



DEVON &  
SOMERSET  
FIRE & RESCUE SERVICE

# Comparative Analysis: National Incident Statistics

## Year-ending December 2018

In May 2019 the Home Office published the National Fire and Rescue Incident Statistics England: Year Ending December 2018.

This document provides a comparison of the Devon & Somerset Fire & Rescue performance against the national picture.

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## 1.0 Purpose

The Home Office periodically reports on the national picture of fire and rescue service operational activity through its publication: **Fire and rescue incident statistics: England**. This report will compare the most recently published statistics, which focus on data for the period from the 1<sup>st</sup> January 2018 to the 31<sup>st</sup> December 2018, with the Devon & Somerset Fire & Rescue Service (DSFRS) activity for the same period.

Understanding how DSFRS compares to the rest of the country, and other similar fire and rescue services (FRS), helps us to identify differences and leads us to ask questions to understand why we are different and how this information can help us to develop as an organisation.

## 2.0 Quick Facts

When comparing the DSFRS position against that of the national average there are a number of key points that emerge:

- 1) **DSFRS attended 17,814 incidents** within the service area during the year ending December 2018, a **five per cent decrease** when compared with the previous year (18,757). Nationally the fire service attended 576,586 incidents, a two per cent increase when compared with the previous year (565,777).
- 2) Around **42 per cent of all calls attended** in the **DSFRS area** during the year ending December 2018 were **non-fire<sup>1</sup> incidents** (7,548 of 17,814). Nationally the most common incident type is “Fire False Alarm” which constitutes 41 per cent of incidents (231,122 of 576,568).

However, DSFRS has seen **15 per cent decrease in non-fire incidents attended** (7,548) when compared to previous year (8,891). **Nationally there was a two per cent decrease** in non-fire incidents attended (167,620) compared to previous year (171,736).

The decrease, both nationally and within DSFRS, has been driven by a **large reduction in the number of co-responder incidents attended**. In the year-ending December 2018, **DSFRS attended 2,369** co responder incidents, a **40 per cent decrease** compared to previous year (3,953). **Nationally there was a reduction of 41 per cent**, down from 29,826 in 2017 to 17,497 in 2018.

- 3) There was a **seven per cent increase in fire incidents attended** within the DSFRS area in the year ending December 2018 (4,506) when compared to previous year (4,206). Nationally there was a **five per cent increase in fire incidents**. Data for the past five years show a slight upward trend, driven by a greater number of secondary fire incidents in 2016, 2017 and 2018.

**Secondary<sup>2</sup> fires** have contributed most to the rise in fires, with **DSFRS reporting a 17 per cent increase** for the period (1,821) compared to the previous year (1,555). Nationally there has been an increase in secondary fires of nearly 11 per cent.

**DSFRS has also seen a rise in primary<sup>3</sup> fires** with an **increase of three per cent** compared to previous year. This is counter to the **national picture** where a **reduction of over two per cent** has been seen against previous year. However, both within DSFRS and nationally, primary fires are presenting a level trend over for the past five years of data.

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<sup>1</sup> Non-fire incidents include any attendance to emergency incidents that were not either a fire or fire-related false alarm.

<sup>2</sup> Secondary fires are generally small outdoor fires, not involving people or property.

<sup>3</sup> Primary fires are those that meet at least one of the following criteria – occurred in a (non-derelict) building, vehicle or outdoor structure or involved a fatality, casualty or rescue or were attended by five or more pumping appliances.

- 4) There **were 10 fire-related<sup>4</sup> deaths** in the DSFRS area during the year ending December 2018, **four more than previous year (six)**. Nationally there were 261 deaths in the reporting period, 73 less than previous years (334 deaths including 71 resulting from Grenfell).

Seven of the 10 reported<sup>5</sup> deaths have been confirmed as fire-related, three are still awaiting confirmation from the coroner on cause of death.

Of the seven deaths confirmed as fire-related:

- four occurred as a result of dwelling fires,
- one from a fire in a vehicle,
- one from a fire in a non-residential premises (private garage), and
- one from an outdoor fire (grassland).

Of the three deaths where cause of death is still unknown:

- two were involved in fire resulting from an RTC,
- one from a dwelling fire that was started deliberately.

- 5) There were **118 non-fatal casualties requiring hospital treatment** in the DSFRS area during the year ending December 2018, the **same as previous year**. Nationally there were 3,129 non-fatal casualties, a four per cent decrease compared to previous year (3,259).
- 6) There was a **two per cent increase in fire false alarm incidents attended** within DSFRS in the year ending December 2018 (5,760) when compared with previous year (5,660). Nationally the fire service attended 231,122 fire false alarms, an increase of just over three per cent compared to previous year (224,034).

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<sup>4</sup> Deaths are classed as fire-related when they would not have occurred if there had not been a fire.

<sup>5</sup> Where cause of death has not been established it is reported as fire-related until notification is received from the coroner. If it is established that the cause of death was not as a direct result of the fire then the death will be removed from the statistics.

### 3.0 Analysis

#### 3.1 Total incidents attended

During the year ending December 2018, **17,814 incidents were attended in the DSFRS service area**; a **decrease of five per cent** compared to the previous year (18,757). **Nationally** there has been a **two per cent increase in incidents attended** by fire and rescue services in England during the reporting period, up from 565,777 in 2017 to 576,586 in 2018.

The charts below show the number of incidents attended in the DSFRS area (figure 1) and by English fire services (figure 2) over the last nine years. In both cases the data is indicating a slight downward trend in total incidents.

