

the impact of school fires

a study of the wider economic and social impacts on schools and the local community

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Executive summary

The findings presented in the following summary derive from a study undertaken by the National Foundation for Educational Research (NFER) commissioned by Local Government Analysis and Research (LGAR) on behalf of the Local Government Association (LGA) and British Automatic Fire Sprinkler Association (BAFSA). The study employed a desk review of primarily qualitative data and, as primary research, case study visits to four schools, all of whom had suffered fires in recent years. The focus of the study was to provide information about key issues, such as:

- What are the economic impacts of school fires for schools and the wider community, including the direct and indirect costs?
- What are the educational impacts of school fires for children and young people?
- What are the social impacts of school fires for schools and the wider community?
- What are the emotional effects of school fires for staff and pupils?
- What factors appear to be associated with the impact of school fires?
- What are the key factors that school staff, LA staff and fire officers take into consideration when examining fire prevention measures and mechanisms for minimising the impact of a fire in a school?

In this executive summary findings are presented in relation to the facts about school fires and fire prevention/response; the key findings from case-study visits as they relate to the background to the fires in the schools concerned, the impact of the fires and information about how schools approached fire prevention pre- and post- their experiences. Finally, we end with a brief conclusion.

The facts and setting a context

The impact of school fires

The review found that fires have large direct and indirect costs, for instance:

- each year in the United Kingdom there are estimated to be between 1400 and 1800 fires in schools
- over the ten years ending 2005, the cost of school fires has been rising, from £49 million in 1995 to £67 million by 2005, although there was a drop in cost between 2004 and 2005
- while the measurable cost of arson attacks on schools in 2001 stood at £65 million, the real cost of fires was nearer to £115 million
- a survey in 2006 by the Arson Control Forum of 938 schools found that 43 per cent had suffered at least one fire in the last three years
- proportionately, the highest cost of school fires occurs in the South East/London Region (representing 37 per cent of the cost of all school fires)
- metropolitan areas experience higher frequencies of school fires and correspondingly suffer the greatest total cost
- one in eight schools suffers a serious arson attack and 75 per cent of school fires are the result of a malicious fire
- nearly a third of all school fires start in school time
- damage can affect exam results, mean temporary accommodation is needed and result in disruption as a result of rebuilding and insurance cannot replace lost school work and lost school days
- it is estimated that the education of 90,000 children is disrupted by school fires each year and that those from the most disadvantaged backgrounds are more likely to be affected by such an occurrence
- 17 per cent of schools who had experienced a fire said that it had led to a drop in staff morale, six per cent to a drop in morale amongst pupils and seven per cent said that their fire had led to negative publicity about their school
- the increase in the number of extended schools (and the requirement for all schools to offer extended services by 2010) means that, increasingly, entire communities can be affected by a school fire.

The response to school fires and fire prevention

The review looked at evidence about what can reduce the cost of fire and specifically, at evidence related to sprinklers systems and fire prevention generally, finding that:

- there are perceptions, especially among some education professionals that, for instance, sprinklers are 'too expensive', likely to cause more damage than the fire and are prone to malfunctions and therefore will lead to the unnecessary destruction of school property
- there is evidence to suggest that schools, specifically in relation to their consideration about installing sprinkler systems, are influenced by concerns about damage sprinkler discharge might do, about accidental discharges and about vandalism of the system once in place
- the costs of a sprinkler system can be recovered within five years through reduced insurance premiums, which would be reduced by installing sprinklers by around 65 per cent
- sprinklers incorporated in a new-build school are estimated to cost between 1.8 and three per cent of the total build cost (and if retrospectively fitted between four to seven per cent)
- losses in buildings with sprinklers equal 10 per cent of those in buildings without sprinklers
- sprinklers deal with a fire immediately, whereas smoke detectors only perform a warning function
- there are no false alarms with sprinklers
- water spray from sprinklers washes out heavier carbon particles increasing 'survivability' and means better visibility in the event of a fire
- one in 14,000,000 sprinklers discharge due to defects and modern systems are compartmentalised so that they discharge in the area affected by the fire – actual reliance on fire-fighting intervention would result in far more water damage
- *Wise Up to Fire* – the campaign by BAFSA – aims to assist schools to make a decision regarding fire protection and specifically to encourage schools to install water sprinkler systems
- there are several guides, toolkits and a series of teaching resources that have been produced that are

intended to support schools in fire prevention, planning and management

- it would seem that it is schools that have suffered an arson attack that put fire safety management as a top priority, as they see the destruction that this causes
- many schools would welcome more guidance and supportive visits from the fire service.

Case studies – school context

The background to the fires were explored in the four schools visited and the following was found:

- in two schools, although damage was extensive, it was confined to certain areas of the school, which enabled pupils to be brought back on-site quickly (within two weeks in one school and at the normal beginning of term in the other)
- the other schools were so badly damaged that alternative accommodation was needed long-term. One school re-opened last year (September 2006, after a fire in 2004) and the other has never returned to its original site (after a fire in 2004), although the situation here was very complex, due to a local reorganisation of educational provision
- the case studies were not typical of school fires, in that three out of four were caused accidentally. The fire which was caused deliberately occurred at a week-end
- several fire officers expressed concern about an increase in the number of school fires occurring during school time, with the potential to cause casualties among the school population
- the schools all emphasised the importance of morale-building immediately after a serious fire, by acknowledging loss, but looking to the future and ensuring that the whole school was kept together if a long-term accommodation move was necessary
- despite the substantial impact of the fires, all the school interviewees reported that adaptability on the part of pupils and flexibility and good morale amongst staff had contributed to dealing effectively with the crises
- community support and sympathy played a significant role in boosting morale in the affected schools. Practical support from the local authority was also valued in the schools which felt that they had received this.

Case studies – the impact of the fires

How the fires had impacted on the case-study schools was explored with all interviewees and the following was found:

- although senior leaders and staff sought to ensure continuity in teaching and learning, and minimising any impact, the schools had experienced some negative impact on teaching and learning and, consequently, on assessment outcomes
- the schools had strategically prioritised minimising any disruption for pupils who were in an assessment year (year 6 and year 11, for example) and yet they perceived a negative impact on assessment outcomes for these year groups, it is likely that the pupils in other year groups were also affected
- loss of facilities and the use of temporary accommodation, together with loss of teaching and learning resources and completed school work, were the main outcomes of the fire that impacted directly on teaching and learning in all four schools
- the hard work of teachers who improvised, compromised and sought alternatives was instrumental in maintaining teaching and learning provision
- the wider communities in the four case-study areas were considerably affected by the school fires; this was particularly the case for those groups who used the schools' facilities
- disruption and a sense of loss was also reportedly experienced in the wider community
- links between schools and their local communities were evidenced and emphasised in the support received by the schools through fund-raising, provision of resources and support of school governors
- the emotional impact of the fire on staff, pupils and the local community was one of the main impacts of the fire and was still felt years later
- in response school staff had focused on maintaining provision and on supporting pupils through including work on the fire in lessons and through special PSHE provision.

Case studies – fire prevention

Interviews in the case study schools revealed the following about fire prevention, pre- and post- their experiences of serious fires:

- school staff had been satisfied with information and guidance they had received on fire safety and precautions, but three of the four had realised that they needed a more comprehensive incident recovery plan, as this would have saved time and extra work after the fires
- schools that had suffered major fires said they were much more aware of fire safety issues, such as not blocking fire escapes or hiding extinguishers and knowing exactly who was in the building
- school staff greatly valued the contacts they had with the fire service, especially visits and talks by fire officers, training in fire safety and fire risk assessments and audits
- fire and LA officers thought that all schools took fire safety seriously, but for some it was a lower priority because of other pressures
- staff in case-study schools warned against complacency and fire officers said that a serious fire in a school often acted as 'a wake-up call' to other schools in the area
- schools and LAs tended to see good security measures as 'the first line of defence' against fire, because most fires were started deliberately. As three of the case-studies showed however, this was no help when fires started accidentally and spread quickly
- sprinkler systems had strong support from fire officers, pupils, parents, community representatives and many school staff. Some school staff were less enthusiastic and LA officers generally had more reservations about them
- fire officers thought that opposition to sprinkler systems was based mainly on concerns about costs and misunderstanding of how they worked. This was confirmed to some extent by interview data from the schools and LA officers, who expressed concerns about expense, accidental operation of sprinklers, water damage and electrical fires

- some fire officers were optimistic that opinion was changing on the use of sprinklers, especially their use in new buildings, where the 'economic sense' argument was being won. Some LA interviewees confirmed that systems were now being installed more widely because of insurance company pressure and a risk assessment procedure
- two of the four case-study schools had sprinklers installed after rebuilding – in one school largely because of pressure from parents and the local community.

Conclusion

The evidence indicates that despite a downward trend in the number of school fires (malicious and accidental), there remain a substantial number of fires in schools each year and the findings from the case-studies illustrate the significant impact of school fires on the social and emotional experiences of pupils, staff and the wider community and on teaching and learning in the affected schools. This evidence provides support for the urgent imperative of addressing fire prevention and management in schools emphasised by Zurich insurance recently who asserted 'With three schools suffering from arson attacks every day, we cannot afford to be complacent and must continue to put measures in place to stop them.' (Zurich Municipal Insurance, 2007b).

The evidence suggests that there remain two key challenges for the future which are the need to:

- persuade all stakeholders of the importance of addressing the issue of schools fires through

highlighting their impact, whether or not they have had or are likely to have a direct experience of fire

- ensure that school leaders and local authority decision makers are equipped with accurate and relevant guidance about fire prevention and management in order that they can make informed decisions.

Finally, the evidence reviewed in the literature suggests that, while there are some complexities in considering installing sprinklers in existing buildings, the advantages of doing so in **new buildings** is more clear. In *Counting the Cost*, LGA quote A House of Commons Select Committee Report that stated (LGA, 2004):

... we strongly recommend in this year's revision of the Building Regulations, ministers introduce a requirement for sprinklers to be fitted to all new build properties of this type (including schools) as this would have more impact on public fire fighting safety than any other proposal in the White Paper ...

While new guidance, toolkits and encouragement may be planned, and toolkits may be designed to lead 'inevitably' to the adoption of sprinklers in new build schools, it does not make such installation compulsory. Hence, in line with current governance policy, LAs have the responsibility for decision-making. Therefore, given the programme of school building through Building Schools for the Future, it is perhaps timely for campaigns such as *Wise Up to Fire*, and for the LGA to ensure that decision-makers in local authorities and schools are fully informed about the impact of fires in schools and the effectiveness of sprinklers in minimising this impact.

1 School fires in England

The findings presented in the following report derive from a study undertaken by the National Foundation for Educational Research (NFER) commissioned by Local Government Analysis and Research (LGAR) on behalf of the Local Government Association (LGA). The report begins with a brief exploration of available quantitative data (and other information) as it relates to school fires, thereby setting a context for the presentation of findings from the research and implications in the following chapters. The study employed a desk review of primarily quantitative data and, as primary research, case-study visits to four schools, all of whom had suffered fires in recent years (see Appendix A for a full description of study aims and methods).

