



# Fire Statistics England, 2014/15

Statistical Bulletin 08/16

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29 June 2016

#### Introduction

Fire Statistics England 2014/15 is the first fire statistics publication released since responsibility for fire policy moved from the Department for Communities and Local Government to the Home Office on April 1<sup>st</sup> 2016. In previous years this publication has covered Great Britain, however after a <u>survey of Fire Statistics Great Britain users</u>, it was decided to change the scope of the release to reflect user needs.

This release provides greater detail on incidents attended in 2014/15, including the causes of fires, the use of smoke alarms, the seasonality and temporality of fires and other topics of interest to the fire statistics community. The Fire Statistics Monitor provides updates on the key variables such as the number of incidents attended, fires attended, fire-related fatalities and casualties, 2015/16 data will be published in July/August 2016, the latest statistics on this were published on 31 March 2016.

Fire Statistics England and other Home Office statistical releases are available from the <u>Statistics at Home Office</u> pages on the GOV.UK website. The dates of forthcoming fire and other Home Office publications are pre-announced and can be found via the <u>GOV.UK publication hub</u>. For further information about the statistics in this publication, email <u>firestatistics@homeoffice.gsi.gov.uk</u>.

This statistical bulletin is produced to the highest professional standards and is free from political interference. It has been produced by statisticians working in the Home Office Statistics Unit in accordance with the Home Office's <u>statement of compliance</u> with the Code of Practice for Official Statistics, which covers Home Office policy on revisions and other matters. The Chief Statistician, as Head of Profession, reports to the National Statistician with respect to all professional statistical matters and oversees all Home Office National Statistics products with respect to the Code, being responsible for their timing, content and methodology.

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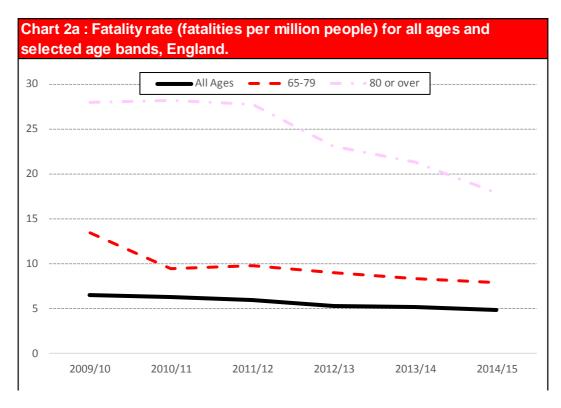
# 1 Key facts

- There were roughly 496,000 incidents attended by fire and rescue services in 2014/15. The number of incidents has been on a downward trend since the peak of about 1,016,000 incidents attended in 2003/04. Of these incidents around 155,000 (31 per cent) were fire incidents and roughly 31,300 (six per cent) were dwelling fire incidents.
- 41 per cent of all fatalities in fires in England were 65 years old and over in 2014/15, compared to 23 per cent of all casualties. For every million people in England, there were 4.8 fire related fatalities in 2014/15. This fatality rate increased to 7.9 people for those 65 to 79 years old and 17.8 for those 80 years and over. (Section 2)
- Fires where a smoke alarm was not present accounted for 30 per cent of all dwelling fires and 35 per cent of all dwelling fire fatalities in 2014/15. This is in the context of 12 per cent of dwellings not having a working smoke alarm in 2013/14 (the latest year for which data are available). (Section 4)
- 46 per cent of all fires in 2014/15 in England took place between 16:00 and 22:00.
  These six hours were the six individual hours where the highest proportion of fires took place. The peak was between 19:00 and 20:00 with nine percent of fires in this single hour. (Chart 5a)
- In contrast to the number of fires, the number of fatalities is more stable across the day. However a quarter (25%) of fatalities occur between 00:00 and 06:00 despite only 13 per cent of fires occurring over the same six hours. (Chart 5b)
- Smokers' materials (such as cigarettes, cigars or pipe tobacco) caused 36 per cent of fatalities in accidental dwelling fires in 2014/15, and was by far the largest ignition category. In contrast only six per cent of accidental dwelling fires were caused by smokers' materials in 2014/15. (Chart 3a)
- Cooking appliances caused 50 per cent of accidental dwelling fires in 2014/15, and
  was by far the largest ignition category. In contrast, only six per cent of accidental
  dwelling fire fatalities were caused by cooking appliances in 2014/15. (Chart 3a)

#### 2 Fatalities and Casualties in Fires

In 2014/15 there were 263 fire related fatalities and 7,569 casualties in fires. The section below presents further analyses of fire fatalities and casualties by age and by the cause of death. Generally the risk of fire fatality increases with age as Chart 2a below shows.

