Home Office

Fire Incident Response Times: April 2015 to March 2016, England

Statistical Bulletin 01/17

Produced by the Fire Statistics team

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Key findings

1.1. Response times by type of fire attended

- Overall, response times to fires have increased gradually over the past 20 years, but did show slight decreases for some types of fire between 2014/15 and 2015/16.

- The average response time to **primary fires** (more serious fires that harm people or cause damage to property[1]) in England in 2015/16 was 8 minutes and 47 seconds, an increase of 3 seconds since last year and an increase of 31 seconds since 2010/11.

- Two types of primary fires showed a slight decrease in response time (**dwellings, other buildings**) in 2015/16 (Figure 1).

- Response times to **secondary fires**[2] (can broadly be thought of as smaller outdoor fires, not involving people or property) have increased by 11 seconds, to 9 minutes and 13 seconds since last year. This is an increase of 38 seconds since 2010/11.

1.2. Response times by type of fire and rescue authority (FRA)

- Fire and rescue authorities (FRAs) in **predominantly urban areas** had the lowest average response time, of 7 minutes 46 seconds in 2015/16. This was an increase of 2 seconds and 24 seconds since 2014/15 and 2010/11 respectively.

- This compares with 10 minutes 44 seconds response time in **predominantly rural areas**, a decrease of 6 seconds since 2014/15 and an increase of 33 seconds since 2010/11.

- Response times in **significantly rural FRAs** was 9 minutes and 45 seconds in 2015/16, an increase of 13 seconds and 48 seconds since last year and five years previously, respectively.

2. Distribution of response times

- In 2015/16 for most fire incident types the majority of incidents were responded to within 7 minutes. However, for other outdoor fire[3] incidents, the majority were responded to within 8 minutes.

3. Response times and outcome measures

- The average response time to **dwelling fires involving casualties and/or rescues** in England in 2015/16 was 7 minutes 34 seconds. This is unchanged compared with 2014/15 and an increase of 26 seconds since 2010/11 (Figure 5).

[1] For more detailed technical definitions of different types of fire, see the Fire Statistics Definitions document.
[2] This excludes chimney fires. For a full definition of chimney fire, please refer to the definitions document.
[3] Other outdoor fires are fires in either primary outdoor locations, or fires in non-primary outdoor locations that have casualties or five or more pumping appliances attending. For a full definition of other outdoor locations, please refer to the definitions document.

Introduction

This statistical release presents Official statistics on fire incident response times between April 2015 and March 2016. It focusses on trends in average response times in England, at the national level.

This publication defines response time as the duration from time of call to time of arrival of the first vehicle at the scene of the incident. Other sources, such as the fire and rescue authorities (FRAs) themselves, may use different definitions.

This publication is accompanied by reference data tables. All fire statistics tables can be found at: www.gov.uk/government/statistical-data-sets/fire-statistics-data-tables

The following tables have been updated as part of this publication:

FIRE: 0204, 0305, 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008, 1009, 1403.
These tables include data on FRA areas. When attempting to compare response times between different geographical areas, it is important to consider that there are a range of factors that affect average response times, for example, population density and firefighter crewing arrangements.

Each time a fire and rescue service (FRS) attends an incident in England, details of that incident are uploaded to the Home Office's Incident Recording System (IRS) by the FRS. The IRS is used as the source for all the statistics in this publication. More information on the IRS can be found at:

www.gov.uk/government/publications/incident-recording-system-for-fire-and-rescue-authorities

It should be noted that because records of incidents are added and edited constantly throughout the year, revisions to the details of incidents occur regularly. As such, the figures for 2015/16 in this publication and supporting tables are deemed provisional and some figures for 2014/15 have been revised since the last publication. The data in this release is consistent with the IRS as at 4th August 2016.

Around 15% of incidents were excluded for the purpose of analysis. For more detail on these exclusions, please refer to the technical note.

