,482	403	4,790
2014-15	1,808	1,034	1,432	287	4,561
2015-16	1,775	963	1,573	367	4,678
2016-17	1,858	931	1,669	299	4,757
2017-18	1,617	922	1,504	273	4,316
2018-19	1,555	881	1,485	471	4,392
2019-20	1,628	869	1,440	342	4,279
2020-21	1,501	724	1,177	394	3,796
2021-22 [r]	1,587	804	1,218	335	3,944
2022-23 [p]	1,542	835	1,177	364	3,918
Percentage change 2021-22 to 2022-23	-3%	4%	-3%	9%	-1%

Description of table 4: The table shows the number and percentage of fires in dwellings, other buildings, road vehicles and other outdoor locations. Data relates to the years 2013-14 to 2022-23.

[Note 1] Data from 2001-02 onwards are available on StatsWales and in the accompanying Excel tables.

[Note 2] Includes caravans, houseboats and other non-building structures used solely as a permanent dwelling.

[r] Revised data.

[p] Provisional data.

In Wales in 2022-23, 39% of all primary fires were in dwellings, 30% in road vehicles, 21% in other buildings and 9% were outdoor fires. Dwellings and road vehicles saw decreases in the number of fires compared with the previous year, both falling 3%. Numbers of fires in 'other buildings' increased by 4% whilst those occurring outdoors rose by 9%.

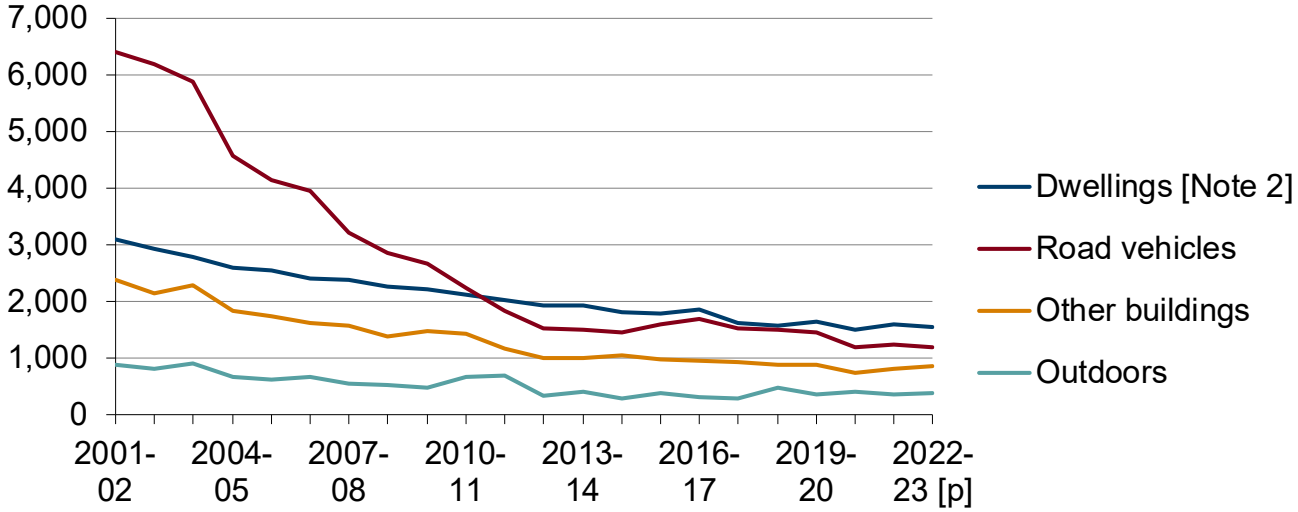
In 2022-23 the number of dwelling fires was around half the figure seen in 2001-02 (figure 7). In recent years FRAs have targeted their programmes of Home Fire Safety Checks (HFSCs)[2] at dwellings with identified risk factors (e.g. age, sensory/mobility impairment, domestic violence etc.) In 2022-23 FRAs in Wales completed over 41,500 HFSCs, 74% occurring in properties with at least one risk factor[3].

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 82% since 2001-02. More analysis of fires in road vehicles can be found in the section 'Fires by motive'.

[2] Home Fire Safety Check StatsWales tables

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

Figure 7: Number of primary fires by location, 2001-02 to 2022-23 [Note 1]



Description of Figure 7: A line chart which shows the numbers of fires in dwellings, other buildings, road vehicles and other outdoor locations each year from 2001-02 to 2022-23.

The general trend is downward for all categories, but this is most noticeable amongst road vehicles. In the last decade numbers have more stable whilst still showing some fluctuation.

[Note 1] 2021-22 data revised.

[Note 2] Includes caravans, houseboats and other non-building structures used solely as a permanent dwelling.

[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 61% of all fires since 2001-02 and 62% of those attended in 2022-23.

Numbers of deliberate fires are explored in more detail in the section ‘Fires by motive’.

Table 5: Number of secondary fires by Fire and Rescue Authority, 2013-14 to 2022-23 [Note 1]

	North Wales	Mid and West Wales	South Wales	**Wales**
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	893	1,640	3,768	**6,301**
2018-19	1,175	2,170	4,839	**8,184**
2019-20	838	1,705	3,435	**5,978**
2020-21	809	1,790	3,598	**6,197**
2021-22 [r]	879	1,928	3,689	**6,496**
2022-23 [p]	1,037	1,732	4,102	**6,871**
Percentage change 2021-22 to 2022-23	18%	-10%	11%	6%

Description of Table 5: The table shows the number of secondary fires in each fire and rescue authority in Wales from 2013-14 to 2022-23.

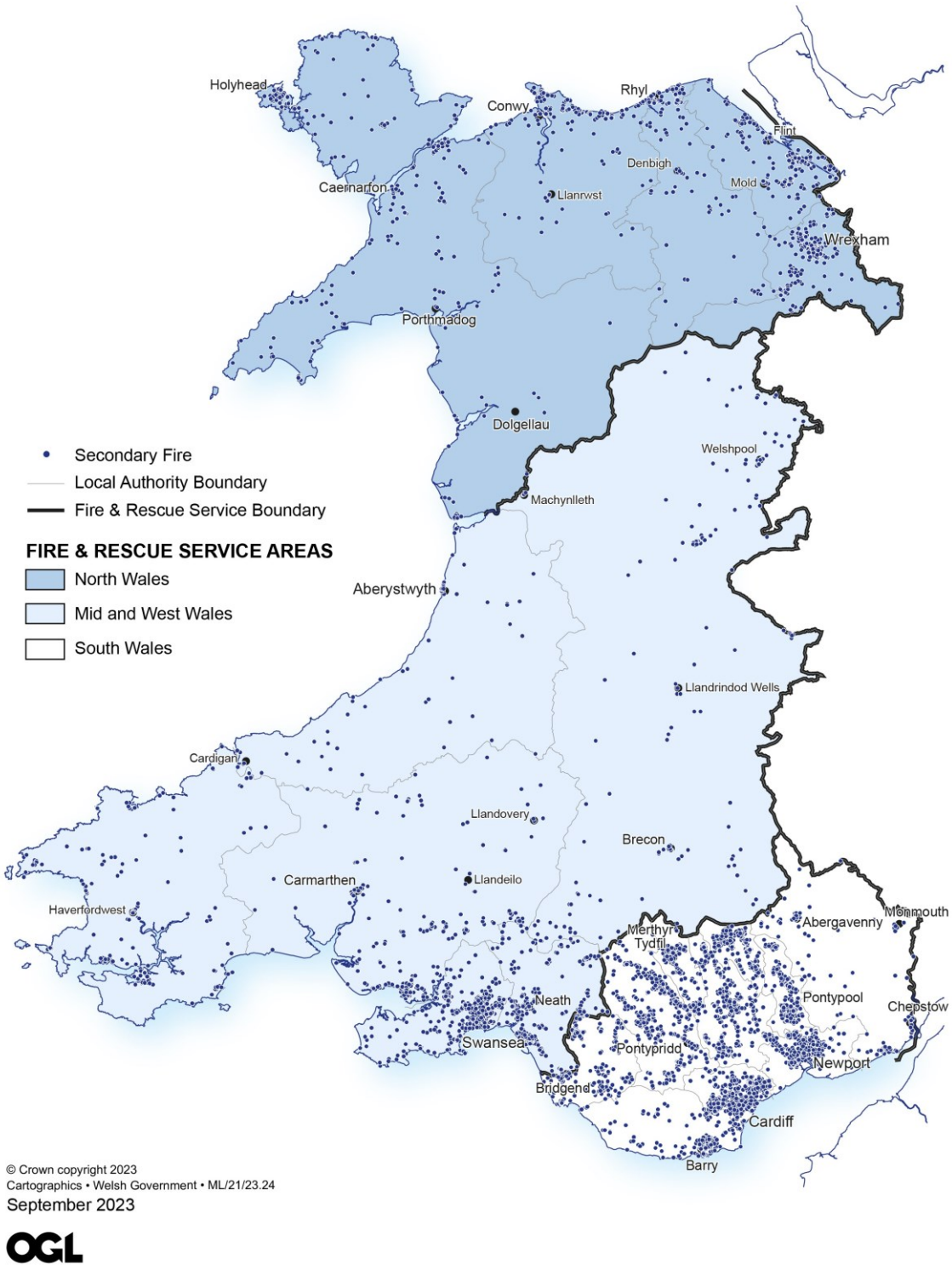
[Note 1] Data from 2001-02 onwards are available on StatsWales and in the accompanying Excel tables.

[r] Revised data.

[p] Provisional data.

The Welsh FRAs attended 6,871 secondary fires in 2022-23, an increase of 6% on 2021-22. This is the highest number since 2018-19. Compared with the previous year, numbers rose by 18% in North Wales, increased by 11% in South Wales and fell by 10% in Mid and West Wales.

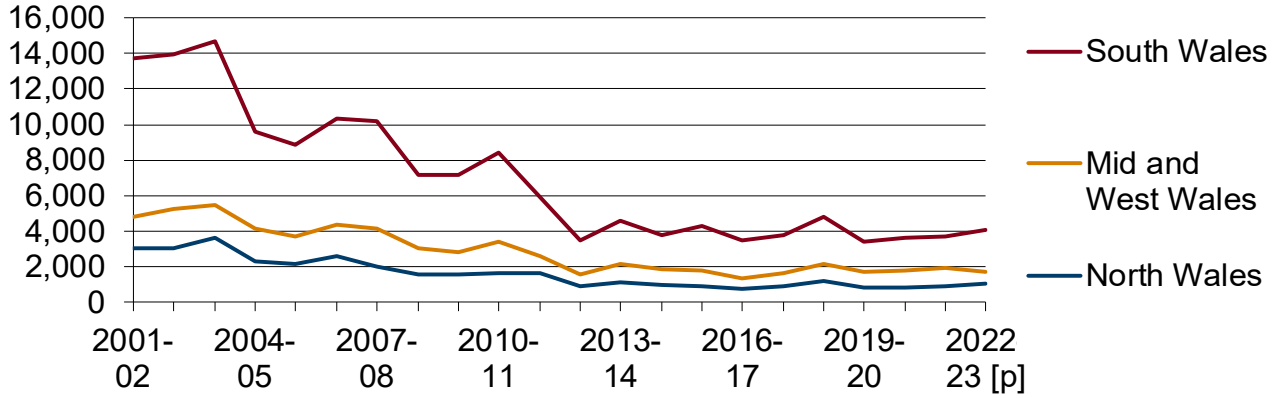
FIGURE 8: **Secondary fires across Wales, 2022-23**



Description of Figure 8: Map showing locations of secondary fires in Wales in 2022-23. The map shows the high concentrations of secondary fires, noticeably around Cardiff, Swansea and Newport (which could also be seen in Figure 4).

Numbers of secondary fires in all 3 Welsh FRAs have seen substantial falls since 2001-02; by 70% in South Wales, by 66% in North Wales and by 64% in Mid and West Wales. In South Wales secondary fires accounted for 68% of fires in the area in 2022-23. In North Wales and Mid and West Wales the proportions were 52% and 57% respectively.

Figure 9: Number of secondary fires by Fire and Rescue Authority, 2001-02 to 2022-23 [Note 1]



Description of Figure 9: The chart shows the number of secondary fires attended, by fire and rescue authority since 2001-02. South Wales has consistently had more secondary fires throughout the time series. Whilst there is a general downward trend in all three FRSs, there is notably more fluctuation in these numbers than in numbers of primary fires.

[Note 1] 2021-22 data revised.

[p] Provisional data

In 2022-23, the majority of secondary fires (60%) occurred in South Wales. Mid and West Wales accounted for 25% of all secondary fires and 15% were in North Wales.

Grassland fires: In 2022-23, 2,439 (35% of) secondary fires occurred on grassland, woodland, cropland[4], whilst 47% occurred on 'other land'. The number of grassland fires saw a 5% increase compared with 2021-22 whilst numbers of fires on 'other land' increased by 6%. The number of these fires is likely to have been influenced by weather conditions; for example, both 2012-13 and 2019-20 saw relatively low numbers of secondary fires in the time series and were the fourth and third (respectively) wettest years since 1862-63. However, not all fluctuations can be explained by the weather. Further analysis using weather data (including analysis by month) is shown in the section 'fires by motive'.

Aside from those occurring on grassland, woodland, crops and other land, a further 14% 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 3%.

[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

Refuse fires: In 2022-23, 55% of secondary fires were classed as refuse fires[5]. The number of these fires rose by 5% from 3,574 in 2021-22 to 3,753 in 2022-23. Overall, there has been a downward trend in refuse fires, falling by 27% since 2009-10.

As with other outdoor fires, numbers are likely to be affected by weather conditions. Around 8 in 10 refuse fires in 2022-23 occurred on loose refuse. A number of campaigns including 'Drive your litter home[6]' and 'Fly Tipping Action Wales[7]' are attempting to address the issues of litter and fly-tipping. Data on fly-tipping incidents recorded by Local Authorities is published on StatsWales.

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 2022-23, there were 277 chimney fires in Wales, a decrease of 8% compared with 2021-22, the lowest number in the time series. Most of these fires occurred in dwellings (96%).

Mid and West Wales and South Wales saw numbers decrease by 11% and 18% respectively compared with the previous year. North Wales saw no percentage change.

Table 6: Number of chimney fires by Fire and Rescue Authority, 2013-14 to 2022-23 [Note 1]

	North Wales	Mid and West Wales	South Wales	**Wales**
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	145	142	48	**335**
2019-20	145	146	39	**330**
2020-21	157	127	49	**333**
2021-22	120	130	50	**300**
2022-23 [p]	120	116	41	**277**
Percentage change 2021-22 to 2022-23	0%	-11%	-18%	-8%

[5] Data on refuse fires can be found in StatsWales table 'Fires by detailed location and motive'
[6] Keep Wales tidy – drive your litter home
[7] Fly-tipping Action Wales
[8] Keep Wales Tidy – Eco schools

Description of Table 6: The table shows the number of chimney fires in Wales, split by fire and rescue service, since 2013-14. Numbers of chimney fires have reduced in all FRSs in that time.

[Note 1] Data from 2001-02 onwards are available on StatsWales and in the accompanying Excel table.

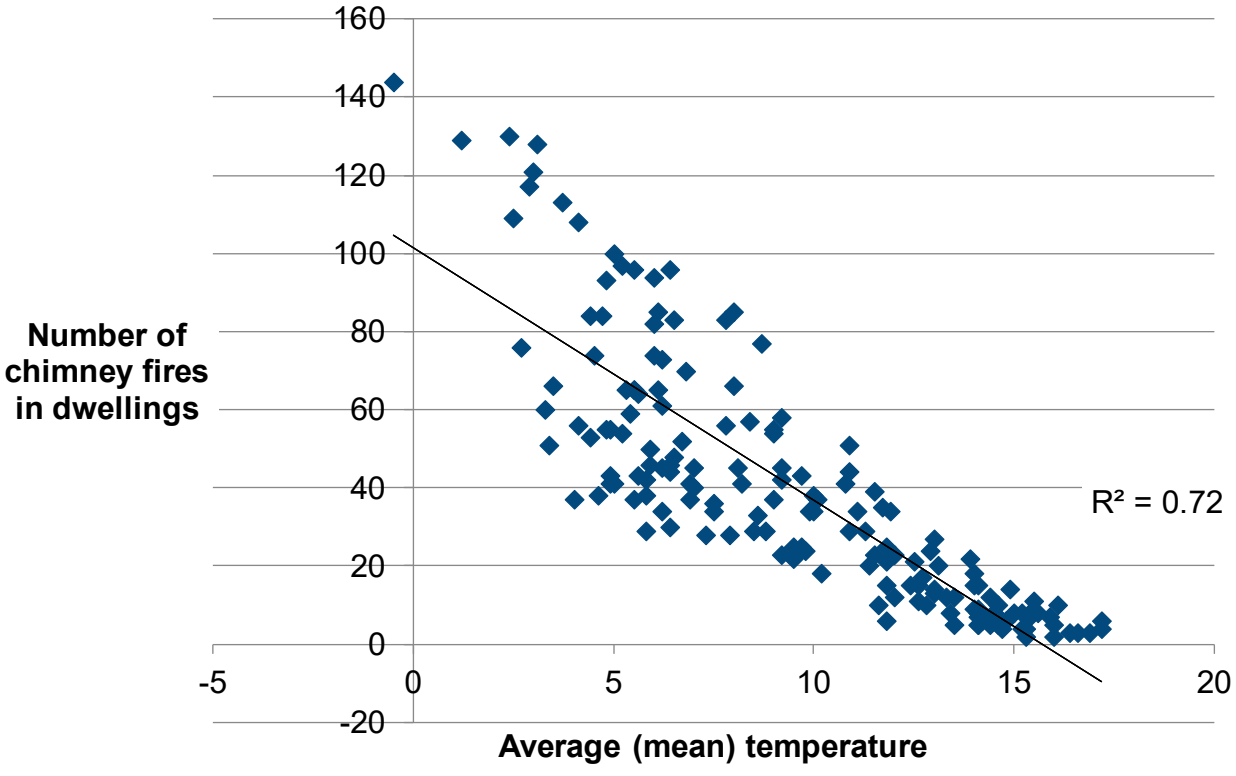
[p] Provisional data.