The study focused on providing the LGA with information about key issues, such as:

- What are the economic impacts of school fires for schools and the wider community, including the direct and indirect costs?
- What are the educational impacts of school fires for children and young people?
- What are the social impacts of school fires for schools and the wider community?
- What are the emotional effects of school fires for staff and pupils?
- What factors appear to be associated with the impact of school fires?
- What are the key factors that school staff, LA staff and fire officers take into consideration when examining fire prevention measures and mechanisms for minimising the impact of a fire in a school?

The report concludes by drawing out the implications of the impact of school fires and highlights issues for consideration for local authorities and schools, focusing on the role of sprinklers in minimising the impact of school fires and all associated costs.

In the following sections of this chapter we present evidence gathered during a brief review of readily available literature, which focused on gathering information that relates to the key research questions listed above. The review provides a context within which to consider the evidence then presented about the case study visits conducted for this study and it is also used to help set the context for conclusions, implications and recommendations.

1.1 The direct costs and causes of school fires

1.1.1 The costs of school fires

There is a wealth of statistical data about school fires currently gathered by government (see Office of the Deputy Prime Minister, 2004, 2005a, 2005b, 2006). However, in the main, for the purposes of this review we have sought to identify and review sources of information that were best placed to provide information as it related to the objectives of the study and, to do this, we have concentrated on using reports from various organisations that relate such data to the key issues under investigation.

According to Zurich Municipal (Zurich Municipal Insurance, 2005b) each year in the United Kingdom there are estimated to be between 1400 and 1800 fires in schools, with a direct cost estimated to be in excess of £80 million (ODPM, 2005a). In the past, according to Zurich, fires in schools have accounted for a quarter of all building fires (Zurich Municipal Insurance, 2005b).

In fact, more recent data estimated the cost of school fires in 2005 to be £67 million, a reduction of approximately £16 million on the previous year's figures (Zurich Municipal Insurance, 2007b). However, Zurich notes that just one month alone (March 2006) school fires had cost an estimated £22 million compared to an average monthly cost of £5 million in the previous year. A survey by the Arson Control Forum of 938 primary

and secondary schools (Arson Control Forum, 2006), illustrates a different perspective on the scope of school fires; it found that 43 per cent had suffered at least one fire in the last three years, suggesting that across time a large proportion of schools experience fires.

School fires vary in the extent of their damage; around 40 or 50 fires each year could be described as serious as they cause damage in excess of £50,000 while around 20 of these involve damage of £250,000 or more (Teachernet, 2007). Overall though, in terms of medium-term trends, Zurich note that the cost of fires have risen over a ten-year period by 137 per cent (Zurich Municipal Insurance, 2005b). Additionally, data from the Office of the Deputy Prime minister (2004), lists the following average costs per fire in 2004:

- costs response £4,600 (this covers all 'indirect' response costs, and includes fire fighting costs)
- property damage and lost business £27,700.

In terms of information about trends in school fires; over the ten years ending 2005, the cost of school fires has been rising, from £49 million in 1995 to £67 million by 2005, although there was a drop in cost between 2004 and 2005 (Zurich Municipal Insurance 2005a and 2007a).

Data shows, proportionately, the highest cost of school fires occurs in the South East/London Region (representing 37 per cent of the cost of all school fires) compared to the lowest proportion of cost in the North East (3 per cent) (Zurich Municipal Insurance 2007b). Generally, metropolitan areas experience higher frequencies of school fires and correspondingly suffer the greatest total cost (Arson Prevention Bureau, 2002).

1.1.2 Opportunity costs of school fires

Many of the reports, pamphlets and guidance produced by fire professionals highlight the opportunity cost of not adopting fire detection and suppression systems such as sprinklers (LGA, 2004; National Bursars Association, 2006). It is worth noting that according to Zurich's *Arson in school: A burning issue* (Zurich Municipal Insurance, 2005a), not one school suffering a large fire in the UK in 2004 was fitted with a sprinkler

system and, at the time, there were less than 200 such systems fitted out of 30,000 schools across the UK system.

Most of these pamphlets and reports seek to challenge misperceptions about sprinklers (in relation to perceptions about costs, like the damage sprinklers cause and the advantages they offer). For instance, sprinklers incorporated in a new-build school are estimated to cost between 1.8 and three per cent of the total build cost (and if retrospectively fitted between four and seven per cent of the total renovation cost). Sprinklers are designed so that the 'heads' operate individually, only in the affected area, and discharge less than a tenth of the water that would be used by a fire hose. Sprinklers can be fitted in such a way to minimise or remove the danger of vandalism, in fact Zurich note that they have never received a claim relating to sprinkler vandalism. Installation of sprinklers would reduce insurance premiums by around 65 per cent and in the case of Zurich the excess to nil from, typically, £100,000 (Zurich Municipal Insurance, 2005b) and furthermore that such reductions in premiums mean that the cost of a sprinkler system can be recouped within five years.

1.1.3 Causes of school fires

According to the Arson Prevention Bureau (Arson Prevention Bureau, 2007a, 2007b), each year, one in eight schools suffers a serious arson¹ attack and Zurich state that 'around 75 per cent' of school fires are 'struck maliciously', and point out that about 90 per cent of claims for school fires are reported as a result of an act of arson (Zurich Municipal Insurance, 2005b). Data shows that nearly a third of all school fires start in school time (Arson Prevention Bureau, 2002).

A number of reports (Arson Prevention Bureau, 2004; Zurich, 2005b) highlight to schools what to look for in terms of general danger signs that they may be at risk of suffering an arson attack and more specifically regarding the profiling of potential arsonists. According to such guidance, evidence shows that small fires at a school can be seen as an early warning or risk factor indicating the possibility that a more significant fire may follow. Furthermore, reports and pamphlets suggest that

¹ In recent communications with government, LGAR have sought to clarify terminology thus, *Fire and rescue services use a broader definition of deliberate fires than that used by the police to define "arson". Around 60 per cent of all school fires are recorded by fire and rescue services as having been started deliberately, but a much smaller proportion of these fires are recorded as "arson" by the police.* (Murphy, 2007).

pupil profiling can be used to identify a potential typical arsonist (for example, arsonists are more likely to be male and two thirds of school fires are started by seven to 17 year olds, while those aged under seven start a quarter of fires). Guidance to schools encourages vigilance regarding pupils who could fit an 'arsonist' profile, a profile that includes risk factors such as, playing with matches and bringing cigarettes and lighters to school, being disruptive and or withdrawn and behaviour that more generally suggests disaffection.

Nevertheless, data reviewed by the APB (Arson Prevention Bureau, 2004) suggests that the incidence of malicious fires has decreased both in terms of frequency and as a percentage of all school fires. In 1993 there were 2,400 school fires of which 1,132 (or 47 per cent) were classed as 'malicious', by 2003 this figure had dropped to 2,000 school fires, of which 896 were malicious (or 45 per cent).

1.2 Additional costs and impacts of school fires

1.2.1 Impact on education and learning

In their report *School Arson: Education under threat* the APB state that, while the measurable cost of arson attacks on schools in 2001 stood at £65 million, there were additional costs such as disruption to staff, pupils and parents and that, taking these into account, the real cost of fires was nearer to £115 million (Arson Prevention Bureau, 2002). While Zurich estimated 'that the non-financial impact is between 30–50 per cent of the material' (Zurich Municipal Insurance, 2005b). Damage can affect exam results, mean temporary accommodation is needed and result in disruption as a result of rebuilding (Arson Prevention Bureau, 2002; LGA, 2004; Zurich Municipal Insurance 2005b) and, as pointed out by the APB, insurance cannot replace lost school work and lost school days (Arson Prevention Bureau, 2002).

Furthermore, a telephone survey of 938 schools by the Arson Control Forum notes that the education of 90,000 children is disrupted by school fires each year and that, due to the increased risk of fires in schools in deprived areas, those from the most disadvantaged backgrounds are more likely to be affected by such an occurrence (Arson Control Forum, 2006).

1.2.2 Impact on the wellbeing of children and staff

The extent of insured damage is only part of the impact on a school, as fires may have a wider impact on, for example staff and students' emotional wellbeing. Numerous news articles point to and recount the impact of school fires on children and staff (BBC, 2003a, 2004b, 2006c). A survey for the Arson Control Forum (Arson Control Forum, 2006) found that 17 per cent of schools, who had experienced a fire said that it had led to a drop in staff morale, six per cent to a drop in morale amongst pupils and seven per cent said that their fire had led to negative publicity about their school.

1.2.3 Impact on the wider community

The increase in the number of extended schools (and the requirement for all schools to offer extended services by 2010) means that the potential impact of a school fire on the wider community has increased, through the loss of facilities for local groups and possible major disruption to the other agencies, such as health and social services, which use school buildings. All this contributes to the wider cost of school fires, as does the impact on employment and income; for parents needing to take time off work to look after children, for non-teaching staff employed by the school and for local shops and businesses. As APB point out, insurance can not replace such disruption to jobs and community resources (Arson Prevention Bureau, 2002).

Further exploration of these wider impacts are the focus of the case-study research presented in the following chapters.

1.3 Responses to school fires and fire prevention

1.3.1 Public interest and perception as drivers for response

A search of the BBC's website, using the phrase 'school fires' elicited around 5,000 stories about school fires, going back to 1998; this helps emphasise the historical and ongoing scope of the media's coverage of school fires (BBC, 2003a, 2004b, 2006c). A series of papers from relevant organisations, referenced through this Chapter and numerous speeches by politicians and

statements of policy planning and development also indicate a consistent focus on this area.

However, among schools, it appears that for some the issue of school fires may be only highlighted when their school actually experiences a real fire. For instance, according to one BBC story *Water Sprinklers for New Schools* (BBC, 2004c) up to £1 million was to be spent installing water sprinklers in all new school builds following 'a number of severe fires at schools across the West Midlands'; there are many similar stories (BBC, 2003b, 2006a).

There have been, and are, attempts to encourage a move away from 'reactive' consideration of sprinkler installation. News stories and papers published by organisations across the fire industry encourage schools, LAs and government to take a proactive approach to installing sprinkler systems (Zurich Municipal Insurance, 2005a, 2005b, 2005c; Arson Prevention Bureau, 2002; BBC, 2006a, 2006b, 2007). However, conversely there are perceptions, especially among some education professionals that, for instance, sprinklers are 'too expensive' (BBC, 2004a), and likely to cause more damage than the fire and are prone to malfunctions and therefore will lead to the unnecessary destruction of school property. These perceptions may influence school and LA leaders' decision-making and it is essential, therefore, that they are provided with accurate and measured (and where appropriate unequivocal) information and guidance.

1.3.2 The response from fire professionals and policy makers

Informed by the Fire Suppression and Sustainable Buildings Task Group, in 2006 the DfES published for public consultation Building Bulletin 100 (BB100), *Designing and managing against the risk of fire in schools* (Fraser-Mitchell, 2007a) which covered broad areas of related planning and provision, including sprinklers. In December 2006, the Arson Control Forum published the results of a survey of schools looking at the broad fire

issue (Arson Control Forum, 2006). A forward to this report, written by Angela Smith, Parliamentary Under Secretary of State in the Department for Communities and Local Government, states:

With the Building Schools for the Future programme and improved IT provision in schools which covers not only health and safety aspects of fire safety in schools but also property issues ... currently outside the scope of the Building Regulations ... BB100 also addresses the case for sprinklers on a risk assessment basis. (p.1)

Through the Building Schools for the Future (BSF) initiative, by 2011 every local authority in England will have received funding to renew the schools in greatest need. Many LAs will have major rebuilding and remodelling projects underway through BSF and the remainder will have received resources through the Academies programme or Targeted Capital Fund.