- 41 per cent of all fatalities in fires in England were 65 years old and over in 2014/15, compared to 23 per cent of all casualties. This compares with similar figures of 42 per cent of fatalities and 24 per cent of all casualties in the previous year.
- For every million people in England, there were 4.8 fire related fatalities in 2014/15.
   This fatality rate increased to 7.9 people for those 65 to 79 years old and 17.8 for those 80 years and over.
- 49 per cent of all fatalities in dwelling fires in England were 65 years old and over in 2014/15, compared to 27 per cent of casualties. These figures are unchanged on the previous year.
- 40 per cent of fire fatalities, where the cause of death was known, were overcome by gas or smoke in 2014/15 in England compared with 47 per cent in 2013/14. The second largest category was "burns" which caused 33 per cent of fatalities, compared to 23 per cent in the previous year. The other main cause was "burns and being overcome by gas or smoke" with 20 per cent of fatalities in 2014/15.



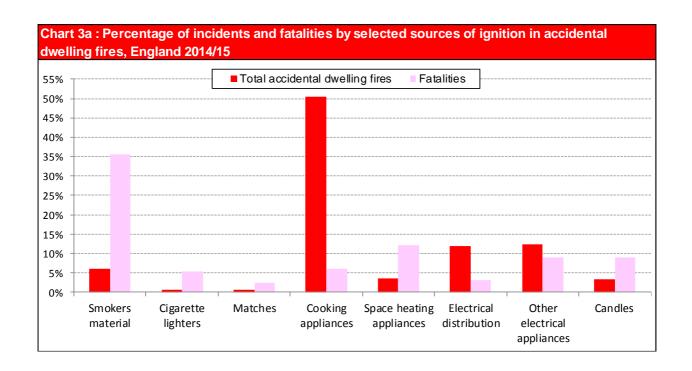
Further detail on these figures can be found on the Home Office's fire statistics data tables page. The relevant tables are FIRE0501 to FIRE0508. The tables can be found here-https://www.gov.uk/government/statistical-data-sets/fire-statistics-data-tables

## 3 Causes of Fires and Fire Fatalities

The causes of fires are not straightforward. The Incident Recording System collects information on the "cause of fire" (a defect, act or omission giving rise to ignition"), the "source of ignition", the "item responsible for the fire" and other factors. Since 2010/11 accidental dwelling fires have decreased by 11 per cent, This is in part due to a nine per cent decrease (between 2010/11 and 2014/15) in fires where the ignition was "cooking appliances", as these make up around half of all accidental dwelling fires . Other ignition types that have aided the decrease include "matches" (a decrease of 41 per cent over the same time) and "central and water heating appliances" (a decrease of 28 per cent over the same time).

- Smokers' materials (such as cigarettes, cigars or pipe tobacco) caused 36 per cent of fatalities in accidental dwelling fires in 2014/15, and was by far the largest ignition category. In contrast only six per cent of accidental dwelling fires were caused by smokers' materials in 2014/15.
- Cooking appliances caused 50 per cent of accidental dwelling fires in 2014/15, and was by far the largest ignition category. In contrast, only six per cent of accidental dwelling fire fatalities were caused by cooking appliances in 2014/15.
- 36 per cent of accidental dwelling fires in 2014/15 were caused by "misuse of equipment or appliances", the same percentage as in 2013/14. The second largest cause category was "faulty appliances and leads" which caused 16 per cent of all accidental dwelling fires.
- The item mainly responsible for the fire in 27 per cent of dwelling fires in 2014/15 was
  "food", these fires caused two per cent of dwelling fire fatalities. In contrast "Textiles,
  upholstery and furnishings" was the item first ignited (but not necessarily mainly
  responsible) in 26 per cent of dwelling fires in 2014/15 however these fires caused 61
  per cent of dwelling fire fatalities
- 44 per cent of fire fatalities in accidental dwellings fires in 2014/15 were in fires that started in the living/dining room, 31 per cent were in fires that started in a bedroom or bedsit. In the previous year these figures were 41 per cent and 32 per cent respectively.

Chart 3a, below, presents the percentage of accidental dwelling fires by selected ignition types and the percentage of fatalities in these fires. It shows that while some sources of ignition cause relatively many fires they often result in relatively few fatalities, and vice versa.