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.

Figure 10a Scatter plot showing statistical correlation between numbers of chimney fires in dwellings and mean temperature, 2009-10 to 2022-23



Description of Figure 10a: A scatter plot which 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 2022-23. The R^2 value of 0.72 indicates a strong correlation in the data which is also intuitive, that in colder months the FRAs are required to attend more chimney

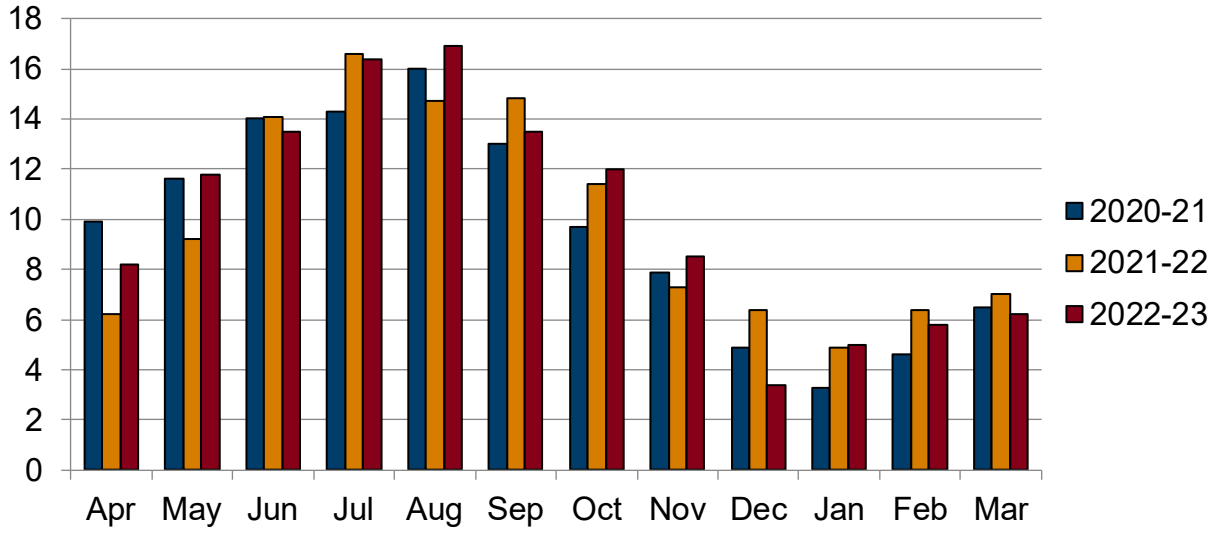
fires. The graph also shows a tighter cluster of data points around the higher temperatures and getting looser as the temperature falls. This suggests that as it gets colder considerations other than the temperature (e.g. poverty, environmental concerns, availability of fuel etc.) may also factor in whether a householder lights a fire in their home.

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 figures 10b and 10c we see that Jan 2021 is the coldest month in the chart and has the most chimney fires. For 2022-23 December was the coldest month and had the highest number of chimney fires for the year. Meanwhile July and August were the warmest months and saw the fewest fires. Whilst the pattern does not hold for all months, further examples can be seen throughout the time series.

Figure 10b: Mean temperature by month, 2020-21 to 2022-23

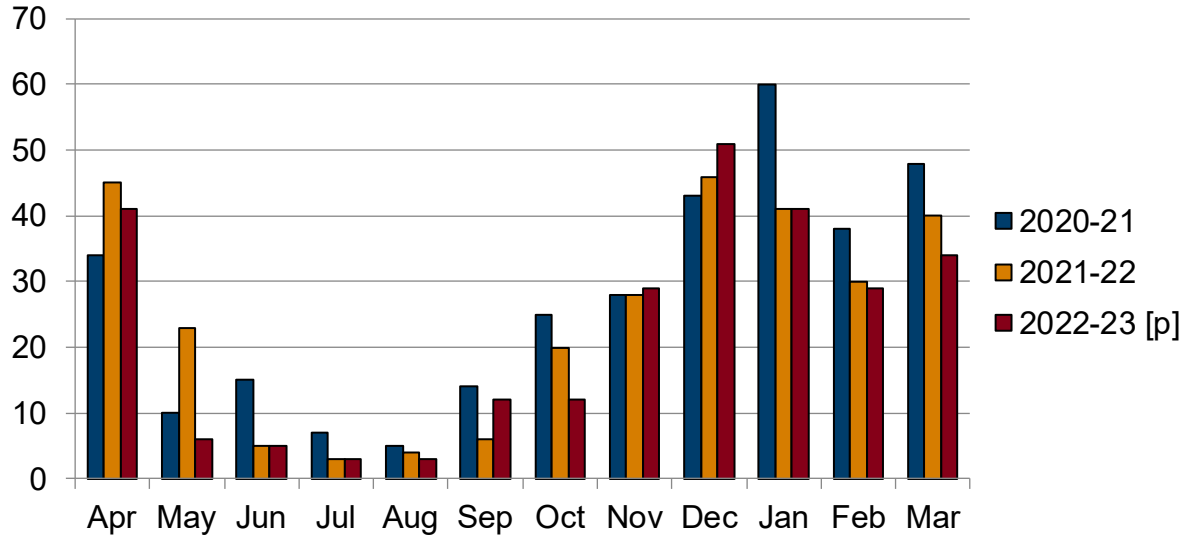


Description of Figure 10b: The bar chart shows the average mean temperature for each month in Wales for the years 2020-21 to 2022-23. The chart shows the highest temperature of 2022-23 occurring in August 2022 and the coldest temperature in December 2022 and January 2023.

Source: Met Office[9]

[9] Met Office datasets

Figure 10c: Number of chimney fires in dwellings by month, 2020-21 to 2022-23



Description of Figure 10c: The bar chart shows the number of chimney fires occurring each month in Wales, for the years 2020-21 to 2022-23. The chart shows the highest number of chimney fires for 2022-23 occurred in December 2022 and the lowest numbers in July and August 2022.

[p] Provisional data

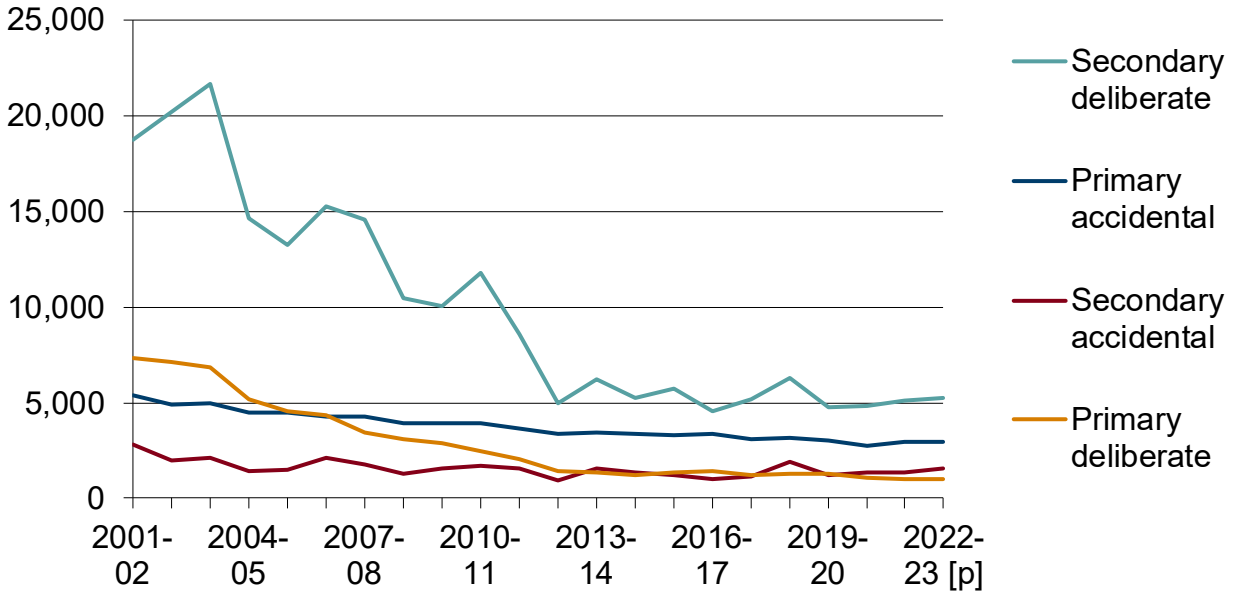
Further data on this topic is available on StatsWales.

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.

In 2022-23 57% (6,266) of fires were recorded as deliberate; this is less than a quarter of the number seen in 2001-02 although an increase of 2% compared with 2021-22. There were 4,800 accidental fires (including chimney fires); a 4% increase compared with 2021-22.

Figure 11: Number of fires by type and motive, 2001-02 to 2022-23 [Note 1]

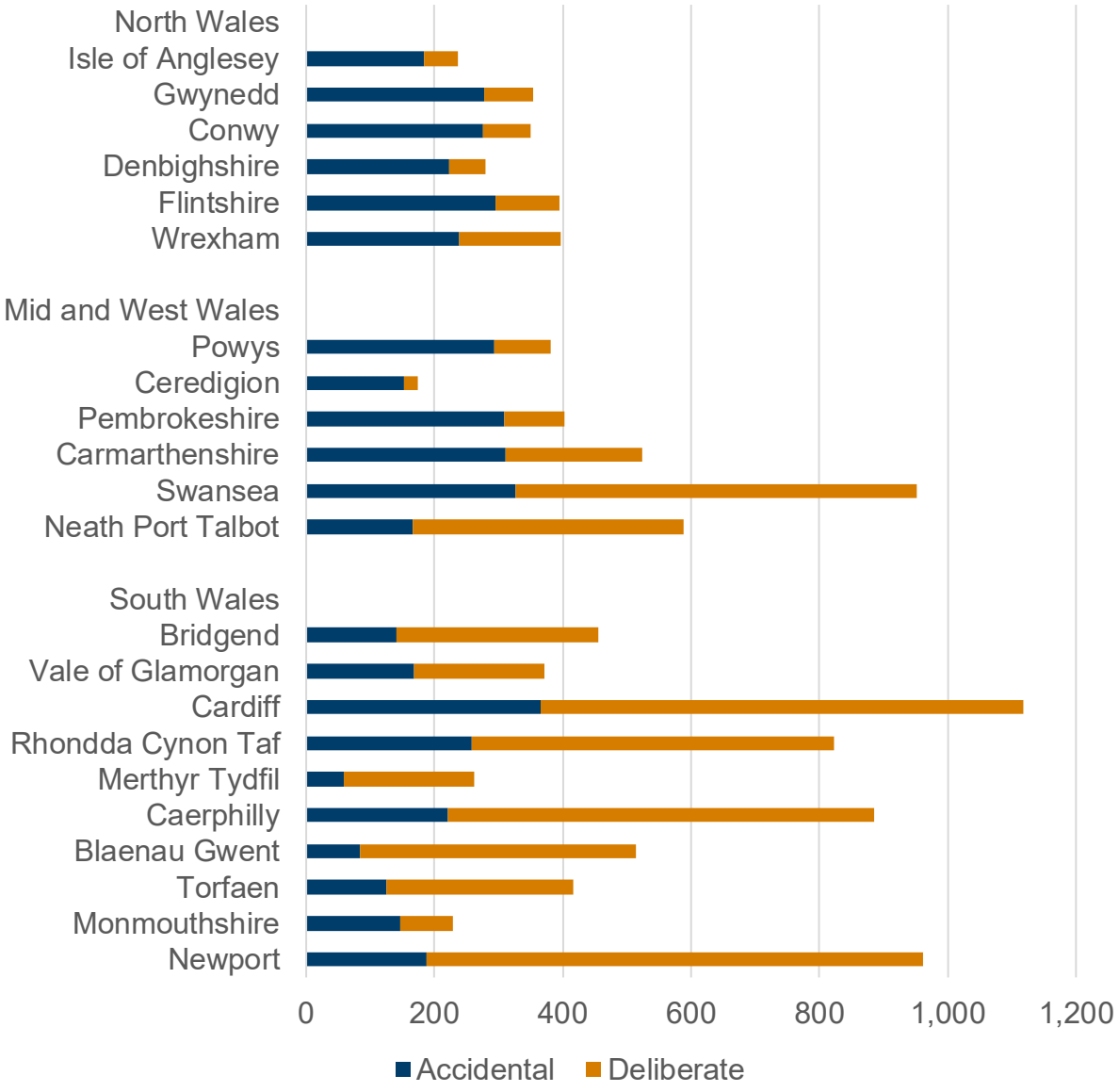


Description of Figure 11: a line chart showing a time series since 2001-02 of primary accidental, primary deliberate, secondary accidental and secondary deliberate fires. Numbers of deliberate secondary fires have been prone to fluctuation, whilst the other categories shown are less volatile.

[Note 1] 2021-22 data revised.

[p] Provisional data.

Figure 12: Number of accidental and deliberate fires by Local Authority 2022-23 [p]



Description of Figure 12: The chart shows the number of accidental and deliberate fires for each local authority in 2022-23. In those local authorities with high numbers of fires (Cardiff, Newport, Swansea, Caerphilly and Rhondda Cynon Taf), a large proportion were started deliberately.

[p] Provisional data

In 4 local authorities (Blaenau Gwent, Newport, Merthyr Tydfil and Caerphilly) 75% or more of fires were started deliberately (where Blaenau Gwent has the highest percentage at 84%). The local authority with the lowest percentage of fires started deliberately was Ceredigion (12%). 4 LAs in North Wales had the 2nd to 5th lowest percentages started deliberately, Conwy (21%), Denbighshire (21%) and Isle of Anglesey (22%) and Gwynedd (22%).

Accidental fires

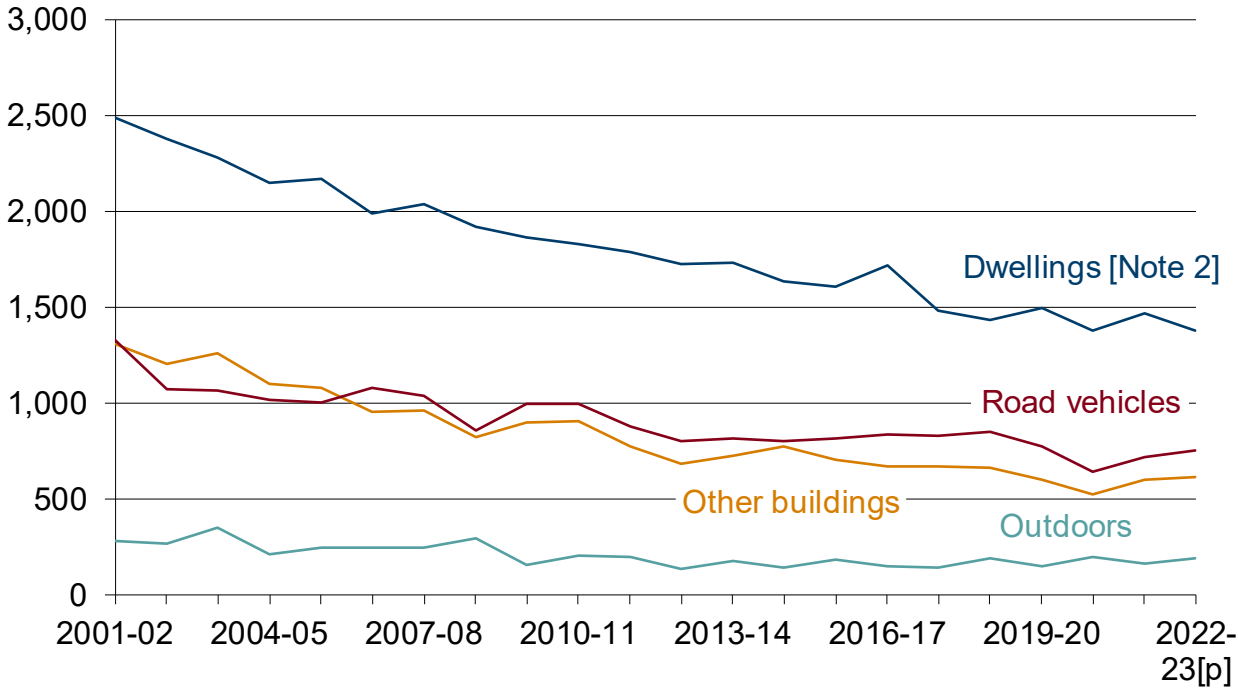
In 2022-23, there were 4,800 accidental fires. While this is a 4% increase compared with 2021-22 this is the fifth lowest number in the available time series (since 2001-02) and directly follows the three years with the lowest numbers. Since 2001-02 the number has fallen by almost 50%. Accidental fires accounted for 43% of all fires attended in 2022-23, around the same proportion as in earlier years. 75% of all primary fires and 23% of secondary fires were accidental. Almost all (99%) chimney fires in 2022-23 were accidental. More data on accidental fires can be found on StatsWales.