However, as part of this major programme of rebuilding and redeveloping schools, the government has as yet to specify any particular means of protecting schools from the effects of major fires. Instead this planning is left to decisions made at the local level, informed by guidance rather than statute, and current information about the BSF initiative suggests that the quality and effectiveness of planning varies (see for example Williams, M., 2007). Indeed, the evidence suggests that the higher-risk, more deprived LAs are more likely to be struggling with effective planning. For example, Tim Byles in evidence provided to the House of Commons Education and Skills Committee (see *Sustainable Schools: Are we building schools for the future* (GB. Parliament. HoC, ESC, 2007), stated that:

... while giving priority to those areas with high levels of deprivation and low levels of attainment was appropriate, ... local authorities with schools that meet these criteria (not surprisingly) have typically had a number of other challenging issues to tackle in their area. As a consequence, the degree to which these authorities were sufficiently prepared and resourced for BSF was not always ideal² (p.19)

² On 26 February Jim Knight, the Minister of State for Schools, announced to a sprinkler seminar in the House of Commons in London that the Government had introduced a new policy regarding the fitting of sprinklers in schools in England and Wales. New schools (or those which undergo a major refurbishment using public funds) will have to complete an analysis using a risk assessment tool to determine whether they should be fitted with a sprinkler system. He stated that it is the Government's expectation that in the majority of cases this process will lead to sprinklers being fitted. The Government has begun a programme to replace or refurbish all secondary schools, at a cost of £45 billion over 15 years. Most of these schools will now be sprinklered. In addition, the BRE is currently producing the schools' sprinkler installation specifications which will be followed by the publication of the new guide from the Department for Education and Skills - Building Bulletin 100 (BB 100), *Designing and Managing Against the Risk of Fire in Schools*. This sets out how to achieve a satisfactory standard of life safety, and therefore how to meet the requirements of the Building Regulations, and suggests ways of improving property protection. The DfES has also recently launched the interactive Fire Risk Management and Cost Benefit Analysis Toolkit that will help schools decide whether sprinklers represent good value for money, and when considered in the context of both financial cost and the wider social and economic impacts, the tools will help to demonstrate that sprinklers are good value in almost every case.

In March this year the then DfES made available guidance, which provides comprehensive information to all school stakeholders relating to implementing fire-related planning and responses. This guidance is already helping inform planning and provision (Education Building and Development Officers Group, 2007; Fraser-Mitchell, J., 2007b).

One key element, among many, for BSF planners to consider, and highlighted in the guidance mentioned above, is the inclusion of sprinklers in all new builds and to what extent such systems should be retrospectively fitted in existing schools. The LGA's report *Counting the Cost* (Local Government Association, 2004) highlights the opportunity cost, should BSF not incorporate sprinkler installation as part of the spend; they note that estimates of losses to schools of £500 million over past six years, if continued, would reduce the money available for building through the programme of £5.1 billion by a corresponding amount – likening the value of this potential loss to the building of 200 new primary schools. They conclude that 'this kind of asset loss would be unacceptable in a publicly limited company'. Further the report makes reference to other cost benefits noting that:

- the costs of a sprinkler system can be recovered within five years through reduced insurance premiums
- losses in buildings with sprinklers equal ten per cent of those in buildings without sprinklers
- sprinklers deal with a fire immediately, whereas smoke detectors only perform a warning function
- there are no false alarms with sprinklers
- water spray from sprinklers washes out heavier carbon particles increasing 'survivability' and means better visibility in the event of a fire.

Overwhelmingly, fire fighters and commercial industry agree that the need for sprinklers in new builds should be enshrined in building regulations and through consistent and integrated guidance for schools. Evidence provided to support this view is referred to in *Counting the Cost*, (LGA, 2004) which includes a case-study in the United States, Scotsdale, which adopted as mandatory the installation of sprinklers in schools. Over the last 15 years there had been no deaths from fires, a reduction in injuries and property damage of 80 per cent and a reduction in water used for fire control of 95 per cent (see also LGA, 2004; National Fire Sprinkler Network, 2005).

More generally, there is a wealth of fire prevention and management guidance produced by government, LAs and by fire professionals (Zurich Municipal Insurance, 2007a, 2007b; Arson Prevention Bureau, 2005, 2007a, 2007b; London Borough of Hillingdon, 2007; Dudley Metropolitan Borough, 2004; Communities and Local Government, 2006; Northamptonshire County Council, 2006; North East Fire Rescue Service, 2005; South Yorkshire Fire and Rescue Service, 2007; Tyne and Wear Fire and Rescue Authority, 2005, 2006).

Furthermore, there is extensive guidance and planning that encourages schools to at the very least consider the installation of sprinklers, for instance the APB leaflet *How to Combat Arson in School* (2004) advises a cost benefit analysis regarding sprinklers for new buildings and for 'substantial refits/renovations'. Zurich have provided a number of resources, as have others, such as a fire prevention guide for teachers *Protecting our future – Looking after our schools* and a toolkit called *Arson combated together* (Zurich Municipal Insurance, 2005c), designed to be delivered into schools by local fire services. Increasingly, organisations work together in this area to offer mutual development of and support to these various guidance initiatives, such organisations include APB, the Chief Fire Officers Association and the National Community Fire Safety Centre.

In addition, the *Wise Up to Fire* campaign was started in 2006 by the British Automatic Fire Sprinkler Association (BAFSA), working with the LGA. The campaign's aim is to assist schools to make a decision regarding fire protection and specifically to encourage schools to install water sprinkler systems as a means of preventing the spread of fires, and their subsequent damage and disruption. The *Wise Up to Fire* campaign is now supported by a range of groups, including the National Governors Association, the Arson Prevention Bureau and the Chief Fire Officers Association (see BAFSA *Wise up to Fire*, 2005, 2006a, 2006b, 2006c).

This brief review of literature and resources for this study, perhaps suggests the need for a 'rationalisation' of information available to stakeholders, so that all are clear which guidance is targeted for what purpose and to what potential audience. Often, in reviewing reports and documents, it was found that many referred to various types of guidance and that some time was needed to fully understand the differences between such information and its various purposes and intended

audiences. In summary it would appear that there are clear categories, such as guidelines and toolkits aimed at:

- policy planners (at all levels) and senior school management in terms of what to consider in relation to:
 - fire prevention
 - detection
 - fire management and response
- tool kits for fire professionals to use within educational settings, be it with staff, pupils and or parents
- toolkits for schools to use with pupils for teaching and awareness raising.

1.3.3 The response from schools

While there are several guides, toolkits and a series of teaching resources that are intended to support schools in fire prevention, planning and management, research by APB (Arson Prevention Forum, 2004) suggests that it is schools that have suffered an arson attack that put fire safety management as a top priority, as they see the destruction that such an event causes.

Evidence from a recent survey of 938 schools (305 of which were primary schools) conducted by the Arson Control Forum (Arson Control Forum, 2006) indicates that a notable minority of schools did not have a fire recovery plan and had not provided training for staff. More specifically:

- 19 per cent of primary schools and 27 per cent of secondary schools had an anti arson policy (77 per cent of primary schools and nearly three-quarters of secondary schools had no such policy)
- 54 per cent of primary schools and 62 per cent of secondary schools had a fire recovery plan (45 per cent of primary schools and over a third of secondary schools had no such plan)
- 67 per cent of primary schools and 71 per cent of secondary schools said they had provided related training for staff
- 71 per cent of primary schools said they had received an 'educational' visit from their local fire service.

Overall, the Arson Control Forum's study identified additional support or information which schools said that they would find useful. This revealed that, among primary schools surveyed, 38 per cent wanted visits from the fire service, 17 per cent wanted better teaching

materials and 16 per cent wanted material that would link to the curriculum. Responses from secondary schools showed that 32 per cent wanted visits from the fire service, 15 per cent said better materials were needed and 14 per cent mentioned materials linked to the curriculum.

Furthermore, there is evidence to suggest that schools, specifically in relation to their considerations about installing sprinkler systems, are influenced by concerns about damage sprinkler discharge might unnecessarily result in, about accidental discharges and about vandalism of the system once in place. However, the evidence is clear in addressing such concerns; one in 14,000,000 sprinklers discharge due to defects and modern systems are compartmentalised so that they discharge only in the area affected by the fire – actual reliance on fire-fighting intervention would result in far more water damage. Moreover, as noted earlier, no insurance claims had been received by the major insurer of schools that were due to damage caused by sprinkler vandalism (Zurich Municipal Insurance, 2005a, 2005b).

1.4 In summary

Broadly, the evidence suggests that some schools would welcome more information and engagement in relation to school fires, including curriculum-related materials. It would also seem that there are indications of a mismatch between school and LA staffs' perceptions of the benefits and disadvantages of the use of sprinkler systems in schools, especially in light of the 'hard' evidence from fire professionals and insurance companies. This suggests that ongoing efforts to provide factual information to support school and LA staff in their decision-making, particularly in light of the large scale rebuilding and refurbishing of schools through the Building Schools for the Future initiative, is a timely necessity. Such efforts could usefully be reinforced and enhanced through integrated programmes of dissemination and information and, where appropriate, such efforts should be underpinned by legislation. In fact, a report by the House of Commons Education and Skills Committee (GB. Parliament. HoC, ESC, 2007:54) pointedly refers to evidence presented to it about the efficacy of installing sprinklers in schools, noting that they had received 'a significant amount of evidence in favour [of sprinklers] from outside the education profession', perhaps reinforcing the point that there is much work to be done inside the education profession in this regard.

2 Background to the fires in the case-study schools

This chapter presents details about the background and context to the case-study schools visited during the study, and considers some of the general issues raised by interviewees in these schools and during the accompanying telephone interviews. Specifically, this chapter presents information about:

- school type and location
- the causes of school fires
- timing of fires
- extent of damage caused
- community background to the schools
- schools' reaction to the fires.

2.1 General school characteristics

2.1.1 School type and location

The four case-study schools included two primary schools, a large secondary school and one special school. They were from various geographical areas and locations; two were located in urban areas (one in a large city in the north of England and one in a small city in eastern England) and two in predominantly rural settings, but close to larger towns (one in the north of England and the other in the north Midlands)³.

2.1.2 An overview of the schools' experience of fire

The four schools had all suffered from fires which had resulted in major damage; the secondary school had experienced two major fires within three years. One of the primary schools had experienced a fire comparatively recently (March 2007), while in the other three schools, the fires had taken place several years before the visit; one at the end of 2003 and in the case of the remaining two schools in 2004. Despite the time lapse, the staff and pupils interviewed in the schools had all retained

vivid memories of what had happened at the time of the fire and during the following days and weeks.

2.2 Causes of fires

While most school fires are started deliberately (see Chapter 1), a fact confirmed by fire officers interviewed, the fires in three of the four case-study schools had been the result of accidental ignition. The exception, a primary school, was considered by the police and the Fire Service to have been deliberate but the possible perpetrators had remained undetected. In the other three schools, the cause had probably been related to some type of electrical fault.

