

This report is the fifth in a series that will provide a detailed analysis of compound data¹ on fire incidents in Great Britain where sprinklers systems were reported over the period of 2018/19 to 2020/21.

The aim of the analysis is to focus on identifying trends, discussion points and insights relating to the use of sprinklers within Great Britain. The outcome of which will evidence that can be used to influence change making the installation of sprinklers the norm not the exception.

INCIDENT DATA
REPORT ...
FOCUS ON
SPRINKLERS

British Automatic Fire Sprinkler Association

bafsa

1.0 Educational Premises

There are different government approaches to the installation of sprinklers in Schools. In England the installation of sprinklers in schools is only an expectation whilst in Scotland it is required by Regulation and in Wales it is driven by central funding.

According to UK fire statistics,² in Great Britain there were 1,937 fires of which 411 were recorded as deliberate in educational premises³ for the period 2018/19 to 2020/21.

1.1 Educational building types identified with sprinkler systems present

In total, data was provided for 50 fires where sprinklers were identified as being present in educational buildings. The majority of the 50 fires with sprinkler systems reported as present were in Secondary schools accounting for 34 or 68% followed by Infant/primary schools with 9 or 18%.

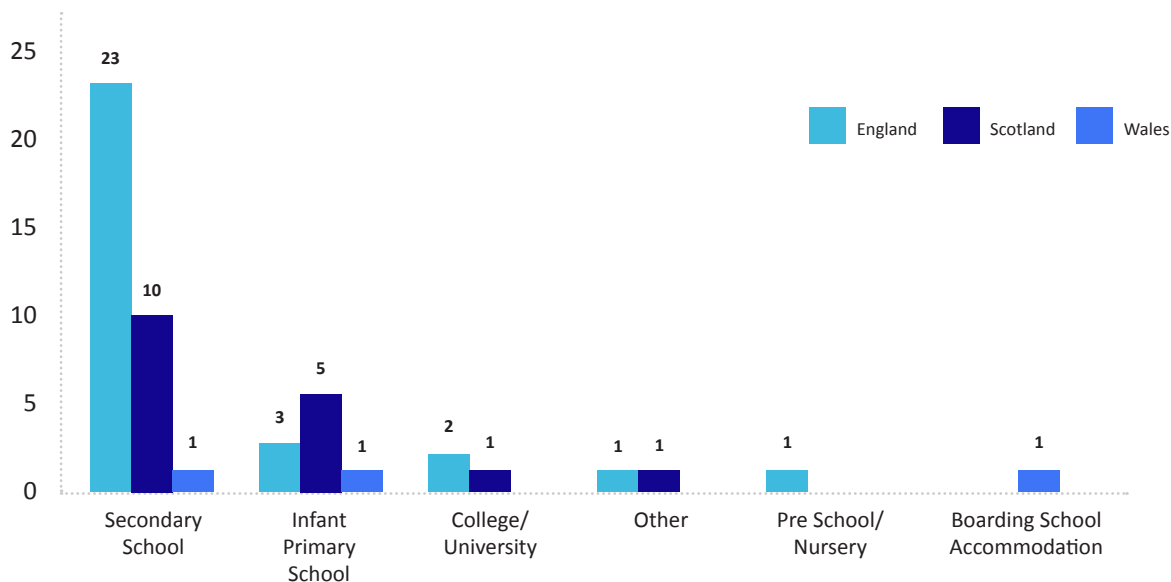


Figure 1. Number of fires within educational buildings installed with sprinkler systems

1 Source: FOI Requests for Incident Recording System Datasets relating to primary fire building attended by FRs in which sprinklers were present for England, Scotland, and Wales for the financial years 2018/19 to 2020/21

2 Source: Incident Recording System Datasets relating to primary fires in building attended by FRs across Great Britain – obtained from England, Scotland, and Wales for the financial years 2018/19 to 2020/21

2.0 Impact of sprinkler system operation

Over the period the data was collated sprinkler systems operated in 18 of the 50 incidents where sprinklers were recorded as present. The majority of incidents 15 (84%) were in Secondary schools with a further 3 (16%) in Infant/Primary schools only.

