

# Education risk review report

Business Sector Risk Review Reports are created for each and every occupancy category held within the FPA/RISCAuthority Large Loss Fire database where sufficient records exist for meaningful analysis and are updated annually. They are designed to highlight the loss history in each business sector to help inform insurance and risk control choices, and provide brief bespoke best-practice guidance.

This data is best appreciated in association with local information on F&RS response, AFA policy, and firefighting water availability data which is available to RISCAuthority members via the website ([www.RISCAuthority.co.uk](http://www.RISCAuthority.co.uk)). The data presented here spans the two years January 2012 to December 2013; the complete database and analytical tools may be accessed by members via the RISCAuthority website.

## Infant/Primary School

*Sub category*



**Education** fires account for **3.6%** of all large loss fires.

Fires involving **Infant/Primary School** account for **1%** of all large loss fires and **28.7%** of all **Education** fires.

Causation	Accidental	Deliberate	Unknown
Education	45%	32%	22%
Infant/Primary School	43%	32%	25%

Time of fire	Midnight - 6am	6am - midday	Midday - 6pm	6pm - midnight
Education	25%	18%	29%	28%
Infant/Primary School	17%	17%	39%	26%

Impedances	Access	Acetylene	Inadequate water supply	Resources
Education	64%		27%	9%
Infant/Primary School	25%		50%	25%

**11 Education** fires of **101** had impedances, **0** of these had more than one impedance.

**4 Infant/Primary School** fires of **29** had impedances, **0** of these had more than one impedance.

## Cost of fire

**Education** fires account for **6%** of all large loss financial loss, with a mean average cost of **£1,255,998** per fire.

**Infant/Primary School** fires account for **28%** of all **Education** loss, with a mean average cost of **£1,190,709** per fire.

Insurance component	Material damage	Business interruption	Contents	Resources	Machine and plant	Stock	Other
Education	70%	13%	12%	0%	0%	0%	6%
Infant/Primary School	79%	10%	7%				4%

*These statistics are based upon information supplied by loss adjusters to the FPA on a voluntary basis and not all insurers conducting business in the UK contribute to this dataset. They represent only sums paid out where the total loss is in excess of £100K and are deficient of losses under £100K, deductibles, under-insurance, uninsured, self-insured and captively insured components, which may be significant. In a year, total losses captured typically account for 50% of the ABI declared annual fire loss figure - which is similarly deficient of the same components (except the £100K threshold).*

# FPA BUSINESS SECTOR RISK REVIEW REPORT FOR INFANT/PRIMARY SCHOOLS

## Fire safety legislation

In common with many businesses, a fire risk assessment should be undertaken for all areas of infant and primary schools in compliance with the Regulatory Reform (Fire Safety) Regulations 2005 (or equivalent legislation in Scotland and Northern Ireland). It is unlikely that an assessment in compliance with the Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR), will be necessary. Furniture and furnishings should comply with the Furniture and Furnishings (Fire) (Safety) Regulations 1988.

## Fire hazards

In most infant and primary schools there are large quantities of paper, books and craft materials that present a high fire load. This results in many fires developing rapidly, causing costly and time consuming refurbishment or rebuilding operations. Other hazards include:

- Coats and clothing hanging in escape routes and cloakrooms undivided from circulation areas.
- Large quantities of paper, card, plastics and similar materials hanging on walls and notice boards, compromising the surface spread of flame properties of escape routes.
- Decorations on walls and hanging from ceilings at Christmas and times of other festivals.
- Plastic and wooden sports and recreational equipment outside the premises often stored insecurely in wooden sheds or beneath the eaves for protection from the weather.
- The vulnerability of the building to intruders who light fires in an attempt to destroy evidence of theft.
- Easy access and opportunities to deliberately ignite combustible waste and other materials.
- Hot work and the use of hand tools by maintenance staff and contractors.
- Electrical hazards from poorly maintained installations or electrical equipment.
- The use of portable heaters to supplement the central heating in cold weather.
- The unsupervised use of school premises for local community activities outside of school hours.
- Cooking activities in school kitchens.
- Parents' cars obstructing access for fire and rescue service vehicles during arrival and pick-up times.

## Risk control recommendations

The following risk mitigation measures should be considered to eliminate or reduce the risk of fire in infant/primary schools:

- Provide cloakrooms that are separated from escape routes by a form of construction, including doors, which will provide at least 30-minutes' fire resistance.
- Minimise supplies of combustible materials that are held in the school. Keep stocks that are not required immediately in protected stationary stores or cupboards.
- In art areas use water based adhesives rather than those formulated with flammable liquids.