It is worth noting that several fire officers also described a pattern in the case of arson attacks, in which major school fires were often preceded by vandalism and minor criminal damage, and sometimes by small fires started in outbuildings or rubbish bins (see Chapter 1). This was indeed the situation at the school where the fire had been deliberate, as it had suffered two minor, but suspicious fires in outbuildings in the previous year.

2.3 Timing of fires

The timing of the fires in the case study schools is of interest in the light of comments made by four of the six fire officers interviewed, who drew attention to what they described as a changing pattern. Whereas, school fires previously tended to occur mainly outside school time, Fire Service interviewees reported that more recently there has been an increase in those starting during the school day. Three of the fires followed what was apparently the traditional pattern of occurring during a week-end, or during school holidays, but the fourth had started during school time.

For the Fire Service this changing pattern is regarded as a very worrying development, because as one fire officer put it, 'it's only a matter of time before it will

³ After the fire, one school had been re-located 11 miles from its original site and was now on the outskirts of a large town, rather than in a rural setting.

result in casualties'. However, Local Authority (LA) interviewees did not raise this as an issue and did not appear to have noted a change in pattern. One LA interviewee, who was in a region that had suffered a large number of major school fires, said that to her knowledge the traditional pattern had not changed significantly and that national statistics showed that the peak time for school fires was the last week of the summer holidays, and the week-end before the beginning of the public examination season, in early summer.

The number of schools visited for this research is too small to provide any support for this trend. However, it is worth noting that, although three of the four fires had occurred out of school time, the fires were not typical in another respect, in that all except one were accidental.

In order to provide the context in which to situate the findings in the following chapters, the remainder of this chapter details the nature of the fires in the four case-study schools.

2.4 Extent of damage caused

As noted, one of the fires had started during the school day. In this case, the fire (which was accidental) had occurred just after three o'clock on a Wednesday afternoon, shortly before the end of the final lesson. The fire alarm sounded and all the pupils and staff were safely evacuated, while a senior teacher attempted to tackle the fire with an extinguisher. This had no effect and the local fire service was called immediately. Unfortunately, due to the design of the building, the fire took hold quickly, spreading through the roof space. This, according to fire officers interviewed, was particularly dangerous because molten tar dropped from the ceiling and caused secondary fires. A large part of the school was destroyed and the rest was unusable, causing extensive and on-going disruption to the functioning of the school. The representative of the local fire service, however, commended the effectiveness of the school evacuation procedure, commenting that the 'school saved lives by getting everyone out so quickly'.

As the other fires all started outside school time, there was not the same potential for casualties among the school population, but there was a similar pattern in terms of the fire having spread rapidly, causing substantial damage. In the case-study school where the

fire was started deliberately, there was another example of how the design of the building accelerated the spread of the fire through the roof space and took several hours to bring under control. A large part of the school had been destroyed, making it unusable for several months for the infants and for two years for the juniors.

The extent of the damage caused in the other two fires was less extensive, but was still substantial. In the secondary school, the fire had occurred during the Christmas holidays and had destroyed the entire Physical Education department. This had been the second major fire that the school had suffered, with the previous one, three years earlier, having damaged a large part of the school (the previous fire had been the result of an arson attack). At the other primary school the fire, which had occurred on a Saturday afternoon, and again had spread through the roof space, destroyed the library, IT suite and a nurture unit, and further fire and water damage had made other areas unusable.

All four schools had therefore suffered considerable disruption as a consequence of the fires. In two cases the damage resulted in pupils being unable to return to the school for periods ranging from two weeks to six weeks. In the third case, the school had not been able to fully re-open for two years, while in the fourth case the school had never returned to its original site.

2.5 Community background

Interview data from all the four schools visited illustrate the ways in which most schools are closely tied to their neighbouring communities. As a result of a major fire therefore, there had been a considerable effect on the local community, particularly with the two schools that were more rurally situated and where there were fewer alternative facilities. Such impacts are discussed in more detail in Chapter 3, but it is worth noting here that all the schools had been providing some facilities for the local community and that, in the case of the rural schools, such provision had been substantial.

Interview data also showed that there was a positive and a negative side to these community links; in that the disruption or closure of school facilities had caused problems for the community groups that had been using the schools, as well as loss of income for the schools derived from lettings. On the other hand, the school

interviewees were encouraged by the support that they received from their communities, which included donations in kind and cash, expressions of sympathy and offers of physical help.

Although it is reasonable to assume that local businesses might be adversely affected by the temporary or permanent closure of a school after a fire, or even by general disruption to a school site, there was no evidence of this in the four case-study areas, as will be discussed in Chapter 3. Three of the four schools were unable to identify any businesses that might have been affected. This may be because of the particular location of the case-study schools that did not have many businesses nearby and may not reflect a wider experience of businesses near schools that experience fires.

2.6 School reactions

The case studies represented three sectors of the state education system (primary, secondary and special), and although there were differences in how schools were affected, both in the short and the long term, there were striking similarities in how the schools responded to the fires.

For all four schools, the fires had been both a shock and had caused enormous problems, but the school interviewees all emphasised how, after the initial shock had passed, they adopted a positive attitude of looking towards the future, rather than dwelling on what had been lost. The reasoning behind this was obvious, but it clearly was very effective, in that it enabled staff and students to make the best of what were often very difficult circumstances in the expectation of a better future.

This attitude was reflected in the view of pupils. For instance, year 5 pupils in one of the primary schools remembered clearly the disadvantages of the alternative accommodation they had been in while the school was rebuilt (firstly relocated to a disused school and then latterly in temporary cabins). They recalled 'the mould growing on the walls and the cramped classrooms', but they also acknowledged that there had been some compensations: 'there was a good playground to run around in', and they had realised that eventually they would move back to a largely rebuilt school, with good facilities.

In the secondary school, where students had experienced two years of disruption while their new PE department was rebuilt, the year 10 pupils were philosophical about the hardships of temporary changing rooms and shower blocks and having to travel to the local leisure centre for lessons, because 'in the end we've got a really good sports hall – the best in the area'. Similarly, staff there had concentrated on a vision of the opportunities for the future rather than allowing themselves to be overwhelmed by the 'devastation' that they had suffered. It was in this context that the headteacher of this school, commented on the importance of a positive approach in the face of diversity and how to emphasise this strongly in local press coverage: 'The department was acutely affected, but they are resilient and the school is too and that's the message we wanted to get across'.

The other common approach adopted by all the schools, highlighted by interview responses, was to make it clear to their LAs that they wanted the whole school kept together. A short period during which pupils might be divided between other premises was considered acceptable, but school staff aimed for this to be minimised. The senior teacher interviewees in the two schools that had to move off-site long term, both said that they had insisted on the school being kept together and that this had helped to maintain morale. In both cases the LAs found accommodation that enabled the schools to move as an entire unit and the interviewees believed that their insistence on this issue had been important in helping to deal with the crisis.

It appeared, therefore, that staff and pupils in the four case-study schools responded in the immediate aftermath of the fire by maintaining morale and looking to the future. Nevertheless, as noted in Chapter 1, a fire in a school is likely to have an impact on the teaching and learning in schools in addition to a social and emotional impact, and an effect on the wider community. The extent of this impact in these four schools is the focus of the next chapter.

2.7 In summary

The four case-study schools experienced varying degrees of damage as a result of their fires. In two, extensive damage was confined to specific areas and the pupils and students returned to their school relatively soon after the fire. In the other two schools alternative long-

term accommodation was required and, in one case, the school never returned to its original site. The fires in the case study schools occurred out of school hours in three cases and during the school day in the fourth. The fires were not typical of school fires nationally in that three of the four were considered by the fire service to have been started accidentally and only one was due to arson.

The schools all emphasised the importance of morale-building immediately after a serious fire, by

acknowledging loss but looking to the future and ensuring that the whole school was kept together if long-term accommodation at a different location was necessary. Interviewees in schools reported that the adaptability and flexibility of pupils and staff had contributed to dealing effectively with the crisis. In addition, schools had benefited from community support and sympathy which had contributed to morale and school staff had also generally valued the support provided by the local authorities.

3 Impact of fires on schools and the wider community

This chapter considers the shorter- and longer-term impact of the fires on the four case-study schools and their local communities. The impacts are divided into four categories: educational, economic, social and emotional. As will become apparent in this chapter, these impacts are often inter-related.

3.1 What were the direct impacts of the fires on schools?

3.1.1 Educational impact

Although in all cases, it was clearly a priority of school staff to minimise the impact of the fires on teaching and learning, overall, interviewees in all four schools considered that there had been some detrimental impact on educational progress as a result of the fires. Interviewees' comments in all of the schools showed that most pupils did lose some days or weeks of education while schools were closed and/or they had needed to travel to alternative accommodation.

Regarding assessment, senior leaders mentioned that there were initial concerns about pupils undertaking examinations at one primary school and the secondary school visited. These groups of pupils were given priority and extra support. One **primary** school made great efforts to ensure that year 6 pupils undertaking key stage assessments did not lose any days of education by sending them to a neighbouring school, while pupils in other year groups remained at home. Nevertheless, senior leaders had mixed views as to whether or not examination results had been jeopardised as a result of the fires. The headteacher at one primary school thought it was possible that key stage assessment results had been affected, and at the other primary school, the headteacher said key stage assessment results were lower than expected due to the disruption.

In the case of the **secondary** school, for year 11 pupils undertaking exams in PE, the situation was made easier because the groups were 'fairly small', and most of their theory work had been completed. However, the head of

department thought that the year 10 students had been more seriously affected and that their eventual GCSE grades were probably lower than they should have been.

In the **special** school, the senior leader interviewed, thought that pupils 'had just about caught up' after two years. She considered that this impact was a result of the school being closed for six weeks following the fire and, subsequently, there had been difficulties associated with re-location to a site with poorer facilities, as will be discussed in detail below.

Although there was particular concern for examination classes and maintaining academic standards, some of the teachers said that one of the 'saddest' impacts of the fires were the **classroom displays and archived work** that had been lost. In the special school 'some things could never be replaced, like the work done with the artist in residence', and in one of the primary schools, pupils were particularly upset that they had lost their display work and the folders they kept with all their best pieces of work from each year.

3.1.2 School inspections

All four case-study schools had undergone Ofsted inspections since their respective fires. As can be seen in Table 3.1, in two cases, this was within six months of the fire. Two of the four inspection reports make reference to the damage caused by the fires and subsequent disruption. One report notes that the fire and its aftermath had affected 'quality in areas of educational provision' (Ofsted 2005:3).

Table 3.1 School inspection dates

School	Date of fire	Date of Ofsted inspection
School 1	December 2003	November 2006
School 2	March 2007	April 2007
School 3	September 2004	January 2007
School 4	October 2004	February 2005

Of the four senior leaders interviewed, three made reference to their school's inspection. Two mentioned

that inspectors had been 'very understanding', and one had been given the option of postponing the visit as it was due to take place just six weeks after the fire. However, the situation differed greatly at another school, as inspectors were deemed 'very unsympathetic' to the impact that losing the entire school had on staff and pupils. A senior leader at this school described the inspection as 'very difficult' because, in her view, staff were accused of using the fire as an 'excuse' for not making as much progress as expected.