In 2022-23 the number of accidental primary fires decreased by 1% (20 fewer fires) whilst there was a 16% increase the number of accidental secondary fires (compared with 2021-22).

A large proportion of accidental primary fires occur in dwellings, equating to between 46% and 52% for each year since 2001-02. The number of accidental dwelling fires fell by 6% to 1,379 in 2022-23; this is the second lowest value in the time series (as can be seen in Figure 13). Since 2001-02 numbers of accidental dwelling fires have fallen by 45%. Most dwelling fires (89%) started accidentally in 2022-23, 3 percentage points lower than in the last 5 years.

Since 2001-02 the number of accidental fires in road vehicles has fallen by 43%, and in 2022-23 the number rose by 4% (compared with the previous year).

Figure 13: Number of accidental primary fires by location, 2001-02 to 2022-23



Description of Figure 13: The line chart shows the number of accidental primary fires in dwellings, other buildings, road vehicles and other outdoor locations, for the years 2001-02 to 2022-23. The chart shows throughout the time series most accidental fires occur in dwellings, and the fewest outdoors.

[Note 1] 2021-22 data revised.

[Note 2] Includes caravans, houseboats and other non-building structures used solely as a permanent dwelling.

[p] Provisional data.

In 2022-23 North Wales and Mid and West Wales saw decreases in the number of accidental primary fires in dwellings compared with the previous year (down 14% and 9% respectively), as shown in table 7. South Wales was the only FRS to see an increase, of 1% (equating to 9 incidents).

Table 7: Number of accidental primary fires in dwellings by Fire and Rescue Authority, 2013-14 to 2022-23 [Note 1] [Note 2]

	North Wales	Mid and West Wales	South Wales	**Wales**
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	327	528	575	**1,430**
2019-20	356	461	681	**1,498**
2020-21	360	410	605	**1,375**
2021-22 [r]	400	453	614	**1,467**
2022-23 [p]	344	412	623	**1,379**
Percentage change 2021-22 to 2022-23	-14%	-9%	1%	-6%

Description of Table 7: The table shows the number of accidental dwelling fires split by fire and rescue authority in Wales, for the years 2013-14 to 2022-23.

[Note 1] Data from 2001-02 onwards are available on StatsWales and in the accompanying Excel tables.

[Note 2] Dwellings include caravans, houseboats and other non-building structures used solely as a permanent dwelling.

[r] Revised data.

[p] Provisional data.

Around a third of accidental dwelling fires occurred between the hours of 5pm and 10pm[10]. Analysis on the cause and source of ignition shows that, cooking appliances were the main source of ignition, being responsible for almost half of the accidental dwelling fires in 2022-23. In 8% of accidental dwelling fires alcohol or drugs were recorded as a contributory factor to the start of the fire.

[10] Data on time of accidental dwelling fires can be found in the StatsWales table 'Fires and casualties by time'

There was a 15% increase in primary accidental outdoor fires from 163 in 2021-22 to 187 in 2022-23; 39% of these fires occurred in Mid and West Wales, 36% occurred in South Wales, and 25% in North Wales.

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.

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[12] (not currently National statistics) for Wales, offences against vehicles fell by 80% and thefts of vehicles fell by 78% between 2002-03 and 2022-23. In 2022-23 there was a 7% increase in thefts of vehicles and 10% increase in all vehicle offences. Deliberate primary fires in road vehicles have seen some fluctuation in recent years; in 2022-23 there was a 14% decrease compared with 2021-22, the third consecutive annual decrease, to the lowest figure in the timeseries (427 fires).

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. In 2019 the three Welsh Fire and Rescue Services came together and designed a character named Sbarc to educate children and members of the public on key messages of Prevention, Detection and Escape and Arson Reduction.

Further information on Arson reduction strategies and programmes can be found on the FRA's websites:

North Wales FRA - Arson Reduction

Mid and West Wales FRA - Reducing Arson

South Wales FRA - Fire setting Intervention scheme and Deliberate fires

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. The Healthy Hillsides project is a Welsh Government-funded partnership programme designed to reduce the impact of wildfires across the South Wales Valleys. This is a

[11] Wales Arson Reduction Strategy
[12] Police Recorded Crime Open data tables

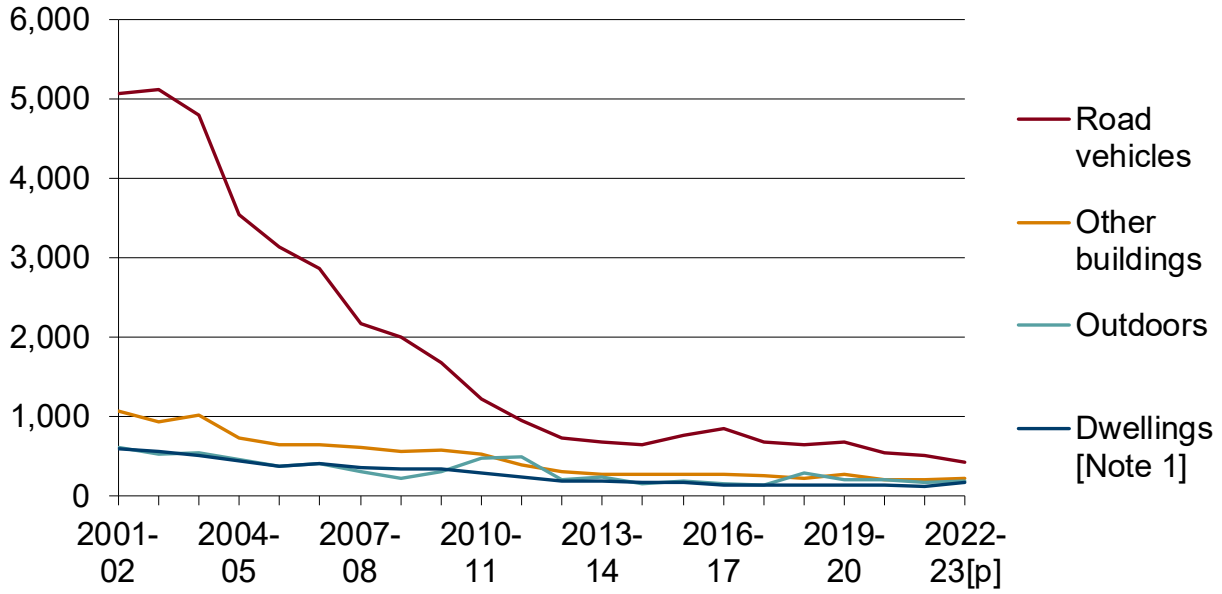
collaborative project, bringing together Natural Resources Wales, along with South Wales Fire and Rescue Service, Rhondda Cynon Taf Council and the Wildlife Trust for South and West Wales.

Grassland, woodland and crop fires continue to be a focus of many of these programmes. In 2022-23 there were 1,805 deliberately set grassland fires, a similar number to that in 2021-22; of these 1,805 fires in 2022-23, 94% were secondary fires.

There were 987 deliberate primary fires in 2022-23, the lowest figure in the time series and the third consecutive annual decrease. The 2022-23 figure is similar to that in 2021-22 but 87% lower than in 2001-02. Deliberate primary fires accounted for a quarter of all primary fires in 2022-23.

While 43% of all deliberate primary fires in 2022-23 occurred in road vehicles, the numbers of such fires have reduced substantially since 2001-02 (by 92%).

Figure 14: Number of deliberate primary fires by location, 2001-02 to 2022-23



Description of Figure 14: The line chart shows the number of deliberate primary fires in dwellings, other buildings, road vehicles and other outdoor locations, for the years 2001-02 to 2022-23. The chart shows the large reduction in deliberate fires which occurred in road vehicles in the years up to 2013-14. However, this is still the largest category of deliberate primary fire.

[Note 1] Includes caravans, houseboats and other non-building structures used solely as a permanent dwelling.

[p] Provisional data.

In 2022-23, there were 5,277 deliberate secondary fires, an increase of 3% on the previous year. This equates to 77% of secondary fires being set deliberately.

53% of all deliberate secondary fires were classed as ‘Other outdoors (including land)’ in 2022-23, the same proportion as in 2021-22. The majority of these fires (93%) occurred on loose refuse.

Table 8: Number of deliberate secondary fires by location, 2018-19 to 2022-23 [Note 1]

	2018-19	2019-20	2020-21	2021-22 [r]	2022-23 [p]
Derelict building	71	97	69	88	103
Derelict road vehicle	36	22	15	24	18
Outdoor	6,155	4,673	4,743	5,014	5,156
Grassland, woodland and crops	2,686	1,604	1,520	1,720	1,699
Outdoor structures	574	575	490	587	646
Outdoor equipment and machinery	4	5	7	8	6
Other outdoors (including land) [Note 2]	2,891	2,489	2,726	2,699	2,804
All deliberate secondary fires	**6,262**	**4,792**	**4,827**	**5,126**	**5,277**

Description of Table 7: The table shows the number of deliberate secondary fires in derelict buildings, derelict road vehicles and further breaks down outdoor fires into the categories 'grassland, woodland and crops', 'Outdoor structures', 'Outdoor equipment and machinery' and 'Other outdoors (including land)'.

Years shown are 2018-19 to 2022-23.

[Note 1] Fires in non-derelict buildings, non-derelict road vehicles and non-derelict transport vehicles are primary fires.

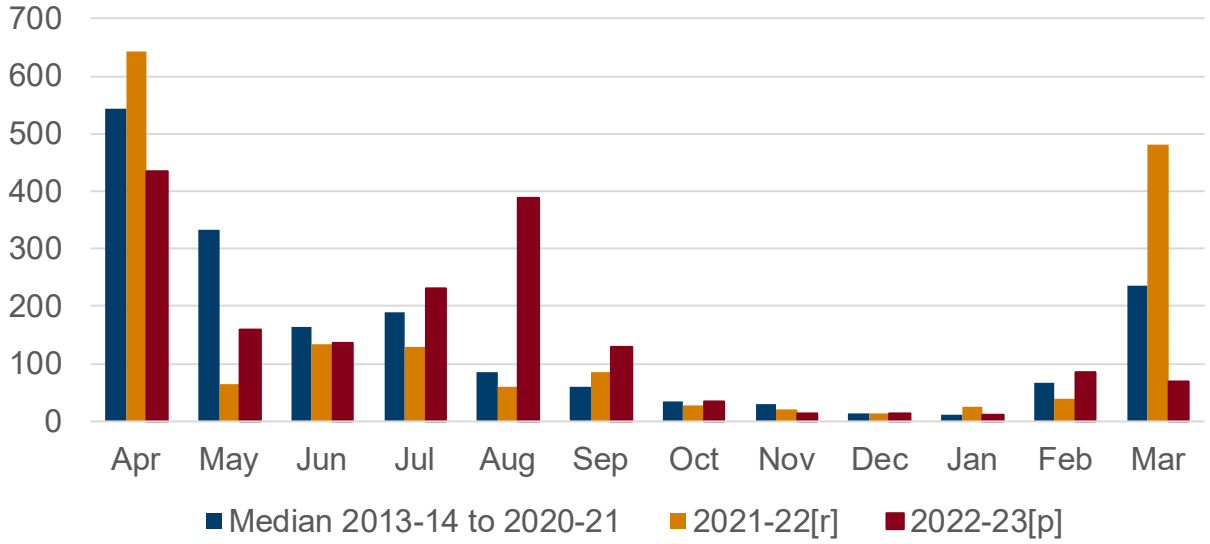
[Note 2] Other outdoors includes the following locations: loose refuse, river/canal, lake/pond/reservoir, sea, road surface/pavement, railway, airfield/runway, cycle path/public footpath/bridleway, cemetery, park, beach, landfill site, wasteland, mines and quarries (excluding buildings above ground), golf course, playground (excluding equipment)/recreational area.

[r] Revised data.

[p] Provisional data.

Fires on grassland, woodland or crops accounted for 32% of deliberate secondary fires in 2022-23 and numbers of these fires fell slightly compared with the previous year.

Figure 15: Number of deliberate secondary grassland, woodland and crop fires by month, median 2013-14 to 2020-21 and 2021-22 to 2022-23



Description of Figure 15: The chart shows the number of deliberate secondary grassland, woodland and crop fires occurring each month, along with the median for each month over the period 2013-14 to 2020-21. The chart shows the peak for these fires regularly occurs in April whilst other spring and summer months may be more prone to fluctuation.

[r] Revised data.

[p] Provisional data.

August 2022 (in the financial year 2022-23) saw far more than previous Augusts, more than 6 times as many as in August 2021, and accounted for 23% of these fires in 2022-23.

March is often one of the months when high numbers of these fires take place, but March 2023 saw a fall of 86% compared with the March 2022 to the second lowest in the time series.

Figure 15 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.

The Met Office data shows that August 2022 (in financial year 2022-23) had the most hours of sunshine (for August) since 1995 (in 1995-96) and the least amount of rainfall for August since 2003 (2003-04).

March 2023 (in 2022-23) saw the fewest hours of sunshine since 1936 (in 1935-36) and the most rainfall since 1981 (1980-81).

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 14 fatal casualties during 2022-23 (see table 9). This is the lowest figure in the time series and 7 fewer than in the previous year, the result of there being no fatalities in North Wales in the year. The overall trend since 2001-02 (when there were 38 fatalities) has been downward, however numbers are small and prone to fluctuation (see figure 16).

Table 9: Number of fatal casualties from fires by Fire and Rescue Authority, 2013-14 to 2022-23 [Note 1]

	North Wales	Mid and West Wales	South Wales	Wales
2013-14	3	8	6	**17**
2014-15	5	8	7	**20**
2015-16	6	4	9	**19**
2016-17	5	7	7	**19**
2017-18	2	11	2	**15**
2018-19	8	7	5	**20**
2019-20	4	3	9	**16**
2020-21	7	4	10	**21**
2021-22	7	6	8	**21**
2022-23 [p]	0	8	6	**14**

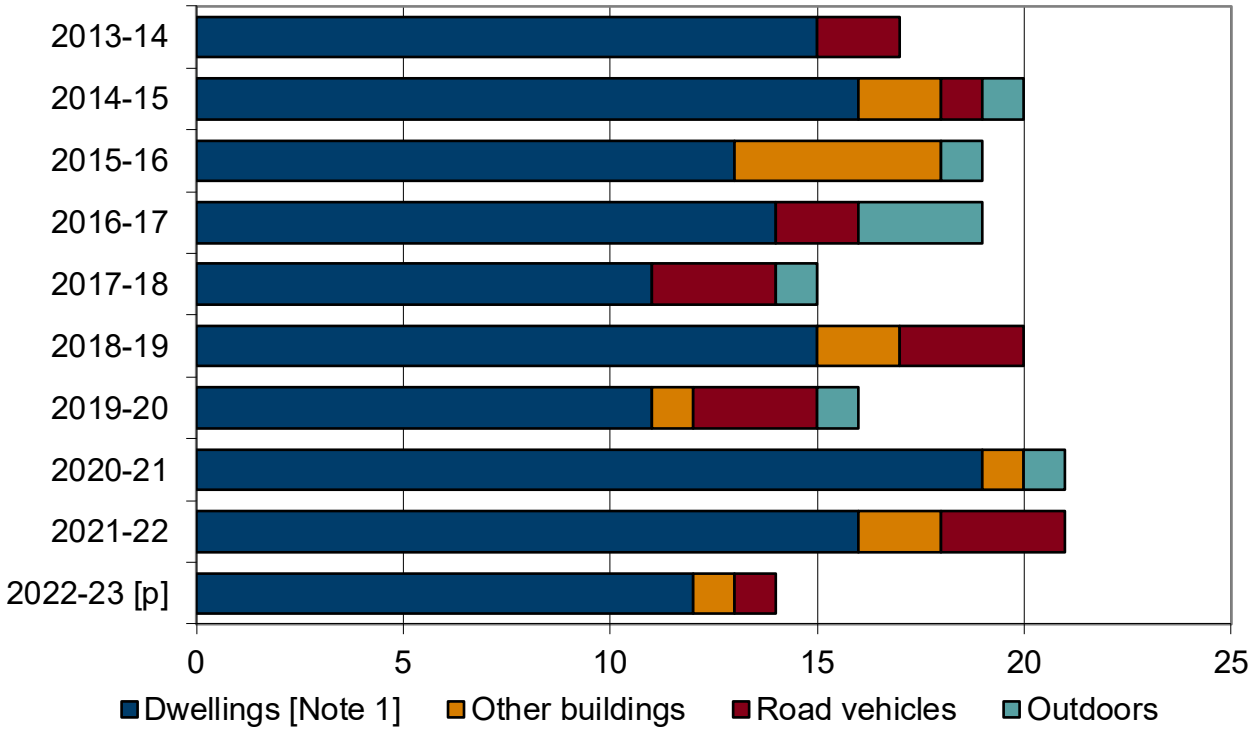
Description of Table 9: The table shows the number of fatal casualties, for each fire and rescue authority in Wales. Data relates to years 2013-14 to 2022-23.

