



SCOTTISH  
FIRE AND RESCUE SERVICE

Working together for a safer Scotland

# Fire and Rescue Incident Statistics (Scotland)

## 2021-22

An Official Statistics  
publication for Scotland

31 October 2022

Working together for a safer Scotland



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This publication and associated statistics are designated as Official Statistics.

This means that it is produced to high professional standards set out in the [Code of Practice for Official Statistics](#). It is produced free from any political interference.

In 2019 the Scottish Fire and Rescue Service was named in legislation as a Producer of Official Statistics which allows us to classify this series.

This publication is accompanied by the following documents:

- Tables and Charts Workbook
- Guidance Notes on Statistics
- Statistical News 2021-22

# 1. Main Points

## All incidents

- **95,709** incidents attended, of which:
  - **55.0%** were false alarms
  - **29.0%** were fires
  - **16.0%** were non-fire incidents

## Fires

- **27,771** fires attended, up 10.4% on last year
  - **4,632** dwelling fires, down 0.6%
    - **4,194** of these were accidental, up 1.2%
    - **59.5%** of accidental dwelling fires started with a cooking appliance
    - **71.9%** of dwelling fires were confined to the original item
  - **1,999** vehicle fires, up 10.1%
  - **18,877** outdoor fires (excluding road vehicles), up 15.4%

## Non-fire Incidents

- **15,292** non-fire incidents attended, up 20.5%, of which:
  - **4,461** were for effecting entry or exit to a property, up 19.4%
  - **2,164** were road traffic collisions, up 35.6%

## False Alarms

- **52,646** false alarms, up 10.3%
- **51,734** false fire alarms, up 10.5%, of which:
  - **40,509** were due to detecting apparatus, up 13.1%
  - **8,967** were due to good intentions, down 5.8%
  - **2,258** were malicious, up 51.1%

## Fatal Fire Casualties

- **40** fatal fire casualties, down from 52 last year
  - **30** of these occurred in dwelling fires
- **60.0%** of fatal fire casualties were male
- **4.8** times higher rate of fatal casualties in the most deprived areas than in the least deprived over the last 8 years

## Non-fatal Fire Casualties

- **804** non-fatal fire casualties, down 21.1%
- **5.5 times** higher rate of non-fatal casualties in the most deprived areas compared with the least deprived areas over the last 8 years

## Non-fire Casualties

- **372** fatal casualties, up 15.6%, of which:
  - **60** were in road traffic collision attendances, which is the same as recorded last year
  - **40** were suicides, up from 34
- **2,411** non-fatal casualties, up 29.3%

## 2. Summary

The Scottish Fire and Rescue Service (SFRS) attended 95,709 incidents in 2021-22. This is an increase of 11.8% from 2020-21 (85,594). This change will likely be associated with the easing of national restrictions throughout the year which were in place during the COVID-19 pandemic. Factors such as national lockdowns and changes in operation of business had an impact on 2020-21 incident activity and may have affected this year's statistics to an extent. This will be discussed throughout this report.

There were 27,771 fire incidents in 2021-22. This is an increase of 10.4% from last year (up from 25,153). Primary fires incident categories are close to historic averages. Secondary fires have increased from 15,130 in 2020-21 to 17,568 this year (up 16.1%), and chimney fires which have decreased from 604 in 2020-21 to 416 this year (down 31.1%). This change also comprises of a 10.1% increase in road vehicle fires and a 0.6% decrease in dwelling fires.

False alarms make up the largest share of incidents attended. This has increased from 47,748 last year to 52,646 in 2021-22 (10.3% increase). Whilst this is a relatively large increase, figures are similar to what was recorded before the pandemic, with 53,178 false alarm incidents recorded in 2019-20. False alarm incidents were substantially lower in 2020-21 than average during national lockdowns, where businesses were closed and people were encouraged to work from home.

Non-fire incidents attended increased from 12,693 in 2020-21 to 15,292 in 2021-22 (20.5% increase). This is a large increase on last year's figures, however 2021-22 figures are 6.2% higher than those recorded pre-pandemic. Road traffic collisions in 2020-21 were affected by travel restrictions throughout the pandemic and fewer people commuting to places of employment. Incidents of this type have increased by 35.6% over last year and are similar to levels reported pre-pandemic.

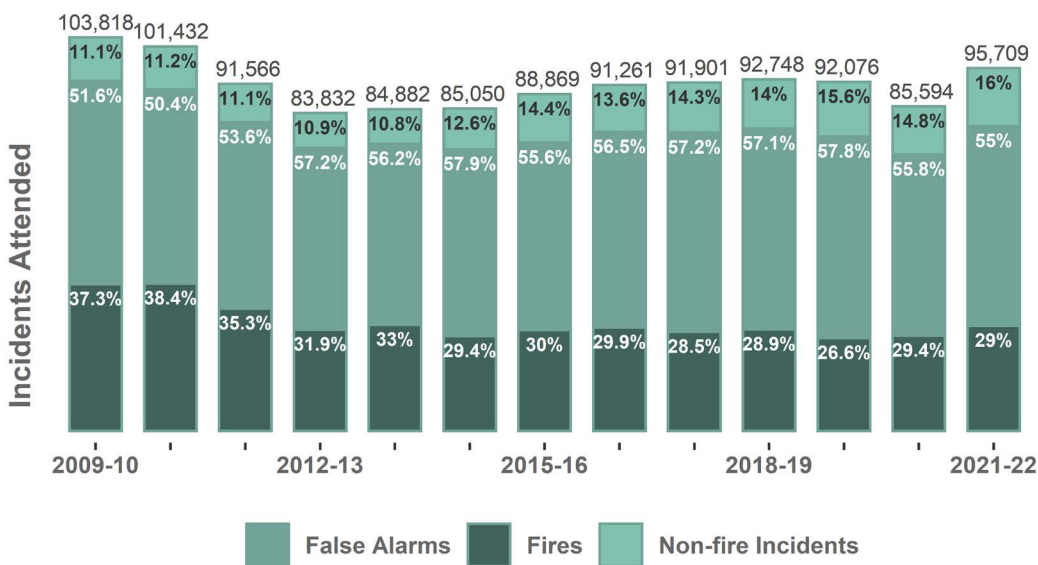


Figure 1: Total number of incidents attended with percentage share by type.

## Fatal Casualties Attended

There were 420 fatal casualties in incidents attended by SFRS in 2021-22, an increase of 9.9% on last year. The number of fire fatalities has decreased from 52 last year to 40 in 2021-22.

There has been an increase in the number of fatalities in non-fire incidents, with a total of 322 fatal casualties recorded in 2020-21 and a total of 372 recorded in 2021-22 (15.6% increase).

The number of fatal casualties at suicide incidents attended by SFRS increased from 34 last year to 40 in 2021-22 (17.6% increase). The number of fatal casualties at road traffic collisions attended by SFRS remained the same total as last year, with 60 fatal casualties recorded in 2020-21 and 2021-22. At 'Effecting Entry or Exit' incidents, there was a 5.6% increase in the number of fatal casualties, with 125 recorded in 2020-21 and 132 recorded in 2021-22.

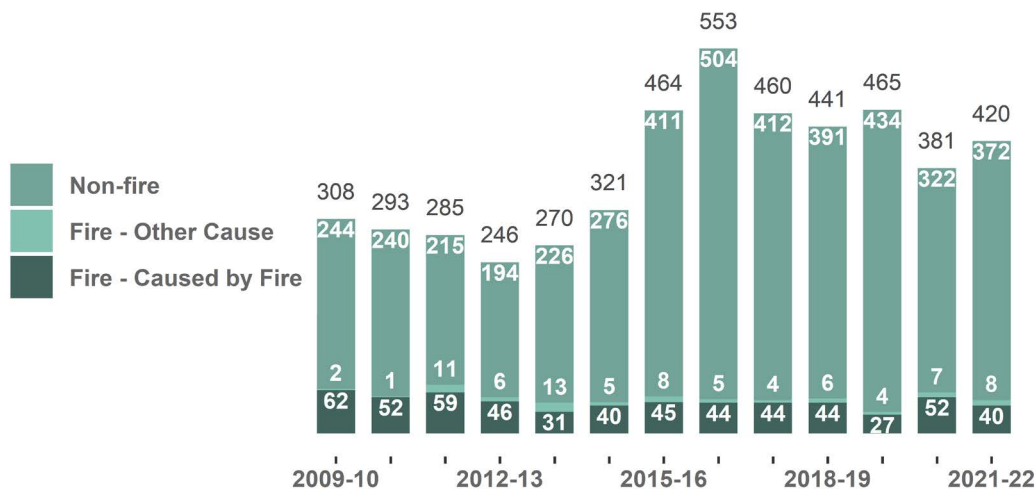


Figure 2: Fatal Casualties Attended. See definition for 'Other Specified' in Guidance Notes for explanation of 'Fire - Other Cause'.

## Non-fatal Casualties Attended

There was an increase (11.5%) in the number of non-fatal casualties attended by SFRS crews in 2020-21 (2,883) to 2021-22 (3,215).

There were 804 non-fatal casualties in fires (21.1% reduction on last year) and 2,411 non-fatal casualties in non-fire incidents (29.3% increase on last year).

During the COVID-19 pandemic, SFRS reduced involvement in incidents where a known casualty was involved. Reporting guidance advised that SFRS personnel should not report casualties where there

had been no direct involvement. It is likely that this will have affected this year's casualty figures as well as last year's.

The number of non-fatal casualties in road traffic collisions attended by SFRS increased from 895 last year to 1,296 in 2021-22 (44.8% increase).

Furthermore, there was an increase of 34.8% in the number of non-fatal 'Assist Other Agencies' incidents from last year, with 161 recorded in 2020-21 and 217 recorded in 2021-22.

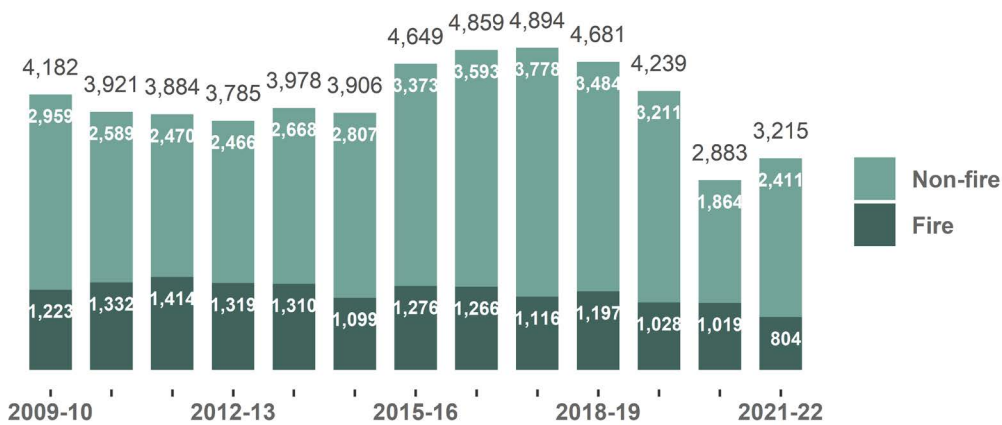
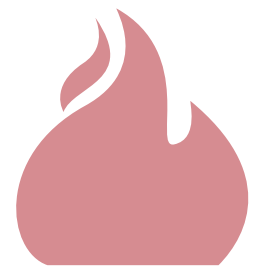


Figure 3: Non-fatal Casualties Attended.



### 3. Fires



There was an increase of 10.4% in the number of fires attended in 2021-22, increasing from 25,153 in 2020-21 to 27,771.

The term 'primary fire' is used to describe fires which may result in either harm to people, require five or more fire appliances, or fires which take place in buildings, vehicles and some outdoor locations. The total number of primary fires has increased by 3.9%, with 9,419 recorded in 2020-21 and 9,787 recorded in 2021-22. This figure has steadily reduced since this series began. Over the last ten years, the number of primary fires has reduced by 21.1%.

Dwelling fires<sup>1</sup> have also been consistently reducing over the last ten years, with a 24.8% reduction since 2011-12. There has been a 0.6% reduction in dwelling fires from last year (4,662) to this year (4,632). Fires in other buildings have increased by 7.4% from 1,720 last year to 1,847 in 2021-22. Other primary fires have increased over the last year, with 1,221 recorded in 2020-21 and 1,309 recorded this year (7.2% increase).

Vehicle fires have increased from last year, with 1,816 recorded in 2020-21 and 1,999 recorded this

year. This is an increase of 10.1%. During the COVID-19 pandemic, travel restrictions meant there were fewer vehicles on the road in 2020-21. With national restrictions being eased over 2021-22, and therefore more vehicles on the road, a return to pre-pandemic levels in the annual total has followed.

The number of secondary fires has increased from 15,130 last year to 17,568 in 2021-22 (16.1% increase). Secondary fires can be influenced by a number of socioeconomic and environmental factors meaning incidents tend to fluctuate each year, with no clear overall trend. Over a ten-year period, this figure has reduced by 6.0%.

The number of outdoor fires (excluding road vehicles) increased by 15.4% from 16,351 last year to 18,877 in 2021-22. Outdoor fires vary considerably each year and are often dependent on weather conditions. There is no overall trend in outdoor fires over the last ten years.

#### Trends in Fires

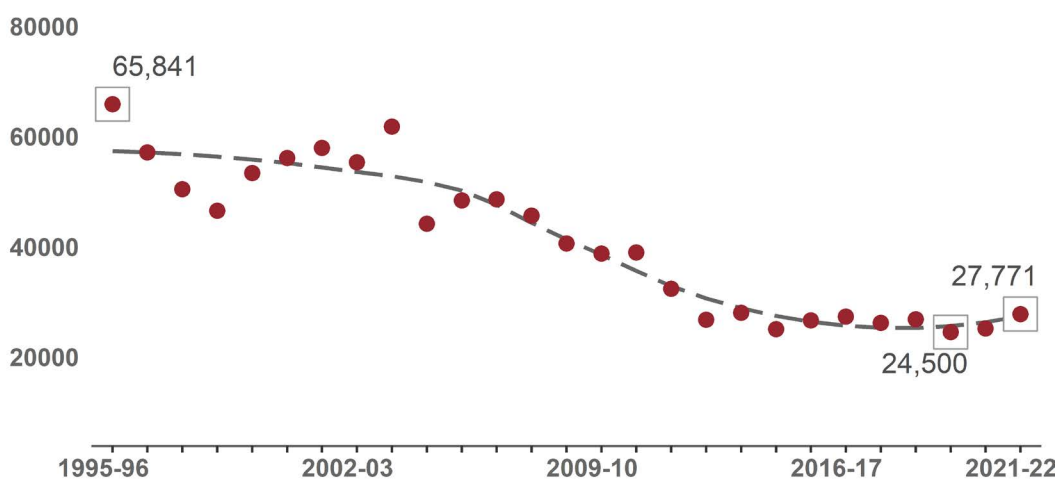


Figure 4: Long-term trend in the number of fires. Values displayed in boxes on chart represent the maximum, minimum and most recent values.

<sup>1</sup> Dwellings are properties that people ordinarily live in such as houses and apartments, please see the guidance notes document for a full definition.