Definitions for terms used throughout this publication can be found in the accompanying Fire Statistics Definitions document on this page:

www.gov.uk/government/statistics/fire-statistics-monitor-april-2015-to-march-2016

Contents

1 Response times

1.1. Response times by type of fire attended

The average response time to primary fires (more serious fires that harm people or cause damage to property[4]) in England in 2015/16 was 8 minutes and 47 seconds, an increase of 3 seconds since last year and an average increase of around 6 seconds per year since 2010/11.

Response times to secondary fires (can broadly be thought of as smaller outdoor fires, not involving people or property[5]) have increased by 11 seconds, to 9 minutes and 13 seconds since last year. This is an average increase of around 8 seconds per year since 2010/11.

Overall, response times to fires have increased gradually over the past 20 years. A range of possible factors could contribute to this. These may include changing traffic levels, health and safety policies, 'drive to arrive' policies and control staff typically asking more questions of the caller to better assess the risk and attendance needed. However, it is difficult to isolate the impact of any of these individual factors, and there may also be other factors, locally or nationally, which affect response times.

Some response times did show a decrease for some types of primary fires (dwellings, other buildings) in 2015/16 (Figure 1). It's too early to say whether these decreases are a one-off fluctuation or a change in the longer-term trend. Table 1 provides a summary of the trends in the last year for response times to fires.

Table 1[5]: Response times to fires by type of fire[6] in 2015/16, with a summary of trends; Source table FIRE1001

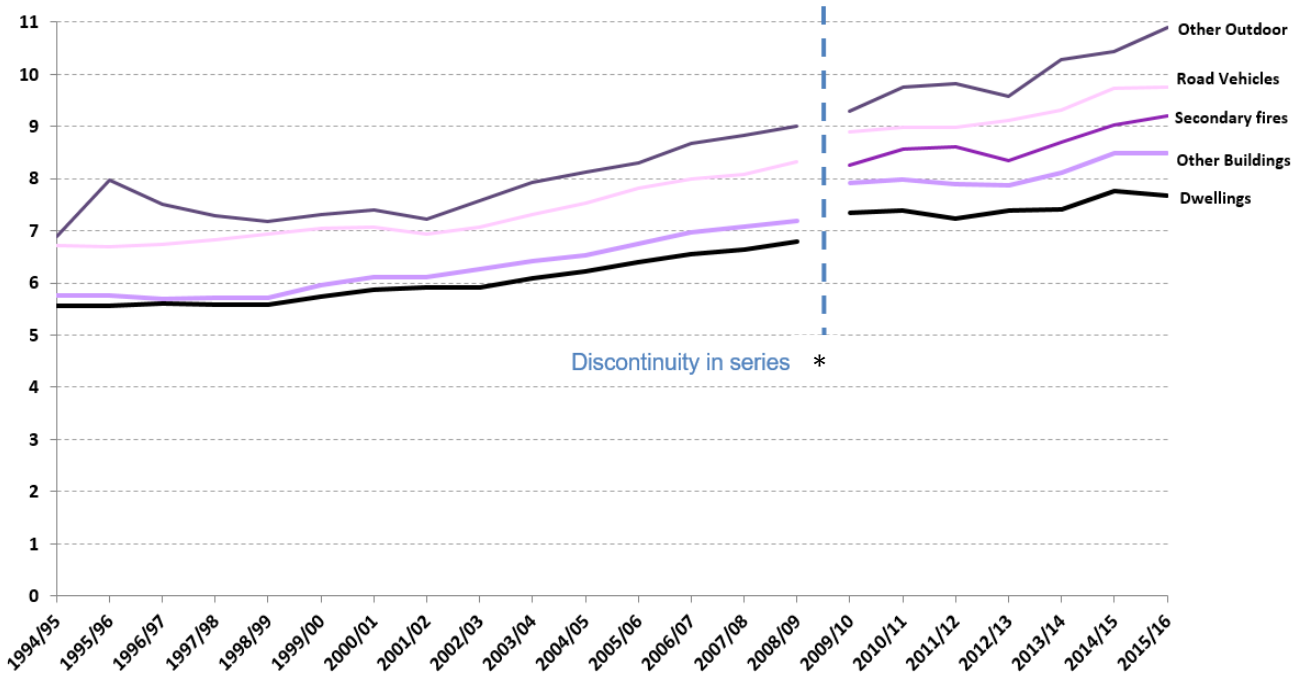
Type of Fire	2015/16	Change since 2014/15	Change since 2010/11
Primary	8 minutes 47 seconds	3 seconds ↑	31 seconds ↑
Dwelling	7 minutes 41 seconds	4 seconds ↓	17 seconds ↑
Other building	8 minutes 29 seconds	1 second ↓	30 seconds ↑
Road vehicle	9 minutes and 46 seconds	2 seconds ↑	47 seconds ↑
Other outdoor	10 minutes and 54 seconds	28 seconds ↑	1 minute 8 seconds ↑
Secondary	9 minutes 13 seconds	11 seconds ↑	38 seconds ↑