[Note 1] Numbers of fatalities from 2001-02 onwards are available on StatsWales and in the accompanying Excel tables.

[p] Provisional data.

Since 2001-02, 77% of fatal casualties occurred in dwelling fires, equating to a total of 370 out of 478 fatalities. In 2022-23 12 fatalities (86%) were the result of dwelling fires; there were 4 fewer dwelling fatalities than in the previous year.

Figure 16: Number of fatal casualties from fires by location, 2013-14 to 2022-23



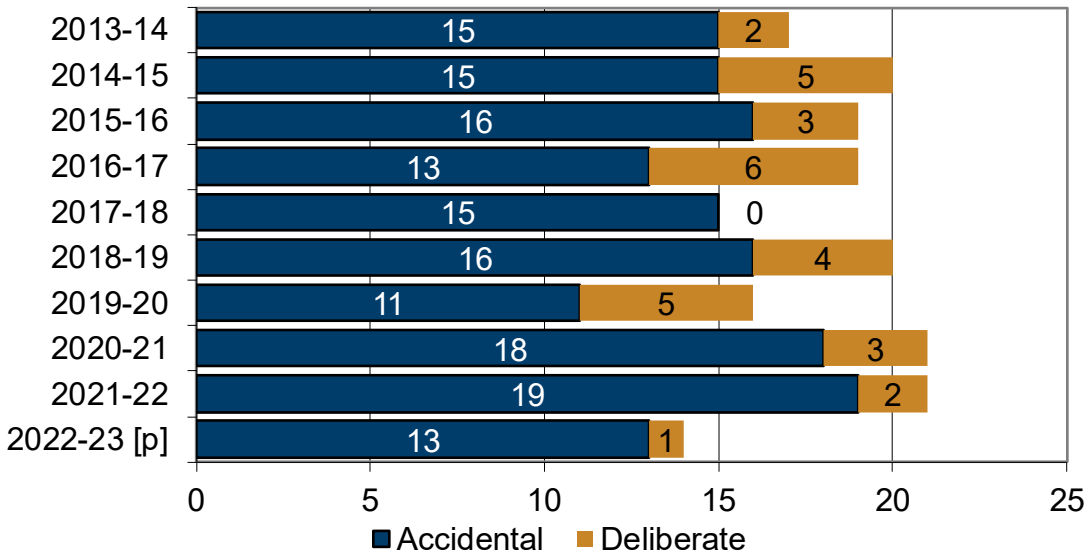
Description of Figure 16: Bar chart showing the number of fatal casualties from fires attended by Welsh Fire and Rescue Services, by location (dwellings, other buildings, road vehicles, outdoors). Years 2012-13 to 2022-23. The chart shows most fatalities occur in dwellings, but due to small numbers all categories are prone to fluctuation.

[Note 1] Includes caravans, houseboats and other non-building structures used solely as a permanent dwelling.

[p] Provisional data.

13 of the fatalities in 2022-23 were the result of accidental fires, 11 of which occurred in dwellings.

Figure 17: Number of fatal casualties from fires by motive



Description of Figure 17: Bar chart showing numbers of fatalities from fires attended by Welsh Fire and Rescue Services, by motive (accidental or deliberate). Years 2013-14 to 2022-23.

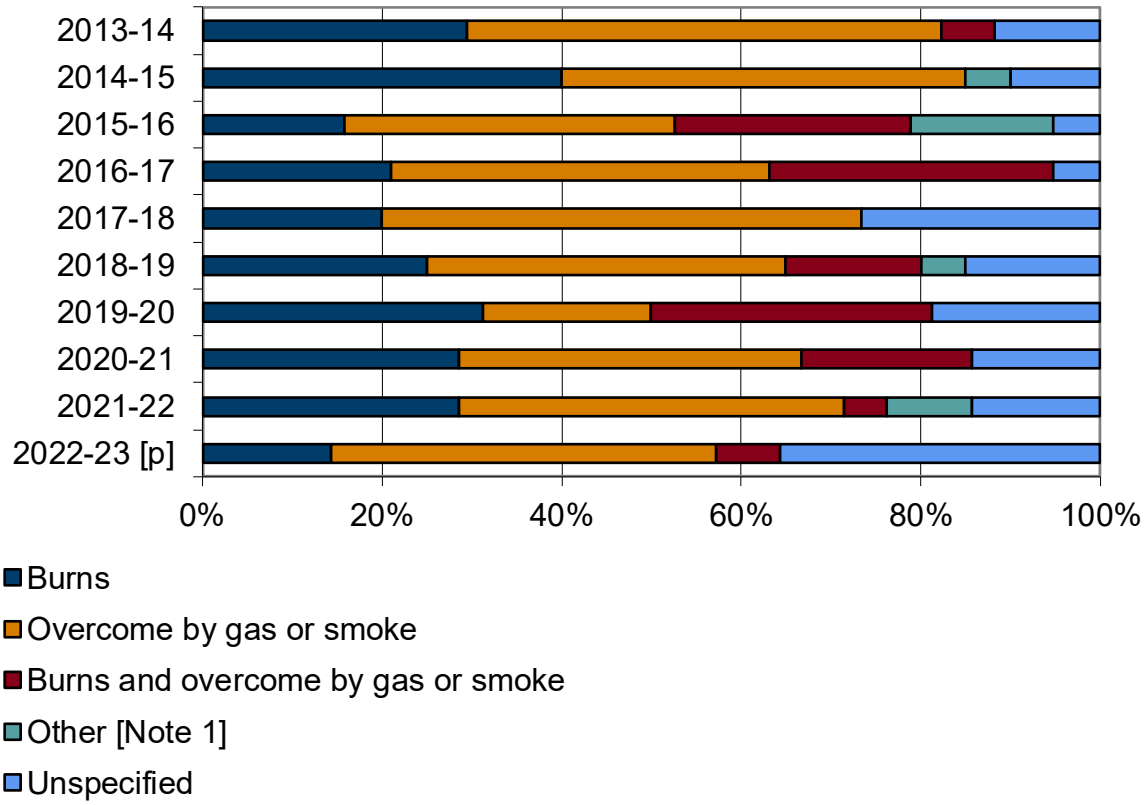
The chart shows the majority of fatalities occur in accidental fires.

[p] Provisional data.

For the majority of fatalities in the available time series (since 2001-02) only three causes of death from fires in Wales have been recorded, those being overcome with smoke or gas (6 fatalities in 2022-23), burns (2 fatalities in 2022-23), and a combination of the two (1 fatality in 2022-23). In addition to these causes, in 2022-23 there were a further 5 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 44% of fatalities, ‘burns’ accounted for 23% of fatalities and a combination of the two caused 18% of fatalities.

Figure 18: Percentage of fatal casualties by cause of death, 2013-14 to 2022-23



Description of Figure 18: Chart showing the proportion of fatalities from fires, by cause of death (burns' overcome by gas or smoke, a combination of burns and overcome by gas or smoke, other).

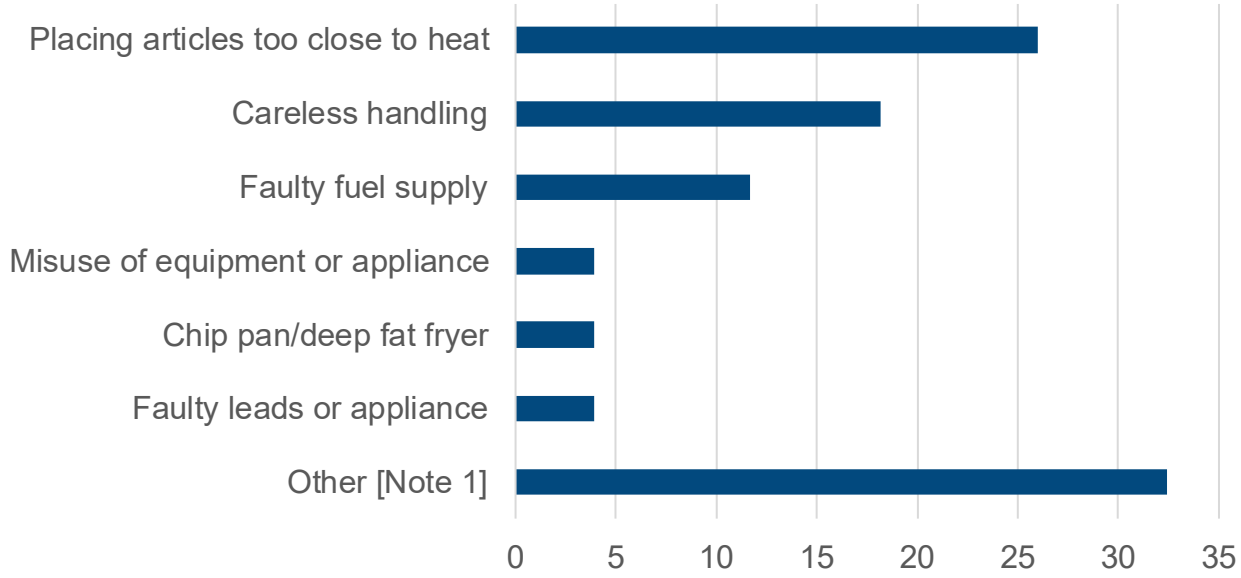
The chart shows the proportion in each category varies from year to year.

[Note 1] Other includes cardiac arrests and other physical injuries.

[p] Provisional data.

Of the 392 fatalities occurring in accidental fires from 2001-02 to 2022-23, 33% died in fires where the cause of the fire was recorded as ‘careless handling’. Looking at the last 5 years only, this proportion is 18%, although the proportion with causes listed as ‘other’ has increased, in many cases the fire is still being investigated.

Figure 19: Percentage of fatal accidental fires by cause in the last 5 years (2018-19 to 2022-23)



Description of Figure 19: Chart showing the percentage of fatal accidental fires by cause, aggregated for the last five years (2018-19 to 2022-23).

'Placing articles too close to heat source' makes up the single biggest cause of fatal fires over this period.

[Note 1] 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 2022-23 there were 422 non-fatal casualties, a fall of 12% (and equating to 57 fewer more casualties) compared with 2021-22. The overall trend over the last ten years has been downward. This is the case in North Wales and Mid and West Wales, however, over the same period numbers of non-fatal casualties in South Wales has risen, by 38% compared with 2013-14. In 2022-23 all 3 FRAs in Wales saw a fall in the number of non-fatal casualties compared to 2021-22.

Table 10: Number of non-fatal casualties from fires by Fire and Rescue Authority, 2013-14 to 2022-23 [Note 1]

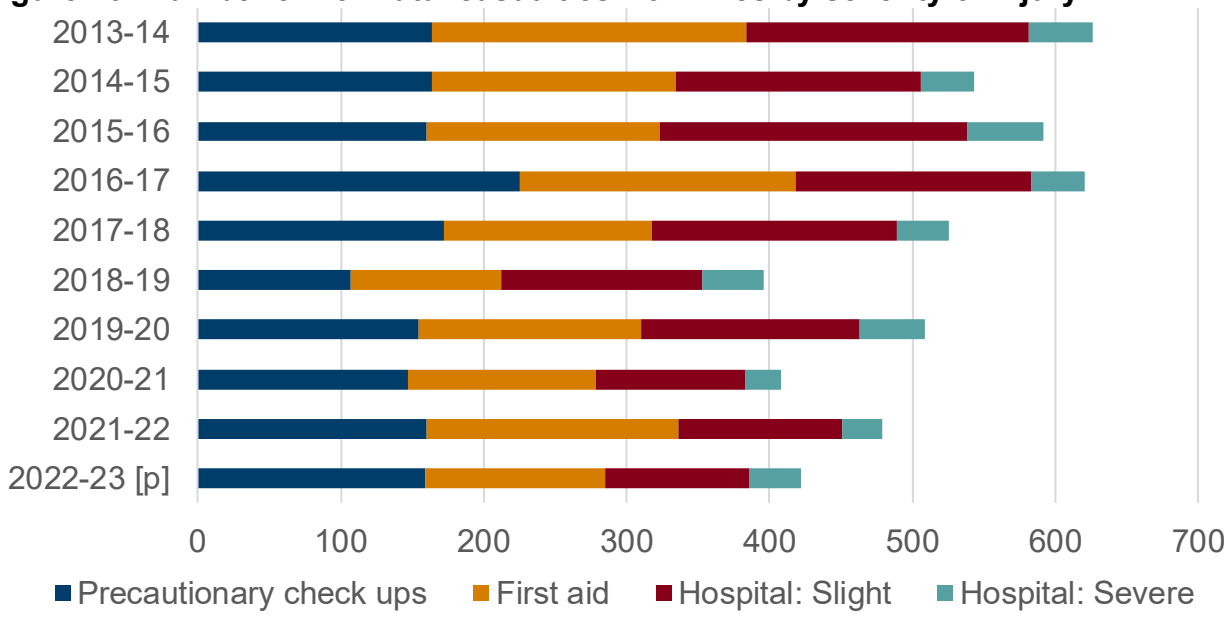
	North Wales	Mid and West Wales	South Wales	Wales
2013-14	276	167	183	**626**
2014-15	194	194	155	**543**
2015-16	213	177	202	**592**
2016-17	194	153	274	**621**
2017-18	156	144	226	**526**
2018-19	117	118	161	**396**
2019-20	139	104	266	**509**
2020-21	125	70	213	**408**
2021-22	141	79	259	**479**
2022-23 [p]	105	64	253	**422**

Description of Table 10: Table showing numbers and rates (per million population) of non-fatal casualties from fires attended by Welsh Fire and Rescue Services. Years 2013-14 to 2022-23.

[Note 1] Numbers of non-fatal casualties from 2001-02 onwards are available on StatsWales and in the accompanying Excel tables.

[p] Provisional data.

Figure 20: Number of non-fatal casualties from fires by severity of injury



Description of Figure 20: Bar chart showing the number of non-fatal casualties from fires by severity of injury. Data relates to 2013-14 to 2022-23.

The chart shows the number of casualties sent to hospital has reduced over the period. Those sent for precautionary checks or receiving first aid, whilst still making up the greater proportion of non-fatal casualties has also decreased.

[p] Provisional data.

Most casualty groups saw a decrease compared with the previous year, the largest decrease being in those receiving first aid or precautionary checks (down 15%).

In 2022-23, 68% of non-fatal casualties received first aid or were advised to have a precautionary check-up. Almost a third of non-fatal casualties went to hospital, this can be further broken down into to those who had slight injuries (24% of non-fatal casualties) those with severe injuries (9% of non-fatal casualties).

Of the 422 non-fatal casualties in 2022-23, 393 (78%) were the result of in dwelling fires, 49 (12%) in other buildings, 28 (7%) from road vehicle fires and 17 (4%) in outdoor fires.

Most non-fatal casualties (87%) were from accidental fires and 69% were the result of accidental dwelling fires.

Cooking (excluding chip pans) was responsible for 88 non-fatal casualties in accidental fires in 2022-23; as in other years this was the largest single cause of non-fatal casualties in accidental fires in 2022-23 (24%). Chip pan related casualties accounted for a further 12% of those in accidental fires.

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

In 2022-23, 137 non-fatal casualties were sent to hospital, a decrease of 4% (6 casualties) compared with the previous year. Of these 137 non-fatal casualties, 85% were from accidental fires and 61% occurred in accidental fires in dwellings.

101 casualties (74%) 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 69 non-fatal casualties and half of those sent to hospital. This has been the most common injury for casualties sent to hospital since 2009-10, accounting for 44% of all non-fatal casualties sent to hospital since this time. There were 35 casualties in 2022-23 with burns, accounting for 26% of those sent to hospital.

Rescues from fires

In 2022-23, 161 people were rescued from fires, 61 (38%) of whom were not injured, 6 were fatalities (rescued but later died from fire-related injuries) and 94 were non-fatal casualties. In total this is a 10% decrease in the number of rescues compared with the previous year, and the second lowest number in the available time series (from 2009-10).

In 2022-23, the majority (85%) of rescues (including those injured) from fires were from dwelling fires, a further 7% were rescued from other buildings, 6% from road vehicles and 2% were rescued from outdoor locations.

Table 11: Number of casualties and rescues by location, 2020-21 to 2022-23

	Dwelling	Other building	Road vehicle	Outdoors	**All**
2020-21					
Fatalities	19	1	0	1	**0**
Fatalities - rescued	9	0	0	0	**9**
Non-fatal casualties [Note 1]	332	33	29	14	**408**
Non-fatal casualties rescued	74	4	2	0	**80**
Rescued (non-injured)	43	13	0	0	**56**
Total rescued	126	17	2	0	**145**
2021-22					
Fatalities	16	2	3	0	**0**
Fatalities - rescued	11	1	0	0	**12**
Non-fatal casualties [Note 1]	393	46	23	17	**479**
Non-fatal casualties rescued	87	5	5	1	**98**
Rescued (non-injured)	57	11	1	0	**69**
Total rescued	155	17	6	1	**179**
2022-23 [p]					
Fatalities	12	1	1	0	**14**
Fatalities - rescued	6	0	0	0	**6**
Non-fatal casualties [Note 1]	328	49	28	17	**422**
Non-fatal casualties rescued	79	9	5	1	**94**
Rescued (non-injured)	52	3	4	2	**61**
Total rescued	137	12	9	3	**161**

Description of Table 11: Table showing rescues, fatalities and non-fatal casualties by location, years 2020-21 to 2022-23.