## Trends in Primary Fires

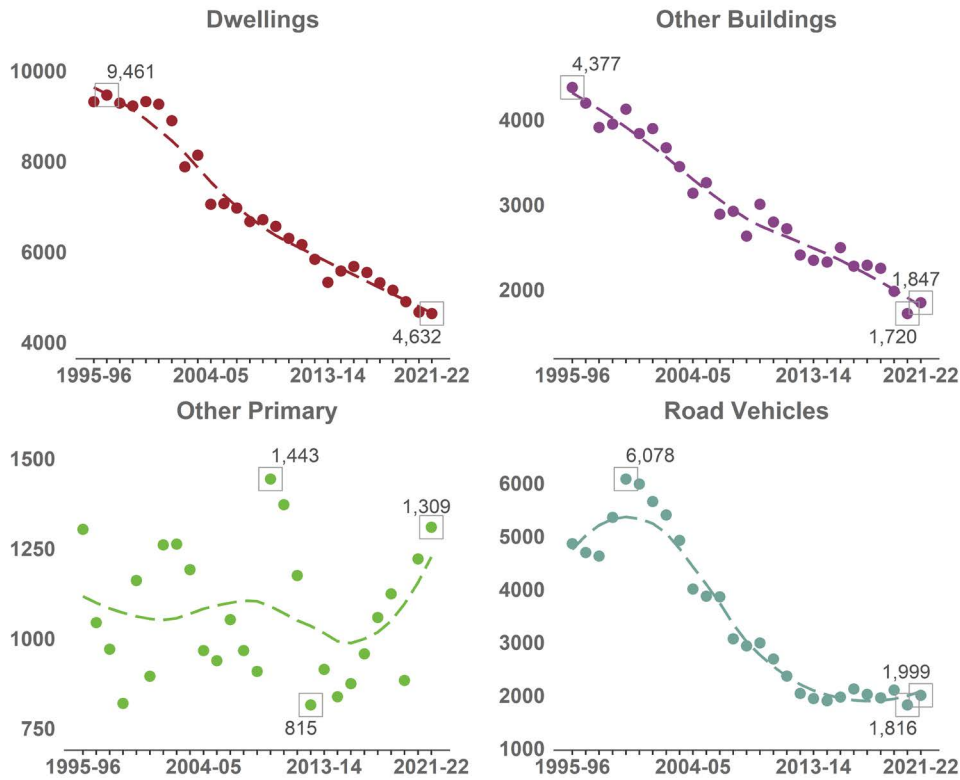


Figure 5: Primary fire trends. Values displayed in boxes on chart represent the maximum, minimum and most recent values. There are instances where the most recent value is also the minimum value.

## Trends in Secondary and Chimney Fires

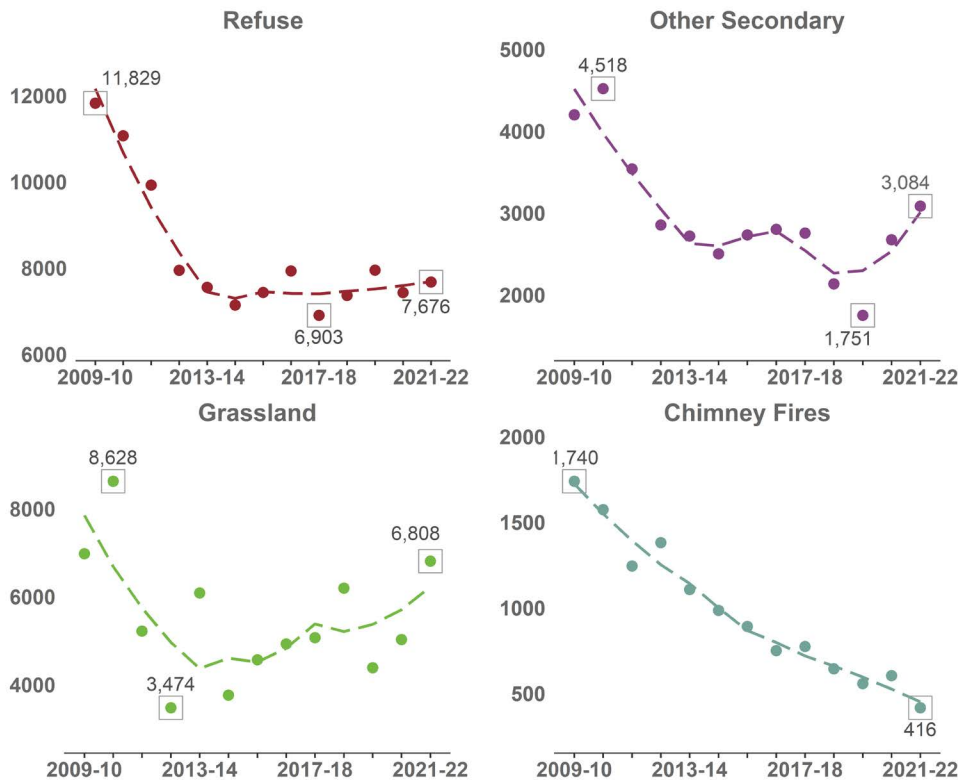


Figure 6: Secondary fire trend. Values displayed in boxes on chart represent the maximum, minimum and most recent values.

## Great Britain Comparisons

Across Great Britain<sup>2</sup>, there have been similar trends in the number of fires since the early 2000s, with there being a consistent decline in the number of fires per million population in each nation.

This trend has levelled off since the early 2010s. In 2021-22, there were 5,068 fires per million population in Scotland. This figure is substantially higher compared to England (2,702 fires per million population) and Wales (3,456 fires per million population).

Primary fire rates have continued to decrease in each nation. In 2021-22, Scotland has recorded 1,786 primary fires per million population, compared with England which has reported 1,124 and Wales which has reported 1,269. Secondary fire have increased

in each nation from last year. Scotland has recorded 3,206 secondary fires per million population, compared with England which has reported 1,532 and Wales which has reported 2,091.

Similarly, dwelling fires have consistently reduced each year in each nation. However, Scotland recorded 364 more dwelling fires per million population than England in 2021-22 and 335 more than Wales.

Two of the most relevant factors influencing fire rates at a national level are the urban-rural profile and the relative deprivation of communities, which goes some way to explaining the differing rates. [See pages 12 and 13 for more details on these factors.](#)

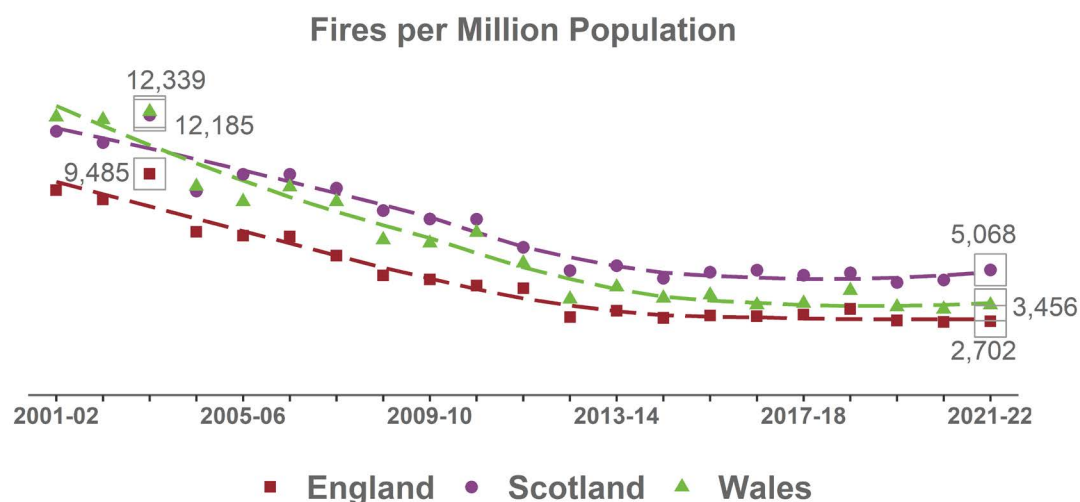


Figure 7: Fires per million population in Great Britain. Values displayed in boxes on chart represent the maximum, minimum and most recent values. In this case, the most recent values are also the minimum values.

<sup>2</sup> Scottish population figures used throughout this document were sourced from National Records of Scotland. Fire statistics for England and Wales were sourced from the Home Office and the Welsh Government. Comparable statistics for Northern Ireland are not available.

### Primary Fires per Million Population

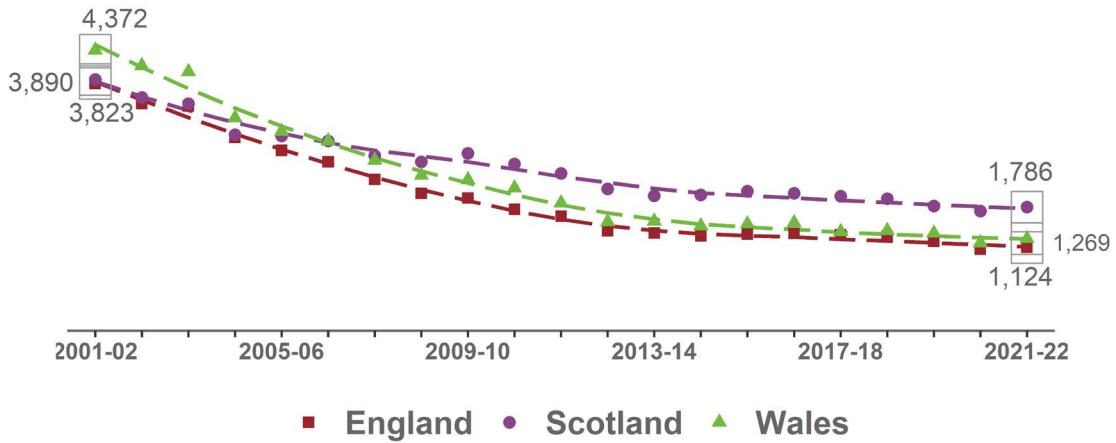


Figure 8: Primary fires per million population in Great Britain. Values displayed in boxes on chart represent the maximum, minimum and most recent values. In this case, the most recent values are also the minimum values.

### Dwelling Fires per Million Population

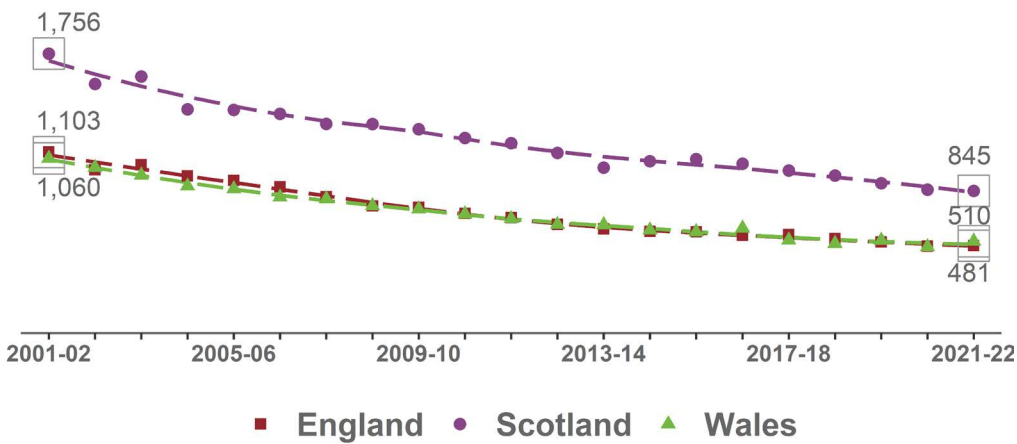


Figure 9: Dwelling fires per million population in Great Britain. Values displayed in boxes on chart represent the maximum, minimum and most recent values. In this case, the most recent values are also the minimum values.

### Secondary Fires per Million Population

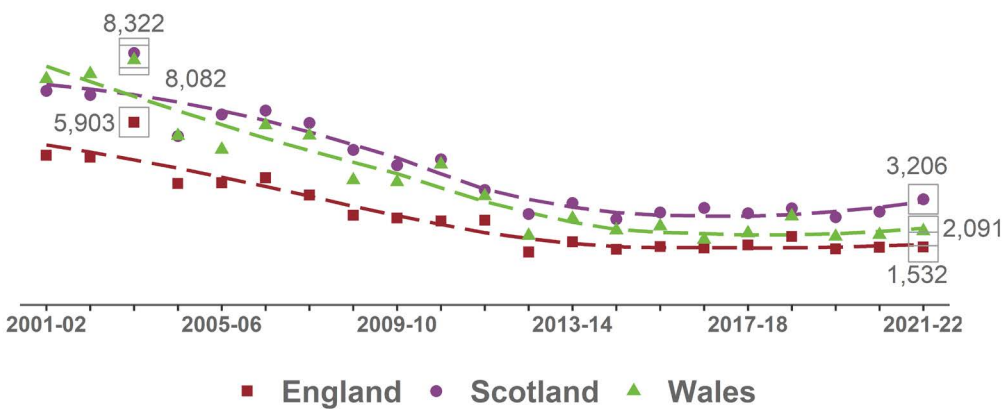


Figure 10: Secondary fires per million in Great Britain. Values displayed in boxes on chart represent the maximum and most recent values.

## Motive

In 2021-22, 58.9% of fires in Scotland were recorded as having been deliberately<sup>3</sup> set. Figure 11 shows how the proportion of deliberately set fires varies by incident category.

Deliberate dwelling fires are relatively rare at 9.5% of the total, whereas secondary fires have 79.3% classed as deliberate fires in 2021-22.

There were 6,231 deliberate refuse fires, which is 81.2% of total refuse fires in 2021-22. Similarly, 5,260 grassland fires were classed as deliberate, which is 77.2% of the total.

The number of accidental dwelling fires has increased from 4,144 last year to 4,194 in 2021-22 (1.2% increase). This is 18.0% lower than ten years ago (5,117 in 2011-12).

Deliberate dwelling fires have decreased from 518 last year to 438 in 2021-22 (15.4% decrease).

Over the last ten years, there has been a notable reduction in the number of deliberate dwelling fires, with a 57.9% decrease from 2011-12 to this year.

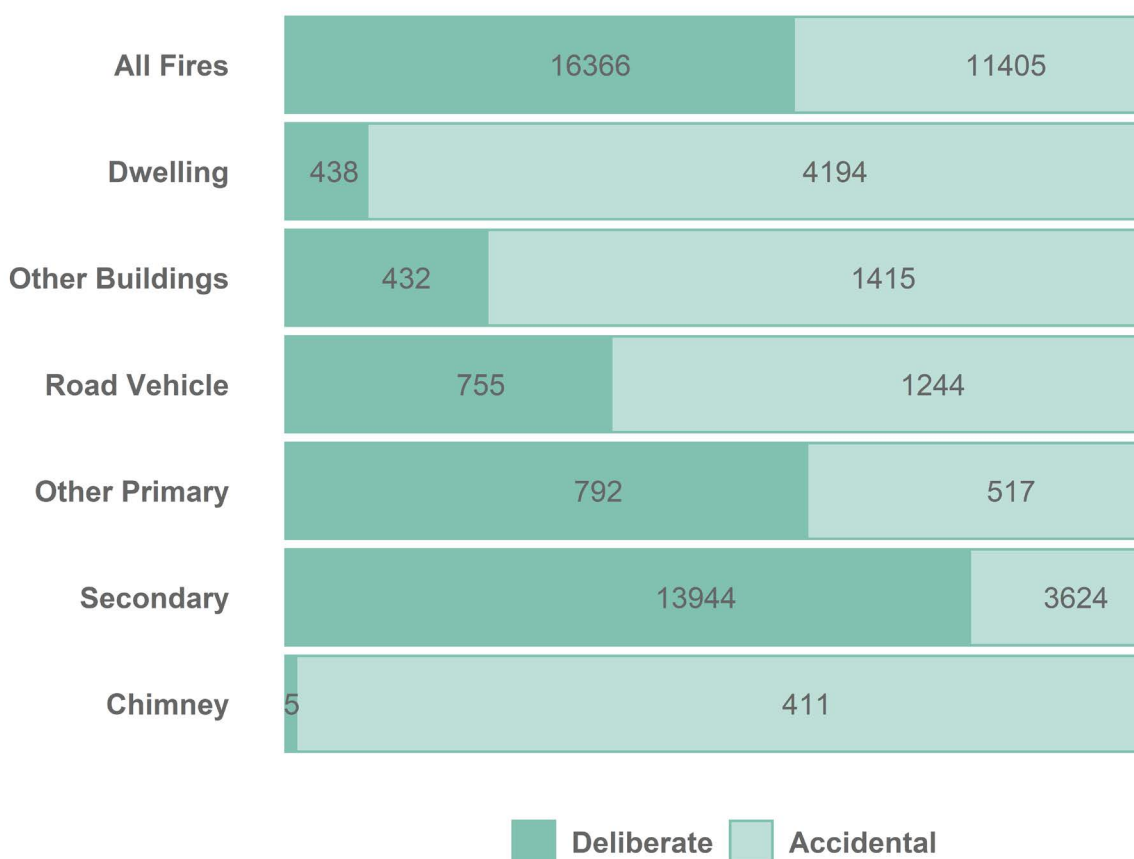


Figure 11: Fires by motive, 2021-22. Written values represent the number of fire incidents in each category.