[4] For more detailed technical definitions of different types of fire, see the Fire Statistics Definitions document.

[5] This excludes chimney fires. For a full definition of chimney fire, please refer to the definitions document.

[6] Arrows in this table are not to scale. Arrows pointing upwards indicate an increase and arrows pointing downwards a decrease in response time. None of these figures have been tested for significance.

Figure 1: Average response times (minutes) by type of fire, in England, 1994-95 to 2015/16; Source table FIRE1001



*Please see technical note on the discontinuity in series.

1.2. Response times by type of fire and rescue authority (FRA)

Of the 46 fire and rescue authorities (FRAs), 24 showed a decrease in average response time to primary fires between 2014/15 and 2015/16, 21 showed an increase and one showed no change.

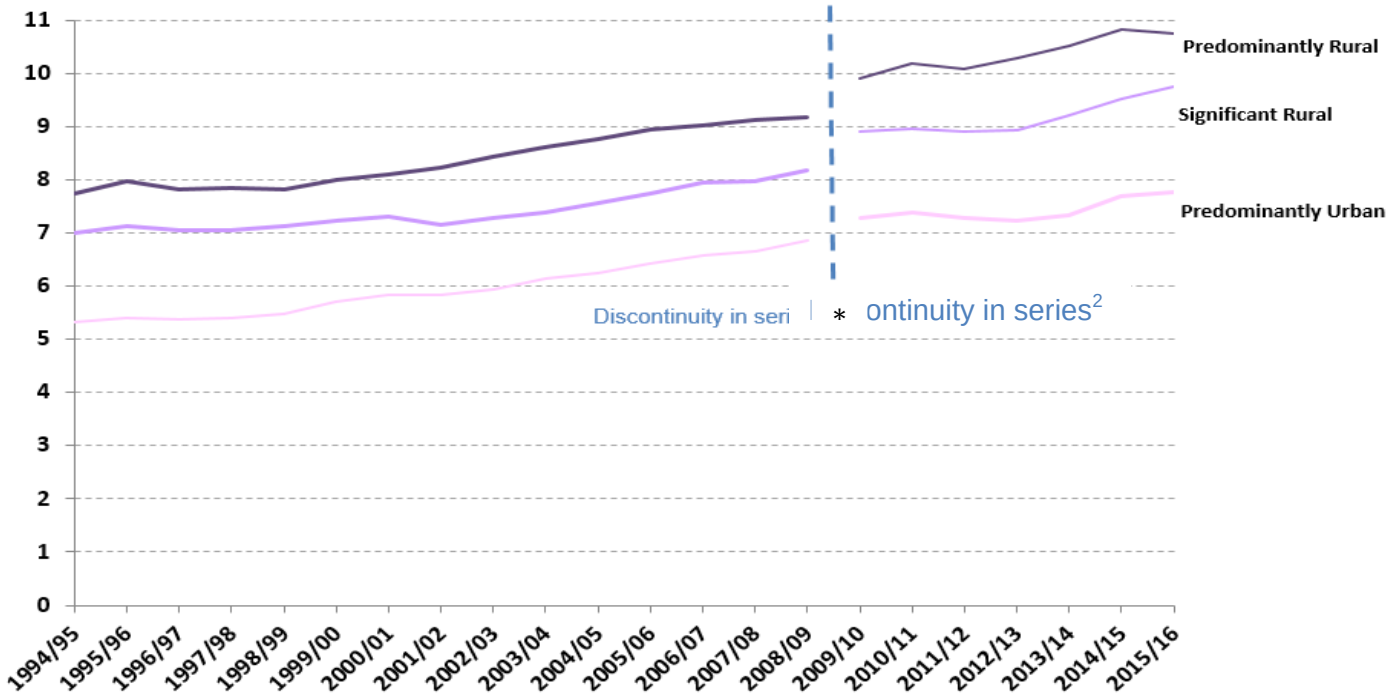
FRAs can be split into rural-urban classifications defined by the Department for Environment, Food and Rural Affairs (DEFRA) [7]. As shown in figure 2, average response times are lower in predominantly urban areas. The difference in average response times between predominantly urban and predominantly rural fire authorities has been around two to three minutes every year since 1994/95. All three types of FRAs, as defined by the DEFRA classification, have shown gradual increases in average response time over the past twenty years. Significantly rural and predominantly urban areas recorded their highest figure over twenty years in 2015/16. Predominantly rural areas showed their highest figure over this time in 2014/15 and had a slight decrease in 2015/16.