Figure 1: Total incidents attended within the DSFRS service area, by year

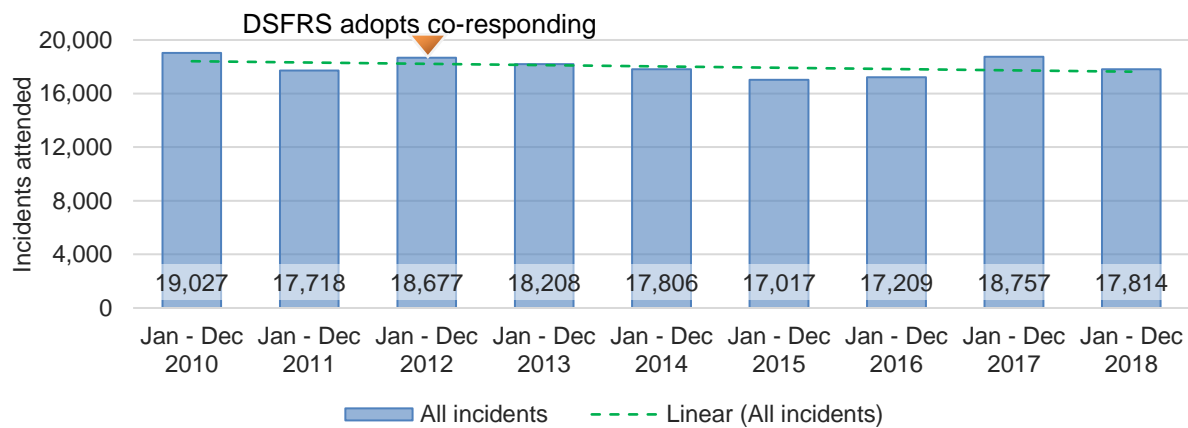
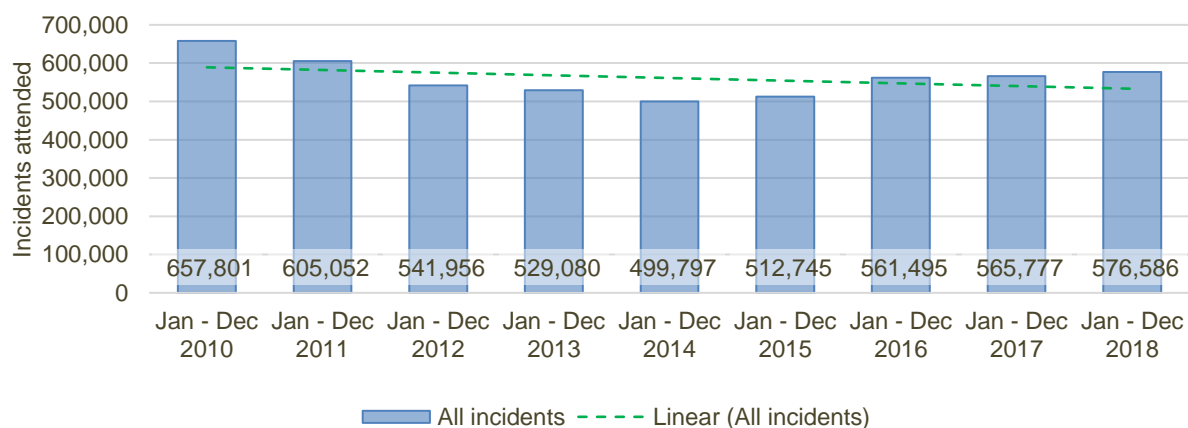


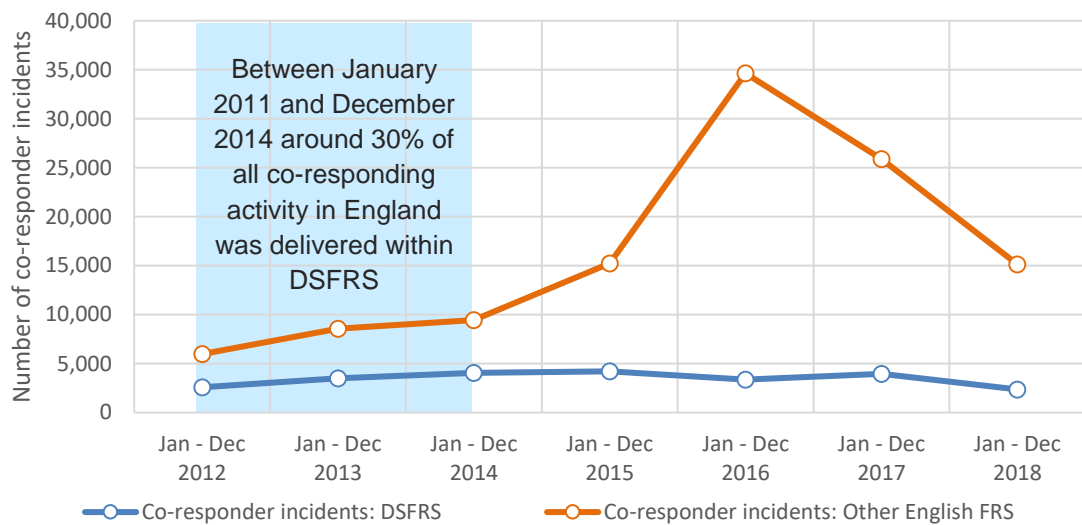
Figure 2: Total incidents attended by English FRS, by year



However, it is also evident from the charts above that the profile of DSFRS activity over the nine year period does not match that of England as a whole. This is largely due to the early adoption of co-responder activity by DSFRS.

Co-responding requires an FRS to provide first-line response on behalf of the ambulance service. It is not a statutory responsibility of fire and rescue services and therefore is not universally undertaken.

Figure 3: Co-responder incidents attended by DSFRS and other English FRS, by year



DSFRS co-responder activity has remained relatively constant, however as more services adopted co-responding activity the number of incidents attended nationally increased, peaking in the year-ending December 2016 (34,634 incidents).

Both DSFRS and England as a whole saw an increase in fires and fire false alarms during the reporting period. However, DSFRS has seen a significantly greater reduction in the proportion of non-fire incidents attended, recording a reduction of just 15 per cent against previous year.