[Note 1] Includes casualties where it is unknown whether they were rescued.

[p] Provisional data.

In 2022-23, 55% of those rescued were male, compared with 42% recorded as female (5 rescues did not have their sex recorded). 29% of those rescued were aged 60 or over and 34% were aged between 30 and 59.

52% of those rescued and had no injury were male. People aged 30-59 accounted for 34% of those who were rescued but not injured, a further 21% were aged 60 or over. 21% of those rescued but not injured, the age was not known.

Table 12: Number of casualties and rescues by sex and age, 2020-21 to 2022-23

	Male	Female	0 to 16	17 to 29	30 to 59	60 or over	**All [Note 1]**
2020-21							
Fatalities	9	12	0	0	3	18	**21**
Fatalities - rescued	4	5	0	0	1	8	**9**
Non-fatal casualties [Note 2]	223	178	22	49	148	128	**408**
Non-fatal casualties rescued	46	34	5	3	27	36	**80**
Rescued (non-injured)	40	14	3	4	22	10	**56**
Total rescued	90	53	8	7	50	54	**145**
2021-22							
Fatalities	12	9	0	1	5	13	**21**
Fatalities - rescued	6	6	0	1	3	8	**12**
Non-fatal casualties [Note 2]	268	190	37	43	154	143	**479**
Non-fatal casualties rescued	45	53	5	5	30	45	**98**
Rescued (non-injured)	43	25	9	11	15	14	**69**
Total rescued	94	84	14	17	48	67	**179**
2022-23 [p]							
Fatalities	7	7	0	0	5	7	**14**
Fatalities - rescued	1	5	0	0	3	3	**6**
Non-fatal casualties [Note 2]	232	174	40	56	156	99	**422**
Non-fatal casualties rescued	55	36	8	15	30	30	**94**
Rescued (non-injured)	32	27	10	4	21	13	**61**
Total rescued	88	68	18	19	54	46	**161**

Description of Table 12: Table showing numbers of rescues and casualties, by sex and age band. Years 2020-21 to 2022-23.

[Note 1] Includes those whose sex and/or age was unknown or not specified.

[Note 2] 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

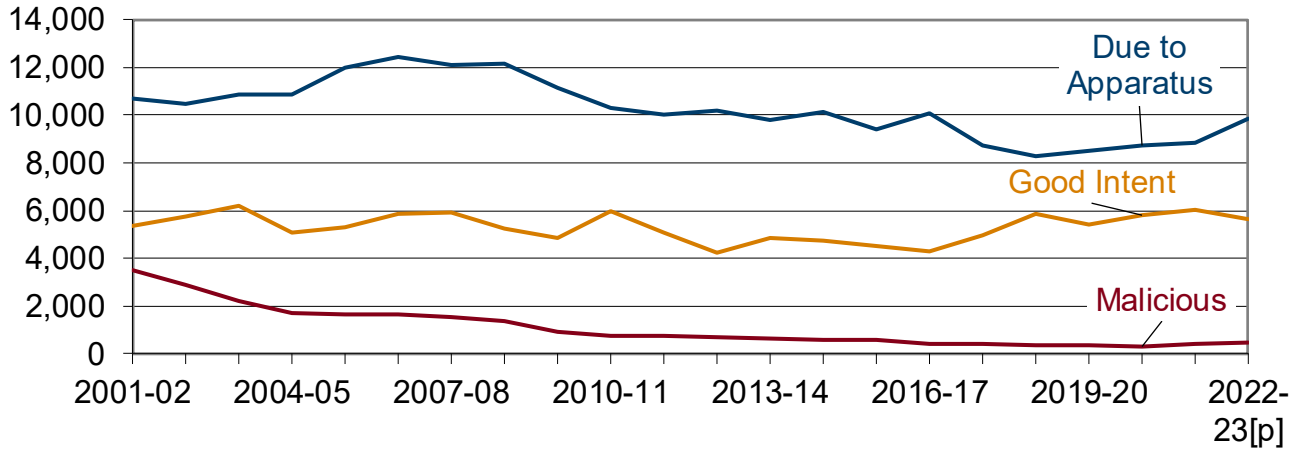
Good intent - in which the call was made in good faith in the belief that there was a fire to attend

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

In 2022-23 there were 16,008 fire false alarms in Wales. This is a 4% increase since 2021-22 and the highest number recorded since 2010-11. Overall, since 2001-02 the number of fire false alarms attended has fallen by 18% when there were almost 20,000 fire false alarms. FRAs suggest successful call challenging is a factor in this long-term fall (information taken from internal call logging systems).

Numbers of good intent fire false alarms fell by 7%, those due to apparatus rose by 12% whilst malicious fire false alarms rose by 17% in 2022-23 compared with 2021-22.

Figure 21: Number of fire false alarms by reason, 2001-02 to 2022-23 [Note 1]



Description of Figure 21: Line chart showing numbers of false alarms from 2001-02 to 2022-23, by type (malicious, due to apparatus or due to good intent).

The chart shows most fire false alarms are due to apparatus. Numbers of these false alarms have seen a general downward trend since 2010-11, but since 2018-19 numbers have started to rise.

Numbers of malicious fire false alarms have seen a more obvious downward trend overall but most recently have increased for 2 consecutive years.

[Note 1] 2021-22 data revised.

[p] Provisional data.

Overall, there has been a downward trend in the number of malicious fire false alarms, falling by 86% since 2001-02. Throughout the time series there have only been 5 year on year increases, 3 of which occurred in the last 4 years. The increase in 2022-23 takes numbers of malicious fire false alarms to their highest level since 2015-16. All 3 FRAs saw a rise in the number of malicious fire false alarms in 2022-23 compared with 2021-22; in North Wales numbers rose by 21%, in Mid and West Wales there was an increase of 18% and in South Wales there was a 15% rise.

Table 13: Number of malicious fire false alarms by Fire and Rescue Authority, 2013-14 to 2022-23 [Note 1]

	North Wales	Mid and West Wales	South Wales	**Wales**
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	41	101	230	**372**
2019-20	41	110	224	**375**
2020-21	40	74	207	**321**
2021-22	43	126	257	**426**
2022-23 [p]	52	149	296	**497**
Percentage change 2021-22 to 2022-23	21%	18%	15%	17%

Description of Table 13: Table showing numbers of malicious false alarms, by Fire and Rescue Area. Years 2013-14 to 2022-23.

[Note 1]: Data from 2001-02 onwards are available on StatsWales and in the accompanying Excel tables.

[p] Provisional data.

Table 14: Number of fire false alarms by location and reason, 2018-19 to 2022-23

	2018-19	2019-20	2020-21	2021-22[r]	2022-23[p]
Dwellings [Note 1]	**5,799**	**6,127**	**6,255**	**6,737**	**7,096**
Fire alarm due to apparatus	3,322	3,641	3,933	3,836	4,243
Good intent false alarm	2,315	2,318	2,128	2,689	2,598
Malicious	162	168	194	212	255
Other buildings	**5,602**	**5,478**	**5,264**	**5,675**	**6,290**
Fire alarm due to apparatus	4,932	4,841	4,809	4,988	5,603
Good intent false alarm	526	494	374	527	506
Malicious	144	143	81	160	181
Road vehicles	**351**	**297**	**246**	**317**	**286**
Fire alarm due to apparatus	2	1	1	1	1
Good intent false alarm	344	290	240	308	279
Malicious	5	6	5	8	6
Outdoors	**2,733**	**2,379**	**3,114**	**2,590**	**2,336**
Fire alarm due to apparatus	2	1	5	5	5
Good intent false alarm	2,670	2,320	3,068	2,539	2,276
Malicious	61	58	41	46	55

Description of Table 14: Table showing numbers of false alarms, by location and type (malicious, due to apparatus or due to good intent). Years 2018-19 to 2022-23.

[Note 1] Includes caravans, houseboats and other non-building structures used solely as a permanent dwelling.

[r] Revised data.

[p] Provisional data.

Of the 16,008 fire false alarms in 2022-23, 44% (7,096) related to dwellings; of these 60% were due to apparatus and 37% were raised with good intent.

There were 6,290 fire false alarms in buildings other than dwellings in 2022-23, an increase of 11% compared with 2021-22. This equates to 39% of fire false alarms in 2022-23 and the majority of these (89%) were due to apparatus. A breakdown of more detailed reasons is given in table 15.

Numbers of fire false alarms at outdoor locations fell by 10%. Most (97%) fire false alarms at outdoor locations were due to good intent, and these were mainly (64%) as a result of controlled burning.

Numbers of fire false alarms related to road vehicles fell by 10%.

In April 2015 North Wales FRA introduced a new strategy which meant they didn't automatically attend Automatic Fire Alarm Systems (AFA) [13] in non-domestic properties. This led to a 78% 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). Following this, numbers have fluctuated but have remained under 370 call outs, compared with over 1,200 in 2015-16. The most recent

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

data shows an increase of 24% compared with 2021-22 (but still less than a third of the number seen in 2014-15). Mid and West Wales and South Wales also saw increases (5% and 15% respectively) compared with 2021-22.

Table 15: Number of fire false alarms due to apparatus in buildings by detailed reason, 2018-19 to 2022-23

	2018-19	2019-20	2020-21	2021-22	2022-23[p]
Dwellings [Note 1]	**3,322**	**3,641**	**3,933**	**3,836**	**4,243**
Contaminants	321	366	355	328	370
External factors	34	34	48	41	61
Human	1,533	1,781	2,032	2,214	2,459
Accidentally/carelessly set off	*179*	*185*	*195*	*233*	*233*
Cooking/burnt toast	*1,064*	*1,256*	*1,418*	*1,532*	*1,691*
Smoking	*139*	*214*	*237*	*250*	*280*
Testing	*97*	*76*	*131*	*152*	*190*
Other	*54*	*50*	*51*	*47*	*65*
System: smoke alarm	940	903	859	675	650
System: other [Note 2]	364	375	412	364	437
Animal	5	5	6	5	7
Unknown	125	177	221	209	259
Other buildings	**4,932**	**4,841**	**4,809**	**4,988**	**5,603**
Contaminants	1,056	961	803	873	921
External factors	103	96	86	113	113
Human	1,631	1,446	1,213	1,452	1,789
Accidentally/carelessly set off	*535*	*481*	*375*	*478*	*525*
Cooking/burnt toast	*561*	*497*	*378*	*417*	*588*
Smoking	*129*	*123*	*84*	*116*	*188*
Testing	*372*	*305*	*350*	*389*	*404*
Other	*34*	*40*	*26*	*52*	*84*
System: smoke alarm	1,026	1,131	1,253	1,108	1,169
System: other [Note 2]	651	600	738	628	798
Animal	23	20	23	27	20
Unknown	442	587	693	787	793

Description of Table 15: Table showing numbers of false alarms due to apparatus (in buildings) by reason.

[Note 1] Includes caravans, houseboats and other non-building structures used solely as a permanent dwelling.

[Note 2] Includes heat, sprinkler, flame and other unspecified systems.

[p] Provisional data.

In 2022-23, 43% of fire false alarms due to apparatus (in buildings) were the result of human causes, with cooking causing more than 2,200 of these fire false alarms (nearly a quarter of fire

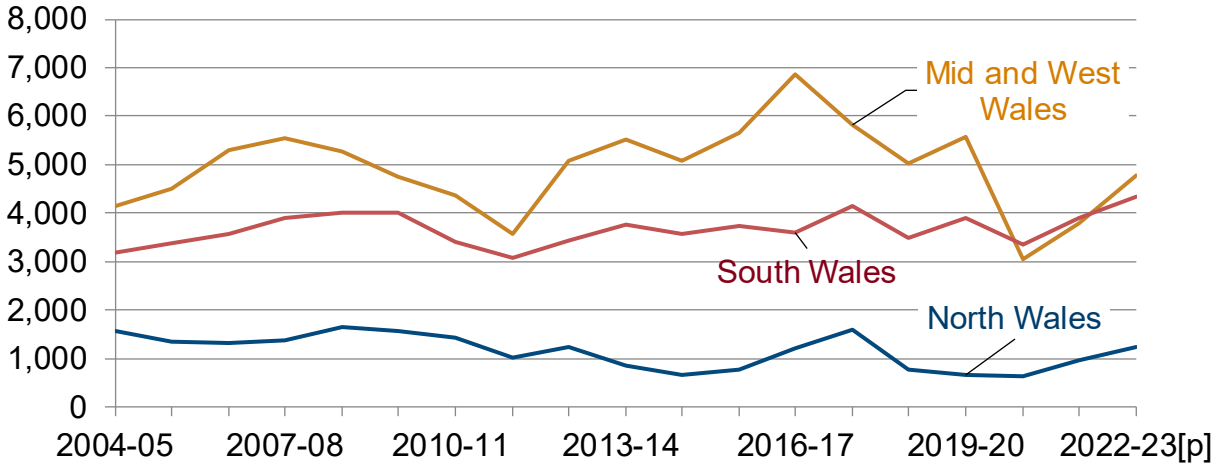
false alarms due to apparatus). Human factors triggered a greater proportion of fire false alarms in dwellings than in other buildings (58% and 32% respectively).

Of those fire false alarms in buildings which were due to apparatus, 31% were the result of problems with safety systems (faulty, damaged, poorly maintained and poorly sited). A further 13% 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 16% of fire false alarms due to apparatus, but 9% of those in dwellings.

Special service incidents

In 2022-23, 28% 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 and are prone to fluctuation.

Figure 22: Number of SSIs attended by Fire and Rescue Authority, 2004-05 to 2022-23 [Note 1]



Description of Figure 22: Chart showing numbers of special service incidents, by fire and rescue authority. Data relates to the years 2004-05 to 2022-23.

The chart shows throughout the time series that North Wales attend the fewest SSIs and in the last three years Mid and West Wales and South Wales have attended similar numbers of SSIs. Numbers of SSIs fell sharply at the height of the COVID-19 pandemic in 2020-21, particularly in Mid and West Wales but have since risen to pre-pandemic levels.

[Note 1] 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 Incident Recording System (IRS).

[p] Provisional data.

Overall attendance at SSIs increased by 19% in 2022-23; all 3 FRAs saw increases in attendances at SSIs, rising by 28% in North Wales, 26% in Mid and West Wales and 11% in South Wales.

In 2022-23 most categories of SSIs saw an increase in numbers, the exception being 'making safe' which saw a 63% decrease. The largest increases were at attendances as medical first or co-responder (more than double the number in the previous year) and flooding incidents (up 34%)

RTCs accounted for almost fifth of SSIs and attendance at these incidents rose by 6%.

Road traffic data[14] for Wales (published by the Department for Transport) for year ending Dec 2022 showed a 10% increase compared with 2021 and is nearing the figures seen in 2019 before the

[14] Road traffic estimates Great Britain

COVID-19 pandemic. However, there is evidence to suggest many employees are continuing to work from home[15] and so traffic volumes may not be as high as in previous years.

Table 16: Number of SSIs by type, 2018-19 to 2022-23

	2018-19	2019-20	2020-21	2021-22[r]	2022-23[p]
Road traffic collision	2,202	2,122	1,278	1,759	1,856
Flooding	571	993	876	490	658
Rescue or evacuation from water	97	214	147	120	127
Other rescue/release of people	327	322	256	429	480
Animal assistance incidents	305	329	261	306	337
Making Safe	283	346	235	531	194
Lift release	360	359	217	290	285
Effecting entry	563	572	469	678	830
Removal of objects from people	278	276	337	451	472
Medical incident - Co-responder/First responder	1,809	2,117	390	624	1,539
Assist other agencies	1,098	1,034	954	1,339	1,732
Other [Note 1]	870	968	1,023	1,177	1,270
All Special Service Incidents	**8,763**	**9,652**	**6,443**	**8,194**	**9,780**
All Special Service False Alarms	515	473	577	482	573

Description of Table 16: Number of special service incidents attended by fire and rescue services in Wales, by type of incident (e.g. road traffic collision, flooding etc). Data relates to years 2018-19 to 2022-23.