The average response time in England during 2015/16 in:

- Predominantly rural FRAs was 10 minutes and 44 seconds, a decrease of 6 seconds since 2014/15 and an increase of 33 seconds since 2010/11;
- Significantly rural FRAs was 9 minutes and 45 seconds, an increase of 13 seconds and 48 seconds since last year and five years previously, respectively;
- Predominantly urban FRAs was 7 minutes 46 seconds, an increase of 2 seconds and 24 seconds since 2014/15 and 2010/11, respectively.

[7] As defined by the Department for Environment, Food and Rural Affairs': 2011 Rural-Urban Classification of Local Authorities and other geographies

Figure 2: Average response times (minutes) by FRA type, in England, 1994-95 to 2015/16; Source table FIRE1003



*Please see technical note here on the discontinuity in series.

2 Distribution of response times

Figures 3 and 4 show the distribution of incidents by one minute response time bands for fires in dwellings and other buildings. The shapes of the curves reflect both the long-term reduction in the total number of fires between 2005/06 and 2015/16 (decrease of 32% and 45% for dwelling and other buildings, respectively) and the increasing response times to these fire incidents. In 2015/16 for most fire incident types the majority of incidents were responded to within 7 minutes. However, for other outdoor fire3 incidents, the majority were responded to within 8 minutes.

- In 2015/16 41% (22,500) of primary fires were responded to within 7 minutes or less. This compares to 42% (22,000) in 2014/15 and 46% (31,700) in 2010/11.

- Secondary fires were responded to within 7 minutes or less in 35% (27,700) of incidents in 2015/16 and 37% (27,100) of incidents in 2014/15. This compares with 42% (49,500) of incidents five years previously.

- For dwelling fires 51% (10,700) of incidents were responded to within 7 minutes. This is unchanged since 2014/15 (10,700) and compares to 56% (13,400) five years previously.

- 43% (5,200) of response times to other building fires were within 7 minutes in 2015/16, compared with 44% (5,000) the previous year and 49% (7,600) in 2010/11 (Figure 4).

- In 2015/16 33% (5,300) of road vehicle fires were responded to in 7 minutes or less. This compares to 32% (5,000) in 2014/15 and 39% (8,400) in 2010/11.