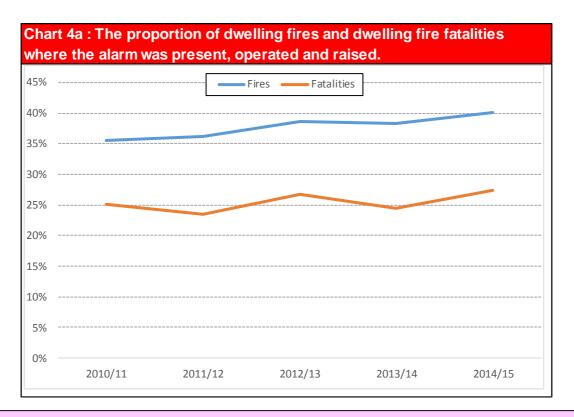
Further detail on these figures can be found on the Home Office's fire statistics data tables page. The relevant tables are FIRE0601 to FIRE0605. The tables can be found here-<a href="https://www.gov.uk/government/statistical-data-sets/fire-statistics-data-tables">https://www.gov.uk/government/statistical-data-sets/fire-statistics-data-tables</a>

#### 4 Smoke Alarms

The proportion of dwellings with a smoke alarm increased greatly in the 1990s and has continued to increase since then. This is considered to be one of the number of causes of the reduction in fatalities that occurred in the 1990s and 2000s.

- Fires where a smoke alarm was not present accounted for 30 per cent of all dwelling fires and 35 per cent of all dwelling fire fatalities in 2014/15. This is in the context of 12 per cent of dwellings not having a working smoke alarm in 2013/14 (the latest year for which data are available).
- Fires where a smoke alarm was present but either did not operate or did not raise the alarm, accounted for 31 per cent of all dwelling fires and 38 per cent of all dwelling fire fatalities in 2014/15.
- Mains powered alarms continue to have a lower "failure rate" than battery powered alarms. 21 per cent of mains powered smoke alarms failed to operate in dwelling fires in 2014/15 in England, whereas 40 per cent of battery powered alarms failed to operate in similar incidents.
- The main reason mains powered smoke alarms failed to operate in dwelling fires in 2014/15 was that the fire products (eg smoke) did not reach the detector(s) with 48 per cent of incidents. This reason has clearly been the largest over the previous four years as well. Fire products not reaching the detector(s) was also the greatest reason for fatalities and casualties (combined), in these fires with 29 per cent of all fatalities and casualties (combined) in 2014/15 in England, although acts preventing the alarm from operating (such as removing or turning off alarm) was at a similar level with 25 per cent over the same year.
- The main reason battery powered smoke alarms failed to operate in dwelling fires in 2014/15 in England was that the fire products did not reach the detector(s) in 44 per cent of incidents. This reason has been clearly the largest over the previous four years as well. However the greatest reason for fatalities and casualties (combined) in these fires was a missing battery with 30 per cent of all fatalities and casualties (combined).
- Fires where a smoke alarm was not present accounted for 46 per cent of all other building (buildings that are not dwellings) fires and 24 per cent of all other building fire fatalities and casualties (combined) in 2014/15.

Chart 4a, below, shows the proportion of dwelling fires and dwelling fire fatalities where the alarm was "present, operated and raised". It shows that since the online Incident Recording System was introduced that the proportion of fires where the alarm was present, operated and raised is consistently ten to fifteen percentage points higher than the proportion of fire fatalities.



Further detail on these figures can be found on the Home Office's fire statistics data tables page. The relevant tables are FIRE0701 to FIRE0708. The tables can be found here-

https://www.gov.uk/government/statistical-data-sets/fire-statistics-data-tables

# 5 Temporal and Seasonal Fire Analyses

Fire incidents and fatalities are affected by seasonality and temporality. Generally fewer fires happen between midnight and 6am, but the number of fatalities is relatively high. This difference is even more marked in accidental dwelling fires than all fire incidents. Dwelling, Other Building and Road Vehicle fires show little seasonality, however outdoor fires and chimney fires do. Grassland, refuse and other outdoor fires tend to be greater in the summer and seem to reflect weather patterns, while chimney fires are greater in the winter months.