Figure 4: Incidents attended by DSFRS and English FRS by high level incident type

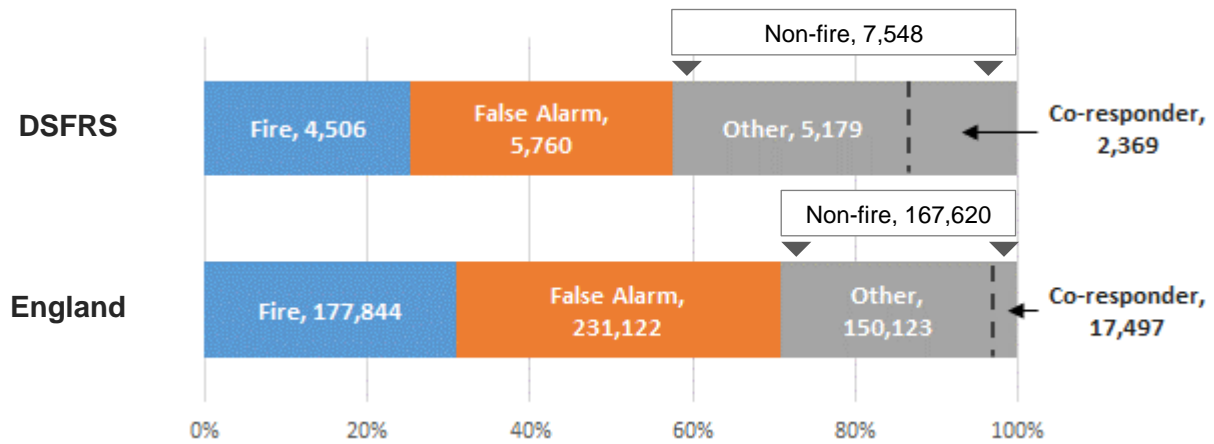
Incidents	England			Devon & Somerset		
	Current Jan-18 to Dec-18	Change vs previous year		Current Jan-18 to Dec-18	Change vs previous year	
Total Incidents	576,586	1.9% (565,777)	↑	17,814	-5.0% (18,757)	↓
Fires	177,844	4.6% (170,007)	↑	4,506	7.1% (4,206)	↑
Fire false alarms	231,122	3.2% (224,034)	↑	5,760	1.8% (5,660)	↑
Non-fire incidents	167,620	-2.4% (171,736)	↓	7,548	-15.1% (8,891)	↓

Around 42 per cent of all calls attended in the DSFRS area during the year ending December 2018 were non-fire<sup>6</sup> incidents (7,548 of 17,814). Nationally the most common incident type is “Fire False Alarm” which constitutes 40 per cent of incidents (231,122 of 576,568).

<sup>6</sup> Non-fire incidents include any attendance to emergency incidents that were not either a fire or fire-related false alarm. Examples of non-fire incidents include: Road Traffic Collisions (RTC), flooding, co-responding, gaining entry, animal rescue etc.



Figure 5: Comparison of high level incident profile, DSFRS and English FRS, Jan – Dec 2018



During the year-ending December 2018, co-responding activity comprised 31 per cent of non-fire incidents attended within the DSFRS service area.

To allow for better comparison of activity, co-responding calls can be excluded from the data. In this case, non-fire incidents contribute 33 per cent of all incidents attended in the DSFRS area, compared to 27 per cent nationally. However, the most prevalent incident type attended within DSFRS becomes fire false alarms, which contribute 37 per cent of incidents attended.

### 3.2 Fires incidents attended

During the year ending December 2018, 4,506 fires were attended in the DSFRS area, a seven per cent increase compared to previous year (4,206). Nationally there was a five per cent increase in fire incidents, up from 170,007 in 2017 to 177,844 in 2018.

Figure 6: Fire incidents attended by DSFRS and English FRS by high level incident type

Fires	England			Devon & Somerset		
	Current Jan-18 to Dec-18	Change vs previous year		Current Jan-18 to Dec-18	Change vs previous year	
<b>Total fires</b>	<b>177,844</b>	<b>4.6%</b> <b>(170,007)</b>	<b>↑</b>	<b>4,506</b>	<b>7.1%</b> <b>(4,206)</b>	<b>↑</b>
Primary	73,260	-2.2% (74,916)	↓	2,339	3.1% (2,269)	↑
Secondary	100,871	10.7% (91,159)	↑	1,821	17.1% (1,555)	↑
Chimney	3,713	-5.6% (3,932)	↓	346	-9.4% (382)	↓

Data for the past five years show a slight upward trend for fires as a whole, driven by a greater number of secondary fire incidents in 2016, 2017 and 2018.

Secondary fires have contributed most to the rise in fires, with DSFRS reporting a 17 per cent increase for the period (1,821) compared to previous year (1,555). Nationally there has been an increase in secondary fires of nearly 11 per cent, from 91,159 in 2017 to 100,871 in 2018.

DSFRS has also seen a rise in primary fires with an increase of three per cent compared to previous year. This is counter to the national picture where a reduction of over two per cent has been seen against previous year. However, both within DSFRS and nationally, primary fires are presenting a level trend over for the past five years of data.

### 3.2.1 Primary fires attended

As shown in figure 6, the three per cent rise in primary fires is counter to the national trend and is a result of a 20 per cent increase in primary vehicle fires (see figure 7), up from 636 in 2017 to 762 in 2018.

However, it is notable that DSFRS has seen a four per cent reduction in primary dwelling fires compared to previous year, with England as a whole seeing a slightly smaller reduction of just under two per cent.