<sup>3</sup> Fires classed as 'Deliberate' should not be interpreted as necessarily resulting from arson or criminal intent.

## Dwelling Fires

In 2021-22, 30 out of 40 (75%) fatal fire casualties and 709 out of 804 (88.1%) non-fatal casualties occurred in dwelling fires and so, it is important that we understand the factors relating to safety in dwelling fires.

### Ignition Source

Similar to previous years, the main source of ignition for accidental dwelling fires was cooking appliances, with 59.5% resulting from this source.

Electricity supply was the source of 8.3% of accidental dwelling fires. A further 6.2% were smoking related.

### Impairment

In 14.6% of accidental dwelling fires in 2021-22, impairment through use of alcohol or drugs was suspected to have been a contributing factor. Such incidents have a much higher casualty rate, [see page 24 for details](#).

### Spread of Fire

In 2021-22, 40.7% of dwelling fires resulted in smoke or heat damage only and 31.2% were confined to the item first ignited. 8.5% of dwelling fire incidents involved the fire spreading beyond the initial room.

### Smoke Alarms

1,180 dwelling fires occurred in a property without a smoke alarm (up from 1,162 in 2020-21), which amounts to 25.5% of the total (down from 33.8% ten years ago). Incidents where there was a smoke alarm present which raised the alarm has risen from 43.2% of incidents ten years ago to 53.5% in 2021-22. This is likely due to more Scottish households having smoke alarms. Changes in Scottish legislation means that all households are required to have smoke detectors in place. Increasing prevalence of smoke alarms is likely to be an important factor in the reducing number of dwelling fires.



## Deprivation (SIMD<sup>4</sup>)

As shown in figure 12, deprivation is strongly associated with the rate of dwelling fires. The 20% most deprived areas of Scotland have a rate of dwelling fires 4.3 times higher than the 20% least deprived and just under double the Scotland average rate. Dwelling fire rates have reduced over time for each deprivation quintile resulting in relatively similar proportions seen in the last eight

years. In the eight-year period, 2014-15 to 2021-22, there has been a 16.9% reduction in the most deprived areas and a 19.5% reduction in the least deprived areas. These figures vary each year as the totals can fluctuate. Similarly, for secondary fires, the most deprived 20% have a rate 4 times higher than the least deprived 20% and 1.8 times higher than the Scotland average.

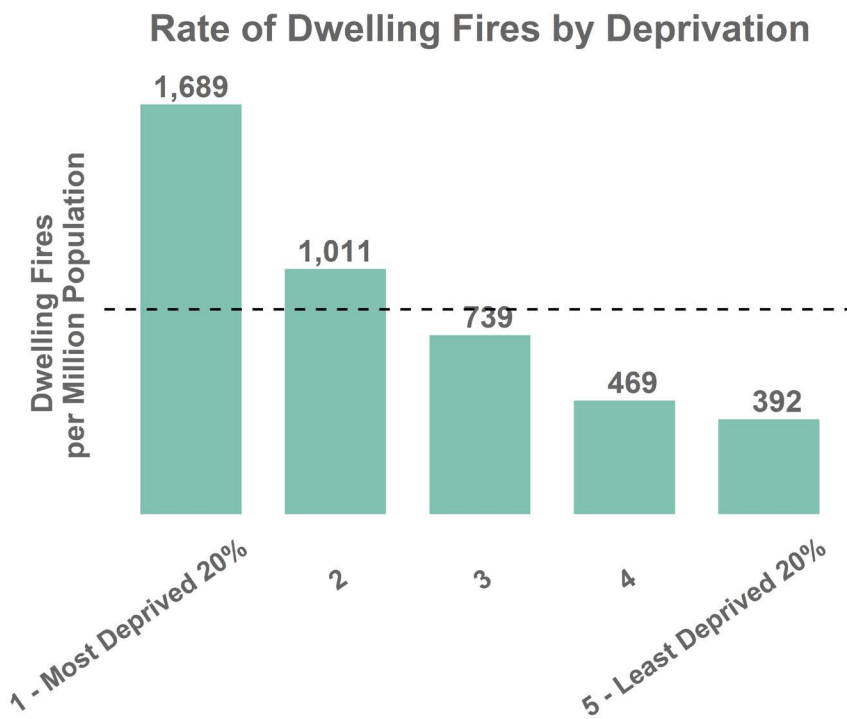


Figure 12: Rate of dwelling fires per million population by level of deprivation, 2021-22. The Scotland average is 845.

<sup>4</sup>Scottish Index of Multiple Deprivation 2020

## Urban-Rural<sup>5</sup>

Large urban areas of Scotland have a rate of dwelling fires per million population that is 1.4 times higher than remote rural areas and 1.1 times higher than the Scotland average. Other urban areas have a rate just above the Scotland average. Accessible small towns, accessible rural areas and remote rural areas have a rate below the Scotland average, with accessible rural areas having a rate just under half of the Scotland average. Remote small towns has the highest rate of dwelling fires, with a rate 1.2 times higher than the Scotland average. Dwelling fire rates are decreasing much faster in urban areas than in rural areas and so, these urban rural proportions

have gradually changed over time. In the last eight years, the Scotland average rate has decreased from 1,042 to 845 (18.9% reduction). The rate for large urban areas has reduced by 25.1% and the rate for other urban areas has reduced by 14.4%. In contrast, the rate for remote small town areas has reduced by 8.7%. Annual figures fluctuate but long-term trends show that cities account for a large proportion of incidents as well as the reduction over time. Accessible rural area rates have also contributed to this overall reduction, having reduced by 18.6% in the last eight years.

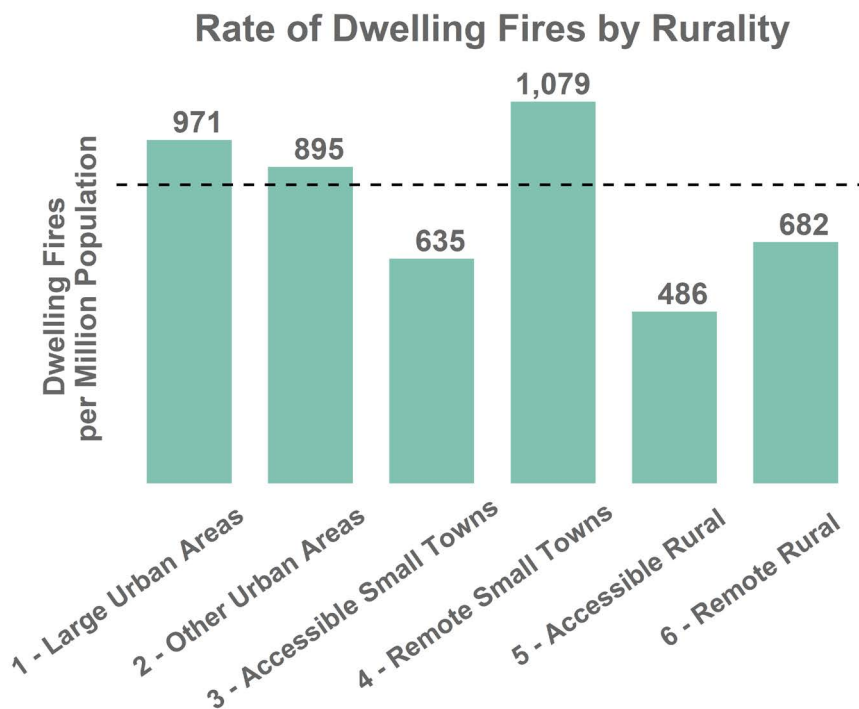


Figure 13: Rate of dwelling fires per million population by level of rurality, 2021-22. The Scotland average is 845.

5 Scottish Government Urban Rural Six Fold Classification



## Local Authority Comparisons

The number of incidents and casualties vary across the 32 local authority areas of Scotland. We use rates adjusted for population or the number of dwellings to more fairly compare these areas.

### Accidental Dwelling Fires

There was an average of 156.8 accidental dwelling fires per 100,000 dwellings in Scotland. Glasgow City had the highest rate of 222.0, followed by West Dunbartonshire at 219.3 and Dundee City at 209.4. Orkney Islands had the lowest rate at 87.1.

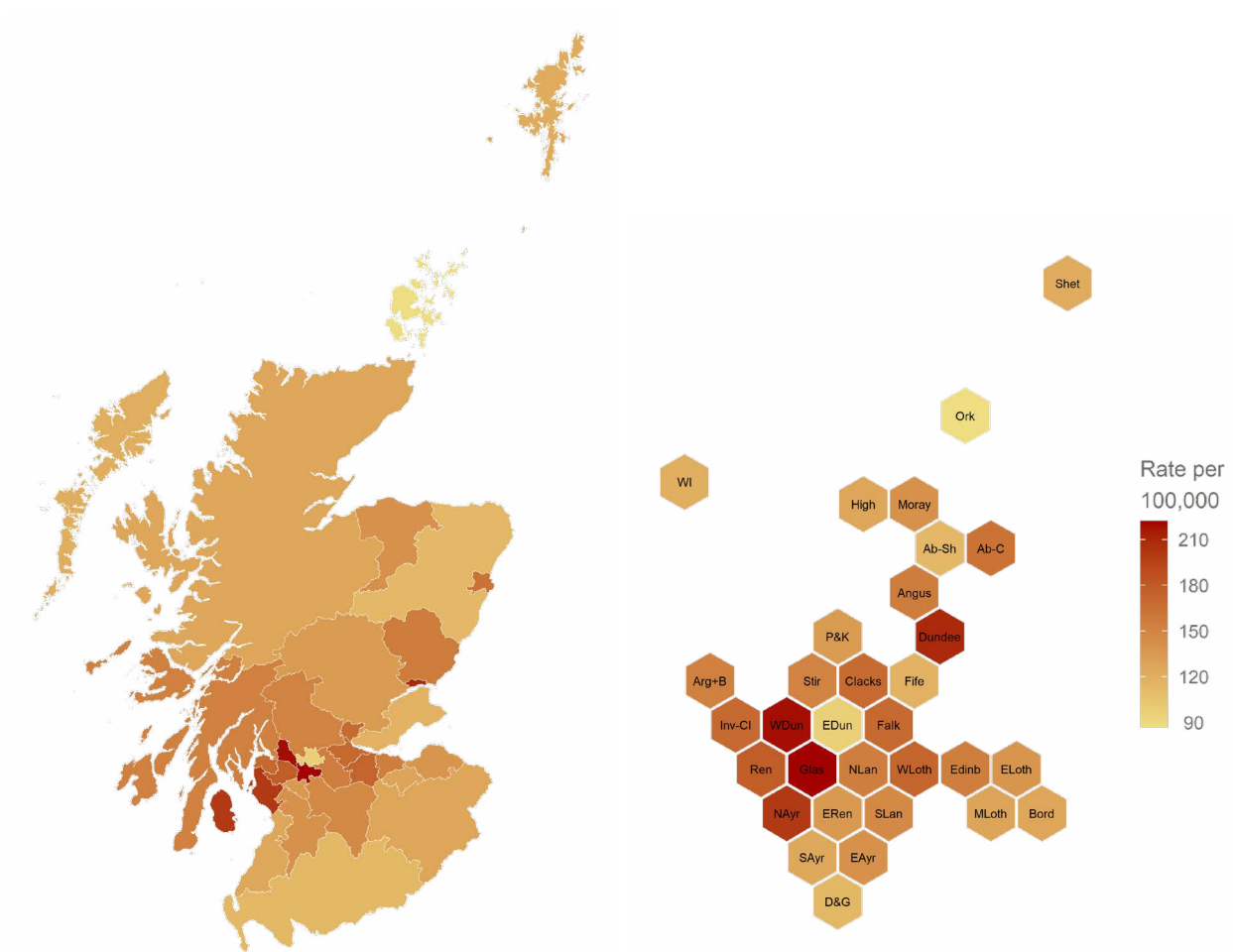


Figure 14: Accidental dwelling fires per 100,000 dwellings, choropleth and area normalised cartogram 2021-22.

## Deliberate Fires

Fires recorded as deliberately set varies considerably across Scotland, with the highest rate in Scotland being 393.1 deliberate fires recorded per 100,000 population in Inverclyde and the lowest rate being 24.4 in Orkney Islands. In 2021-22, the Scotland

average is 299.3 deliberate fires per 100,000 population. As can be seen from figure 15, deliberate fire setting is more frequent in the more urban local authority areas and west of the Central Lowlands.

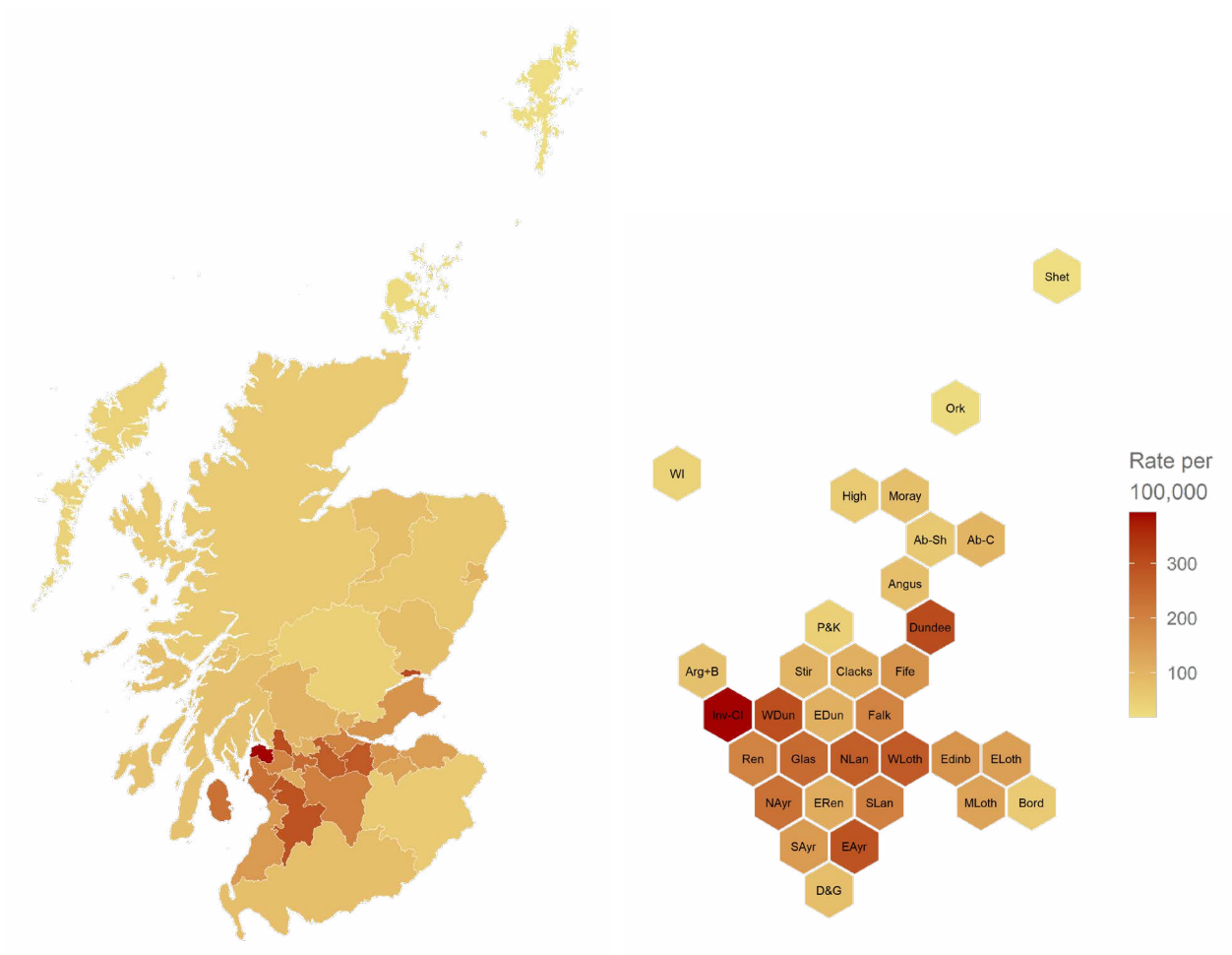


Figure 15: Deliberate fires per 100,000 population, choropleth and area normalised cartogram 2021-22.