Of the 18 educational fires where the system operated, data is available for the number of heads that operated.

| EDUCATIONAL PREMISES | 2018/19 | 2019/20 | 2020/21 | GRAND TOTAL | % |
|-----------------------|---------|---------|---------|-------------|-----|
| Infant/Primary School | - | 2 | 1 | 3 | 16 |
| Secondary School | 6 | 8 | 1 | 15 | 84 |
| All actuations | 6 | 10 | 2 | 18 | 100 |
| | 88.6% | 9.5% | 1.9% | 100% | |

Table 1. Number of fires where the sprinkler systems operated by educational premises

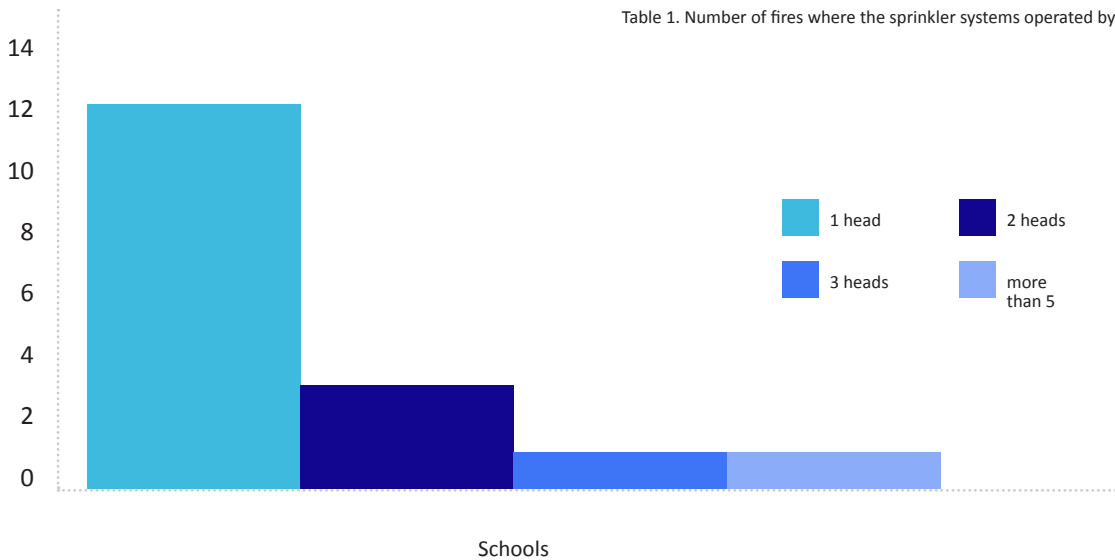


Figure 2: Number of sprinkler heads which operated

3.0 Comments/observations

- It is no surprise that England dominates the figures for the number of educational buildings reported with sprinklers present following a school fire as this accords with school populations. This is reinforced by the British Educational Suppliers Association (2021/2021) which identified 24,413, 5,052 and 1,553 schools in the England, Scotland and Wales respectively.
- In support of this, The Standard Specifications, layouts and Dimensions, Sprinklers for School Building publication was developed specifically for the Building Schools for the Future (BSF) programme. Introduced by the Department for Education the aim to disseminate best practice for the installation of sprinklers. Principally aimed at secondary school buildings in England.
- Whilst the figures show an increase in the number of reported sprinklers present following a fire in secondary schools compared to infant/primary schools more data is needed to identify if this was due to the then BSF programme.
- The English government is currently consulting on proposed revisions to its fire safety guidance in schools. (BB100) Identifying plans to make sprinklers mandatory only in special educational needs schools and schools over 11 metres in height. This means that the vast majority of schools will not be required to have sprinklers installed.

The Scottish Fire Rescue Service reported three school fires involving a malicious act located in the toilets within the space of 4 months between February – May 2022. On each occasion the fire was contained/controlled or extinguished by the sprinkler system

21 February 2022, Crieff High School

- 1x sprinkler head actuated
- Extinguished the fire

25 April 2022, Elgin High School

- 1x sprinkler head actuated
- Contained/controlled the fire

16 May 2022 Elgin Academy

- 1x sprinkler head actuated
- Extinguished the fire

Source, Sprinkler Saves UK