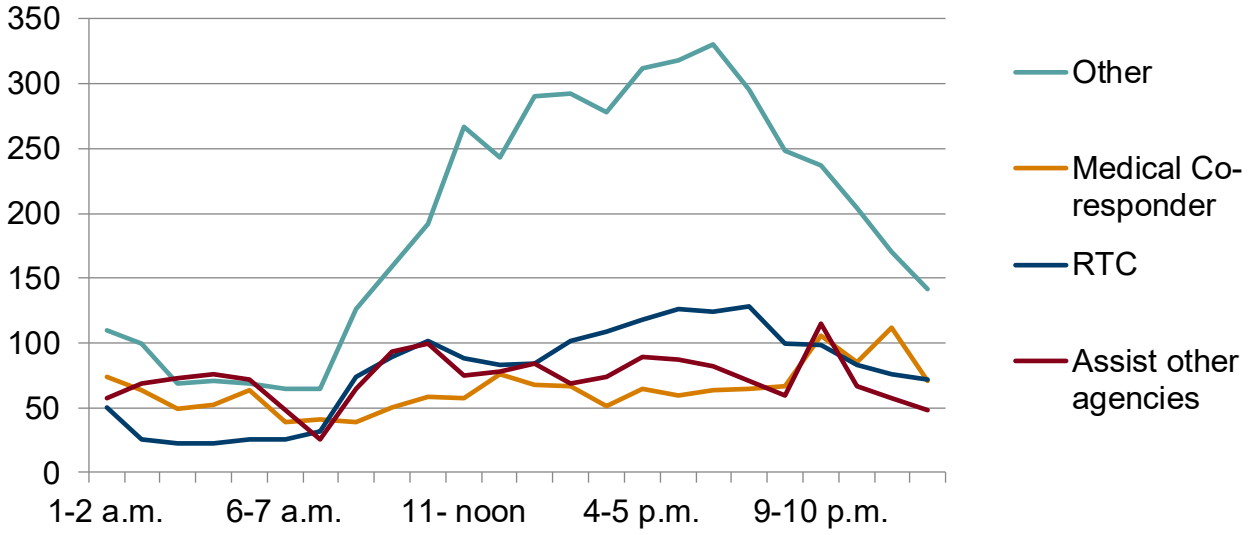
[Note 1] Other includes 'other transport incident', 'hazardous materials incidents', 'spills and leaks', 'suicide/attempted suicide', 'evacuation', 'water provision', 'advice only', 'standby' and 'services not required'.

[r] Revised data.

[p] Provisional data

[15] Is hybrid working here to stay?

Figure 23: Number of RTCs, Medical responder incidents and others attended by time of day, 2022-23 [p]



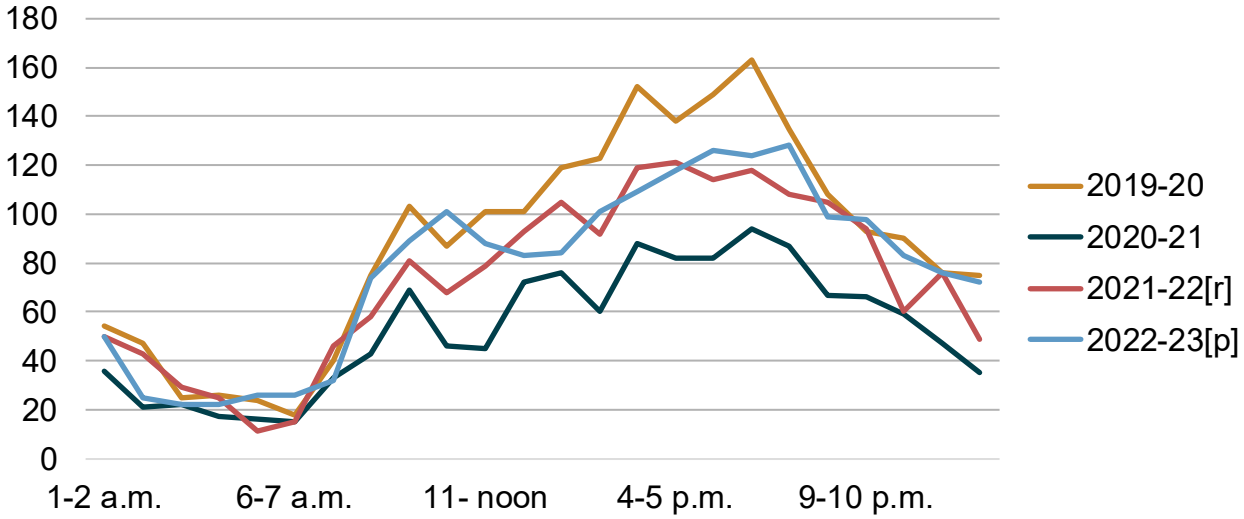
Description of Figure 23: Line chart showing SSIs (RTCs, medical incidents, assisting other agencies and 'other') by time of day for the year 2022-23.

Attendances at SSIs tend to occur more often between 9 a.m. and 9 p.m. with the single largest category being attendances at road traffic collisions.

[p] Provisional data.

During the past three years the line showing numbers of RTCs is flatter than in year prior to the COVID-19 pandemic. This may be expected since, with many working from home and periods of lockdown, there were not the same peaks in traffic at rush hours. The pattern for 2022-23, however, is tending back towards the pre-pandemic pattern.

Figure 24: Number of RTCs attended by time of day, 2019-20 to 2022-23



Description of Figure 24: The chart shows the number of RTCs occurring by time of day for the years 2019-20 to 2022-23. Attendance at RTCs was noticeably higher at peak times in 2019-20.

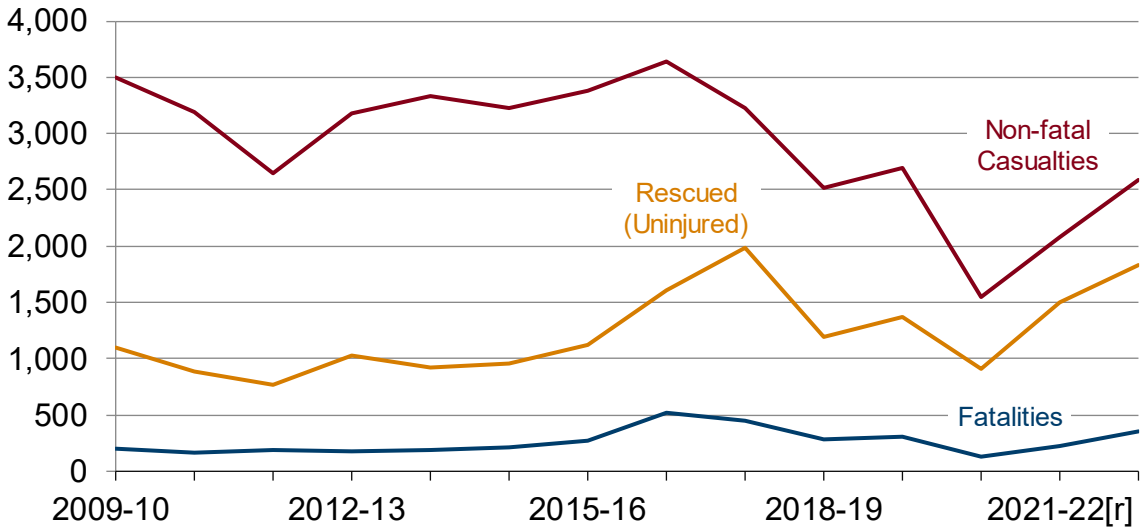
[p] Provisional data

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 2022-23 there were 352 fatalities from SSIs, a 60% increase compared with 2021-22.

46% of SSI fatalities in 2022-23 occurred in medical incidents, compared with 35% in 2021-22 and 6% in 2020-21. 18% of fatalities occurred in incidents where FRAs were assisting other agencies and 14% occurred in RTCs.

There were 2,584 non-fatal casualties from SSIs in 2022-23, a rise of 24% compared with 2021-22. RTCs accounted for 46% of non-fatal casualties in 2022-23 whilst medical incidents accounted for 16%.

Figure 25: Number of SSI related fatalities, non-fatal casualties and rescues, 2009-10 to 2022-23 [Note 1]



Description of Figure 25: The chart shows the number of fatalities, non-fatal casualties and rescues involved in special service incidents for the years 2009-10 to 2022-23.

There has been a noticeable downward trend in the number of non-fatal casualties over the time series. All categories of casualties fell at the height of the COVID-19 pandemic in 2020-21 but have since risen again.

[Note 1] 2022-23 data are provisional.

[r] Revised data

Table 17: Number of SSI related fatalities, non-fatal casualties and rescues, 2013-14 to 2022-23

	All fatalities	Fatalities which were rescued	All non-fatal casualties	Non-fatal casualties which were rescued	Rescued (Uninjured)
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	444	45	3,229	1,010	1,988
2018-19	277	28	2,518	909	1,189
2019-20	301	38	2,689	894	1,368
2020-21	129	29	1,550	742	915
2021-22[r]	220	42	2,078	905	1,502
2022-23[p]	352	36	2,584	1,116	1,830

Description of Table 17: Table shows numbers of fatalities (and the number rescued), non-fatal casualties (and the number rescued) and uninjured rescued people involved in special service incidents. Data relates to the years 2013-14 to 2022-23.

[r] Revised data

[p] Provisional data.

In 2022-23 43% of non-fatal casualties in SSIs were rescued. Of those who were rescued (but uninjured), 18% related to ‘Effecting entry’ incidents and 16% were rescues not related to water.

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. Figure 26, table 18, figure 27 and figure 28 refer to numbers of fires. In these figures and tables, the following hierarchy has been applied to the smoke alarm operation:

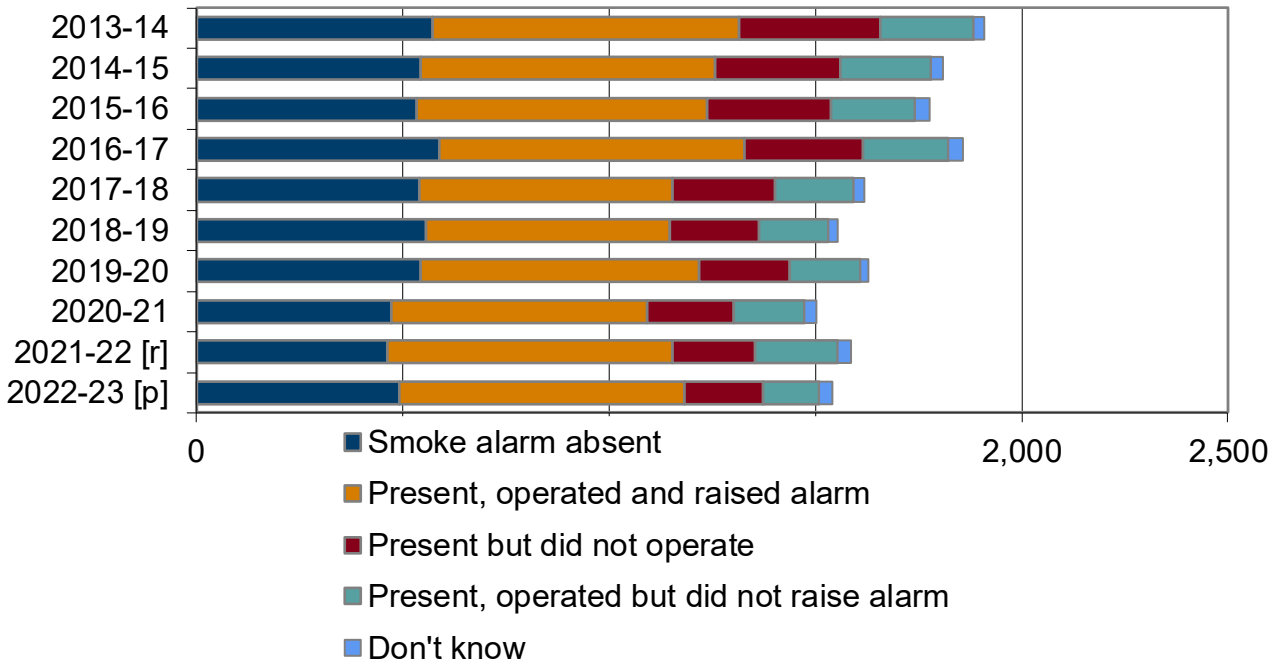
1. Present, operated and raised the alarm

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.

Figure 26: Number of fires in dwellings by presence and operation of smoke detectors, 2013-14 to 2022-23 [Note 1]



Description of Figure 26: Bar chart showing number of fires in dwellings by presence and operation of smoke alarms. Data relates to 2013-14 to 2022-23. A smoke alarm was not present in around a third of dwelling fires, whilst in recent years in over half of dwelling fires a smoke alarm operated and raised the alarm.

[Note 1] Dwellings include caravans, houseboats and other non-building structures used solely as a permanent dwelling.

[r] Revised data

[p] Provisional data

A smoke alarm was present and operated correctly in 54% of fires in dwellings occurring in 2022-23. In a further 12% of cases a smoke alarm was present but failed to operate, whilst in 32% of dwelling fires a smoke alarm was absent. In 2% 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 19 and 20.

Since 2001-02 the number of dwelling fires where there was no smoke alarm has fallen by 68%. In only 11% of dwelling fires in North Wales a smoke alarm was absent; percentages are higher for Mid and West Wales and South Wales (44% and 35% respectively).

Table 18: Number of fires in dwellings where smoke alarm was absent, by Fire and Rescue Authority, 2013-14 to 2022-23 [Note 1][Note 2]

	North Wales	Mid and West Wales	South Wales	**Wales**
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	47	236	271	**554**
2019-20	48	192	304	**544**
2020-21	57	186	230	**473**
2021-22	49	206	207	**462**
2022-23[p]	42	200	249	**491**
Percentage change 2021-22 to 2022-23	-14%	-3%	20%	6%

Description of Table 18: Table showing numbers of fires in dwellings where smoke alarm was absent, years 2013-14 to 2022-23. The number of dwellings fires where a smoke alarm was absent increased by 6% to 491 in 2022-23 (the second lowest number in the time series and following the lowest in 2021-22).

[Note 1] Data from 2001-02 onwards are available on StatsWales and in the accompanying Excel tables.

[Note 2] Dwellings include caravans, houseboats and other non-building structures used solely as a permanent dwelling.

[p] Provisional data

In 2022-23, only South Wales saw an increase (20%) in the number of dwelling fires where smoke alarms were absent (compared with the previous year). Both North Wales and Mid and West Wales saw decreases, of 14% and 3% respectively.

For context, in 2017-18 approximately 5% of all households in Wales had no smoke alarms (National Survey for Wales[16]).

Since 2009-10, 52 of the 187 accidental dwelling fire fatalities occurred in fires where a smoke alarm was known to be absent. 53 fatalities have occurred in accidental dwelling fires where a smoke alarm was present and raised the alarm.

Table 19: Number of smoke alarms, which were present at building fires but did not raise alarm, by reason, 2018-19 to 2022-23

	2018-19	2019-20	2020-21	2021-22	2022-23[p]
Dwellings [Note 1]	**169**	**171**	**169**	**202**	**140**
Alarm was raised before system operated	109	114	113	126	76
No person in earshot	26	16	18	37	28
Occupants did not respond	24	32	23	25	21
No other person responded	2	1	6	3	2
Other	7	7	9	6	8
Unknown	1	1	0	5	5
Other buildings	**40**	**48**	**41**	**69**	**47**
Alarm was raised before system operated	27	42	28	53	35
No person in earshot	10	5	6	8	5
Occupants did not respond	1	0	0	2	0
No other person responded	0	0	1	1	2
Other	1	0	3	3	3
Unknown	1	1	3	2	2

Description of table 19: Table showing number of smoke alarms, which were present at building fires but did not raise alarm, by reason. Years 2018-19 to 2022-23. Note that a single building may contain multiple alarms which may be recorded differently and so these figures should not be equated to the number of dwellings and other building fires.

[Note 1] Includes caravans, houseboats and other non-building structures used solely as a permanent dwelling.

[p] Provisional data

In 2022-23 there were 111 smoke alarms which activated but did not raise the alarm due to the alarm having already been raised. This equates to 59% 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 despite being activated (for the available time series which dates from 2009-10).

In 2022-23, of the smoke alarms which did not raise the alarm 18% were due to no one being in earshot, and a further 11% were due to occupants not responding.

[16] National Survey for Wales – Results Viewer

Table 20: Number of smoke alarms present in fires in buildings, which did not activate by reason, 2018-19 to 2022-23

	2018-19	2019-20	2020-21	2021-22	2022-23[p]
Dwellings [Note 1]	**217**	**225**	**214**	**208**	**192**
Fire not close enough to detector	126	121	111	100	94
Fire in area not covered by system	18	31	35	22	32
Alarm battery missing/defective	19	19	16	20	17
Fault in system	8	7	11	7	8
Detector removed	4	5	5	10	5
Alerted by other means	15	10	6	8	9
Other [Note 2]	20	22	24	31	19
Unknown	7	10	6	10	8
Other buildings	**82**	**85**	**56**	**67**	**75**
Fire not close enough to detector	33	43	29	34	36
Fire in area not covered by system	17	9	8	9	9
Alarm battery missing/defective	0	0	1	2	2
Fault in system	4	4	3	1	1
Detector removed	3	4	0	0	2
Alerted by other means	7	5	7	5	8
Other [Note 2]	15	13	5	14	12
Unknown	3	7	3	2	5

Description of Table 20: Table showing number of smoke alarms present in fires in buildings, which did not activate by reason. Years 2018-19 to 2022-23. The table 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.

[Note 1] Includes caravans, houseboats and other non-building structures used solely as a permanent dwelling.