3.1.3 Factors that disrupted teaching and learning

The factors associated with the fire that were noted by school staff, pupils and parents as disrupting teaching and learning, included:

- the time of year that the fire occurred
- changes in accommodation
- loss of resources or facilities.

Further details are provided below.

Impact of the timing of the fire

According to interviewees, the **time of year** when the fires occurred made a difference to the effect on teaching and learning. For example, a new intake in one primary school had been unsettled throughout its first and second year, and examination results at three schools were thought to have been negatively affected. That said, at a school where fire had destroyed a PE block during the Christmas holiday, the impact on year 11 was considered to have been less significant than it perhaps would have been if it had occurred earlier in the school year, according to the head of PE.

Impact of lost facilities and the use of temporary accommodation

The extent of any educational impact was said to be dependent on the **rooms and facilities** that were damaged or destroyed, as might be expected, and the consequent use of **temporary accommodation**. The facilities affected by the fires at case-study schools varied considerably and presented varying challenges to the school staff.

In one case, most of the school was destroyed and the site was left derelict; the school subsequently operated

from a site originally intended to be temporary but was still located there at the time of the visit. The assistant headteacher at this school thought the site had 'limitations compared to the old school'. She explained that part of the current site had been initially derelict and the rest had been 'functional but in decline'. Furthermore, she explained that, since the site was a disused infant school, it had required extensive alterations in order to provide for pupils with SEN. At another school, the area affected by fire included an entire PE department, and fire at third school had destroyed an ICT suite, a library and a 'nurture suite'. Outside play areas at this school were still out-of-bounds at the time of the visit as they were being used by builders to store materials.

One of the primary schools also had to relocate to a disused school for a year, due to extensive fire damage. Pupils were eventually brought back to the original site, but into temporary cabins, while the school was undergoing a substantial rebuild. The headteacher at this school explained that there had been difficulties at the temporary site since there was limited space to manoeuvre and the school had functioned without corridors, cloakrooms and a hall large enough for the whole-school. Even though the school had re-opened after extensive repairs, problems with entrances and doors were still causing disruption and the school field was still out of use at the time of the visit.

Generally, perhaps due to their temporary nature, alternative sites were viewed by pupils as 'not very good'. For instance, one year 5 pupil remarked of the relocation site that 'people didn't really settle down there very well' and another, who was still having to use a temporary site at the time he was interviewed, said: 'It does not feel the same here – we wanted to go back to the old school.'. Interviews at this school with staff and pupils indicated that the current site in particular lacked PE resources, outside space and science equipment. Pupils in one primary school, who were in year 3 at the time of the fire, remembered that 'the toilets were not nice' and 'there was only one computer for a whole class'. Even when pupils returned to the original site, they said the cabins had been cramped and some very damp.

Pupils described using temporary sites as 'sad', 'weird', and 'strange', and also identified ways in which it impacted on their learning which may have led to the impact on assessment outcomes outlined in Section

3.1.1. According to interviewees the use of other sites resulted in general disruption, lessons being curtailed and a lack of educational facilities. Pupils at the secondary school explained that the time they spent travelling to a local leisure centre was taken away from lesson time; an arrangement that lasted for two years. Similarly, pupils at a special school mentioned that their school day had to be shortened to allow pupils extra time to travel to and from home.

An illustration of the impact of loss of facilities and resources is provided in the following vignette.

Educational impact

At School B, a 'nurture unit' was one of six rooms damaged by fire. This unit was a relatively new addition to the school and had recently been upgraded when the fire occurred. It had taken over two years to plan its original opening and those running the unit had since spent a long time getting it established. Staff working in the unit provided support to eight children from years 2, 3 and 4 with significant emotional, behavioural and learning needs. It was a facility greatly valued by teachers, support staff and parents.

Since the pupils using the nurture unit needed considerable support, it was particularly important to re-open a similar suite as soon as possible. Those working in the unit explained that it was extremely important for the children to have stability in their lives; they had been very familiar with the old systems and routines. However, like other pupils at the school, alternative accommodation was not available until two weeks after the fire. The unit was rehoused in the school's community room previously used by a parent and toddler group.

In order to provide the stability needed, those working in the unit 'begged and borrowed' items from other parts of the school. However, this meant that other teachers had fewer resources. Those running the unit were advised by an Educational Psychologist to decorate the new room as it was previously, so they used the same colour paper on the walls and re-hung pictures in similar locations. Nevertheless, it was impossible to replace the items of personal achievement lost by the children in the fire.

Impact of loss of resources

Despite the loss of facilities, as mentioned above, it was clearly a priority of senior leaders and teaching staff to minimise the impact of the fires on teaching and learning. A headteacher at a primary school remarked that staff had initially 'panicked' about the impact on teaching and learning, especially in the subjects most directly affected, in this case such as PE and ICT. However, according to the headteacher, classroom activities had recovered once staff were able to start planning again, for example, when critical IT resources had been retrieved.

The interview data indicated that the impact of losing schemes of work and other documentation had been a problem for some schools. For example, a teacher interviewed at a primary school said that new resources and worksheets had to be produced and inevitably there had been disruption to learning. She felt that progress in ICT was most affected, although, in general, her class had caught up 'quite quickly'. That said, one headteacher explained that his school was able to recover most of its administration files because they had been using backup systems. However, staff in the other three schools had the additional burden of having to recreate administrative tasks.

In the weeks immediately after the fire, one primary school had to rely on equipment and furniture donated by other schools and the local community. Similarly, interviews with staff at a special school revealed that, as a result of the fire, there had been no resources for some pupils and the school had to borrow from elsewhere and had received donations of books and furniture from other schools. The assistant headteacher said that it had been 'several months' before the school could function 'normally' and, as a result, pupils had to 'catch up throughout the year'.

At all schools, the ability to overcome the adverse impacts on teaching and learning were considered to have been largely due to the hard work of staff. Members of staff working in affected areas said they had to improvise effectively, compromise on certain activities and make alternative arrangements. One headteacher said the staff at her school 'adapted and didn't grumble much' and a parent of a primary school pupil made the following comment: 'She had a fantastic teacher who was very good at getting them back on track'.

The loss of resources and school work was a particularly negative impact of the fires, according to the pupils who were interviewed. A group of year 6 pupils, whose school had recently suffered from a fire, were saddened at the loss of a 'nurture unit' and library, especially since these had only recently been refurbished. Pupils at other schools mentioned that it had taken them a while to 'catch-up' with school work, and that school work had to be repeated in some cases. They also described their teachers as 'stressed' because of the amount of extra work they had to take on.

3.2 What were the economic impacts of the fire on the school and wider community?

3.2.1 The cost of the fires

The cost of the fires in the case-study schools, where headteachers and LA officers were able to provide details, was substantial. For example, one school had an insurance claim of £1 million while a second had claimed £1.2 million. Although the costs were covered through insurance policies at all four schools (through both school policies and the home policies of staff where appropriate) and local authority budgets, the procedures involved in making insurance claims were said to be complicated and time-consuming. Indeed, most senior leaders appreciated the support of their local authorities in dealing with these matters.

At all case-study schools, insurance companies covered the cost of the fires by paying for new equipment and some personal items up to a certain cost (i.e. contents) and local authorities dealt with rebuilding, rental costs and transporting pupils to other sites (i.e. capital expenditure). However, according to senior leaders, such negotiations were prolonged, lasting two years in one case; one headteacher described these as 'exceptionally long winded', with the school having had to wait four months before building tenders were posted. In fact, rebuilding did not start until seven months after the fire and, with an additional three months of actual construction, the estimated completion date for work had extended the reconstruction period to some ten months. Another headteacher mentioned that she was 'constantly going between the LA and the site here'.

The **actual cost** of the fires was considered difficult to determine by senior leaders as any calculation would be complex and draw on a wide range of direct and indirect costs. For example, one headteacher expressed the view that quantifying the economic impact had been 'one of the big issues' resulting from the fire. Not only did it include contents and capital expenditure, but also indirect costs such as coaches to transport pupils to a neighbouring school, removal costs, school meals and refurbishing old buildings. Moreover, the insurance claims did not reflect the total cost because on occasion claims were supplemented by alternative methods of raising funds. For example, at one school, the local community had raised thousands of pounds to support the restoration process.

None of the schools had made redundancies as a result of the fires, although one school had lost an 'excellent' member of its catering team following the move to a new site.

3.2.2 Wider financial impacts

Regarding the economic impacts of the fires on the wider community, all interviewees considered these to be short-lived and/or negligible. This was thought to have been largely due to the location of their schools, which they said had not really been served by local shops and other businesses. One headteacher noted that the teachers at her school had used a sandwich shop until they were required to work at different sites, however, the teachers' custom at this shop had, according to the headteacher been offset by workmen who had used the shop when repairing the school.

Another headteacher noted that a local leisure centre benefited financially in the short-term, while the PE department at his school was being rebuilt but in the long term, according to the interviewee, it had made little difference. This was confirmed by the leisure centre's manager who said that dry-side facilities (which tended to be under-used during the day) had been better-used as a result of the fire. The centre also benefited from use by local clubs which had previously used the school's facilities. This interviewee hypothesised that bus companies may also have profited from the fire by having had to transport pupils to the centre. Indirectly too, the school interviewees reflected that, while there may have been disruption to suppliers in the immediate aftermath of a fire, in the long term any disadvantages had probably been outweighed by the

increased orders that came with refurbishment of temporary accommodation and rebuilding of the affected schools.

It should be noted that while these case studies did not reveal any obvious disadvantages for local businesses as a result of the fires, the situation could be quite different in other circumstances.

3.2.3 External support

Although the process of claiming insurance took time, senior school leaders were generally very appreciative of the local authority support they had received through this process, which was thought to have been 'very helpful'.

For instance, the local authority had supported the secondary school's proposal to build a new PE facility with sports hall, gym and all-weather pitch to be used by the school and the local community. The two primary schools had also taken the opportunity offered by rebuilding to make additional improvements. For instance, one intended to replace its damaged ICT suite which contained 17 computers, with a modern air-conditioned suite with 30 computers. This school was meeting the additional cost of the upgrade and was planning to replace old and worn out books that were destroyed with brand new up-to-date ones (specific funds for this work were not specified by interviewees). The second primary school had to be substantially rebuilt, with improved design and facilities. The headteacher praised the local authority for the assistance it had provided in finding alternative accommodation for the whole school and making it usable within a short time frame.

The challenge for local authorities in managing the aftermath of a school fire is highlighted in the example of the special school, which was still located on a temporary site, but was due to become part of a co-located special and secondary school in another town. Plans for this 'co-location' had pre-dated the fire but this had become entangled with the aftermath of the fire, which had destroyed most of the original school. Consequently, interviews showed that there was still uncertainty among staff and disappointment that they would not be returning to their original site, as well as concern about the length of time they were in temporary accommodation. The local authority interviewee accepted that the situation was unsettling

for the school, but explained that they had to take a much 'wider view' of special needs provision for the entire area, rather than simply agreeing to replace the original school.

3.3 What were the social impacts of the fire?

The social impact on pupils related to increased travel, lack of sports and music facilities and changes to catering arrangements.