For more local authority graphs and statistics please see the [downloadable tables and charts workbook](#).

## 4. Casualties in Fires

There were 40 fatal fire casualties in 2021-22, down from 52 in 2020-21. Annual totals have varied considerably in the past. This year's figure is similar to what has been recorded in the previous ten years. The ten-year average for fatal fire casualties is 41.

Figure 16 shows the historic trend of decreasing fatalities. This has since levelled off. Of the 40 fatal fire casualties, 30 (75%) occurred in dwelling fires, 2 (5%) in other buildings, and 5 (12.5%) in road vehicles.

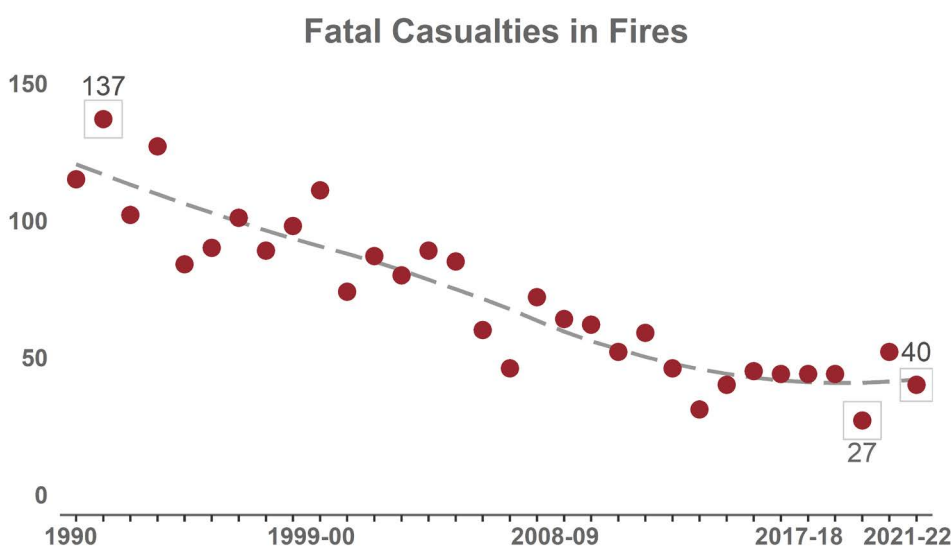


Figure 16: Long-term trend in the number of fatal fire casualties. Note that the series changed from calendar year to financial year after 1993. Values displayed in boxes on chart represent the maximum, minimum and most recent values.

Fire fatalities often appear in clusters throughout the years. This has occurred for many years. Due to this, total fire fatality figures appear to be volatile between years.

Figure 17 shows the 13-week rolling average of fire fatalities from 2016-17 to 2021-22. The peaks of the chart represent these clusters of fire fatalities.

The total fire fatality figure for a year is dependent on whether these peaks fall within that year. For instance, the chart shows that in 2019-20 there is a peak very close to the beginning of the fiscal year.

If this peak were to have occurred slightly earlier in the calendar year, it would have occurred at the end of the 2018-19 fiscal year.

Consequently, the total fire fatalities figure for 2019-20 would have been considerably lower and the total for 2018-19 would have been higher. This highlights that clusters of fatalities have a large influence on the total fire fatality figure for a year and so, large variations between years are to be expected.

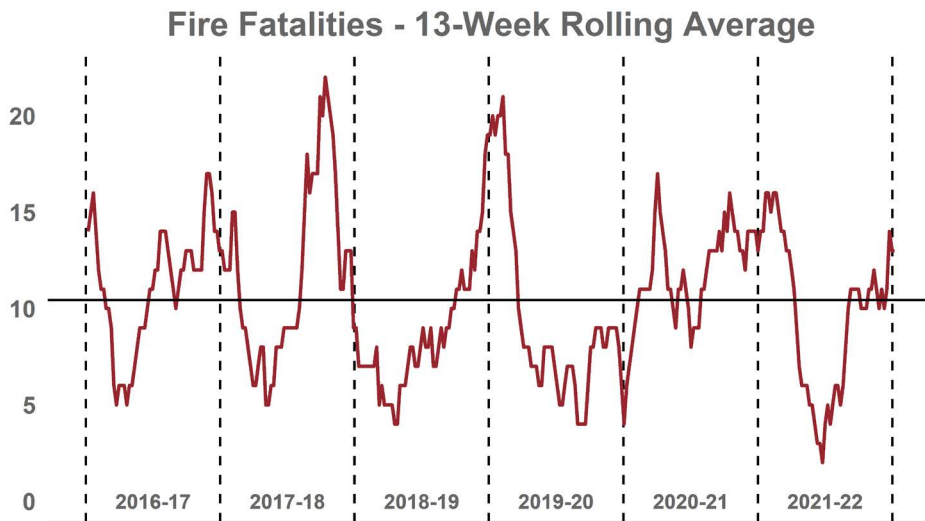


Figure 17: Fire Fatalities as a 13-week rolling average. The horizontal black line represents the average of the 13-week rolling values. Vertical dashed lines represent the change in fiscal year.

In 2021-22, there were 804 non-fatal fire casualties, down from 1,019 last year (21.1% decrease). This is the lowest number of non-fatal fire casualties recorded since this series began. There are quality concerns due to regional variations in practice for how casualties are recorded. Improvements in recording practices will likely impact on future years' statistics.

Over the last ten years, there has been a 43.1% reduction in the number of non-fatal casualties. Figure 18 highlights the decreasing trend in non-fatal fire casualties since the early 2000s.

709 (88.2%) of these casualties occurred in dwelling fires, 48 (6.0%) occurred in other buildings and 31 (3.9%) occurred in road vehicles.

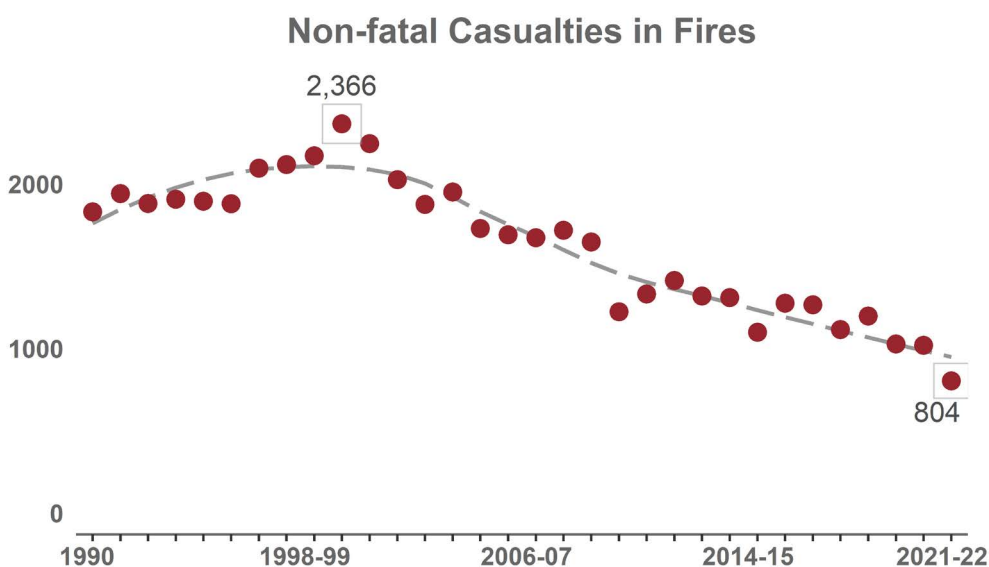


Figure 18: Long-term trend in the number of non-fatal fire casualties. Note that the series changed from calendar year to financial year after 1993. Values displayed in boxes on chart represent the maximum, minimum and most recent values. In this case, the most recent value is also the minimum value.

In 2021-22, 555 casualties required treatment, down from 694 in 2020-21 (20.0%). 249 casualties were given no treatment at the scene but a precautionary check was recommended. This is down from 325 in 2020-21 (23.3%).

The primary cause of injury in fires was being overcome by gas, smoke or toxic fumes at 46.8%, with burns accounting for a further 16.1% and a combination of burns and being overcome by gas or smoke accounting for a further 1.9%.

Of those who required treatment, 298 casualties attended hospital, down from 350 last year (14.9% reduction).

### Treatment of Non-fatal Casualties

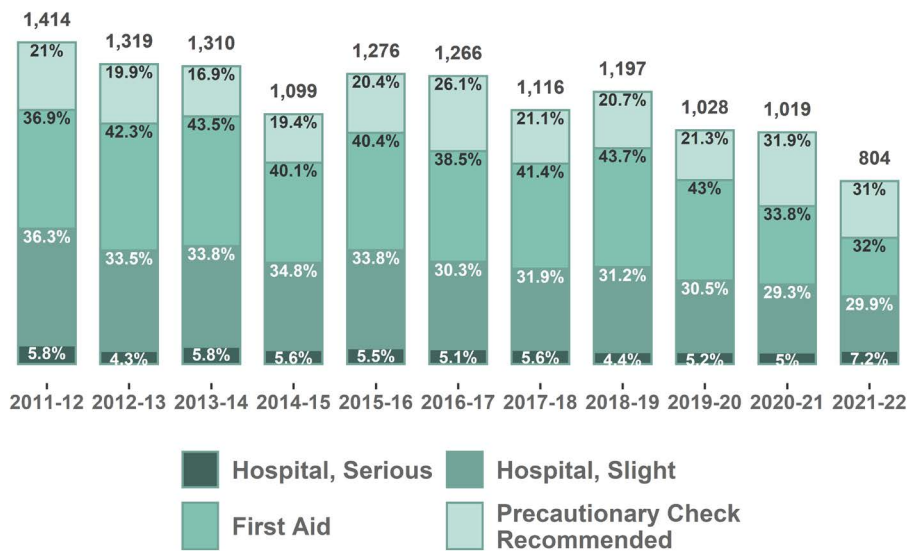


Figure 19: Treatment of non-fatal casualties with percentage share by type.

## Great Britain Comparisons

The number of fatal casualties in fires varies each year. Figure 20 shows that overall, there has been a downward trend in fatal fire casualties per million population since the early 2000s across all nations.

Scotland has consistently had higher fatal fire casualties per million than England and Wales. Differing demographic, deprivation and urban-rural profiles of each nation are likely factors in explaining the different rates.

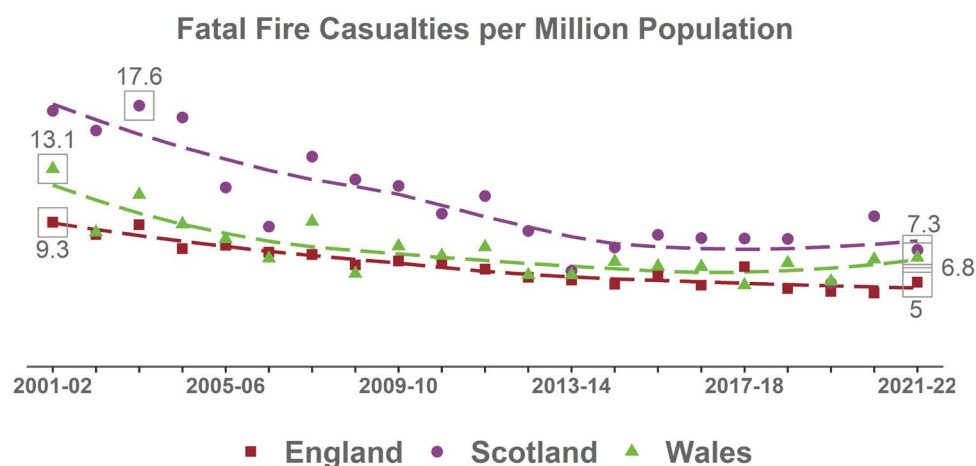


Figure 20: Fatal fire casualties per million population in Great Britain. Values displayed in boxes on chart represent the maximum, minimum and most recent values. In this case, the most recent values are also the minimum values.

### Hospitalised Non-fatal Fire Casualties per Million Population

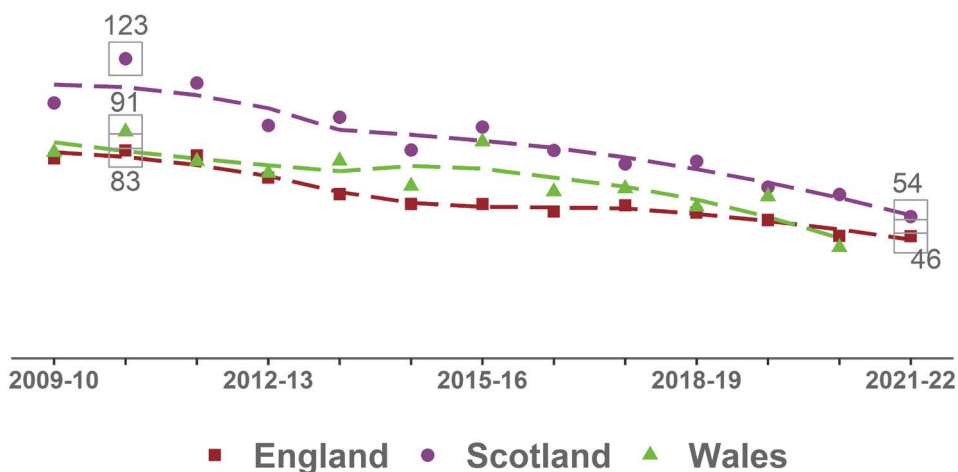


Figure 21: Hospitalised fire casualties per million population in Great Britain. Values displayed on chart represent the maximum, minimum and most recent value. In this case, the most recent values are also the minimum values.

## Casualty Profile

### Age

Figure 22 shows the strong relationship between age and rates of fatal casualties. The rates for those over 40 are all above the Scotland average. After age 79 the rate is considerably higher, with those aged 80-89 having a rate more than triple the Scotland average and those over 90 years of age having a rate over six times higher. Those aged 0 to 39 years are below the Scotland average, with those aged 5 to 16 years having a rate less than a tenth of the Scottish average. One-year figures can vary a lot and so, ten-year average figures have been used to ensure that comparisons are robust.

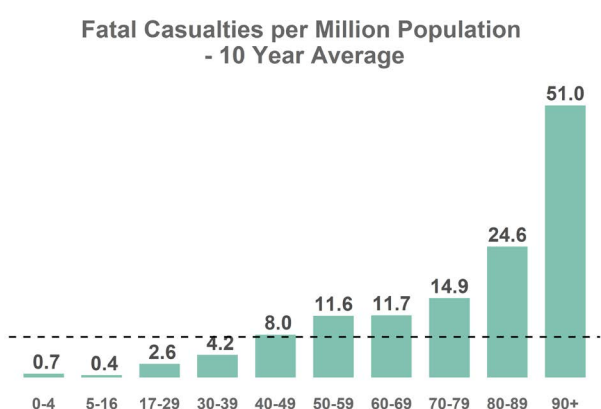


Figure 22: Ten-year average rate per million population of fatal casualties by age band. The dotted line represents the average figure of 7.6.