- The proportion of other outdoor fire incidents responded to in 7 minutes or less was 25% (1,300) in 2015/16, 27% (1,200) in 2014/15 and 32% (2,200) five years previously.

Figure 3*: Number of incidents in one minute response time bands for fires in dwellings, England, 2005/06 to 2015/16; Source table FIRE100

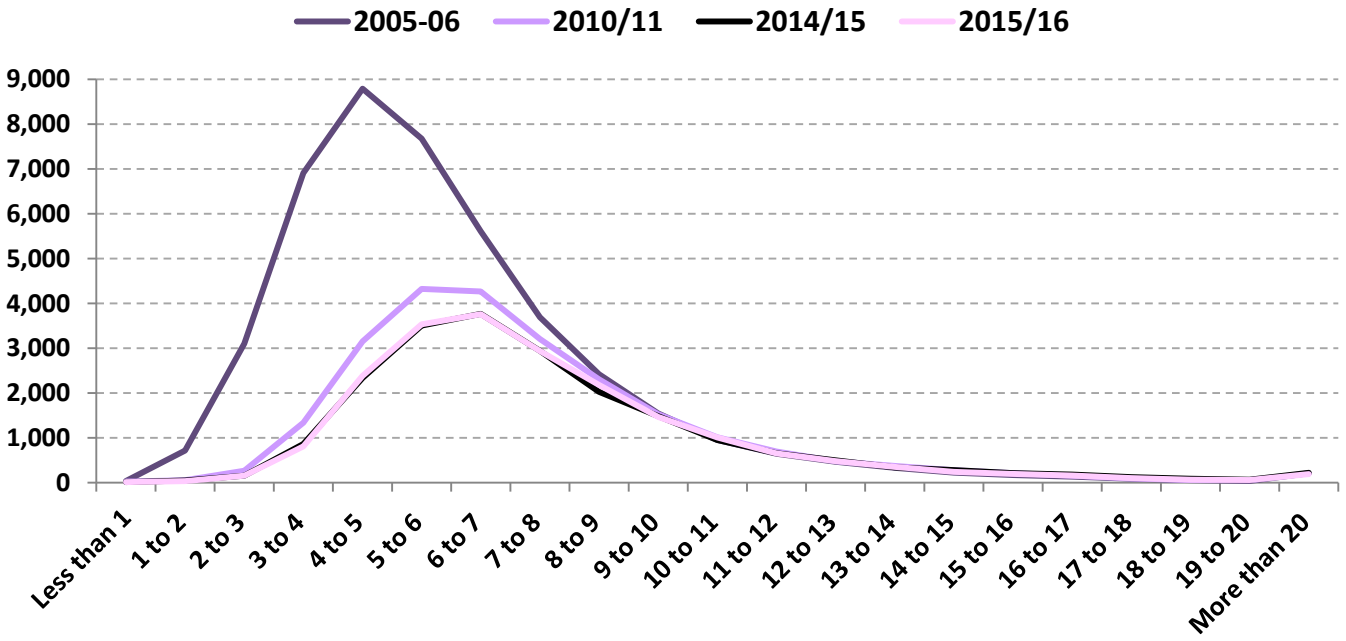
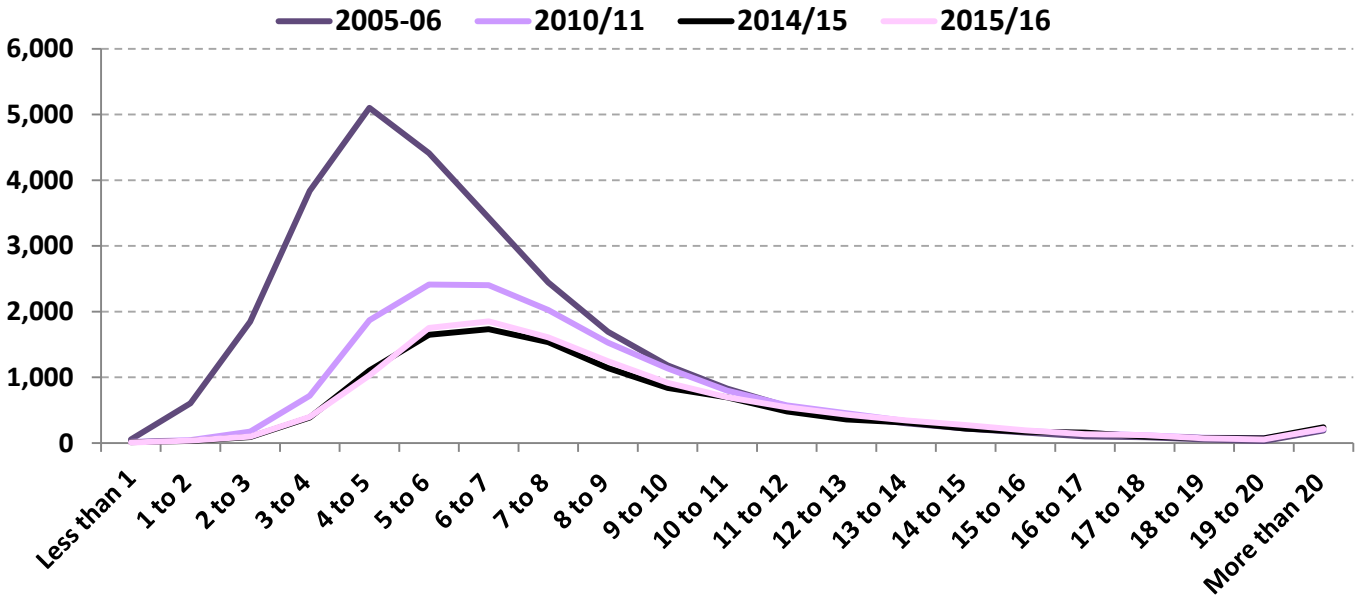