- Ensure that an arson risk assessment is carried out as part of the fire risk assessment undertaken in compliance with fire safety legislation. Like the fire risk assessment, the arson risk assessment should be reviewed periodically.
- Review security arrangements periodically, particularly if fires (even small fires) are deliberately started in the neighbourhood.
- Train staff in the selection and use of the firefighting equipment that is provided.
- Eliminate hot work (including burning off of paint when redecorating) being carried out by maintenance staff and contractors wherever possible. When such work is necessary, it should be undertaken outside of school hours and a hot work permit system should be in place.
- Engage a competent electrician to inspect the installed electrical wiring in accordance with the requirements of BS 7671 at periods as determined by a fire risk assessment, with the results being recorded.
- Carry out in-service inspection and testing of portable electrical equipment ('PAT testing') at periods in accordance with HS(G)107 and the IET *Code of practice for in-service inspection and testing of electrical equipment*, or more frequently as determined by a fire risk assessment.
- Provide clear fire safety guidance for people in charge of community groups using the premises outside of school hours.
- Provide training to kitchen staff in the emergency shutting down of cooking facilities, the operation of fixed fire suppression systems (where installed) and other emergency actions to take in the event of a fire.
- Eliminate the storage of flammable liquids (such as petrol for lawn mowers) on the school site.
- Ensure that appropriate passive fire protection measures are in place to minimise the risk of fire spreading between compartments within the building, from the building to adjacent premises, or vice versa. This is especially important in some premises designed in the 1960s and 1970s. School kitchens should be located in a separate fire compartment.
- Protect the premises by installing an automatic fire detection and alarm system, designed to an appropriate category as defined in BS 5839-1, which is monitored by an alarm receiving centre when the premises is unoccupied.
- Give serious consideration to installing an automatic sprinkler system designed in accordance with BS EN 12845 in all areas to control a fire until the arrival of the fire and rescue service.
- Liaise with the local fire and rescue service where appropriate to ensure that water supplies in the area are adequate for the sprinkler installation and for firefighting purposes.
- Engage parents with regard to parking in the vicinity of the school to ensure that access by the fire and rescue service is not impeded should a fire occur at the beginning or end of the school day. Liaise with police

and the local authority if necessary and emphasise the need for road markings and school patrols where appropriate.

- Implement an effective emergency plan to ensure the resilience of the school activities. One way of approaching this is to complete the ROBUST business continuity and incident management planning software available free from <https://robust.riscauthority.co.uk/>

## Further information

1. Regulatory Reform (Fire Safety) Order 2005, SI 2005 No 1541, TSO.
2. The Fire (Scotland) Act 2005, asp 5, TSO.
3. Fire Safety (Scotland) Regulations 2006, Scottish SI 2006 No 456, TSO.
4. Fire and Rescue Services (Northern Ireland) Order 2006, SI 2006 No 1254 (NI9), TSO.
5. Fire Safety Regulations (Northern Ireland) 2010, SI 2010 No 325 (NI), TSO
6. Dangerous Substances and Explosive Atmospheres Regulations (DSEAR), 2002, SI 2002 No 2776, TSO.
7. RC7 Recommendations for hot work, 2012, FPA.
8. *Business resilience: A guide to protecting your business and its people*, 2005, FPA.
9. The ROBUST software (Resilient Business Software Toolkit) may be found at <https://robust.riscauthority.co.uk>
10. BS 5839-1: 2013: *Fire detection and fire alarm systems for buildings. Code of practice for design, installation, commissioning and maintenance of systems in non-domestic premises*, British Standards Institution.
11. *LPC Rules for automatic sprinkler installations incorporating BS EN 12845: (Fixed firefighting systems. Automatic sprinkler systems. Design, installation and maintenance, British Standards Institution)*, 2009, FPA.
12. HS(G) 107: *Maintaining portable and transportable electrical equipment*, 2004, Health and Safety Executive.
13. *Code of practice for in-service inspection and testing of electrical equipment* (fourth edition), 2012, Institution of Engineering and Technology.
14. BB100: *Design for fire safety in schools*, 2007 RIBA Enterprises.
15. *Fire safety risk assessment: Educational premises*, 2006, Department for Communities and Local Government.

## Case histories

1. More than 100 pupils were evacuated after a serious fire at a primary school which occurred at around 14:30 on Tuesday afternoon. Three crews of firefighters were called to the scene to tackle the blaze, which destroyed over half of the school building. Fire investigators determined the cause of the fire to be accidental, resulting from a table fan over-heating and catching alight. No one was hurt. The fire and rescue service is advising that when schools are undergoing major refurbishment serious consideration should be given to installing sprinklers.
2. Following a serious fire it has been decided to raise an additional £1.1m to add to the £2.4m received from the insurance company so as to be able to rebuild the school completely rather than refurbish the severely damaged original buildings. The fire, which occurred in October 2012, was started accidentally by building contractors. The effects on the local community were compounded by asbestos being released from the roof of the old school buildings during the incident. Following the fire, the school's 380 pupils were taught in temporary buildings constructed on the playing fields of a nearby primary school. Teaching staff reported that although there had initially been a few teething problems with this arrangement the pupils had settled down to cope well and were looking forward to the spring of 2014 when they would be able to return to new buildings on their own site.