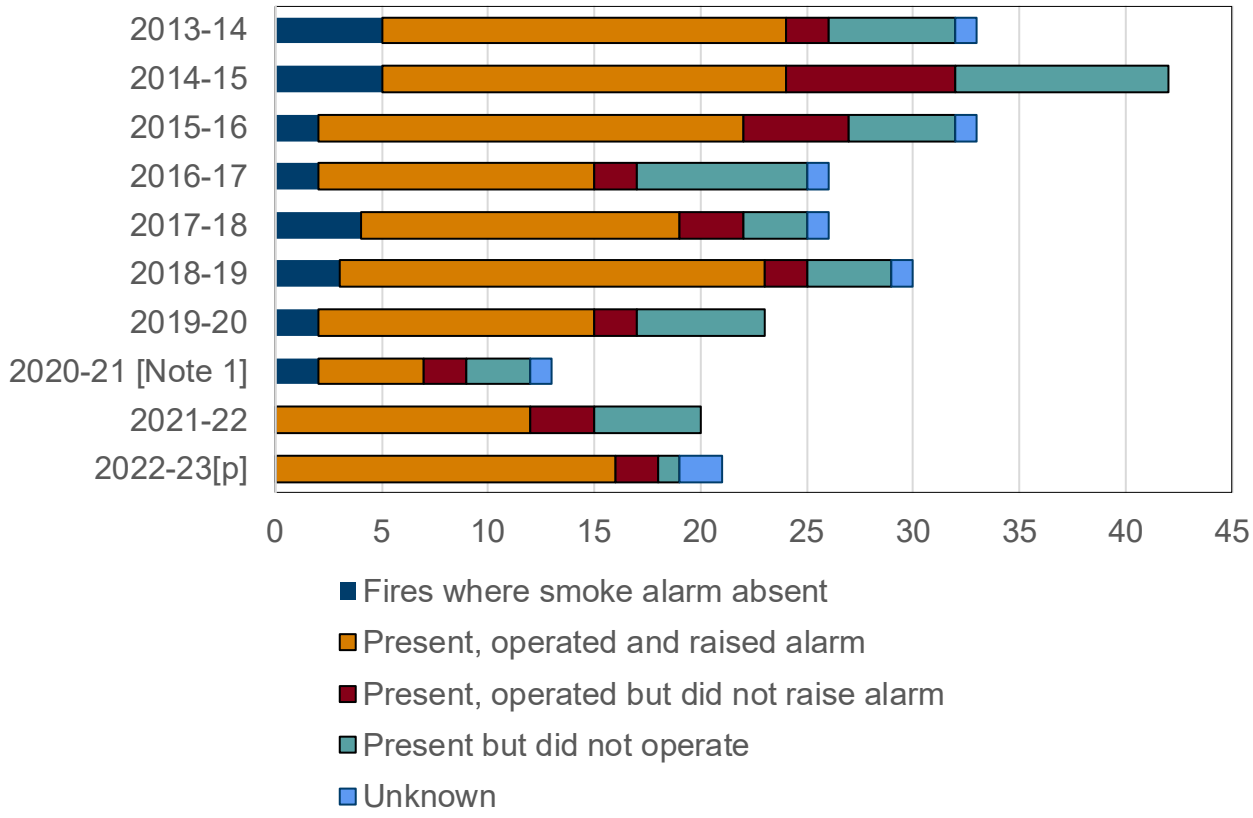
[Note 2] Includes where system has not set up correctly, system has been damaged by fire and system was turned off.

[p] Provisional data.

In 2022-23 the main reason for smoke alarm failures, in both dwellings and other buildings, was that the fire was not close enough to the detector (49% of the smoke alarms which failed to activate in building fires). Defective or missing batteries accounted for 9% of alarm failures in dwelling fires and 3% in other buildings in 2022-23.

Smoke alarms in fires at schools

Figure 27: Number of fires in schools by presence and operation of smoke detectors, 2013-14 to 2022-23



Description of Figure 27: Bar chart showing numbers of fires in schools, by presence and operation of smoke alarm. Data relates to 2013-14 to 2022-23. The chart shows the general downward trend in school fires, and the likely effect of COVID-19 on numbers of school fires in 2020-21 when there were periods when schools were closed. From the chart we can see that in all years shown a smoke alarm was present, operated and raised the alarm in most fire incidents.

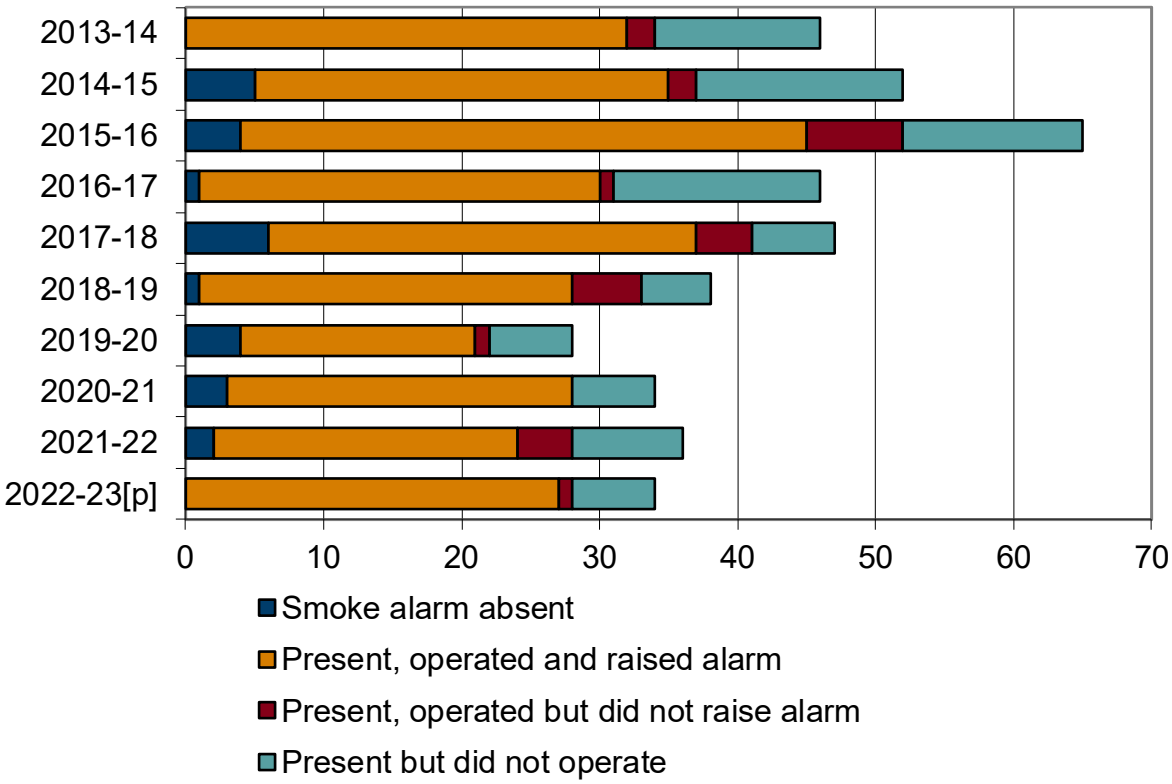
[Note 1] Throughout 2020-21, due to the COVID-19 pandemic there were periods when schools were closed to most pupils.

[p] Provisional data.

Of the 21 fires occurring in schools in 2022-23, a smoke alarm was present and operated correctly in 86% of incidents, whilst in a further 5% of cases a smoke alarm was present but failed to operate. There were 2 school fires where the presence of a smoke alarm was unknown.

Smoke alarms in fires at hospitals and medical care facilities

Figure 28: Number of fires in hospitals by presence and operation of smoke detectors, 2013-14 to 2022-23 [Note 1]



Description of Figure 28: Bar chart showing numbers of fires in hospitals and medical care facilities by presence and operation of smoke alarm. Years 2013-14 to 2022-23.

The chart shows the downward trend in the time series of fires in hospitals, and that in most of these fires, an alarm was present and raised the alarm.

[Note 1] Includes fires at hospitals and other medical care (e.g. veterinary surgeries, dentists, day centres, GP surgeries etc.)

[p] Provisional data.

28 of the 34 hospital fires occurring in 2022-23 were accidental.

Since 2009-10 there have been no fatalities and 20 non-fatal casualties in hospital fires.

In 2022-23 there were 34 fires in hospitals and medical facilities[17], 2 fewer than in the previous year and a fall of 82% compared with the number in 2001-02. A smoke alarm was present and operated correctly in 82% of fires in hospitals in 2022-23. In 18% of hospital fires a smoke alarm was present but failed to operate. Smoke alarms were present at all fires in 2022-23.

Further data is available on this topic on StatsWales.

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

Cause of fires

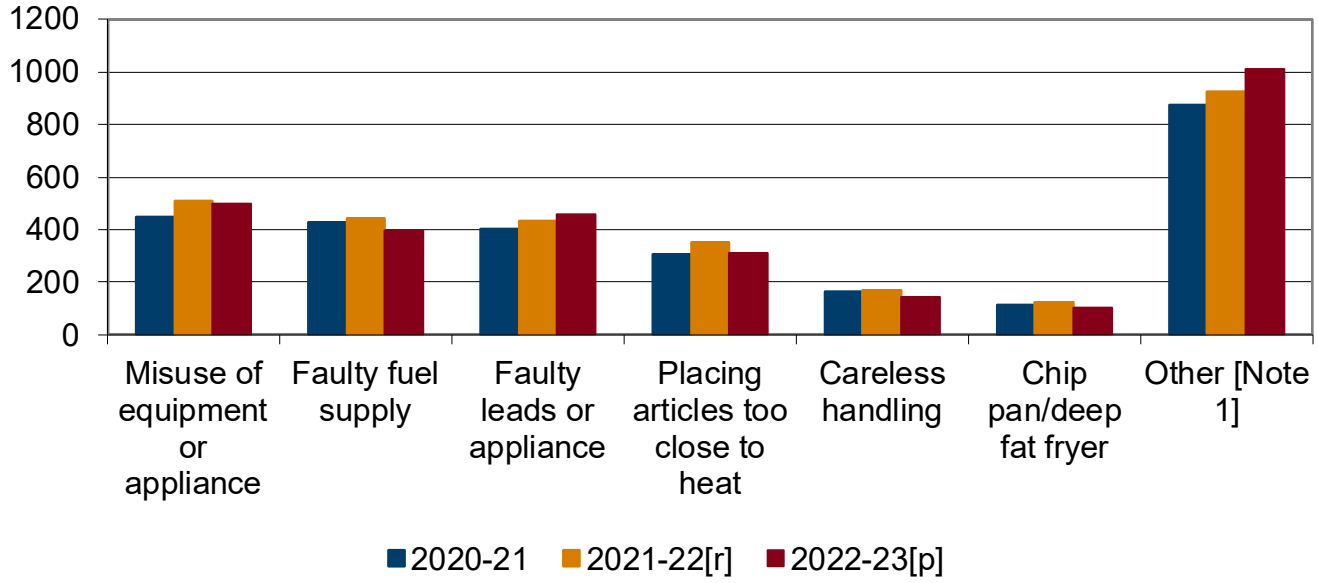
The **cause of fire** is the defect, act or omission leading to ignition of the fire.

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

Figure 29: Number of accidental primary fires by cause



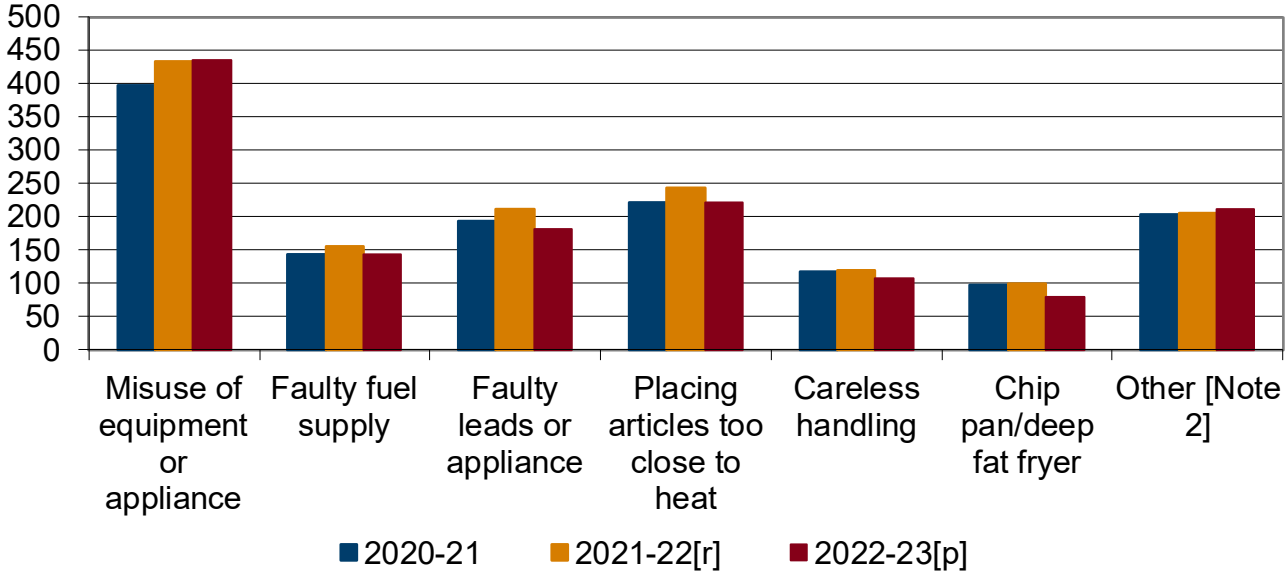
Description of Figure 29: Bar chart showing the number of accidental primary fires by cause, years 2020-21 to 2022-23. The chart shows that for 2022-23 there were decreases in the number of accidental primary fires for most categories, the exception being faulty leads or appliances which saw a 6% increase compared with 2021-22. Misuse of equipment or appliance was the largest single identified cause of accidental fires in 2022-23 (17%). Faulty leads or appliances accounted for 16% of accidental fires. Smaller categories have been grouped together as 'other accidental', accounting for 35% of accidental fires.

[Note 1] '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

Figure 30: Number of accidental dwelling fires by cause [Note 1]



Description of Figure 30: Bar chart showing number of accidental primary fires in dwellings by cause, years 2020-21 to 2022-23. The chart shows that for 2022-23 there were decreases in the number of accidental dwelling fires in all categories except misuse of equipment or appliance which is the most common cause, and which saw a small increase.

[Note 1] Dwellings include caravans, houseboats and other non-building structures used solely as a permanent dwelling.

[Note 2] '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'.

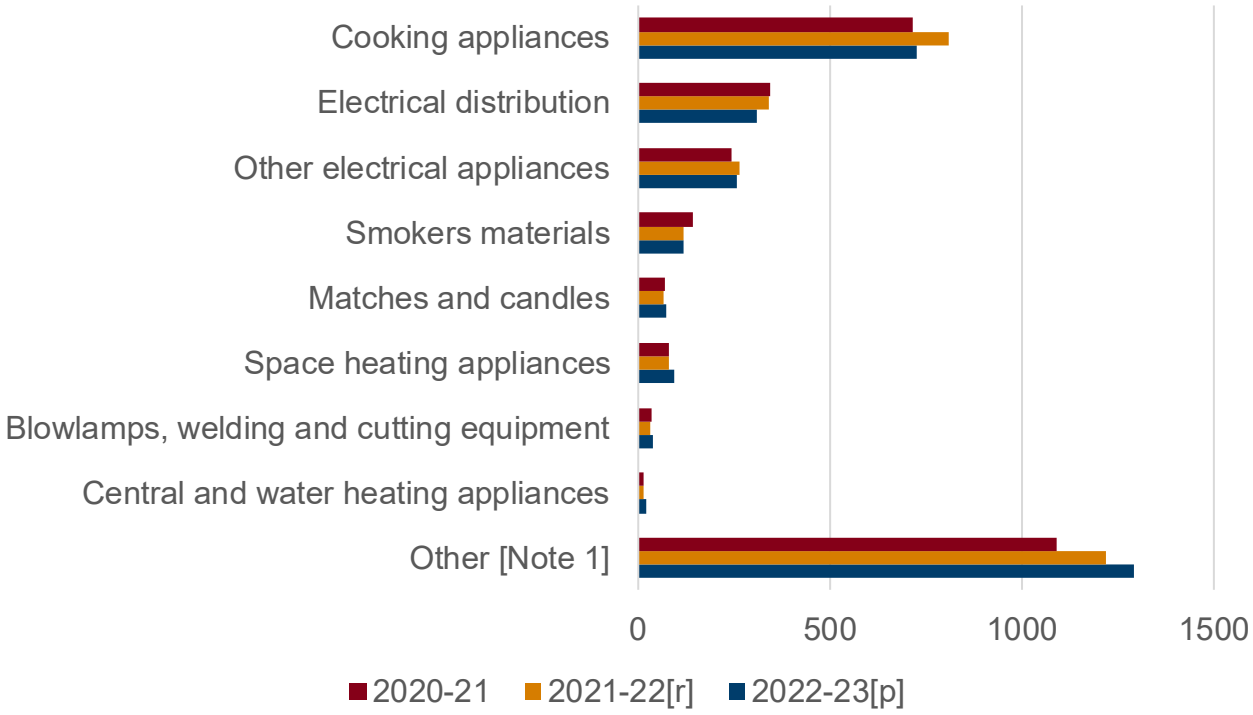
[p] Provisional data.

[r] Revised data

The misuse of equipment or appliances was the main cause of accidental fires in dwellings, with 435 cases recorded in 2022-23. This equates to 32% of accidental dwelling fires in 2022-23. Accidental dwelling fires caused by chip pans and deep fat fryers decreased by 19%, whilst those caused by faulty leads and appliances each decreased by 14%.