Figure 4*: Number of incidents in one minute response time bands for fires in other buildings, England, 2005/06 to 2015/16; Source table FIRE1004



*Please note that in these figures each incident is recorded by the midpoint of each response time band.

3 Response times and outcome measures

It is difficult to isolate the impact of a change in response times, as there is not a straightforward relationship between response times and the outcomes of a fire. However, some measureable outcomes include fire fatalities, fire casualties and the extent of fire damage. This section compares the trends in these outcomes with the trends in response times.

There has been a long-term increase in response times over the last 20 years whilst the number of casualties, fatalities and extent of fire damage have shown a long-term downward trend over this period.

In 2015/16 the number of fire-related fatalities in England increased by 15% (an increase of 39 since 2014/15) and the number of non-fatal casualties increased by 1% (an increase of 56 since 2014/15) compared with 2014/15[8]. Within the overall long-term downward trend, there have been previous year-on-year fluctuations in fatalities. It's too early to say whether the increase in 2015/16 is a one-off fluctuation or a change in the longer-term trend.

The extent of damage (due to smoke, heat, flame and water) to dwellings and other buildings has generally fallen over the same time frame.

Dwellings:

- The average response time to dwelling fires involving casualties and/or rescues in England in 2015/16 was 7 minutes 34 seconds. This is unchanged compared with 2014/15 and an increase of 26 seconds since 2010/11 (Figure 5).

- The number of fatal casualties in dwelling fires has increased by 17.4% (34 fatalities) since 2014/15, whilst the number of non-fatal casualties (excluding those requiring first aid or precautionary checks) has decreased by 3.4% since 2014/15.

- In 2015/16 the average area of fire damage to dwellings (excluding those over 5,000m^2) in England decreased by 3.9% compared with 2014/15, while the average response time to dwelling fires decreased by 0.6% (4 seconds) over the same time.