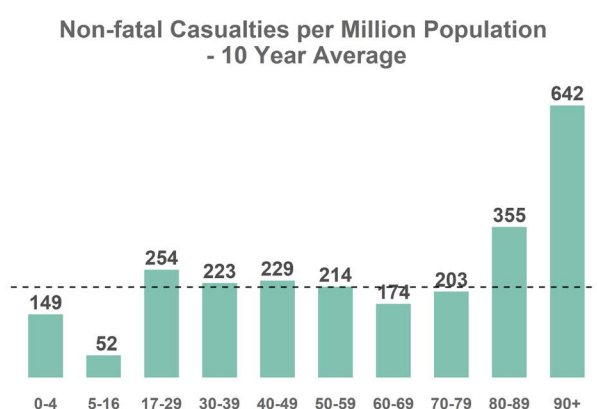


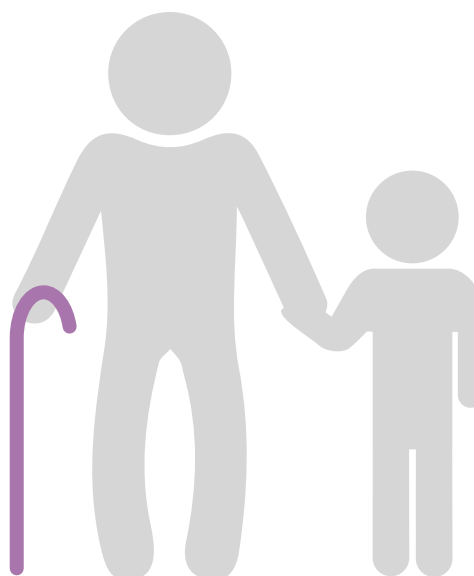
Figure 23: Ten-year average rate per million population of non-fatal casualties by age band. The dotted line represents the average figure of 213.6.

The relationship between age and rate of casualties is not as strong for non-fatal casualties as it is for fatal casualties.

There are similar rates for those over 80, with those aged 80-89 having a rate 1.6 times the Scotland average and those over 90 having a rate over three times the average.

In contrast to fatal casualty rates, those aged 17-29 have a rate 1.2 times above the Scotland average and those aged 60-69 have a rate 0.8 times less than the Scotland average.

People under the age of 16 years have a rate below the Scotland average, with those aged 0-4 years having a rate 0.7 times less than the average and those aged 5-16 years having a rate 4 times less than the Scotland average.



## Gender

Of the 40 fatal casualties in 2021-22, 24 were male (60%). Similar to previous years, there is a distinct difference between genders in the rate of fatal casualties per million population. The total rate of fatal casualties per million population was 7.3 in 2021-22. The rate of male fatal casualties per million population was 9.0, compared to the rate of female fatal casualties which was 5.3 per million population.

There is a similar gender difference seen in non-fatal casualty rates, however the difference is smaller. In 2021-22, the total rate of non-fatal casualties was 145.8 casualties per million population.

The rate of male non-fatal casualties was 163.1 and the rate of female non-fatal casualties was 116.1 casualties per million population.

## Deprivation

There is a relationship between deprivation and fire casualty rates in Scotland. For fatal casualties, the most deprived 20% has a 4.8 times higher fatal casualty rate than the least deprived 20% and 1.8 times higher than the Scotland average.

The least deprived 20% is considerably below all other areas with a rate that is 2.7 times less than the Scotland average.

A similar situation is seen for non-fatal casualties. The most deprived area has a rate of non-fatal casualties 5.5 times more than the least deprived 20%.



## Rate of Fatal Casualties by Deprivation

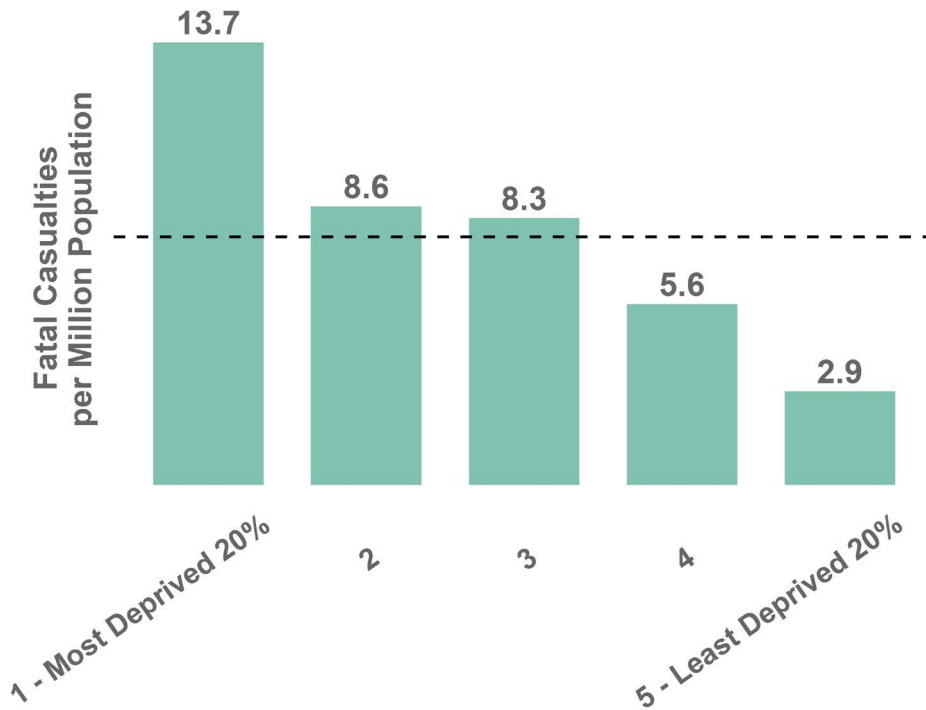


Figure 24: Eight-year<sup>6</sup> average rate of fatal fire casualties per million population by level of deprivation. The Scotland average is 7.7. Eight years of data was used to ensure a fair comparison.

## Rate of Non-fatal Casualties by Deprivation

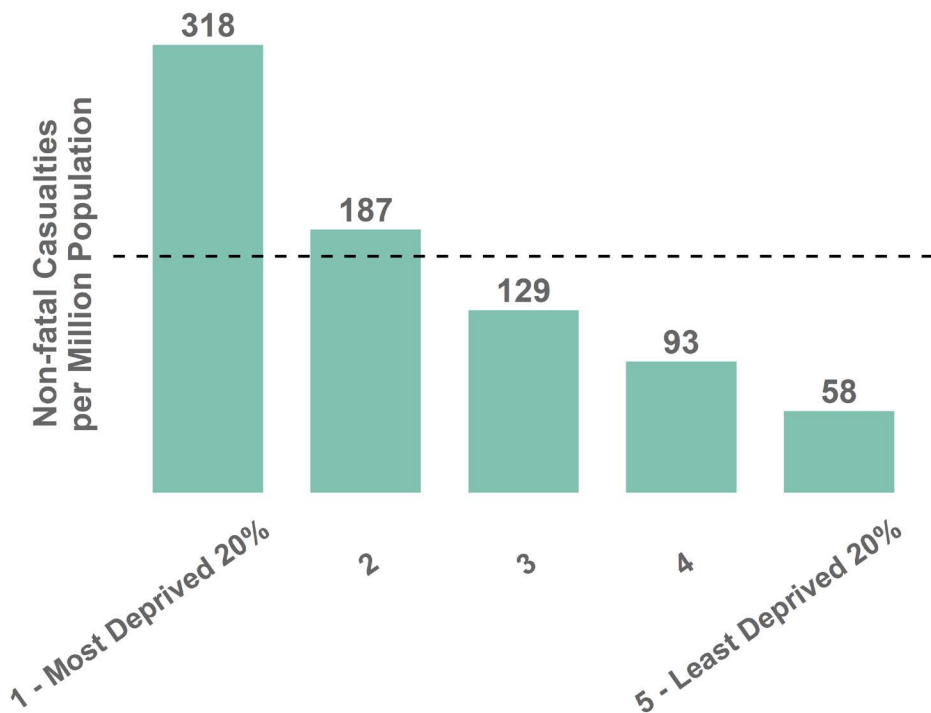


Figure 25: Eight-year average rate of non-fatal fire casualties per million population by level of deprivation. The Scotland average is 155. Eight years of data was used to ensure a fair comparison.

<sup>6</sup> An eight-year average is used as the annual totals vary substantially and multiple years of data is needed to produce robust statistics

Deprivation is a very clear factor in the historic casualty profile regardless of gender or age. This comes out clearly in figures 26 and 27. Please note, these charts are presented to highlight the historic casualty profile only, each bar should not be interpreted as the true risk of any individual or group.

Figure 26 shows that for fatal casualties, there is a clear link between deprivation and fatal casualty rate. Regardless of age or gender, those in the most deprived areas have a higher rate of fatal casualties per million population. Over the age of 50, males have a much higher rate of fatal casualties regardless of deprivation.

Females over 80 and females in the most deprived areas have a much higher fatal casualty rate than other females, particularly those in the least deprived areas. Males over 80 have a much higher than average fatal casualty rate in all deprivation areas compared to females, with the least deprived 20% having a rate closer to the Scotland average than females.

Those over 90 have not been included in this chart due to the higher number of fatal casualties and low population rates resulting in some areas exceeding 100 fatal casualties per million population. There have been 17 fatal casualties in those aged over 90 in the last eight years, of which 10 were male. Of the 17 fatal casualties in over 90s, 13 were in SIMD quintiles 3 or 4.

## Fatal Casualties per Million Population - 8 Year Average

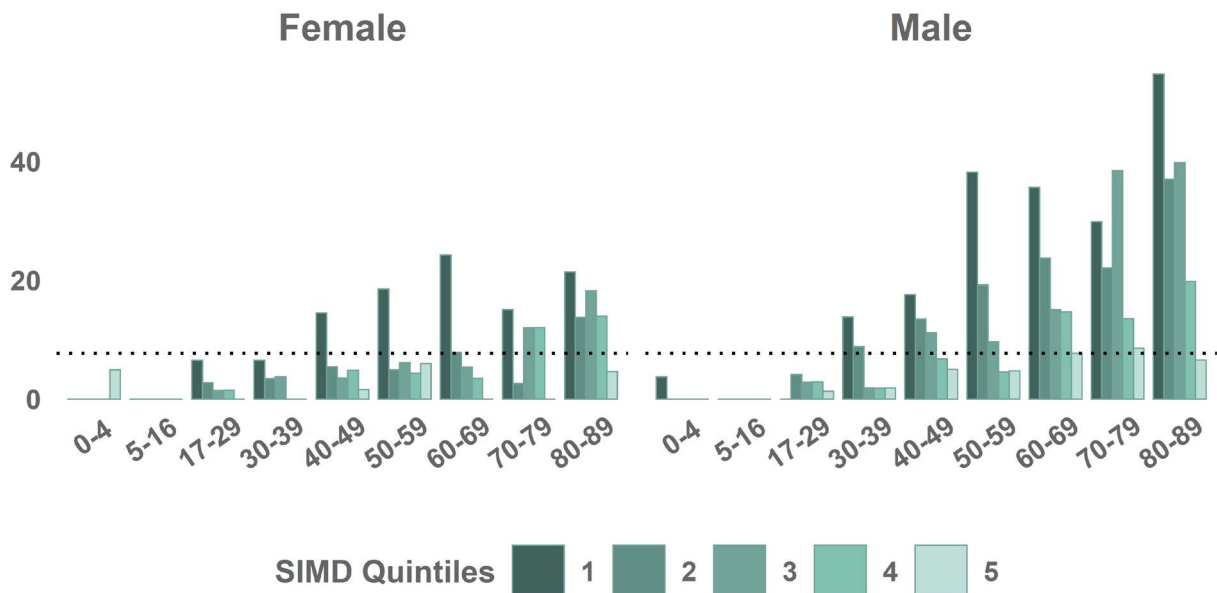


Figure 26: Fatal fire casualties per million population by gender, age and by level of deprivation where 1 is the 20% most deprived areas and 5 is the 20% least deprived areas. The horizontal line represents the Scotland average (7.7).

For non-fatal hospitalised casualties, the rates are higher for all adults in the 20% most deprived areas, except for those who are aged over 90. Males in the 40% most deprived areas have higher rates than females, with all males above age 17 years in SIMD quintile 2 being above the Scotland average.

## Hospitalised Casualties per Million Population - 8 Year Average

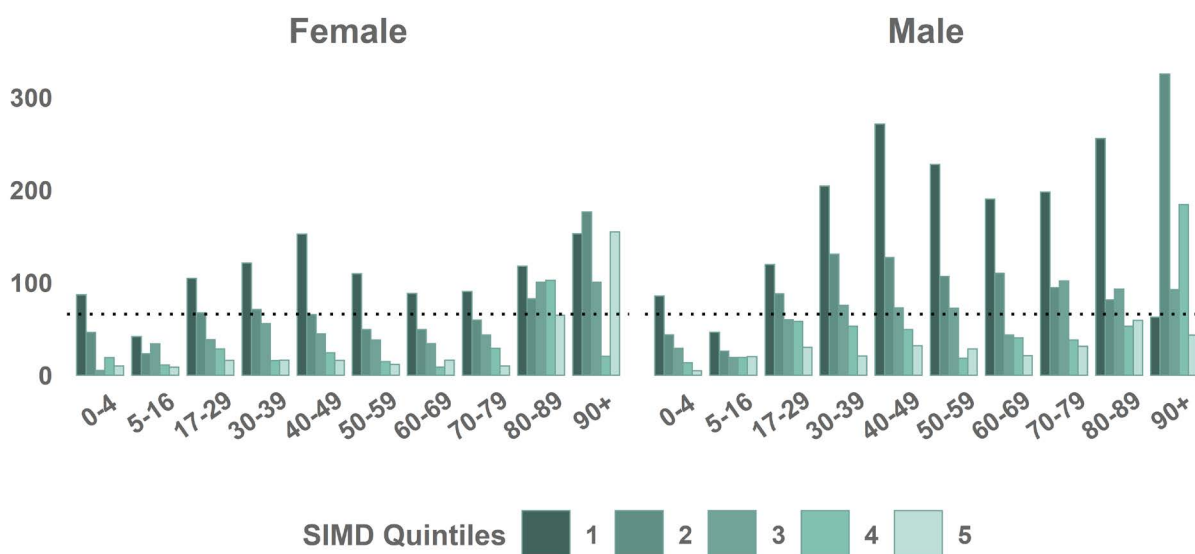


Figure 27: Hospitalised fire casualties per million population by gender, age and by level of deprivation where 1 is the 20% most deprived areas and 5 is the 20% least deprived areas. The horizontal line represents the Scotland average (65.9).

### Impairment

Impairment using alcohol or drugs was suspected to have been a contributing factor in 14.6% of accidental dwelling fires. These fires have higher casualty rates, with an average rate of 12.3 fatal casualties per 1,000 accidental dwelling fires in the last ten years, compared to 2.5 fatal casualties where impairment was not suspected.

There were 357.9 non-fatal casualties per 1,000 fires with such impairment, compared to the 138.1 without.

These averages are based on ten years of casualty data as there is no clear trend in recent years and the relatively low number of casualties means that a longer-term average is fairer.

In 2021-22, there were 8 fatal casualties in accidental dwelling fires where impairment by alcohol or drugs was suspected and 160 non-fatal casualties.

## Urban-Rural

The rate of non-fatal casualties is 1.4 times higher in the most urban areas compared to the most rural.

The non-fatal casualty figures vary each year. In the last eight years, rates have been decreasing proportionally faster in the most rural areas.