Figure 7: Primary fire incidents attended by DSFRS and English FRS by property category

Primary fires	England			Devon & Somerset		
	Current Jan-18 to Dec-18	Change vs previous year		Current Jan-18 to Dec-18	Change vs previous year	
<b>Total</b>	<b>73,260</b>	<b>-2.2%</b> <b>(74,916)</b>	↓	<b>2,339</b>	<b>3.1%</b> <b>(2,269)</b>	↑
Dwelling	29,956	-1.6% (30,455)	↓	989	-4.0% (1,030)	↓
Other building	14,914	-6.2% (15,894)	↓	466	-0.9% (470)	↓
Vehicle	21,802	-5.3% (23,014)	↓	762	19.8% (636)	↑
Other outdoor	6,588	18.6% (5,553)	↑	122	-8.3% (133)	↓

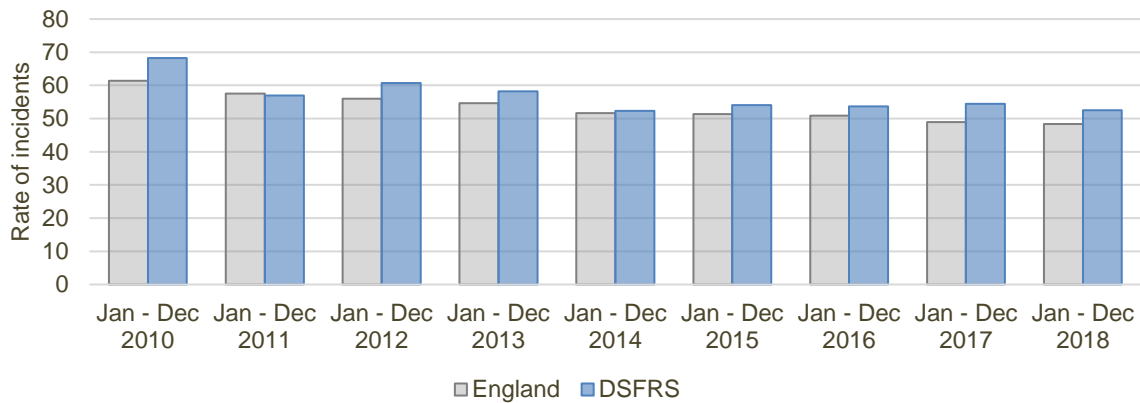
### Primary dwelling fires attended

During the year-ending December 2018, 989 primary dwelling fires were attended in the DSFRS area, a reduction of four per cent when compared with previous year (1,030). There was a slightly smaller percentage decrease at a national level, with England as a whole reporting a reduction of just under two per cent, down from 30,455 in 2017 to 29,956 in 2018.

Nationally 90 per cent of dwelling fires in the year-ending December 2018 were accidental, within DSFRS the proportion was slightly higher at 92 per cent.

DSFRS also generally records a higher rate of accidental dwelling fires per head of population. In the year ending December 2018, the service recorded a rate of 52.5 dwelling fires per 100,000 population, compared to 48.4 for England as a whole.

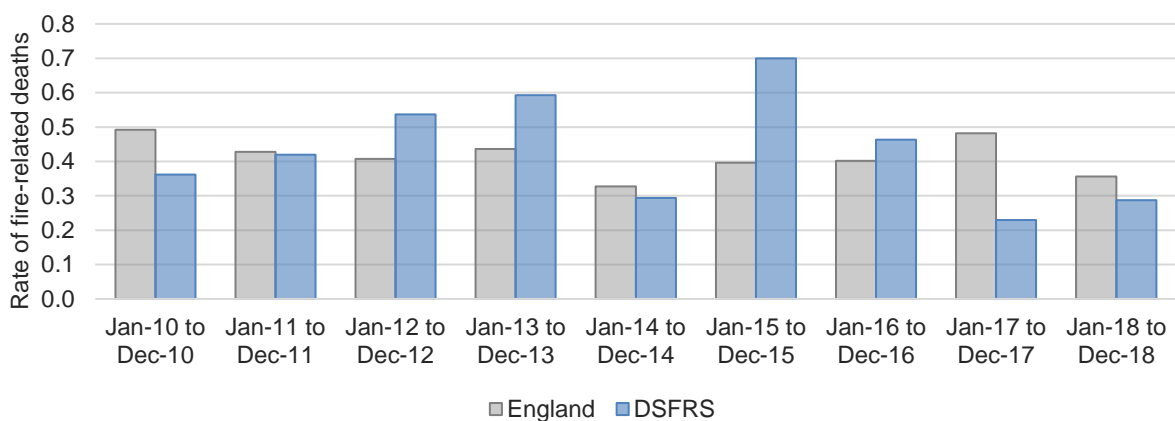
Figure 8: accidental dwelling fires attended per 100,000 population, year-ending December 2018



This may be due to demographic factors present within the communities served by DSFRS. Old age and living alone are key factors that raise the likelihood of both having a fire in the home and dying from fire in the home.

During the reporting period DSFRS recorded a total of five fire-related deaths resulting from dwelling fires, 0.29 deaths per 100,000 population. A slightly lower rate than that seen nationally of 0.36 deaths per 100,000 population.

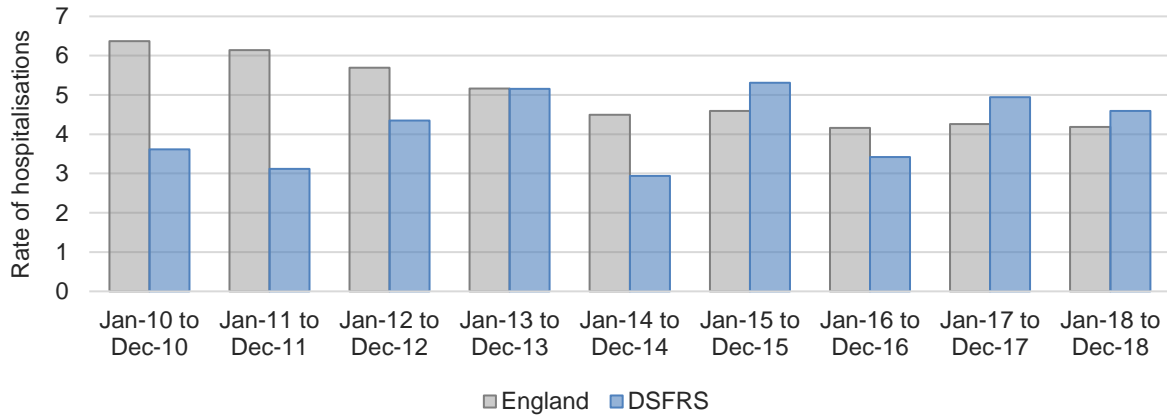
Figure 9: Dwelling fire deaths<sup>7</sup> per 100,000 population, DSFRS and English FRS