Other buildings:

- The average area of fire damage to other buildings (excluding those over 1,000m^2) decreased by 1.0% since 2014/15, while the average response time to other building fires decreased by 0.1 % (1 second) over the same time (Figure 6).

Note that figures 5 and 6 use measures that exclude dwellings with more than 5,000m^2 of damage and other buildings with more than 1,000m^2 of damage because fires of these sizes can skew the averages; however, for completeness, other measures are available in tables 0204 and 0305, which accompany this release. It should be noted that this excludes less than 0.01% of dwelling incidents and 1% of other building incidents.

8 https://www.gov.uk/government/statistics/fire-statistics-monitor-april-2015-to-march-2016

Figure 5: Response times and outcome measures for dwelling fires, England, 1994/95 to 2015/16 (Index 1994/95 = 100); Source tables FIRE1002, FIRE0204

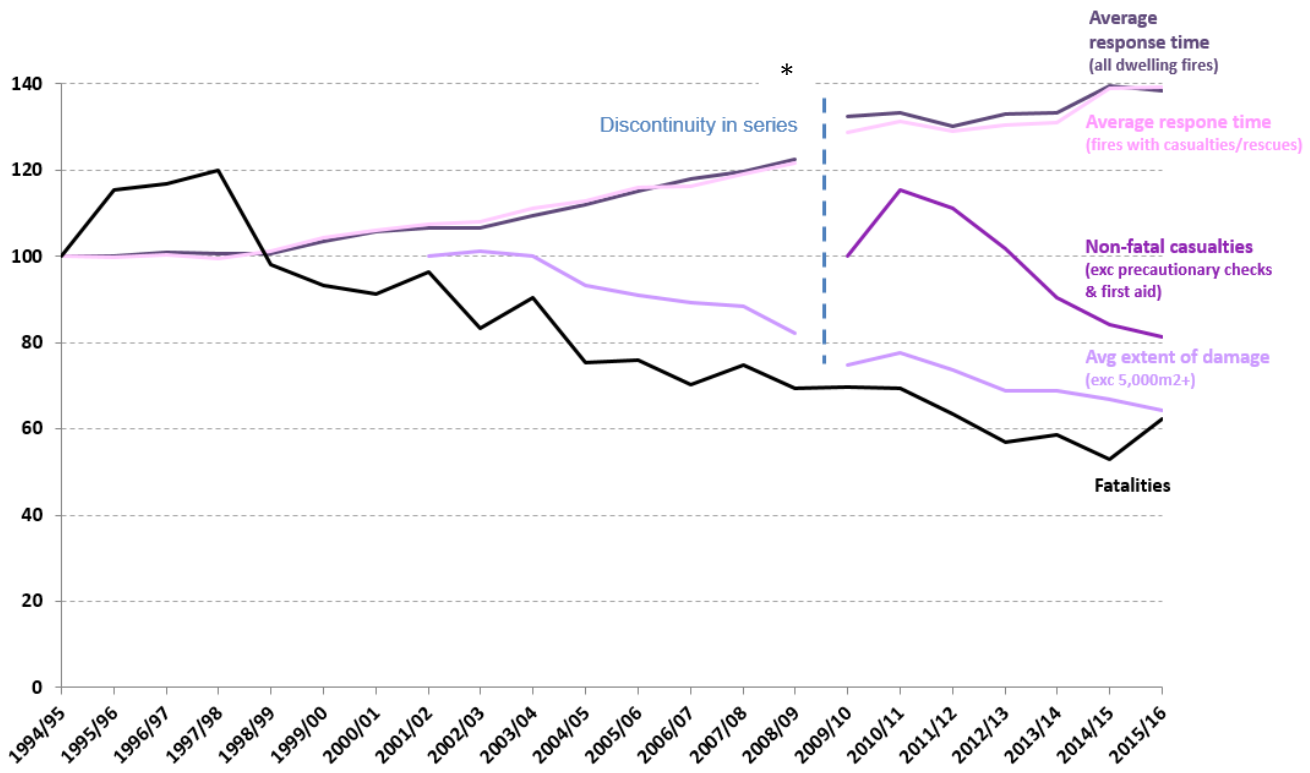
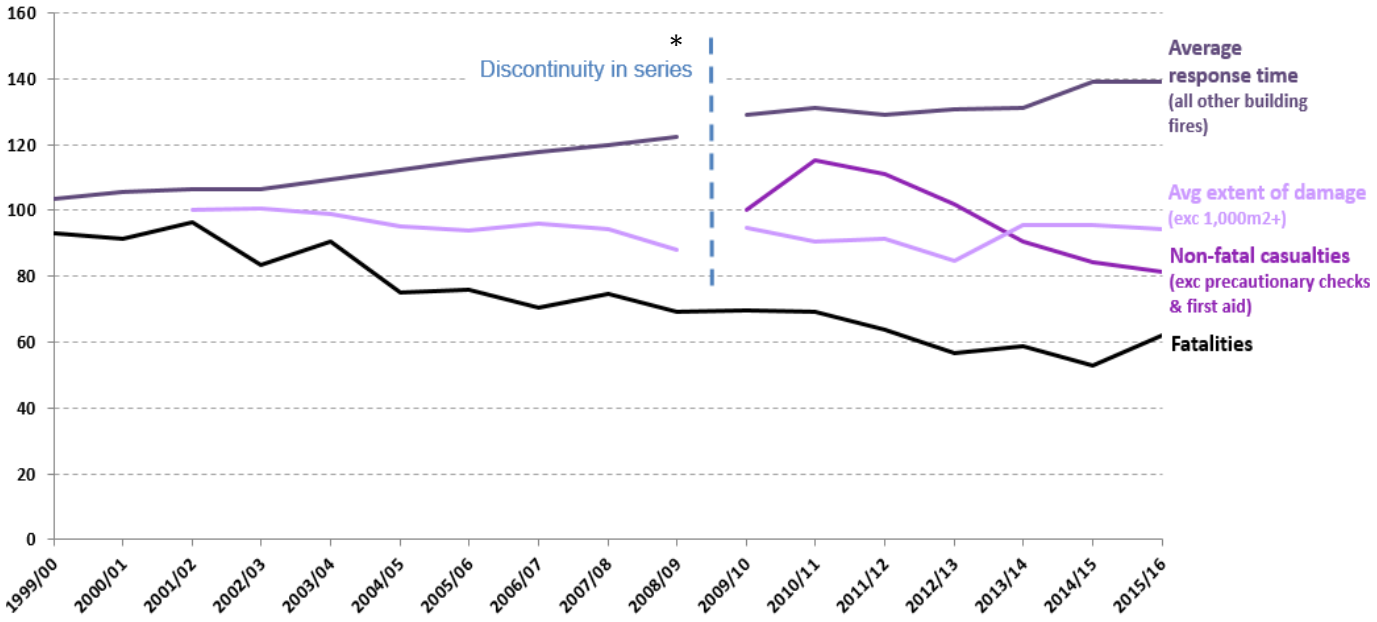


Figure 6: Response times and outcome measures for other building fires, England, 1999/00 to 2015/16 (Index 2009/10 = 100); Source table FIRE0305



*Please see technical note here on the discontinuity in series. Data for non-fatal casualties are only available since 2009/10.

4 Further Information

Guidance for using these statistics and other fire statistics publications can be found on the fire statistics collection page: www.gov.uk/government/collections/fire-statistics and all the fire statistics tables can be found at: www.gov.uk/government/statistical-data-sets/fire-statistics-data-tables

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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 and proposals for future changes, are welcome.

If you have any comments, suggestions or enquiries, please contact the team via email using FireStatistics@homeoffice.gsi.gov.uk or via the user feedback form.

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