3.3.1 Travel

According to the interviews, long-term changes to travel arrangements had occurred at two schools: a special school which had relocated to a new site 11 miles away from its original position and a primary school which made use of an empty school about two miles away. As a result of the latter's re-location, walking to school had become unrealistic, according to the headteacher. Indeed, one parent explained that her daughter and younger son used to walk to school, but the new site was 'too far away'. Therefore, she had to drive and contend with 'congestion on the roads' as a result. This parent mentioned that the journey had resulted in a financial cost, as she had to pay for petrol, but she did not think this was worth claiming for from her insurance company. The representative of a community organisation which had used the same school, also commented on the traffic problems caused by the renovation work at the school, which had made life 'difficult' for local residents.

3.3.2 Sports and music

One of the primary schools had been unable to access several of its outside play areas. Instead, it had to use a section of recreation ground previously used by the public. However, the area had needed to be cleaned and fenced for safety purposes, and the consultation and planning processes were considered lengthy by the headteacher. At the other primary school, extra-curricular activities, such as a choir had been unable to continue on the re-located site, because of insufficient space. Pupils at this school expressed regret at not being able to attend choir practice. Their headteacher said 'we got used to doing activities in spaces where people were walking through'. She was very

appreciative of assistance provided by a local secondary school which had made available hall and sports facilities for drama performances, football and tennis.

The secondary school, that had lost its entire PE department, had been able to cover the curriculum by using the facilities of two local leisure centres, but here too, extra-curricular sports activities had suffered, with gymnastics, badminton, basketball and netball mentioned particularly by staff and student interviewees.

The special school had no sports facilities at all at its re-located site and was also using a local leisure centre. Pupil interviewees were satisfied with this arrangement, but complained about the general lack of outdoor space which prevented them from playing ball games.

3.3.3 Catering

The special school had been forced to change its catering arrangements as a result of moving permanently to a new site. Food had been bought from a supplier and reheated rather than being prepared on site. A senior leader at this school thought this arrangement was inferior to the previous situation, and the pupils interviewed all commented on how much better the food had been on the previous site.

3.3.4 Wider social impacts

In many cases the facilities that had been damaged or destroyed by fire had not only used by staff and pupils, but had been widely used by local **community groups** such as adult education services and sports clubs. Consequently, these groups had to find alternative accommodation or be disbanded.

As would be expected, interview evidence shows that schools had prioritised their own needs above those of other groups. For example, following the destruction of their ICT suite, one school had needed to use its additional ICT suite normally used by a community group. Also, at the same school, the community room, which had been used by a parent and toddler group, had to be reinstated solely for school use. The headteacher said some activities had now resumed but were curtailed through lack of space. Another headteacher mentioned that a summer holiday club that used to meet at her school had not returned since the fire. A representative of the junior football club that had

used this school described how he had been able to transfer activities to another school, but this had been much further away and therefore less convenient for parents. The summer club, which he also ran, had not returned to the school yet, because the field was still not in a 'good enough state to be used'.

Sports clubs which had used the secondary school had been able to transfer to nearby leisure centres, but an interviewee from one said that his club, which was already struggling, had its 'problems doubled by the fire'. According to this interviewee, the facilities at the centre were poorer and much more expensive and they rapidly lost members.

A representative of a community organisation, that had used the special school for meetings, also reported difficulties after the fire. Although they had found an alternative venue, the facilities had not been as 'good' and some members had been 'uncomfortable' with the religious nature of the building. This interviewee also said that her organisation had lost property, which had been stored at the school, and she echoed the regret of local residents that the school was not returning to its original site. The school had been extensively used and supported by local residents, who felt that they had lost an important community centre.

Although schools which were rebuilt eventually had better facilities than they had enjoyed originally, and external organisations could benefit from these, it was clear that the upheavals and disadvantages of the interim period had been an issue for community groups.

In addition to the direct impact on the wider community for those who used the schools' facilities, there were **indirect impacts** on the community and, particularly, on parents. Disruption caused by building work and demolition, following the fire had an impact on the **community** as the following observation by a parent reveals:

The residents were badly affected by all the demolition and rebuilding work afterwards. There was a lot of local disruption and problems with car parking because of contractors' vehicles and roads being blocked.

In addition, pupils had been required to stay at home for either days or weeks while emergency procedures were carried out. This caused problems for some pupils and their **parents**. These interviewees mentioned that

they/their children became bored after a while, they were required to take time off work and some found it difficult to keep their children occupied. Although this was not a problem for one parent interviewee, as she was at home looking after younger children, she was aware of other parents who had found the situation difficult. Parents of some children at a special school were concerned about the length of time that the school was closed and they had to claim for child-minding costs through their own insurance cover.

The wider social impact is illustrated in the following vignette from one school:

The social impact of fire

As a result of a large part of the school having been damaged by a major fire, the entire primary school had to move to alternative accommodation; a disused special school. The building was refurbished and equipped and although not ideal, it became an adequate temporary home for about a year. Lack of space was a problem, as 400 pupils were accommodated in a building designed for 100. Staff said that the pupils had adapted very well, but that extra-curricular activities had suffered considerably. There was no hall large enough to hold whole-school assemblies, which meant they could only take place in the summer, out on the field. It was only possible to have Christmas concerts and drama productions because the nearby secondary school allowed them the use of their hall. Music lessons had to take place in the library and the choir had no room for rehearsals and consequently stopped meeting. This had been a particular disappointment for the pupils who were interviewed, one of whom commented: 'We were upset about that, because we couldn't have practices until we came back here'.

Sports clubs had also been affected, both those run by the school and those run by external organisations. One of the teachers had managed to keep a netball club going, but 'in difficult circumstances', and explained that lack of facilities and extra work for teachers, resulting from the fire, made it impossible to run the others. The representative of the sports club that had used the school, described how, although he had found

alternative accommodation, it was further away and this had inconvenienced parents. He also had to move the summer club that he ran during the school holidays.

While the school was being rebuilt, there was a disruptive effect on the local community, with road congestion and parking a particular problem for residents and, because the temporary site was further away, for many parents this caused inconvenience. One parent described how she had to start using a car, because she had a younger child as well as her daughter to take, and the petrol costs had been an extra expense. She also explained that although having her children at home for two weeks had not been a problem for her, because she did not work, she knew of other parents who had faced problems because of this. One of the pupils interviewed, said that her mother had to take some time off work and 'she got stressed, so my grandparents looked after me'.

Although some of these problems were mitigated when the pupils were able to return to the school site, they were still in temporary cabins, and with building work going on around them, there was still a great deal of disruption. The teacher commented that all this had an unsettling effect on some children, in particular she had noticed that some were 'less respectful of school and other people's property'. It had been a great relief to both staff and pupils when the renovated school re-opened after nearly two years, although outdoor play and PE space was still affected during the current school year (up to summer 2007).

3.4 What were the emotional impacts of the fire?

The fires had a marked emotional impact on staff and pupils, and also on the local community of two schools in particular. This impact is highlighted in the following vignette.

Managing the emotional impact

School B had been in the particularly stressful situation of having a fire while pupils were on site. Although everyone was safely evacuated, the experience of seeing the fire take hold, with 'flames shooting through the roof', was said to have been profoundly shocking. Pupils were eventually escorted from the site and were able to leave for home, but those interviewed still remembered 'looking back at the school and seeing it burning'.

The emotional effect of the fire, which had destroyed a large part of the school, was evident when the case-study visit took place, nearly three years later. Pupils spoke of being worried generally about fires occurring, both at school and in their homes and of their 'hearts stopping' when the fire alarm went off for a practice. They also regretted the loss of personal property, such as coats and bags, as well as the work that they had to repeat. Some commented that not knowing what had happened to other pupils was a concern, because they had left the site before they had seen others were safe, and they had then been at home for six weeks.

For the staff too, memories were still vivid and the knowledge that the school would never return to its original site compounded the sense of loss. The staff had found that the best way of dealing with the aftermath of the fire was to immerse themselves in all the practical tasks that were necessary, such as making inventories of lost equipment and making sense of the documentation that was retrieved. Once an alternative site had been found, there was also plenty to do to make it ready for the pupils when they were allowed back, and activities such as cleaning and ordering resources had a calming effect.

When the pupils returned, staff were able to concentrate on their welfare and progress, and, as the assistant headteacher explained, making this the priority helped staff deal with their own feelings. 'Lots of work on the fire' had a therapeutic effect for both pupils and staff and

everyone was encouraged to talk about their experiences and concerns. Another member of staff said that pupils still talked about the fire now, although less frequently than they used to.

The huge impact of this fire on both pupils and staff was unlikely to fade away for many years, but as was the case with other schools, 'putting the pupils first' and providing a supportive environment was seen as the best way of coping.

3.4.1 General emotional impacts

According to interviewees, the shock, anxiety and loss caused by the fires was traumatic for schools and those living nearby. One senior leader said 'people still relive the trauma' and another that 'staff were very upset and it is still upsetting to talk about it now nearly three years later'. Pupils were particularly disturbed and angry at the possibility that someone had deliberately set fire to their school. Pupils at the school where the fire had started during school time made the following comments:

I had a sick feeling and everyone was very upset.

We watched it on the local TV news and it was very sad.

It was horrible – the school was on fire while we were coming out.

Everyone was upset when they saw how bad it was.

Pupils were also upset about the loss of personal items such as hand-made PE bags, books and art work, and also about items lost by teachers and other pupils. A parent of one of these pupils explained that children at the school had a special book to keep their work from previous years. She said her daughter had been 'very upset' at losing this book in the fire. As she explained: 'It's easy enough to replace things, but there's often sentimental attachment, which is more difficult to deal with'. This parent also commented regarding the impact of the fire on local people:

My parents still live near the school and I went there myself. It was a local landmark and people were very shocked by the fire ... Afterwards, people who lived streets away were still finding bits of burnt exercise books.

3.4.2 The emotional impact of moving sites

The emotional impact was particularly strong for staff and pupils at a school that had to move sites, although this prospect was initially exciting for some pupils. A senior leader said there had been 'huge resentment' from staff and the local community that the school was not re-built on its original site.

Indeed, a petition was organised by local residents to reinstate the school. The local authority was thought to be very supportive in the first instance, claiming that the school would be re-built on its original site. However, according to a senior leader, once housed in alternative accommodation, the school was 'left to get on with it'. She described the situation as 'very contentious' and there was a strong feeling of regret from staff in this school and colleagues about the loss they experienced through the fire.

3.4.3 Pupil support

As mentioned by interviewees, it was fortunate that the fires caused no personal injuries or casualties. Nevertheless, psychological support was sometimes needed for those most affected. One headteacher mentioned that his school had been supported by the local educational psychology team. As part of this process, there had been an opportunity for those most affected by the fire to see the damage at close range, which the headteacher said gave 'a sense of closure'. In contrast, a pupil at another primary school was initially prevented from seeing the damage caused by the fire:

I was upset because we weren't allowed near to see what had happened. I had nightmares about it and was very scared about fires and worried about fireworks.

With reference to the above, a parent of a pupil at the same school had taken her daughter to see the damage several times, and thought this was very important. She also mentioned that pupils had been nervous about returning to the school and extra fire drills were performed to 'build up their sense of security'.