Conversely, DSFRS has recorded a slightly higher rate of injuries requiring hospital admittance resulting from dwelling fires than the average for England. The increase seen in the DSFRS data is partly due to extensive quality assurance processes implemented during 2015 which have resulted in more injuries being captured within the recording system.

<sup>7</sup> Deaths are only reported if the cause is deemed to be as a direct result of the fire, i.e. if there hadn't been a fire the victim would not have died, this includes deaths from falls, falling debris etc.

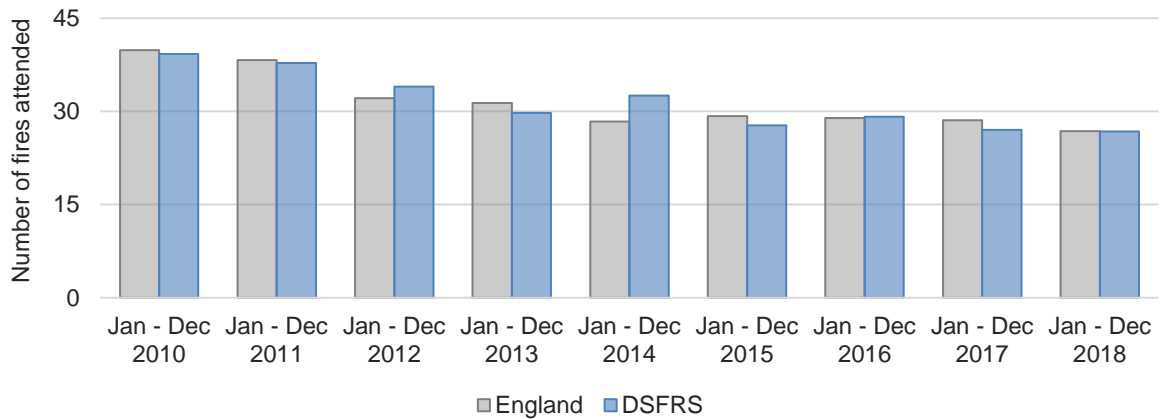
Figure 10: Dwelling fires injuries<sup>8</sup> requiring hospitalisation per 100,000 population, DSFRS and English FRS



### Primary fires attended in buildings other than dwellings

During the year-ending December 2018, 466 primary fires in buildings other than dwellings were attended in the DSFRS area, a reduction of just under one per cent compared to previous year (470). Nationally there was a reduction of just over six per cent, down from 15,894 in 2017 to 14,894 in 2018.

Figure 11: Number of fires in buildings other than dwellings per 10,000 rateable premises



Over the past five years there has been a downward trend in fires attended in buildings other than dwellings, both within DSFRS and nationally.

There has been one death resulting from a fire in a building of this type. The fire involved a privately owned garage and started accidentally.

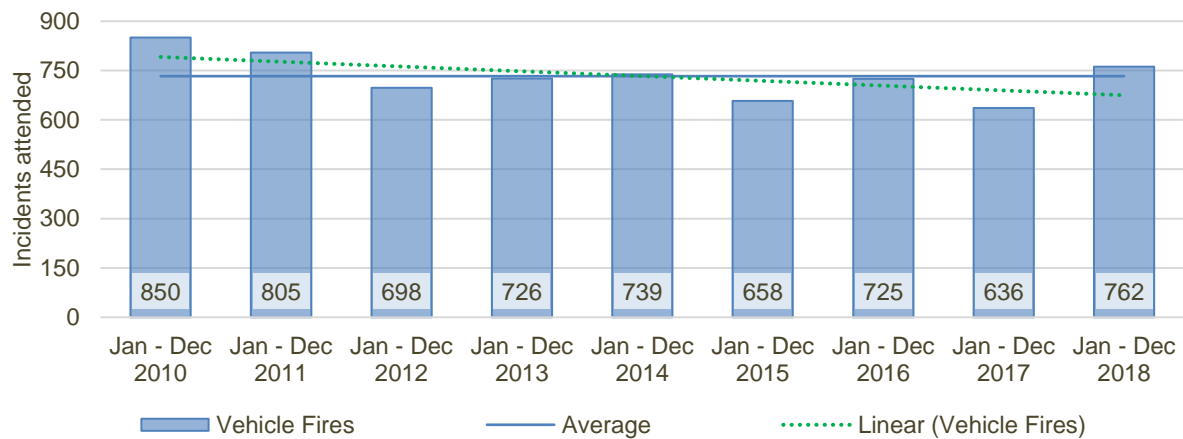
<sup>8</sup> Non-fatal casualty data includes any injury recorded at a fire, irrespective of whether it was directly as a result of the fire itself.

### Primary vehicle fires attended

The year-ending December 2018 saw the highest number of primary vehicle fires since 2012, this was only slightly above the average<sup>9</sup> for the period.