- 46 per cent of all fires in 2014/15 in England took place between 16:00 and 22:00.
  These six hours were the six individual hours where the highest proportion of fires took place. The peak was between 19:00 and 20:00 with nine percent of fires in this single hour.
- In contrast to the number of fires, the number of fatalities is more stable across the day. However a quarter (25%) of fatalities occur between 00:00 and 06:00 despite only 13 per cent of fires occurring over the same six hours.
- July experienced the most fires per day in 2014/15, with 525 fires per day being attended by Fire and Rescue Services whilst January has the fewest (303). These figures compare to an annual daily average of 424 fires in 2014/15 as a whole.
- Indoor fires (fires in dwellings, buildings other than dwellings and road vehicles) showed relatively little seasonality, with the average daily rate of fires attended varying between 174 and 190 in 2014/15 in England. The daily rate of Outdoor fires varied far more greatly between 101 and 334 over the same time and Chimney fires between 1 and 30.

Chart 5a below, shows fire incidents and fatalities in 2014/15 over the day, by hour band. It shows how stable (relatively) fatalities are compared to the very temporal fires series. Fire incidents peaked in the evening in 2014/15.

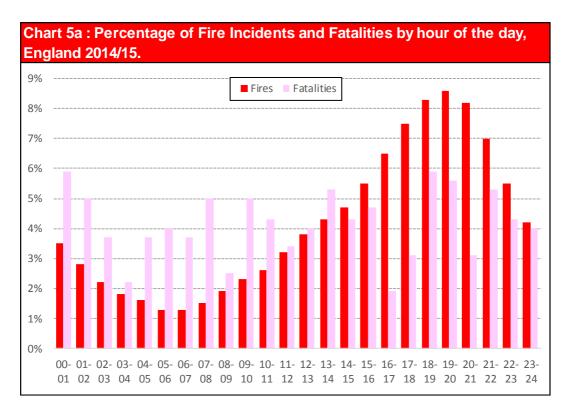
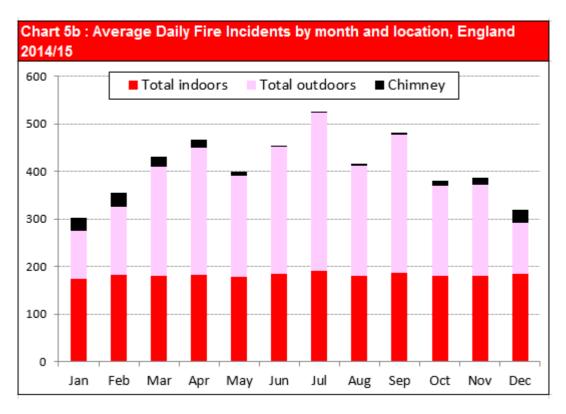


Chart 5b, below, shows outdoor, indoor and chimney average daily fires in 2014/15 across the year. It shows how stable indoor fires across months compared to the very temporal outdoor fires series and, to a less extent, the chimney fires series.



Further detail on these figures can be found on the Home Office's fire statistics data tables page. The relevant tables are FIRE0801 to FIRE0802. The tables can be found herehttps://www.gov.uk/government/statistical-data-sets/fire-statistics-data-tables

# 6 National comparisons and contacts

National comparisons are possible because England, Scotland and Wales all use the Home Office's Incident Recording System and therefore data are comparable. All three nations publish further information, focusing on the particular user needs in their nation. Below are some comparisons of the key measures.

- There were approximately 71,000 primary fires in England, 11,000 in Scotland and 5,000 in Wales attended by fire and rescue services in 2014/15. This corresponded to rates per million people of 1,309 in England, 1,988 in Scotland and 1,475 in Wales. All of these figures have been on a downward trend over the past decade.
- There were approximately 7,600 casualties from fires in England, 1,100 in Scotland and 500 in Wales in 2014/15. This corresponded to rates per million people of 139 in England, 205 in Scotland and 176 in Wales. All of these figures have been on a downward trend over the past decade

Scottish fire statistics are published by the Scottish Fire and Rescue Service using data from the Incident Recording System, which means that they are directly comparable to English and Welsh data. Their latest fire statistical releases can be found here-http://www.firescotland.gov.uk/about-us/fire-and-rescue-statistics.aspx

Welsh fire statistics are published by the Welsh Government using data from the Incident Recording System, which means that they are directly comparable to English and Scottish data. Their latest fire statistical releases can be found here-<a href="https://statswales.gov.wales/Catalogue/Community-Safety-and-Social-Inclusion/Community-Safety">https://statswales.gov.wales/Catalogue/Community-Safety-and-Social-Inclusion/Community-Safety</a>