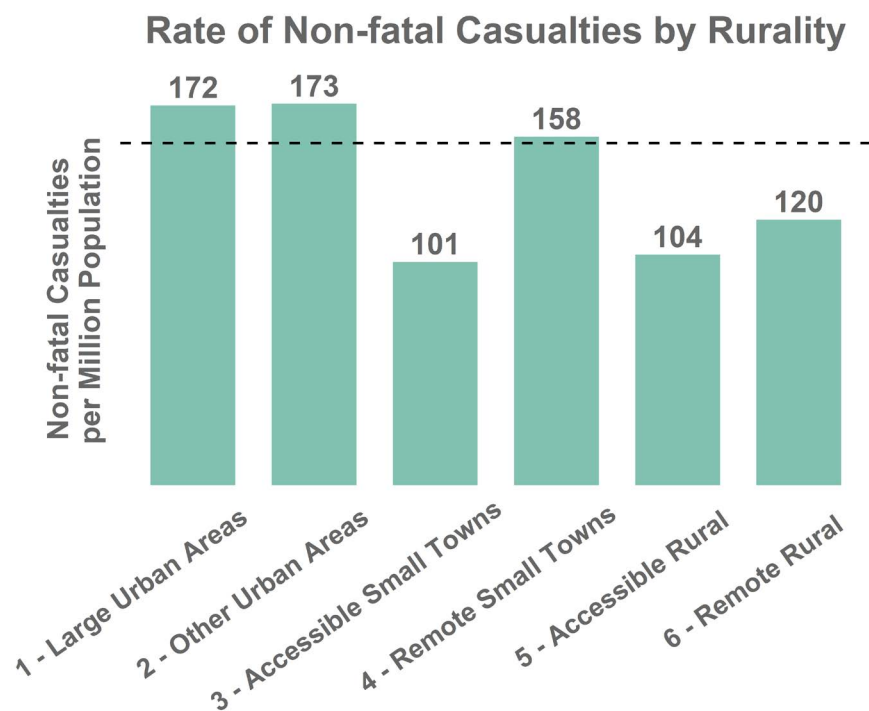


Figure 28: Eight-year average rate of non-fatal fire casualties per million population by level of rurality. The Scotland average is 155.0. Eight years of data was used to ensure a fair comparison.

The situation differs for fatal casualties. The rate of fatal casualties per million population is 2.2 times higher in the most rural areas compared to the most urban areas.

The three categories of most remote areas (remote small towns, accessible rural and remote rural) all have higher than average rates of fatal casualties per million population.

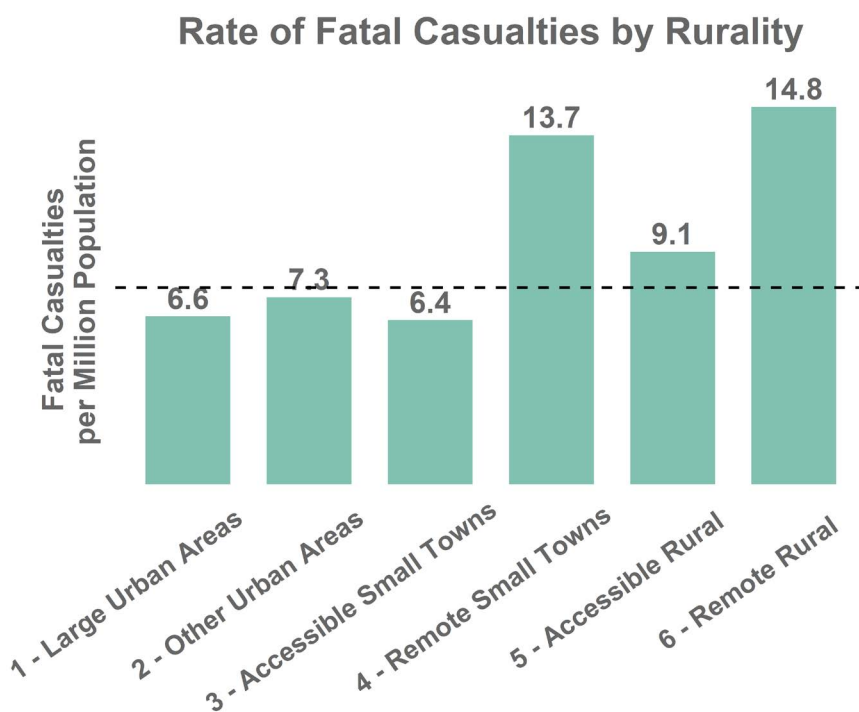


Figure 29: Eight-year average rate of fatal fire casualties per million population by level of rurality. The Scotland average is 7.7. Eight years of data was used to ensure a fair comparison.

## 5. Non-fire Incidents and Casualties

In 2021-22, there was 15,292 non-fire incidents recorded, up from 12,693 last year (20.5% increase). Although this is a relatively large increase, the figures from last year could be unusually low due to the restrictions that were imposed during the COVID-19 pandemic. The restrictions led to limited travel, closure of buildings and changes in human behaviours. Consequently, some non-fire incident categories reduced more substantially last year than would have been expected when compared to pre-pandemic figures. Figure 30 shows the overall trend of non-fire incidents.

Pre-pandemic working arrangements recognised wider partnership working in dealing with known casualties. However, throughout lockdown periods in 2020-21, SFRS had reduced involvement in these cases, particularly during multi-agency incidents. In following reporting guidance, SFRS personnel did not report any casualties where there had been no direct involvement. As national restrictions eased throughout 2021-22, SFRS had more involvement in these cases, and so an increase in casualties is to be expected this year when compared to last year.

There has been a large increase in the number of road traffic collisions attended by SFRS, with 1,596

recorded in 2020-21, compared to the 2,164 recorded this year. This is an increase of 35.6%. This is still lower than pre-pandemic levels.

COVID-19 restrictions in 2020-21 meant that people could not travel as freely within the country as they did before the pandemic and so, there was less traffic on the roads. Due to this, low overall figures were to be expected last year. As restrictions eased throughout 2021-22, it was expected that road traffic collisions would increase to be similar to pre-pandemic levels.

Lift release is a further sub-category of non-fire incident where COVID-19 restrictions impacted on last year's figures. This year, this figure has increased to a level similar to what was seen before the pandemic, with 674 incidents recorded in 2021-22 and 415 incidents recorded in 2020-21 (62.4% increase).

Effecting Entry or Exit incidents increased from 3,735 last year to 4,461 in 2021-22 (19.4% increase). Similarly, Assist Other Agencies incidents increased by 15.2%, from 1,161 in 2020-21 to 1,337 this year. [See figures 32 to 37 for trends in major non-fire incident categories.](#)

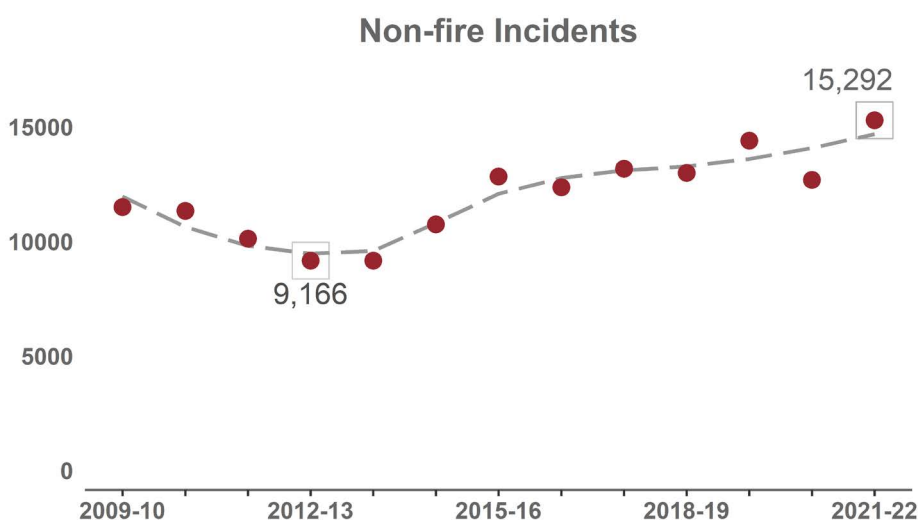


Figure 30: Trends in non-fire incidents. Values displayed in boxes on chart represent the maximum, minimum and most recent values. In this case, the most recent value is also the maximum value.

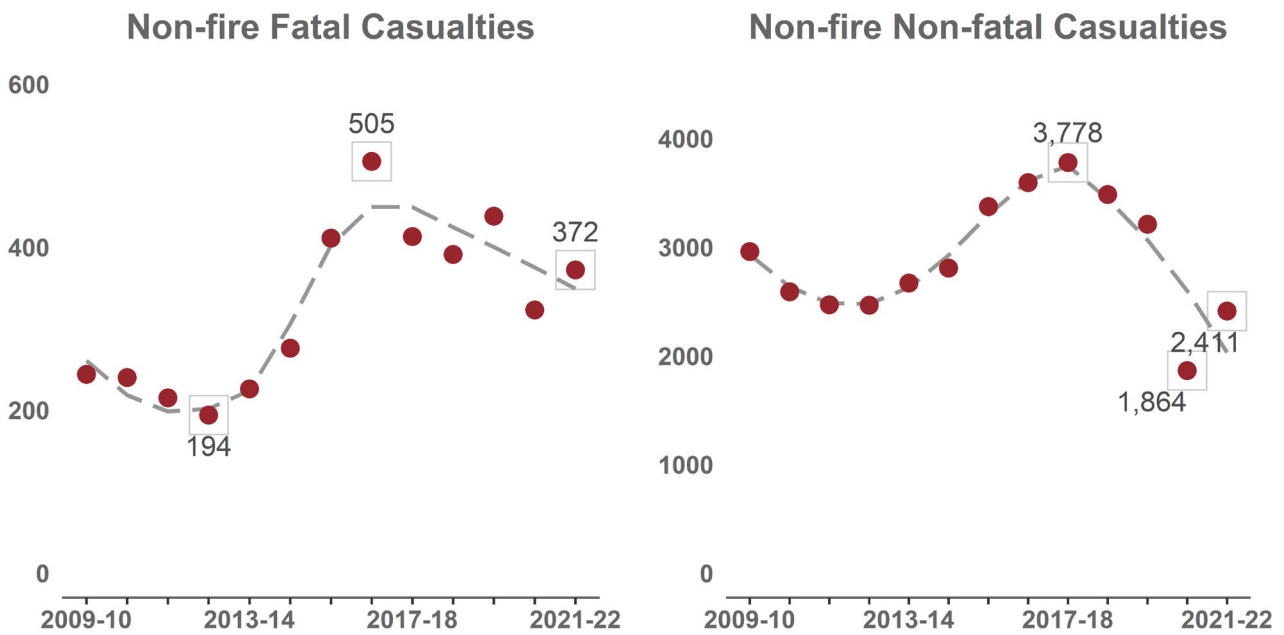


Figure 31: Trends in the number of non-fire casualties. Values displayed in boxes on chart represent the maximum, minimum and most recent values. For non-fire non-fatal casualties, the most recent value is also the minimum value. Changes in operational procedures during the COVID-19 pandemic has impacted casualty figures. [See page 27 for explanation.](#)

There were 372 non-fire fatal casualties in 2021-22, an increase of 15.6% from last year’s 322 fatalities. This figure had increased in previous years due to increasing inter-agency cooperation.

There were 2,411 non-fire non-fatal casualties in 2021-22, an increase of 29.3% from last year’s total of 1,864. The number of non-fire non-fatal casualties had previously been decreasing steadily since 2017-18. As previously discussed, there was a reduction in non-fire incidents attended last year due to the COVID-19 restrictions. With restrictions easing throughout 2021-22, it was expected that the non-fire incidents would increase, and therefore also fatalities and non-fatal casualties.

The number of fatalities resulting from road traffic collisions remained the same as 2020-21, with 60 fatalities recorded last year and this year. However, the number of non-fatal casualties at road traffic collisions increased from 895 last year to 1,296 in 2021-22 (44.8%).

There has also been an increase in the number of fatalities and non-fatal casualties at ‘Assist Other Agencies’ incidents, with 217 non-fatal casualties recorded this year (up from 161 in 2020-21) and 58 fatalities (up from 42 in 2020-21).

## Road Traffic Collisions

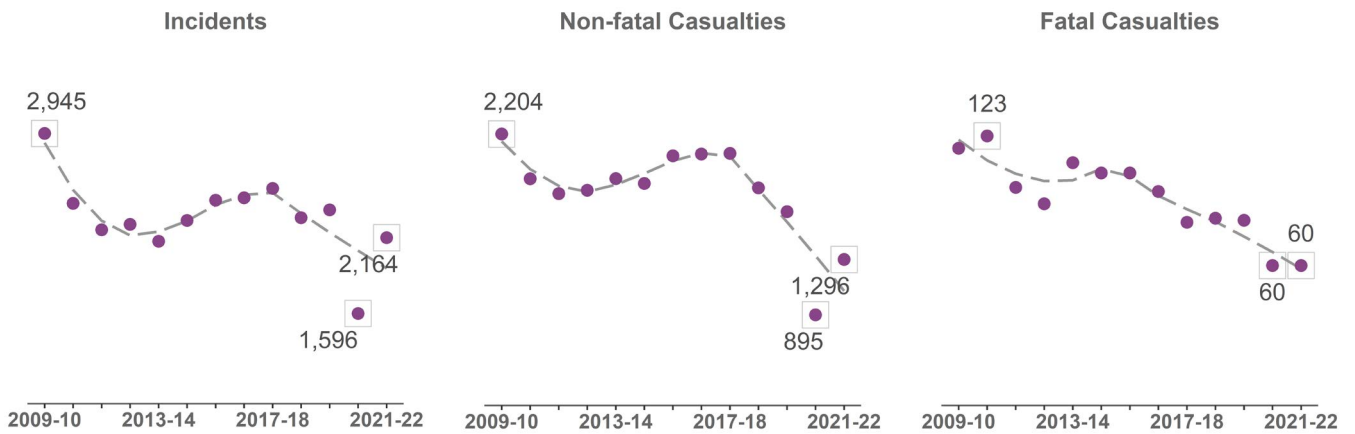


Figure 32: Trends in the Number of Road Traffic Collisions. Values displayed in boxes on chart represent the maximum, minimum and most recent values.

## Flooding and Rescue or Evacuation from Water

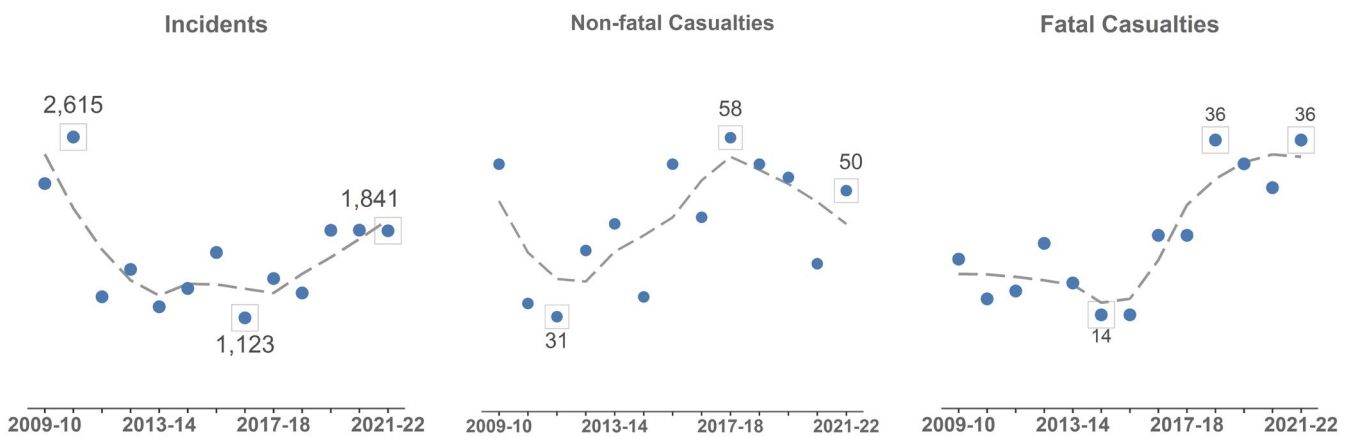


Figure 33: Trends in the Number of Flooding Incidents. Values displayed in boxes on chart represent the maximum, minimum and most recent values. In this case, the most recent values are also the maximum values.