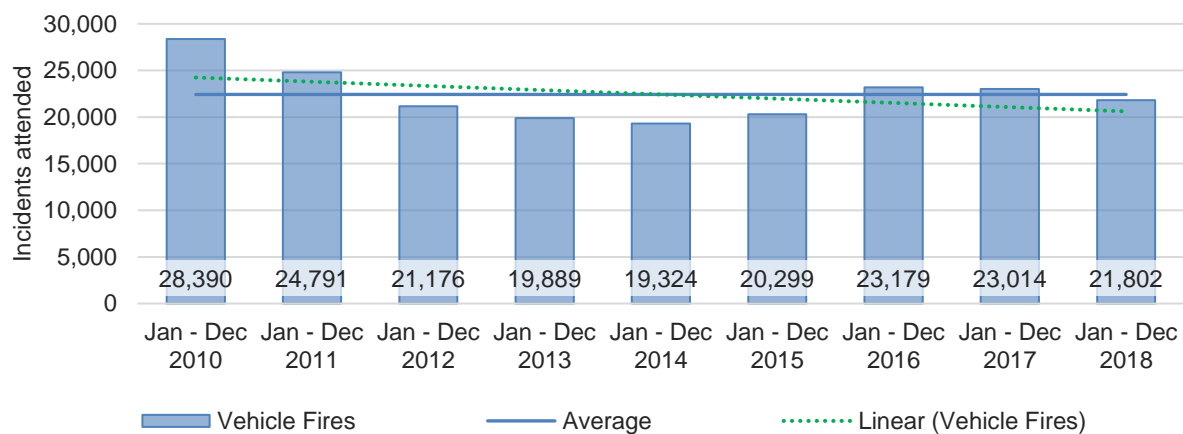
Conversely, 2017 saw the lowest number of fires in the period (636), contributing to the high percentage change in 2018 (20%).

Figure 12: Primary vehicle fires attended within the DSFRS service area, by year



The national data does not follow the same pattern, with 2017 seeing a slightly above average number of primary vehicle fires, see figure 13.

Figure 13: Primary vehicle fires attended by English FRS, by year



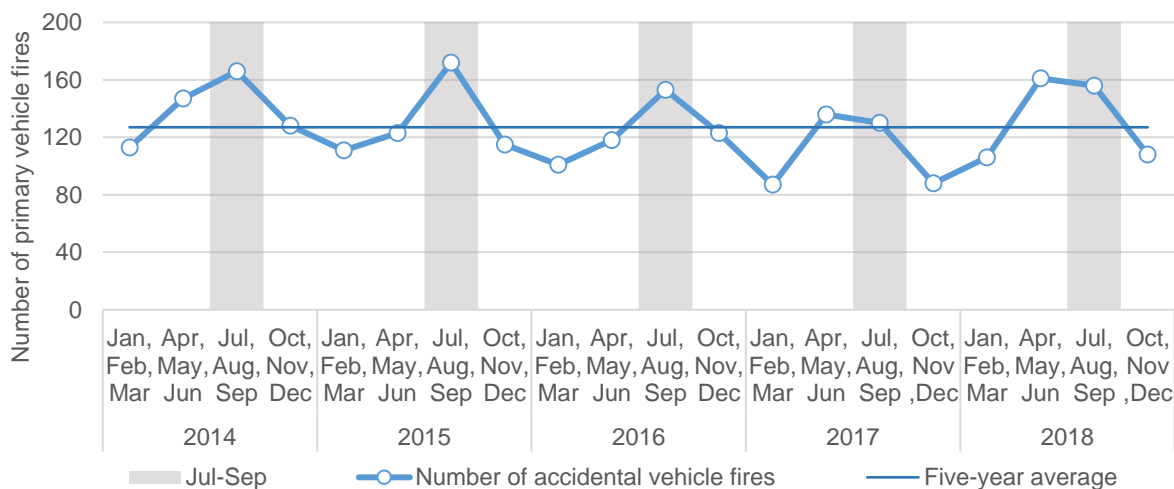
Both DSFRS and England as a whole are showing a downward trend in primary vehicle fires for the nine-year period. This is a result of a very high number of fires being recorded in 2010.

<sup>9</sup> Average based upon the mean for the nine-year period.

On average, within DSFRS, 70 per cent of primary vehicle fires start accidentally, nationally the figure is just under 53 per cent. When considering these incidents, seasonality becomes a factor, with significantly higher numbers recorded during the summer months.

Between January 2014 and December 2018, the average number of accidental primary vehicle fires in DSFRS for the quarter covering July, August and September was 155, 22 per cent above the annual average of 127.

Figure 14: Primary vehicle fires attended by English FRS, by year and quarter



The increase in accidental primary vehicle fires during the summer months is likely to be related to the increase in miles driven during these periods. Data from the Department for Transport<sup>10</sup> shows that drivers cover an average of four per cent more miles during the July, August and September compared to the annual average.

The influx of tourists into the region during the summer months will inevitably mean that the proportional increase in miles travelled will be significantly higher in the South West than the national average.

Three of the 10 reported fire deaths resulted from two separate vehicle fires, one of the deaths (vehicle type: tractor) has been confirmed as fire-related, two are awaiting confirmation on cause of death from the coroner (vehicle type: car, fire started following RTC).

**Primary outdoor fires attended**

During the year-ending December 2018, 122 primary outdoor fires were attended in the DSFRS area, a reduction of eight per cent when compared with previous year (133). Nationally, English FRS as a whole reported an increase of just under 19 per cent, up from 5,553 in 2017 to 6,588 in 2018.

<sup>10</sup> [Traffic - www.gov.uk/government/organisations/department-for-transport/series/road-traffic-statistics](http://www.gov.uk/government/organisations/department-for-transport/series/road-traffic-statistics) - Table TRA2501e: road traffic (vehicle miles) by vehicle type in Great Britain, quarterly from 1994

One of the 10 fire deaths resulted from an outdoor fire, where a bonfire became out of control catching fire to surrounding vegetation. The death was confirmed as fire-related by the coroner.

### 3.2.2 Secondary fires attended

During the year-ending December 2018 there was a significant increase in secondary fires, both within DSFRS (from 1,555 in 2017 to 1,821 in 2018) and nationally (from 91,159 in 2017 to 100,971 in 2018).