This primary school provided extra PSHE sessions to support pupils, especially those upset about losing schoolwork which had been collected over several years. Class teachers had been on hand to deal with children's

questions and concerns, but the school had been unable to secure counselling for its staff.

3.4.4 Other support

Senior leaders reported that they had needed to give a great deal of reassurance to staff, pupils and parents who had been anxious about how the fires had started, if buildings were safe and if such an event would happen again.

Some pupils mentioned that they were still worried about the possibility of a fire and that fire practices at school were scary. For example, a year 5 pupil said: 'I'm not so worried now, but my heart stops when the fire bell goes'. Two older pupils commented that they were very worried now about the likelihood of a fire occurring, and one commented on how he was always 'nagging my family about being careful'. The worst aspect for children at one particular school was being sent home without knowing if everyone had escaped unharmed as it was some weeks before they were able to see their classmates.

Yet, despite their distress, those involved appeared to have applied themselves to getting back to normal. One headteacher commented on the resilience of staff and pupils, while another said staff had 'rallied round and supported each other'. Pupils at a secondary school expressed the view that everyone had made the best of the situation because there was no alternative.

It was noted by senior leaders that governors were particularly supportive. In one case, governors who were due to retire stayed at the school to provide stability and help out, particularly with paperwork and financial documents that had been destroyed.

3.5 In summary

Although senior leaders and staff sought to ensure continuity in teaching and learning, and minimising any impact, the evidence from the four case-study schools suggests that the school fires that they had experienced had some negative impact on teaching and learning and, consequently, on assessment outcomes. As the schools had strategically prioritised minimising any disruption for pupils who were in an assessment year (year 6 and year 11, for example) and yet they perceived a negative impact on assessment outcomes

for these year groups, it is likely that the pupils in other year groups were also affected although no assessment data is available to assess that impact.

Loss of facilities and the use of temporary accommodation, together with loss of teaching and learning resources and completed school work, were the main outcomes of the fire that impacted directly on teaching and learning in these four schools. It was evident that the hard work of teachers who improvised, compromised and sought alternatives was instrumental in maintaining teaching and learning provision.

The wider community in the four case-study areas were considerably affected by the school fires. This was particularly the case for those groups who used the

schools' facilities, but disruption and a sense of loss was also reportedly experienced in the wider community. This apparent commitment from the wider community was however, reflected in the support received by the schools through fund-raising, provision of resources and support of school governors.

The emotional impact on staff, pupils and the local community was one of the main effects of the fire and was still felt years later. It had been distressing for those involved to experience a loss of possessions, school work and a familiar building, which was a significant part of their lives. In response, school staff had focused on maintaining normality and on supporting pupils through this difficult period by including work on the fire in lessons and through special PSHE provision.

4 What school staff and others think about fire prevention and control measures

This chapter considers the views of all the interviewees on current and potential fire prevention and control measures. It focuses in particular on how the schools, which have experienced fires, had revised their systems and on the advice they would give to other schools. It also examines perceptions of the value of sprinkler systems, as encouraging their wider use is the aim of the *Wise Up to Fire* campaign, which is a key focal point for this study.

4.1 What fire prevention and control measures were in place prior to fires and what lessons had been learnt?

The staff interviewed in the case-study schools were asked to reflect on the fire prevention and control measures that had been in place in their schools before the fires had occurred, and to what extent these had now been revised or altered.

4.1.1 Planning and prevention before the fire

All of the school staff interviewed referred to the standard procedures of fire evacuation practices and alarm systems and added that, given the circumstances in which the fires started, there were no apparent issues with their safety procedures. For instance, at the special school, which was the only case study where the fire had occurred in school time, the evacuation procedure had worked well and the school had been commended by the local fire service for this (see Chapter 2).

Fires in three schools had been the result of accidental ignition and, within this context, staff at these schools claimed that there was little that could have been done to prevent them. Two of the schools, where the fires had been caused by electrical faults and had occurred out of school time, had resident site managers, who had dealt with the crises as they had been trained to do. In the case of the third accidental fire, it was discovered almost immediately and staff attempted to extinguish it,

but without success. In the school where the fire had been started deliberately, the school had a resident site manager who had reacted immediately to the alarm going off; but the fire had spread very quickly and it was later established by the fire service that this had been related to the design of the building.

The headteacher of the school that had experienced two severe fires, had a well thought-out incident recovery plan, introduced after the first fire, which included:

- backing up administrative data each day and taking the IT tapes off-site
- keeping regular inventories of all equipment, furniture and resources, with an indication of replacement costs
- keeping an updated 'telephone tree' with details of all staff, governors, local headteachers, LA contacts, local radio contacts etc.
- involving the fire service in the school's annual audit of fire procedures.

Although it had not been possible to prevent a second major fire from occurring (caused by an electrical fault), the impact on the school had been minimised by the recovery plan that the school had in place.

4.1.2 Planning and prevention following the fire

While in the school mentioned above, a system of backing up files and storing them off-site was in place prior to the fire, the remaining three schools cited the need for this as a key lesson learned following the fires that they experienced. In some cases back-up files were retrieved after the fire, but staff now recognised the risk of leaving them in the school and consequently losing them along with the originals. In addition, one headteacher also referred specifically to realising the value of having contact numbers of LA personnel and local radio stations, which could be accessed easily if a fire occurred outside school time. He explained that:

The critical incident plan was in the filing cabinet in the building so my advice to other schools is to have a copy of this somewhere off site. Also, have all the school's contact details available and ready at hand, so that you don't have to come into the building, for example, contact details for the radio station if the school has to be closed.

It was not surprising that all the schools had reviewed their fire prevention and incident recovery procedures as a result of their experiences and, as a result of this and subsequent reviews, the type of practical measures mentioned above had been incorporated in their planning. In all of the schools visited, staff and pupils interviewed also referred to having a much greater awareness of fire hazards, than had been the case prior to their fires. Such awareness included:

- being more careful not to block/obstruct fire exits
- taking care not to obscure fire extinguishers (making their location easily accessible and recognisable)
- the importance of having regular electrical equipment checks.

At the school that had experienced a fire during school time, according to staff interviewees, the realisation about how important it was to know exactly who was on the school site at any time had been starkly reinforced. Although pupils and regular staff had been quickly accounted for, it had been much harder to ascertain or check if others (who were not so easily recognised) such as delivery staff, supply teachers and other visitors might still be in the building. As a result of this experience, the school had adopted a rigorous signing in and out system and a communication system with mobile telephones to facilitate contact once the school had been evacuated.

4.2 What advice and information had been provided and received?

4.2.1 Perceptions about the usefulness of guidance and advice

All the school staff interviewees spoke of the value of the contacts that they had with their local fire service, the advice they had received and the way in which fire officers were able to relate to children and young people. None thought that they had lacked information on fire safety and knew that they could access further

advice if it were required. The case studies suggest that it was fire recovery plans that had not always been considered in sufficient detail, especially the type of practical advice referred to by the headteacher of the secondary school.

Interviewees from the Local Authorities considered that schools received plenty of guidance on fire precautions, both from themselves and from the fire service, although one did add that 'headteachers are so pressed for time that this is not always a priority'. One interviewee drew attention to the need for avoiding too much technical language in advice and guidance, as this could be off-putting to the recipients; instead emphasising the importance of making it accessible and relevant.

4.2.2 Planning and prevention

Local Authority officers generally felt that, as fire prevention and planning was now primarily the responsibility of the schools themselves, and consequently of the headteacher; this system 'worked well', because headteachers took these responsibilities seriously and were able to co-operate closely with their local fire service, according to their specific circumstances or needs. However, one LA interviewee said he suspected that some schools took this issue more seriously than others and that although passing such responsibility to governing bodies could be '... fine, ... some governing bodies are much better than others'.

The fire officers interviewed reflected the views expressed by school staff and LAs. All said they had a good working relationship with the schools in their areas and one noted that 'the system is better now in terms of identifying problems and acting on them', because the schools themselves were more aware of any particular issues with their own buildings or circumstances.

According to fire officers, working with schools on fire risk assessments and audits, and providing tailored advice, was seen as a 'crucial' part of the fire service's role and this was generally regarded as working very effectively. One fire service interviewee reflected the view of LA staff, noted above, when he commented that 'fire may be quite low on the list for some school staff who are very busy and perhaps more concerned about issues like accidents in the classroom'. It was perhaps with this in mind that a fire officer, from a different

location, noted that a major fire in one school could act as a 'wake-up call' to others and encourage them to re-assess their systems and planning.

From a fire service perspective, because generally most school fires were started deliberately (see Chapter 1), arson prevention was a very significant area of their work. Several fire officers explained their involvement in 'school watch' schemes, which operate during the school holidays, as well as the various diversionary tactics that were used to provide activities for children and young people, such as football coaching and Fire Cadets. Community fire officers also worked directly with schools, and were able to inter-act with pupils of different ages. Schools could also take advantage of training provided by the fire service, for example, in the use of extinguishers. In one area, the fire officer described the development and use of an on-line system of fire safety training for school staff, which 'staff can log on to at any time'.

4.3 Sprinklers

While there was a general consensus on fire prevention and safety measures from all categories of interviewees; it was evident that the issue of sprinkler systems in schools, and the associated *Wise Up to Fire* campaign was an ongoing area of debate and differing perceptions. This is discussed further in the following sections.

4.3.1 Positive attitudes towards and perceptions about sprinklers

Among the pupils, the parents, the fire officers and the community representatives who were interviewed, there was widespread agreement that sprinkler systems were the best way of preventing the spread of fires and were considered to be a significant means of improving safety. While some acknowledged the costs involved and the need to distinguish between installing sprinklers in old and new buildings, the overwhelming view expressed was strongly favourable towards sprinkler systems.

The views of the fire officers, who see the significant impact of school fires at first hand, were well summarised by one fire officer who said: 'The data is incontrovertible – a sprinkler system, if correctly maintained, is a 24 hour fire fighter, constantly on duty'. For all the fire officers who were interviewed, the benefits of installing a sprinkler system far outweighed

the main barrier, which was perceived as cost. In their view, even the expense of installing sprinklers was minimal set against the millions of pounds required for rebuilding a school after serious damage has occurred.

Even more significant for the fire officers was the safety aspect; as according to the interviewees, a sprinkler system could prevent the rapid spread of fire and so potentially save lives. This was especially the case if the fire occurred when the school was in use but was also cited in relation to firefighters' lives. Another important value of a sprinkler system, as expressed by several fire officers, was that: 'Catching a fire early is the key and the system is linked to an alarm and relayed to us, so we can be there in minutes'.

Responses from pupils interviewed in the case-study schools showed that they were strongly supportive of the value of sprinkler systems and spoke about them, unprompted, as an important means of fire control. It was not clear why pupils (who ranged in age from nine to sixteen) were so aware about sprinklers. None said that they had actually heard of the *Wise Up to Fire* campaign but they said that they had heard about them, or 'seen something about them'. In the two schools that now had sprinklers there was enthusiasm amongst pupils for them and, in general; the reasons given for this were that they imparted a sense of security, prevented the spread of fire and associated damage and gave an early warning to the fire service as illustrated in the following comments from pupils:

They stop the fire from spreading and help the firemen.