Northern Ireland fire statistics are published by the Northern Ireland Fire and Rescue Service using data from a system similar to the Incident Recording System, which means that they are not directly comparable to English, Welsh and Scottish data. Their latest fire statistical releases can be found here-

http://www.nifrs.org/statistics/

Further detail on these figures can be found on the Home Office's fire statistics data tables page. The relevant tables are FIRE0101, FIRE0103, FIRE0201 and FIRE0501. The tables can be found here-<a href="https://www.gov.uk/government/statistical-data-sets/fire-statistics-data-tables">https://www.gov.uk/government/statistical-data-sets/fire-statistics-data-tables</a>

## 7 Further Information

This release contains statistics about incidents attended by fire and rescue services in England except in section six where some national comparisons with Scotland and Wales are shown. The statistics are sourced from the Home Office's online Incident Recording System, which allows fire and rescue service users to complete an online incident form for every incident attended, be it a fire, a false alarm or a special service (i.e. other) incident. The Incident Recording System was introduced in April 2009, previously paper forms were submitted by fire and rescue services and an element of sampling was involved in the data compilation process.

Tables linked to this release and all other fire statistics releases can be found on the Home Office's fire statistics data tables page. The sections above state the most relevant tables for each section. The tables can be found here-

https://www.gov.uk/government/statistical-data-sets/fire-statistics-data-tables

Guidance for using these statistics and other fire statistics outputs can be found on the fire statistics collection page, which can be found here <a href="https://www.gov.uk/government/collections/fire-statistics">https://www.gov.uk/government/collections/fire-statistics</a>

The information published in this release is kept under review, taking into account the needs of users, burdens on suppliers and producers, in line with the Code of Practice for Official Statistics. Feedback on the changes detailed below, and proposals for future changes, are welcome. If you have any comments, suggestions or enquiries, please contact the team via email using <a href="mailto:firestatistics@homeoffice.gsi.gov.uk">firestatistics@homeoffice.gsi.gov.uk</a> or via the user feedback form on the <a href="mailto:firestatistics@homeoffice.gsi.gov.uk">firestatistics@homeoffice.gsi.gov.uk</a> or via the user feedback form on the <a href="mailto:firestatistics@homeoffice.gsi.gov.uk">firestatistics@homeoffice.gsi.gov.uk</a> or via the user feedback form on the <a href="mailto:firestatistics@homeoffice.gsi.gov.uk">firestatistics@homeoffice.gsi.gov.uk</a> or via the user feedback form on the <a href="mailto:firestatistics@homeoffice.gsi.gov.uk">firestatistics@homeoffice.gsi.gov.uk</a> or via the user feedback form on the <a href="mailto:firestatistics@homeoffice.gsi.gov.uk">firestatistics@homeoffice.gsi.gov.uk</a> or via the user feedback form on the <a href="mailto:firestatistics@homeoffice.gsi.gov.uk">firestatistics@homeoffice.gsi.gov.uk</a> or via the user feedback form on the <a href="mailto:firestatistics@homeoffice.gsi.gov.uk">firestatistics@homeoffice.gsi.gov.uk</a> or via the user feedback form on the <a href="mailto:firestatistics@homeoffice.gsi.gov.uk">firestatistics@homeoffice.gsi.gov.uk</a> or via the user feedback form on the <a href="mailto:firestatistics@homeoffice.gsi.gov.uk">firestatistics@homeoffice.gsi.gov.uk</a> or via the user feedback form on the <a href="mailto:firestatistics@homeoffice.gsi.gov.uk">firestatistics@homeoffice.gsi.gov.uk</a> or via the user feedback form on the <a href="mailto:firestatistics@homeoffice.gsi.gov.uk">firestatistics@homeoffice.gsi.gov.uk</a> or via the user feedback form on the <a href="mailto:firestatistics@homeoffice.gsi.gov.uk">firestatistics@homeoffice.gsi.

There have been some changes to this release:

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In common with a number of statistical publications across government, the commentary in this publication has been simplified and slimmed down from previous editions. The tables, however, remain similar to previous years allowing users to continue to access the full range of data and to carry out their own further analysis

The changes in this 2014/15 release will be consolidated and further improved for the 2015/16 release later this year.

Statistical Bulletins are prepared by staff in Home Office Statistics under the National Statistics Code of Practice and can be downloaded from GOV.UK:

https://www.gov.uk/government/organisations/home-office/about/statistics

ISBN: 978-1-78655-149-8

ISSN: 1759-7005



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