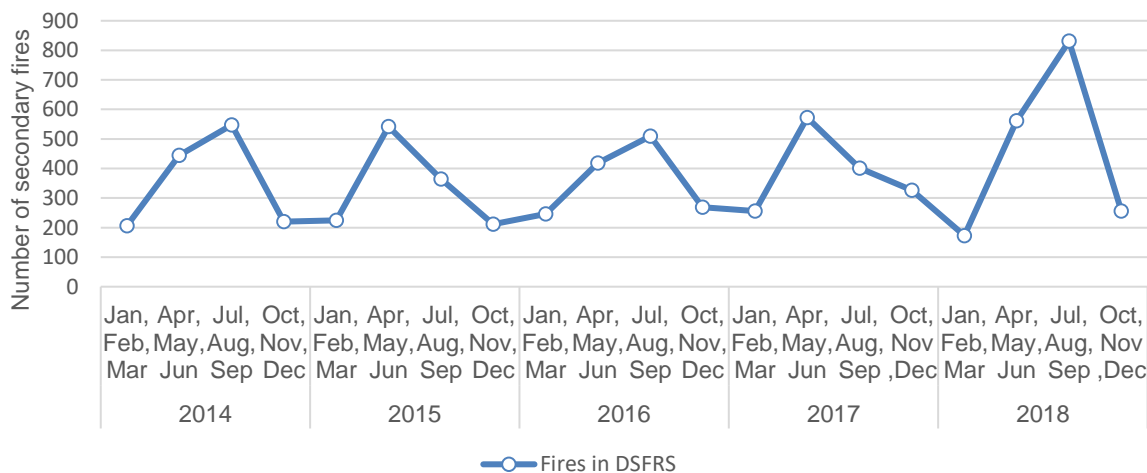
Figure 15: Secondary fires attended by DSFRS and English FRS and motive

Secondary	England			Devon & Somerset		
	Current Jan-18 to Dec-18	Change vs previous year		Current Jan-18 to Dec-18	Change vs previous year	
<b>Total secondary</b>	<b>100,871</b>	<b>10.7%</b> <b>(91,159)</b>	↑	<b>1,821</b>	<b>17.1%</b> <b>(1,555)</b>	↑
Accidental	41,064	35.3% (30,351)	↑	773	58.1% (489)	↑
Deliberate	59,807	-1.6% (60,808)	↓	1,048	-1.7% (1,066)	↓

The change is due to an exceptional rise in accidental fires and is a result of the particularly hot, dry summer experienced in 2018.

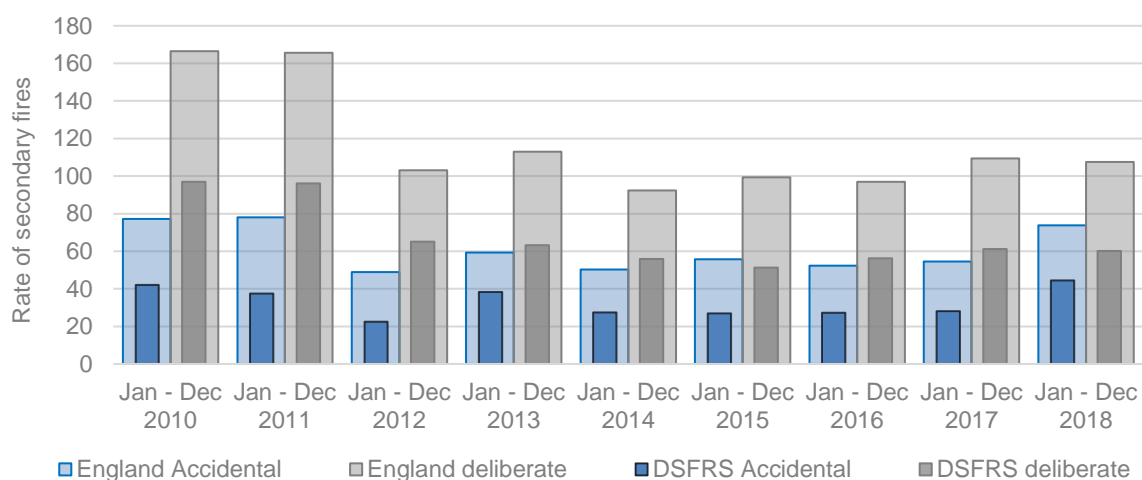
As can be seen in Figure 16, the number of secondary fires fluctuates seasonally with greater numbers recorded within the warmer, drier periods of the year.

Figure 16: Secondary fires attended within DSFRS by time of year



While DSFRS has seen a greater increase in fires of this type, it still sees a much lower rate of fires per head of population than that of England as a whole.

Figure 17: Secondary fires attended per 100,000 population, by DSFRS and English FRS and motive



### 3.3 Non-fires incidents attended

During the year ending December 2018, 7,548 non-fire incidents were attended in the DSFRS area, a 15 per cent decrease compared to previous year (8,981). Nationally there was a two per cent increase in non-fire incidents, down from 171,736 in 2017 to 167,620 in 2018.

Within DSFRS 99 per cent of non-fire incidents are special service calls, with one per cent being non-fire false alarms. Figure 18 shows the breakdown of these incidents, excluding false alarms.