## Medical Response

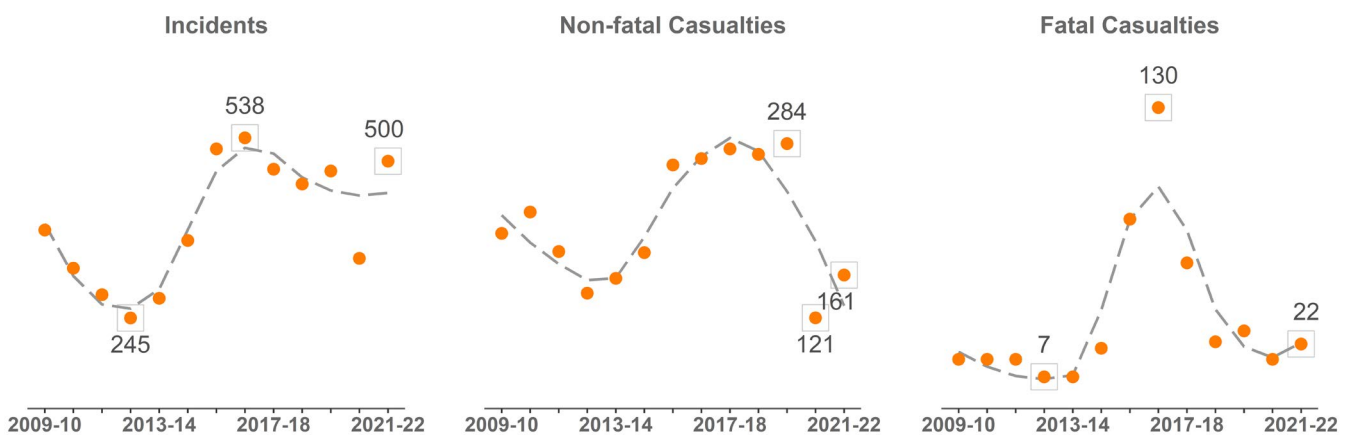


Figure 34: Trends in Number of Medical Incidents. Values displayed in boxes on chart represent the maximum, minimum and most recent values. Changes in operational procedures during the COVID-19 pandemic has impacted casualty figures. See page 27 for explanation.



## Suicide (including attempts)

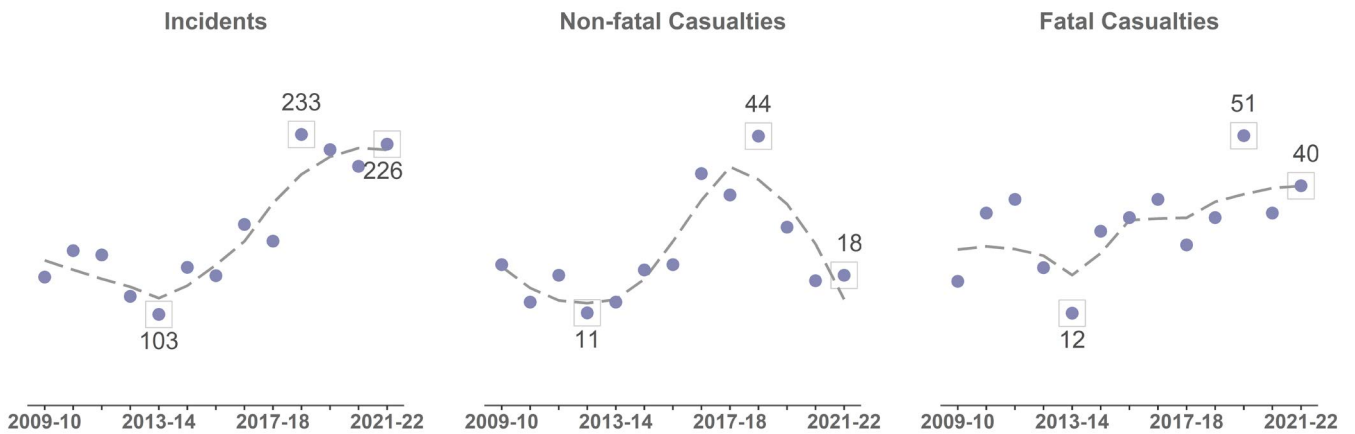


Figure 35: Trends in Suicide (including attempts). Values displayed in boxes on chart represent the maximum, minimum and most recent values.

## Effecting Entry or Exit

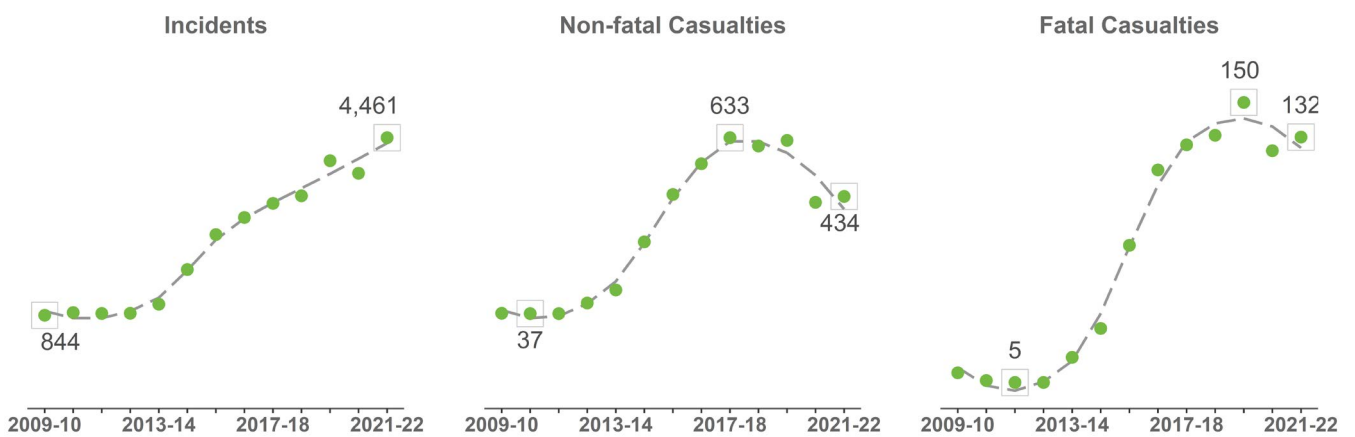


Figure 36: Trends in Effecting Entry or Exit. Values displayed in boxes on chart represent the maximum, minimum and most recent values. There are instances where the most recent value is also the maximum value. Changes in operational procedures during the COVID-19 pandemic has impacted casualty figures. See page 27 for explanation.

## Assist Other Agencies

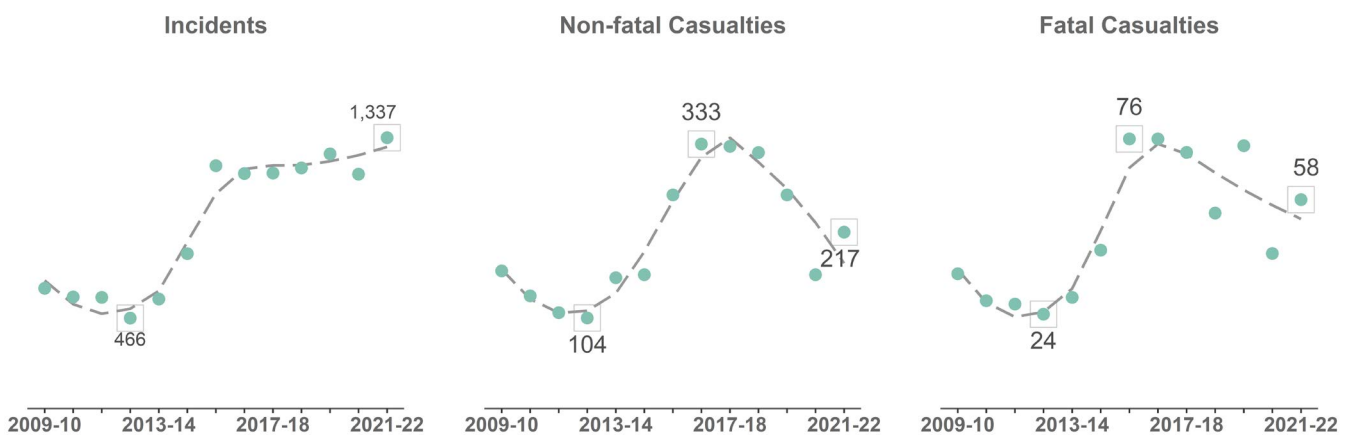


Figure 37: Trends in Assist Other Agencies. Values displayed in boxes on chart represent the maximum, minimum and most recent values. Changes in operational procedures during the COVID-19 pandemic has impacted casualty figures. See page 27 for explanation.

## 6. False alarms

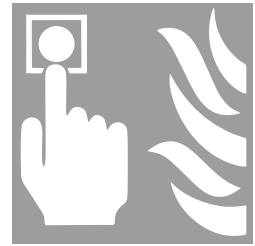
In 2021-22, there were 52,646 false alarms, up from 47,748 last year (10.3% increase). Of these, 51,734 were fire false alarms. This is considerably higher than last year's 46,826 (10.5%).

Fire false alarm incidents where detecting apparatus has raised an alarm is the main cause of this increase. In 2021-22, there were 40,509 of these incidents, up from 35,812 last year (13.1% increase).

This large increase is likely due to the re-opening of non-domestic premises through 2021-22 as COVID-19 restrictions were eased.

This is shown in figure 40, where it is shown that false alarms in 2020-21 in dwellings remained relatively consistent, when compared to previous years' figures, but false alarms in other buildings dropped substantially. This year, false alarms in other buildings has increased to be more consistent with pre-pandemic figures.

Fire false alarm attendances caused by raised alarms from detecting apparatus accounts for 42.3% of all incidents attended this year. This is up from 41.9% in 2020-21.



### Fire False Alarms

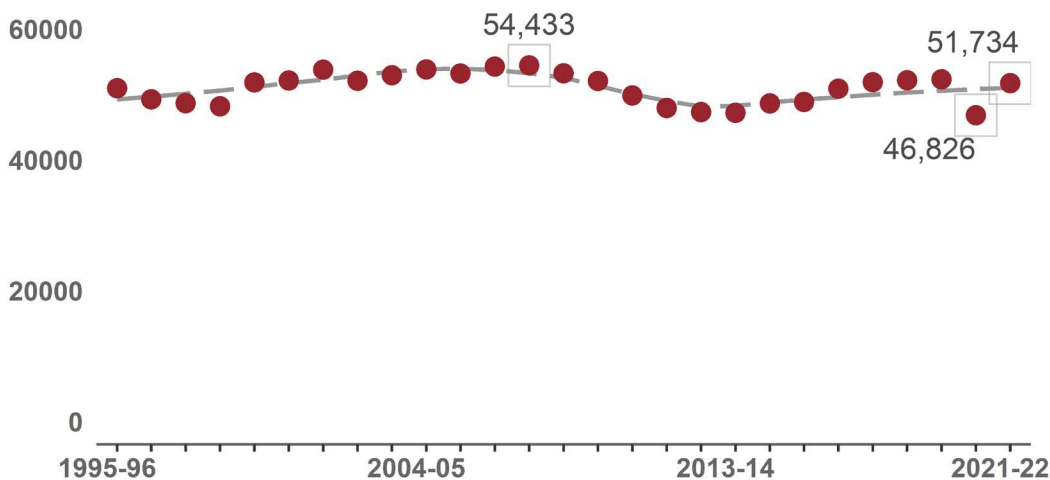


Figure 38: Long-term trend in fire false alarms. Values displayed in boxes on chart represent the maximum, minimum and most recent values.

Figure 39 shows that an increase in fire false alarms due to apparatus was the cause of the overall increase up until the mid-2000s, shown in figure 38.

This trend levelled off in the mid to late 2000s and appeared to continue increasing until last year when the figure decreased again. The figure has increased again this year, to be more consistent with figures before the COVID-19 pandemic.

The number of fire false alarms accounted for by good intent remained stable until about 2009-10 and then began to decrease slowly. The figure increased slightly in 2020-21, but has decreased again this year.

The number of malicious fire false alarms has steadily decreased since the late 1990s. In 2021-22, this figure increased again, but is consistent with pre-pandemic figures.

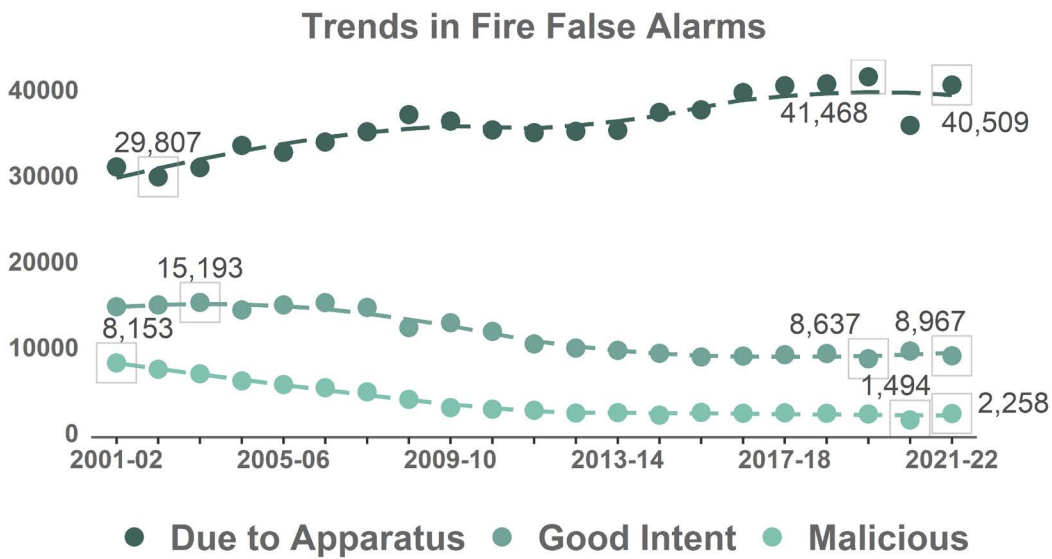


Figure 39: Trends in cause of fire false alarms. Values displayed in boxes on chart represent the maximum, minimum and most recent values.

The main cause of increasing fire false alarms is due to apparatus false alarms in dwellings. The total number of apparatus false alarms in dwellings is 13,700, an increase from 13,326 recorded in 2020-21 (2.8%). This is up 40.1% from ten years ago.

The number of apparatus false alarms in other buildings has remained more stable over the last ten years. Malicious false alarms have reduced in dwellings over the last ten years from 811 in 2011-12 to 405 in 2021-22 (50.1%) and good intent false alarms has decreased from 3,896 in 2011-12 to 3,313 (15.0%).

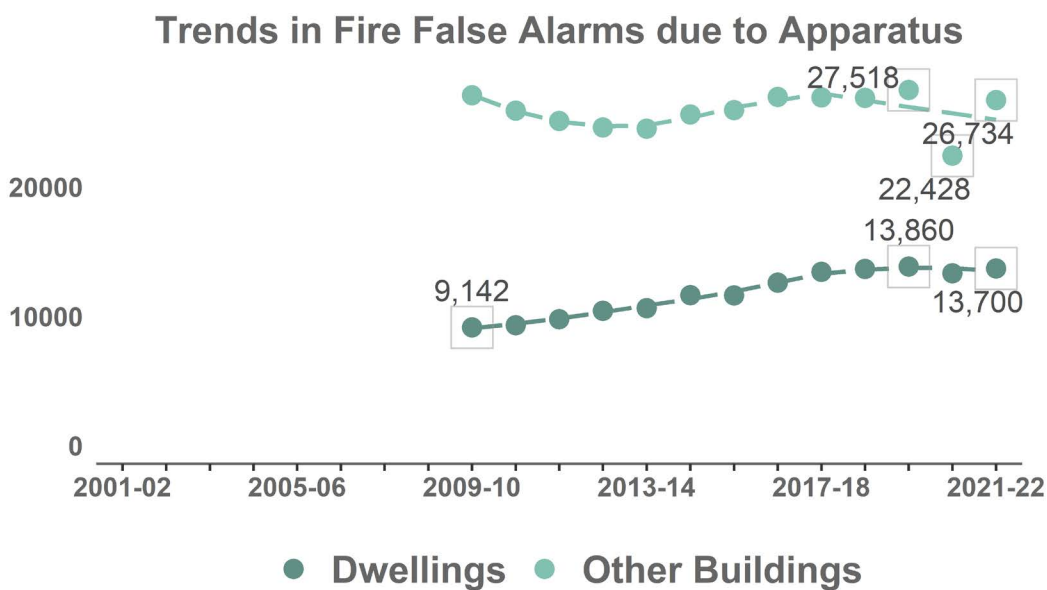


Figure 40: Trends in the location of fire false alarms due to apparatus. Values displayed in boxes on chart represent the maximum, minimum and most recent values.