Source of ignition in accidental primary fires

Figure 31: Number of accidental primary fires by source of ignition, 2020-21 to 2022-23



Description of Figure 31: Bar chart showing number of accidental primary fires by source of ignition, years 2020-21 to 2022-23. The chart shows cooking appliances are recorded as the main source of accidental fires and in 2022-23 there were 726 cases (25% of accidental fires), 10% fewer than in the previous year. The larger categories saw decreases, whilst those with fewer than 100 incidents saw increases.

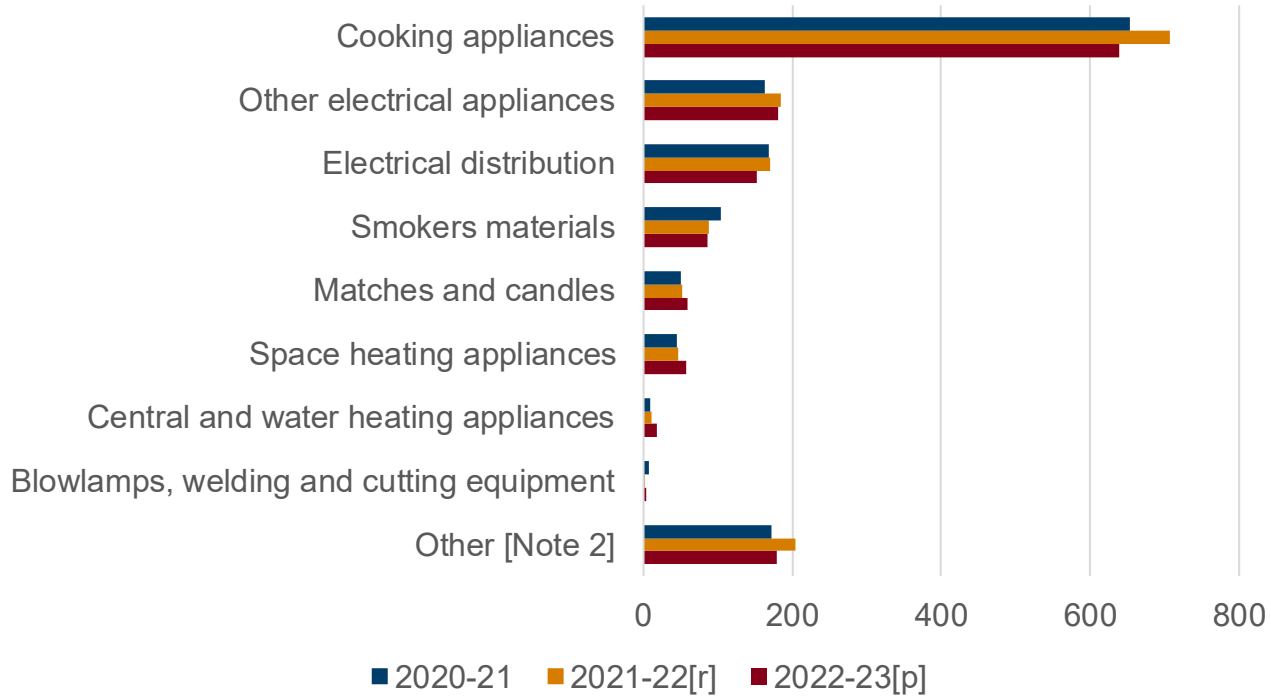
[Note 1] 'Other' includes 'Bombs and explosives', 'Chimney', 'Fireworks', 'Fuel/Chemical', 'Heating equipment', 'Industrial equipment', 'Naked flame', 'Natural occurrence', 'Oil and Incense burners', 'Other', 'Gardening equipment', 'Spread from secondary fire', 'Wet hay', 'Vehicle related' and other electrical appliances where the power source is not recorded as electrical.

[r] Revised data.

[p] Provisional data.

In 2022-23 around 15% of accidental fires were caused by the misuse of equipment or appliances resulting in cooking appliances igniting. Chip pans were responsible for 14% of accidental fires where cooking appliances ignited.

Figure 32: Number of accidental dwelling fires by source of ignition, 2020-21 to 2022-23 [Note 1]



Description of Figure 32: Bar chart showing number of accidental primary fires in dwellings by source of ignition, years 2020-21 to 2022-23. The chart shows the largest single source of ignition in accidental dwelling fires is cooking appliances (46% in 2022-23).

[Note 1] Dwellings include caravans, houseboats and other non-building structures used solely as a permanent dwelling.

[Note 2] '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.

[r] Revised data

[p] Provisional data.

Accidental dwelling fires caused by smokers' materials saw a small drop and accounted for 6% of accidental dwelling fires.

In 2022-23 there were 19 non-fatal casualties in accidental fires in dwellings which were attributable to smokers' materials, 11 fewer than the number in the previous year. There were 3 fatalities due to smoking materials, 2 fewer than in the previous year. Since 2009-10, 35% of fatalities in accidental fires in dwellings were caused by smokers' materials. The National Survey for Wales[18] found that in 2022-23 13% of adults smoked daily or occasionally.

[18] National Survey for Wales: results viewer

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.

In 2022-23 the number accidental fires in dwellings caused by cooking appliances decreased by 10% compared with the previous year to the lowest number in the time series. Fires ignited by cooking appliances have also been responsible for 14% fatalities and 53% of non-fatal casualties in accidental dwelling fires since 2009-10. Over the same period ‘smokers’ materials’ accounted for 35% of fatalities and 10% of non-fatal casualties in accidental dwelling fires.

In 2022-23, 28% of accidental dwelling fires were caused by the misuse of equipment or appliances resulting in cooking appliances igniting. In the same year, of the 182 accidental fires in dwellings where the source was recorded as ‘other electrical appliance’, 106 (58%) were due to faulty leads.

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.

Table 21: Percentage of primary fires attended within specified time brackets, 2020-21 and 2022-23 [Note 1]

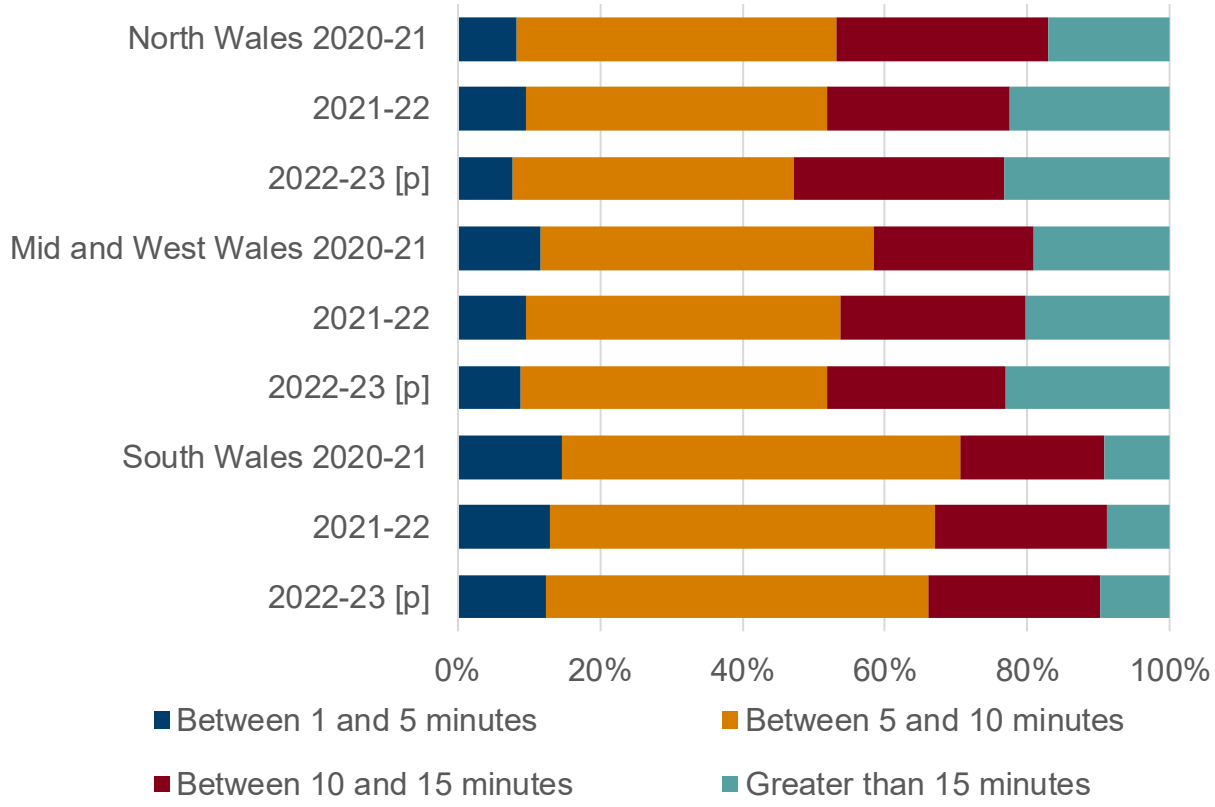
	Between 1 and 5 minutes	Between 5 and 10 minutes	Between 10 and 15 minutes	Greater than 15 minutes
2020-21				
North Wales	8	45	30	17
Mid and West Wales	12	47	22	19
South Wales	15	56	20	9
Wales	**13**	**51**	**23**	**14**
2021-22				
North Wales	10	42	26	22
Mid and West Wales	10	44	26	20
South Wales	13	54	24	9
Wales	**11**	**49**	**25**	**15**
2022-23 [p]				
North Wales	8	39	30	23
Mid and West Wales	9	43	25	23
South Wales	12	53	24	10
Wales	**10**	**48**	**26**	**16**

Description of Table 21: Percentage of primary fires attended within given time brackets (between 1 and 5 minutes, between 5 and 10 minutes, between 10 and 15 minutes or greater than 15 minutes). Years 2020-21 to 2022-23. In 2022-23, 47% of primary fires attended in North Wales had a response time of between 1 and 10 minutes. The corresponding percentages in Mid and West Wales and South Wales were 52% and 66% respectively.

[Note 1] 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[19], incidents with only heat and smoke damage and response times less than 1 minute or over one hour. In the years shown above, 1% 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.

Figure 33: Percentage of primary fires attended within specified time brackets, 2020-21 to 2022-23



Description of Figure 33: Chart showing the percentages of primary fires attended in time brackets (Between 1 and 5 minutes, Between 5 and 10 minutes, Between 10 and 15 minutes or Greater than 15 minutes). Data are shown for each FRA and years 2020-21 to 2022-23.

The chart shows in all three FRAs the proportion of accidental fires attended in under 10 minutes has fallen in recent years.

[p] Provisional data.

[19] Late fire calls are fires attended by a FRA which were known to be extinguished when the call was made (or to which no call was made) and the fire came to the attention of the FRA by other means.

Table 22: Percentage of primary dwelling fires attended within specified time brackets, 2020-21 to 2022-23 [Note 1]

	Between 1 and 5 minutes	Between 5 and 10 minutes	Between 10 and 15 minutes	Greater than 15 minutes
2020-21				
North Wales	9	54	23	14
Mid and West Wales	17	55	18	10
South Wales	17	65	17	1
Wales	**15**	**60**	**18**	**7**
2021-22				
North Wales	10	53	20	17
Mid and West Wales	12	52	24	12
South Wales	16	60	20	3
Wales	**13**	**56**	**21**	**9**
2022-23 [p]				
North Wales	11	48	25	16
Mid and West Wales	10	50	27	13
South Wales	15	59	22	4
Wales	**13**	**54**	**24**	**9**

Description of Table 22: Percentage of primary fires in dwellings attended in given time brackets (between 1 and 5 minutes, between 5 and 10 minutes, between 10 and 15 minutes or greater than 15 minutes). Years 2020-21 to 2022-23. In 2022-23, 59% of primary dwelling fires attended in North Wales had a response time of between 1 and 10 minutes; in Mid and West Wales 60% were attended in this time, whilst in South Wales the respective proportion was 74%.

[Note 1] 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% of primary dwelling fires in each year were excluded due to the response time being less than 1 minute or over 1 hour.

[Note 2] Dwellings include caravans, houseboats and other non-building structures used solely as a permanent dwelling

[p] Provisional data.

Great Britain comparisons

Table 23: Number of fires by type and country, 2018-19 to 2022-23

Thousands

	2018-19	2019-20[r]	2020-21[r]	2021-22[p]	2022-23[p]
England [Note 1]					
Total [Note 3]	182.9	154.2	151.1	152.6	178.7
Primary	73.3	68.8	61.9	63.5	66.8
Secondary	106.3	82.3	86.1	86.5	109.4
Scotland [Note 2]					
Total [Note 3]	26.8	24.5	25.2	27.8	[x]
Primary	10.5	9.9	9.4	9.8	[x]
Secondary	15.7	14.1	15.1	17.6	[x]
Wales					
Total [Note 3]	12.9	10.6	10.3	10.7	11.1
Primary	4.4	4.3	3.8	3.9	3.9
Secondary	8.2	6.0	6.2	6.5	6.9

Description of Table 23: Numbers of fires by type (primary and secondary) and GB country. Data given in thousands, years 2018-19 to 2022-23. In 2022-23 the total number of fires attended rose by 17% in England and 3% in Wales compared with 2021-22. Numbers of primary fires in England increased by 5% whilst Wales saw a 1% fall. Numbers of secondary fires also rose, in England and Wales by 26% and 6% respectively. Currently 2022-23 data are not available for Scotland.

[Note 1] English data are taken from Fire statistics data tables

[Note 2] Scottish data are taken from 'Fire and Rescue Statistics in Scotland'

[Note 3] Includes chimney fires.

[r] Revised data.

[p] Provisional data.

[x] Data not available yet.

Table 24: Number of fatalities and casualties by country, 2013-14 to 2022-23

	England [Note 1] Fatal	England [Note 1] Non-Fatal	Scotland [Note 1] Fatal	Scotland [Note 1] Non-Fatal	Wales Fatal	Wales Non-Fatal
2013-14	276	7,819	31	1,310	17	626
2014-15[r]	264	7,596	40	1,099	20	543
2015-16	302	7,672	45	1,276	19	592
2016-17	264	7,103	44	1,266	19	621
2017-18[r]	338	7,303	44	1,116	15	526
2018-19	251	7,165	44	1,197	20	396
2019-20[r]	244	6,940	27	1,028	16	509
2020-21[r]	237	6,366	52	1,019	21	408
2021-22[p][r]	273	6,313	40	804	21	479
2022-23[p]	259	6,155	[x]	[x]	14	422

Description of Table 24: Numbers of fatalities and non-fatal casualties, by GB country. Years 2020-21 to 2022-23. The number of fatalities in England fell by 5% compared with 2021-22, whilst in Wales numbers fell by a third.

The number of non-fatal casualties in England fell by 3% whilst in Wales there was a 12% fall compared with 2021-22.

Currently 2022-23 data are not available for Scotland.

[Note 1] For data sources see table 24.

[r] Revised data.

[p] Provisional data.

[x] 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

The analysis in this bulletin relates to fire and rescue service incidents between April 2022 and end March 2023 whilst making comparisons with April 2021 to March 2022.

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 over 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 almost 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 around 1,700 staff including over 1,300 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.

The incident data are extracted from IRS annually (usually around July/August) 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. 2022-23 data are currently marked as provisional and may be revised in future publications.

The table below compares the provisional 2021-22 data which was published in September 2022 with the revised data detailed in this bulletin.

Comparison of provisional data with revised data (2021-22)

	Provisional 2021-22 (published Sep 2022)	Revised 2021-22 (published Oct 2023)	Percentage change
All Fires and fire false alarms	**26,060**	**26,059**	**0.0**
All fires	10,740	10,740	0.0
Primary Fires	3,943	3,944	0.0
Secondary	6,497	6,496	0.0
Fire false Alarms	15,320	15,319	0.0
Fatalities	21	21	0.0
Non Fatal Casualties	479	479	0.0

In earlier releases we have included a table showing a time series of the year on year revisions. . The table tends to show that the extent of revisions has been much lower in recent years.

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:

[p] provisional

[r] revised

[x] data is missing and footnoted accordingly.

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. However, publication has been delayed this year (and was last year) due to the Coronavirus (Covid-19) pandemic impacting resources available in Fire and Rescue Services as well as Welsh Government analytical services

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 (found in the previous releases link).

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.

Impact of COVID-19

It is likely that attendances by the Fire and Rescue Services and occurrences of some types of incidents in the years 2020-21 and 2021-22 will have been affected by the COVID-19 pandemic and the public health restrictions that were in place during at this time.

Timelines[20] published by the Senedd Research Centre note when these periods of lockdown came into being and when measures were eased.

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.

- 2021-22 data
- Pre 2014-15 data (published by the Scottish Government)

Limited Northern Ireland data are available in an annual report 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

[20] Coronavirus timeline - Fifth Senedd
Coronavirus timeline – Sixth Senedd

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 (Report number 208).

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 on the Welsh Government website: https://www.gov.wales/fire-and-rescue-incident-statistics-april-2022-march-2023

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 output Grassland fires 2022-23.

Next update

Data for selected StatsWales tables for the period April to September 2023 will be published in February 2024.

Fire and Rescue Incident Statistics 2023-24 due to be published in September 2024

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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