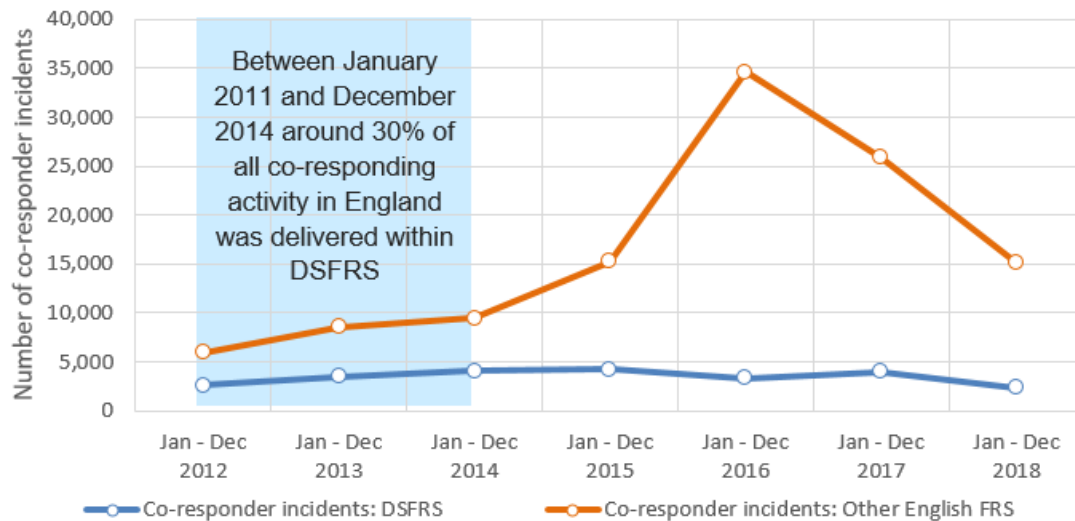
Figure 18: Non-fire incidents attended excluding false alarms, high level incident type, DSFRS and English FRS

Non-fire incidents	England		Devon & Somerset	
	Current Jan-18 to Dec-18	Change vs previous year	Current Jan-18 to Dec-18	Change vs previous year
<b>Total non-fires</b>	<b>160,446</b>	<b>-2.8%</b> <b>(165,101)</b>	<b>7,435</b>	<b>-15.6%</b> <b>(8,808)</b>
RTC	30,872	3.8% (29,744)	930	-6.2% (991)
Co-responder	17,497	-41.3% (29,826)	2,369	-40.1% (3,953)
Effecting entry	24,876	6.8% (23,291)	1,177	1.5% (1,160)
Other	87,201	6.0% (82,240)	2,959	9.4% (2,704)



The greatest contributory factor in the reduction of non-fire incidents both within DSFRS and nationally is within co-responder incidents, which have decreased by over 40 per cent in both cases.

Figure 19: Co-responder incidents attended by DSFRS and other English FRS, by year



Levels of co-responder activity are largely dependent on mobilisation policies and agreements between the fire service and ambulance service. DSFRS now only attends the most life-threatening incidents, where speed of response is critical to giving the patient the best chance of survival. Previously the service has attended other, less high priority calls, which is likely to have contributed to the decrease in activity.

DSFRS has seen a reduction in RTCs attend of six per cent, down from 991 in 2017 to 930 in 2018. This is counter to the national trend which has seen an increase of eight per cent compared to previous year.

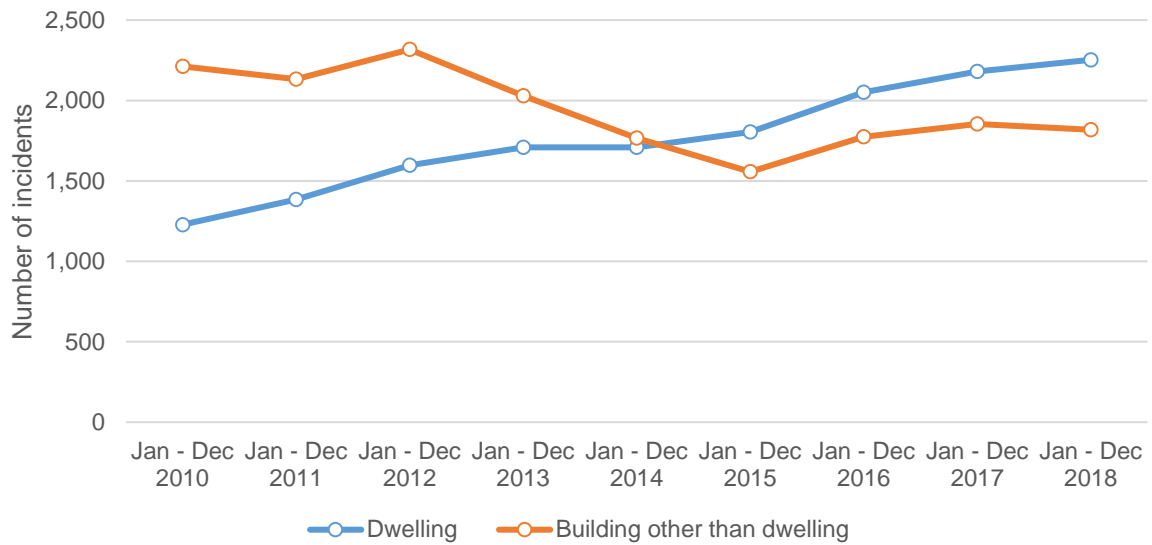
### 3.4 Fire false alarms

There was a two per cent increase in fire false alarm incidents attended within DSFRS in the year ending December 2018 (5,760) when compared with previous year (5,660). Nationally the fire service attended 231,122 fire false alarms, an increase of just over three per cent compared to previous year (224,034).

The data for the past five years is indicating an upward trend in fire false alarms, both within DSFRS and nationally. Over the past four years, there has been a year-on-year increase in fire false alarms due to apparatus.

Prior to 2014, the predominant property type responsible for this type of false alarm were buildings other than dwellings, however, from 2014 onwards the balance has changed with more fire false alarms due to apparatus attended within dwellings (see figure 20).

Figure 20: fire false alarms due to apparatus, by high level property type, DSFRS and English FRS



During the year-ending December 2018, DSFRS attended 5,760 fire false alarm incidents, constituting 33 per cent of incidents within DSFRS. Nationally, 40 per cent of incidents attended are fire false alarms.

To allow for better comparison of activity, co-responding calls can be excluded from the data. In this case, the proportion of false alarm incidents attended within DSFRS rises to 37 per cent and nationally to 41 per cent.