## Unwanted Fire Alarm Signals

Unwanted Fire Alarm Signals (UFAS) describes an avoidable false alarm signal from a workplace, either from an automatic fire alarm or from a person. In previous years, these signals had steadily increased, from 26,394 incidents in 2013-14 to 29,285 in 2019-20 (10.9% increase).

This figure reduced substantially in 2020-21 during the COVID-19 pandemic, when most offices were closed and home-working was encouraged. This

meant that less people were in workplace buildings and so, less opportunity for an unwanted signal to be triggered.

In 2021-22, this figure increased substantially from 23,736 last year to 28,708 (20.9% increase). Whilst this seems a large increase, the figure is lower than pre-pandemic levels, with 29,285 of these incidents recorded in 2019-20.

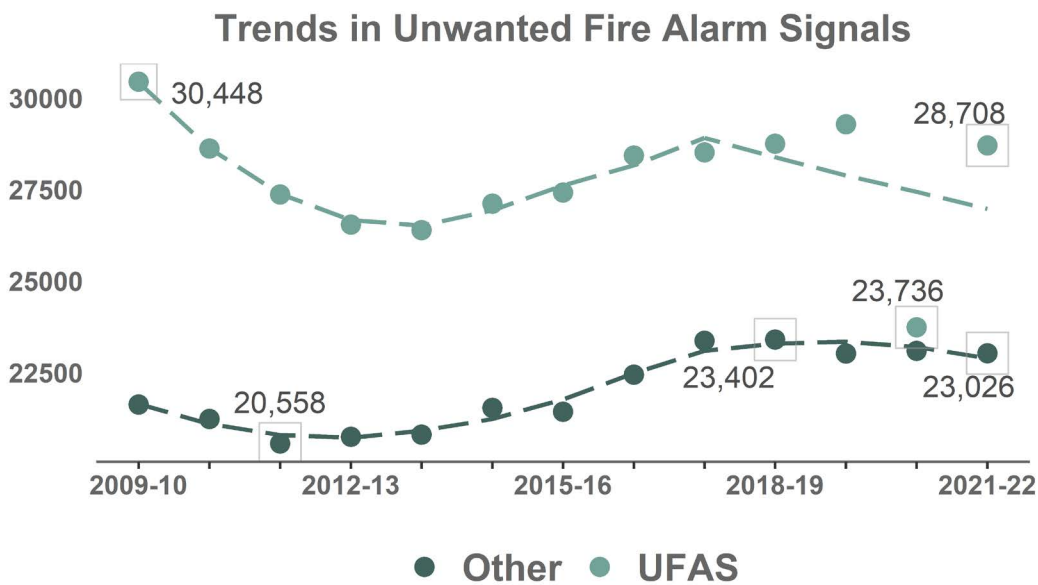


Figure 41: Trends in Unwanted Fire Alarm Signals (UFAS) and Other fire alarm signals in Scotland. Values displayed in boxes on chart represent the maximum, minimum and most recent values.

## Local Authority Breakdown

Figure 42 shows a breakdown of UFAS by local authority. UFAS are considerably higher in urban areas such as Glasgow City (842.3 per 100,000 population), Dundee City (772.4 per 100,000 population) and City of Edinburgh (700.5 per 100,000 population). This is because there are typically more offices and workplace buildings in urban areas.

Rural areas have much lower rates, for instance Orkney islands has a rate of 230.7 per 100,000 population. An exception to this is Argyll and Bute where there is a rate of 709.8 per 100,000 population.

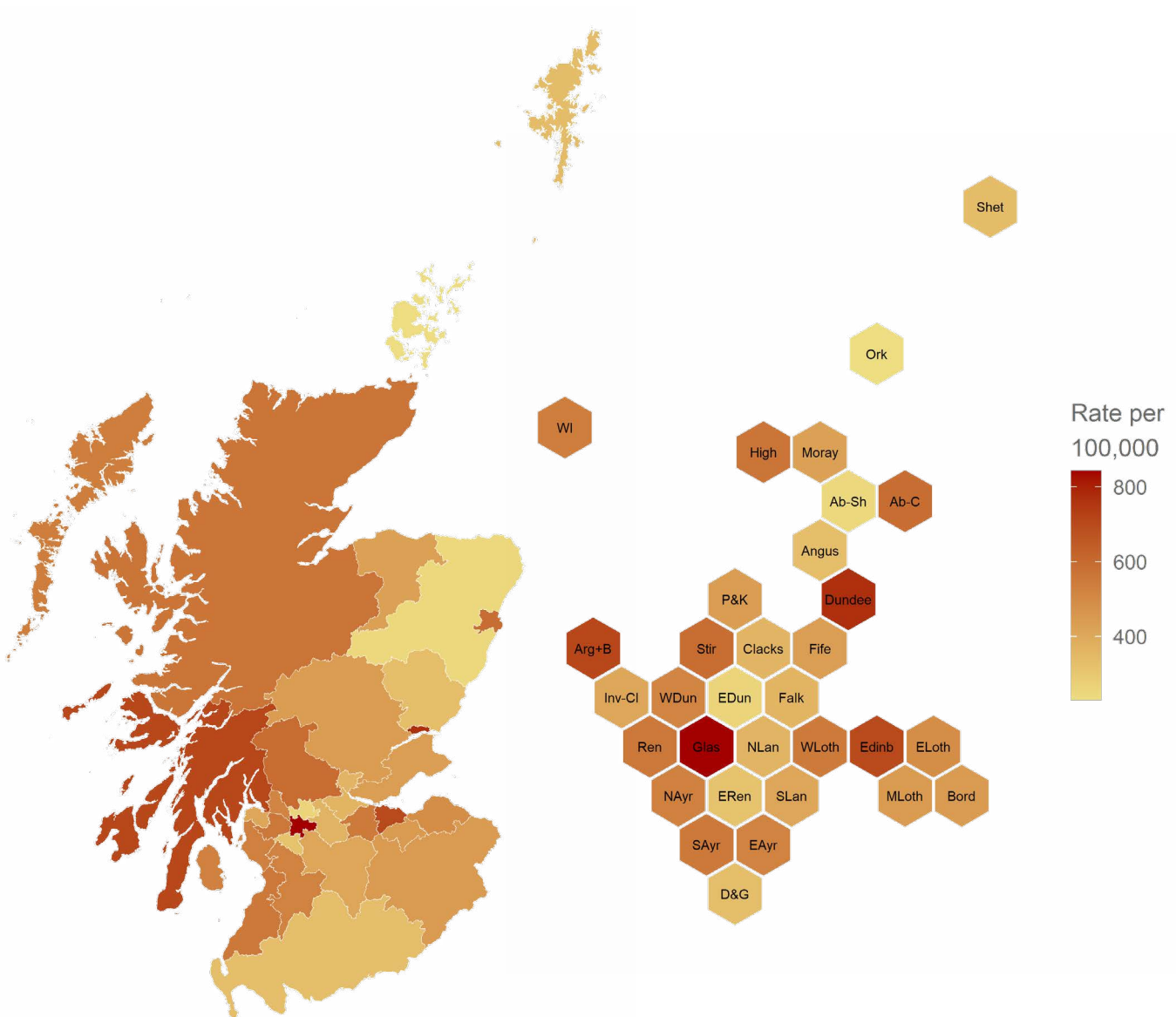


Figure 42: Unwanted Fire Alarm Signals (UFAS) per 100,000 population, choropleth and area normalised cartogram 2021-22.

## Great Britain Comparisons

There is a notably higher rate of fire false alarms per million population in Scotland than in England and Wales.

While all nations have seen a reduction in the number of fire false alarms, there has been a bigger reduction in England and Wales than in Scotland. This has widened the gap between the rates of fire false alarms between Scotland and the other nations.

With a large reduction in fire false alarms last year, it appeared that this gap was closing. However, in 2021-22, this gap has widened again, with Scotland having over double the rate of fire false alarms per million population when compared with both England and Wales.

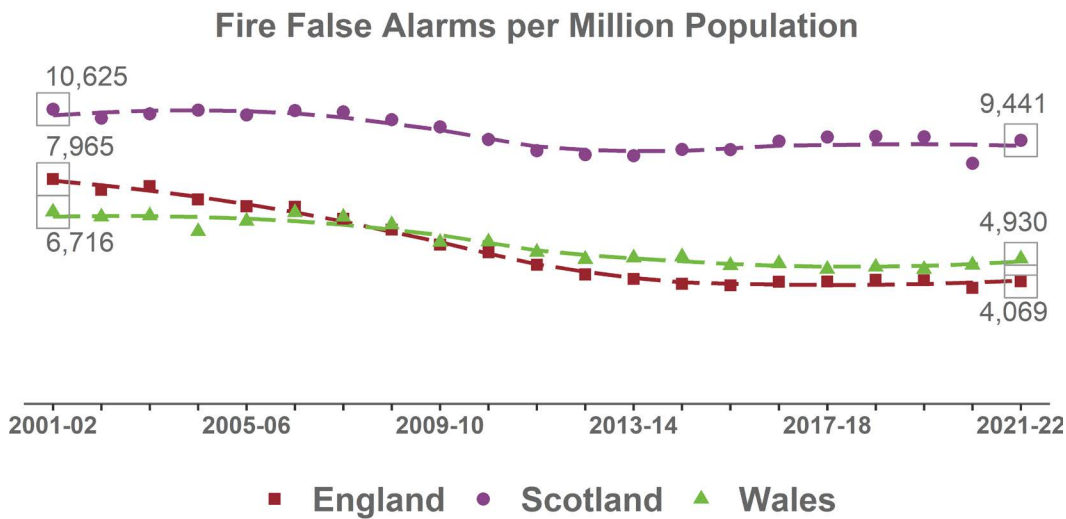


Figure 43: Trends in the fire false alarms by nation. Values displayed in boxes on chart represent the maximum, minimum and most recent values. In this case, the most recent values are also the minimum values.

It should be noted that while Scotland saw a decrease in fire false alarms during the pandemic in 2020-21, England and Wales did not. Currently, England and Wales manage unwanted fire alarm signals differently from Scotland. This means that, in general, England and Wales attend to fewer of these signals.

Last year Scotland attended 19.0% less of these signals than in previous years. This suggests that the main reason for the difference in Scotland compared to England and Wales is due to the difference in the handling of unwanted fire alarm signals.

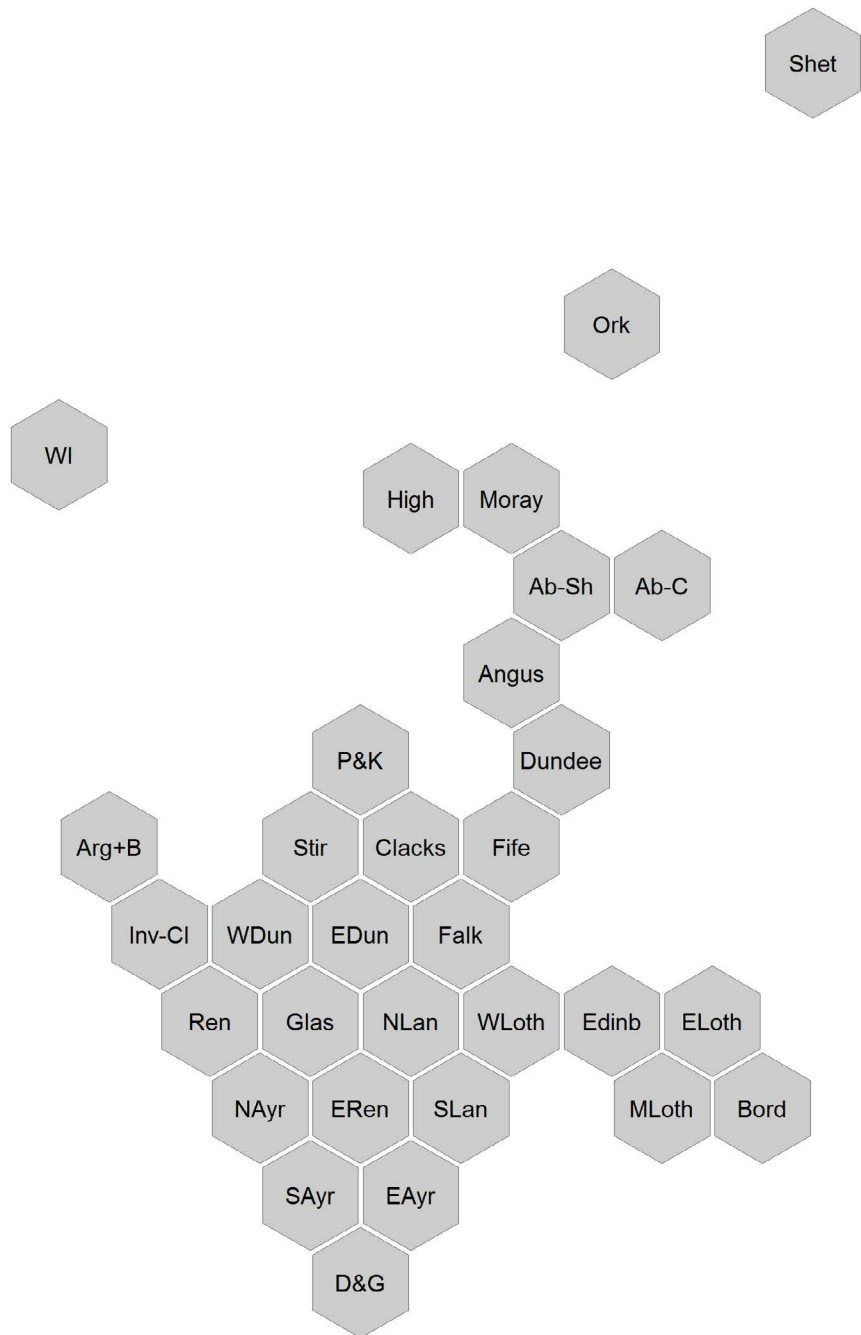
# Appendix A – Key for Local Authority Maps

Key	Local Authority
1	Aberdeen City
2	Aberdeenshire
3	Angus
4	Argyll and Bute
5	Clackmannanshire
6	Dumfries and Galloway
7	Dundee City
8	East Ayrshire
9	East Dunbartonshire
10	East Lothian
11	East Renfrewshire
12	Edinburgh, City of
13	Na h'Eileanan Siar
14	Falkirk
15	Fife
16	Glasgow City
17	Highland
18	Inverclyde
19	Midlothian
20	Moray
21	North Ayrshire
22	North Lanarkshire
23	Orkney Islands
24	Perth and Kinross
25	Renfrewshire
26	Scottish Borders
27	Shetland Islands
28	South Ayrshire
29	South Lanarkshire
30	Stirling
31	West Dunbartonshire
32	West Lothian



# Cartogram Local Authority Key

Key	Local Authority
Ab-C	Aberdeen City
Ab-Sh	Aberdeenshire
Angus	Angus
Arg+B	Argyll and Bute
Clacks	Clackmannanshire
D&G	Dumfries and Galloway
Dundee	Dundee City
EAyr	East Ayrshire
EDun	East Dunbartonshire
ELoth	East Lothian
ERen	East Renfrewshire
Edinb	Edinburgh, City of
WI	Na h'Eileanan Siar
Falk	Falkirk
Fife	Fife
Glas	Glasgow City
High	Highland
Inv-Cl	Inverclyde
MLoth	Midlothian
Moray	Moray
NAyr	North Ayrshire
NLan	North Lanarkshire
Ork	Orkney Islands
P&K	Perth and Kinross
Ren	Renfrewshire
Bord	Scottish Borders
Shet	Shetland Islands
SAyr	South Ayrshire
SLan	South Lanarkshire
Stir	Stirling
WDun	West Dunbartonshire
WLoth	West Lothian







# An Official Statistics Publication for Scotland

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**Rebecca Cameron**

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The next edition of Fire and Rescue Incident Statistics bulletin and associated documents is scheduled for release on 31st October 2023.



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SFRS Fire and Rescue Incident Statistics 2021-22

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