Sprinklers and security are the most important things to stop fires.

I'm really glad we've got them now, they make us feel safer.

Both of the parents who were interviewed, (from different schools), were also strongly favourable to sprinkler systems, as were all the community representatives interviewed.

4.3.2 Mixed and negative attitudes towards, and perceptions about, sprinklers

There was a more mixed view in relation to sprinkler systems among the school and LA staff interviewed. As the latter have the main decision-making and financial

responsibility for fire prevention and control, their views are significant to schools' approaches to fire management.

Local authority interviewees, for instance, expressed the greatest reservations about the value of sprinkler systems. Most had heard of the *Wise Up to Fire* campaign and one interviewee in particular considered it was over zealous in its promotion of sprinklers. It appeared that the primary concern among interviewees related to the cost of installation and subsequent system maintenance. These financial concerns were regarded as legitimate, by those interviewed, and some LA interviewees were concerned about the increasing public pressure to install sprinkler systems, without any commensurate increase in funding being made available to achieve this. Instead, LA interviewees all emphasised that good security was the prime means of preventing the main cause of school fires, which was noted by them as arson, and that new building regulations, which were much more stringent on such areas as roof compartments and fire doors, would do much to stop the spread of fires.

However, as fire officers had noted, there was also an acceptance by LA officers that new buildings should include sprinklers, and that a risk assessment procedure was now applied to prioritise schools that most needed additional protection. One LA officer said that sprinklers were now being put into new schools in his area, and 'if the money was available, we would put them in everywhere', but 'the costs would be prohibitive' to do so throughout the county.

In another county, the LA representative said that, although he was not convinced that sprinklers were as important as some people thought they were and considered that a good smoke alarm system was more useful, the schools' insurance company was now insisting on them being put into new buildings, although they would not be fitted retrospectively. The comment about smoke alarms was interesting when other views on them were taken into consideration. One fire officer had pointed out that smoke alarms were useful as part of a fire detection system, but they did not help to put out the fire, whereas a sprinkler system did both. A teacher in a school that had both sprinklers and smoke alarms, commented that smoke alarms could be 'over-sensitive and can be set off by steam from the showers'.

Another LA interviewee agreed that much tighter building regulations should make a significant contribution to fire suppression, and that the local authority had a training programme for school site managers and worked closely with the fire service on giving guidance to schools. Furthermore, retro-fitting sprinkler systems was not an option and it was important to have 'a carefully considered, proper decision-making process', which looked at issues such as water supplies, before any school had a system installed.

4.3.3 Addressing misconceptions about sprinklers

Apart from the costs of installing and maintaining sprinkler systems, fire officers perceived the other main barrier to their take-up in schools was ignorance about the way in which they functioned. Popular misconceptions that they reported included the ease with which they could be set off accidentally and the serious effects of consequent water damage. These misconceptions were reportedly perpetuated by the media, including through television dramas, and were perceived as a major problem in conducting an objective assessment of their value. As one fire service interviewee explained, in response to some of these misconceptions:

[Sprinklers] do not all go off at once, only one or two heads would go off and often that's enough to put out the fire. The water damage that might be caused by a sprinkler system is nothing compared to that caused by high pressure hoses used by the fire service when they have to put out a major fire. There's no issue with fires caused by electrical faults, because you still need water to put out the fire once it starts to spread and the electrics will trip out.

Fire service interviewees acknowledged that there was a particularly strong case for installing a sprinkler system in new and refurbished buildings and that fitting a system retrospectively was much more complicated. However, they also saw value in their installation in existing schools and expressed concern that several million pounds could be spent on a building, which did not then have automatic sprinklers fitted. In fact, one fire officer was optimistic that:

The argument on sprinkler systems has been won on new schools because it makes economic sense. The cost of installing a system is about two per cent of the cost of rebuilding a school, which is probably less than the cost of the carpets. It also means that the building regulations can be less onerous.

There was also optimism amongst those fire officers interviewed that attitudes were changing: for instance a Chief Fire Officer said that one local authority in the county was now installing sprinkler systems in all its schools, while in others a risk assessment procedure was in place and sprinklers were being installed where assessment indicated that the highest risks existed. He emphasised another advantage of having sprinklers – the reduction in insurance premiums, and added:

Each school that burns down strengthens the argument. The decision-makers are becoming better-informed, but there's a tipping point when people decide the cost of a fire suppression system is worth it.

However, a fire officer from another area described slower progress saying, to his knowledge, only one school had sprinklers; after a fire in a secondary school 'that had cost four million pounds and three years of disruption'. He added that the county fire service was still struggling against 'the perception that they [sprinklers] are not cost effective and that money is better spent on security systems, which they hope will stop arson as well as burglary'. He also thought that perhaps insurance premium reductions were 'not sufficient at present to make it worthwhile for some local authorities'. It was his opinion that if schools did not have sprinkler systems they should at least consider free-standing 'fog-units', which acted in a similar way by putting out a burst of water to suppress a fire. These were inexpensive and widely available commercially, although in his opinion were less effective than sprinklers.

4.3.4 Post-fire prevention in case-study schools

Interviewees in the case-study schools reflected a diverse attitude towards fire prevention and suppression. Staff were in agreement on the importance of good security systems, including closed circuit television, and adequate perimeter fencing and alarm systems, and several described this as 'the first line of defence'. As many school fires were caused by intruders, it was probably not surprising that security was seen as

the principal means of defence, although it did not take into consideration fires which began accidentally and quickly got out of control, as was the case in three of the case-study schools.

Two of the schools had been fitted with sprinklers after their re-building. In one (the secondary school that had a new sports complex), interview data showed that there was whole-hearted support for this from all the staff, including the facilities manager who was responsible for the maintenance of the system. He had an objective view of the disadvantages, which in his school involved the cost of two maintenance visits a year from a security company, two back-up pumps, which had to be checked every week, and the need for routine legionella bacteria testing because of the tank and piping system. The local authority had paid for the system to be installed, and in this interviewee's opinion, it had been 'a wise decision'.

The same interviewee agreed with fire service opinion, in that he thought that fears about sprinklers being set off accidentally were unfounded, because of the way the sprinkler heads were installed. He also noted that the system at his school was probably more 'complicated than would generally be the case', because it required a dedicated water tank and he thought that other schools where there was good mains pressure would not need this. He had recommended a sprinkler system to other schools when they asked for advice and he speculated that, if a group of schools all had sprinklers, there would be benefits in pooled testing systems and training for maintenance staff. In the second school that had sprinklers installed after their fire and re-building, the sprinklers had been received very positively by some interviewees, although not all the school staff was as enthusiastic. This is illustrated in the vignette at the end of this chapter.

In the other two case-study schools, sprinklers had not been installed. In one (the re-sited special school), the location was only temporary and was in an old building, so there had been no consideration given to it. The staff interviewed here did not hold particularly strong views for or against sprinklers, but were of the opinion that if they helped prevent the rapid spread of fire, such as the one that had destroyed their original school, then they were a sensible option. In the other (a primary school), fire damage was still being repaired and no decisions had yet been reached about the possible installation of suppression systems. The staff at this school perceived

that there may be an issue of sprinklers causing water damage, and also commented on their expense, although a school governor who was interviewed, said he could 'understand their value' in new buildings. The perceptions about water damage caused by sprinklers, as expressed in this school, and, according to fire officers, held quite generally, seem to suggest that lack of understanding on how sprinklers work is a major issue. Some of the damage that the school had suffered as a result of the fire was because of the amount of water required to put out the fire, yet this seemed to have fuelled attitudes about water damage from sprinklers.

Recent legislation is changing the picture of fire prevention and suppression and it would appear that some parts of the country are currently more advanced on updating their provision. This research showed that there is strong support for sprinkler systems as part of a fire management process and that this comes particularly from the fire service, pupils, parents and many school staff, while for local authorities there is still much debate. This chapter finishes with an illustration of how one case-study school progressed from a devastating fire to a largely new school and how the decision was made to include a sprinkler system.

Implementing a sprinkler system

The school suffered a very destructive fire in the autumn of 2004, only a short time after the beginning of term. A large part of the school was destroyed and the rest was unusable, so pupils were transferred for a year to a disused special school in the area, which was re-furnished for their use. The school then returned to its original site, but the juniors were accommodated in cabins for another year, until the re-building had been completed.

The restored school re-opened last autumn (2006), with new facilities, additional space and to a superior design and staff and pupils are very pleased with their new environment. The fire had been a devastating experience for all those involved and the pupils interviewed, who had been in year 3 at the time, still had vivid memories of coming to see the ruins of their classrooms, and of the personal possessions they had lost. It was in

these circumstances, that parent and community pressure ensured that a sprinkler system was incorporated into the new school.

The Chief Fire Officer for the area explained that there had been much public discussion over the issue of sprinklers, which had been widely reported in the local press. He had made it clear that the destruction at the school would have been greatly reduced if a sprinkler system had been in operation. His deputy, who was also interviewed, added that dealing with the fire had tied up the resources of a large part of the county fire service, whereas it could have been dealt with on a much smaller scale, and with fewer resources, if sprinklers had been in use.

The parent of one of the pupils interviewed at the school explained what an emotional impact the fire had on the local community: 'My parents lived close to the school, I went there and both my children were there. It was a familiar landmark and everyone was so shocked by its destruction'. She described how her own children and others were left afraid that the same thing would happen again and at a parents' meeting after the fire, demands were made that a sprinkler system should be installed in the re-built school. The school governors supported this stand and eventually the pressure from the fire service and the community was sufficient for the decision to be made in favour of sprinklers.

A community representative, who had run a junior football club at the school before the fire, confirmed that there had been major disruption for his own club and for local residents, as a result of the fire: 'Parking in the area was a huge problem while the building work was going on and it meant a completely different routine for children and parents'. He fully supported the decision about sprinklers, agreeing that they were expensive, but 'security can only go so far and you only need to look at what happened at the school to see that they're a good, practical idea'.

The staff at the school were more divided in their views, with one teacher expressing enthusiasm for them, a non-teaching interviewee not having

strong views for or against them and the headteacher having accepted the views of the fire service and parents as paramount, rather than technical debates about their value.

The fire had highlighted the issue of fire suppression and not only was this school now fitted with sprinklers, but a risk assessment procedure was in place in the area and other schools had also had them fitted. One of the pupils from the school summed up what appeared to be the views of her peers and the community about the school's precautions: 'We're pleased that we've got better security and the sprinklers, because it makes us feel safe'.

4.4 In summary

School staff were content with the information and guidance that they had received and valued the contacts that they had with the fire service especially visits and talks by fire officers and training in fire safety,

fire risk assessments and audits. Staff in these schools that had suffered a fire said that they were now much more aware of fire safety issues and, following their experience of a fire, generally reflected that they needed a more comprehensive incident recovery plan.

Staff in schools and local authorities tended to consider that effective security measures were the 'first line of defence' against a fire, given that most school fires are as a result of arson. However, in three of the case-study schools the fires were accidental and security measures did not prevent the fires from spreading quickly. While there was considerable support for sprinkler systems among fire professionals, pupils, parents and the community, some staff in schools and LA officers were more circumspect. Fire officers considered that reticence in installing sprinkler systems was based mainly on concerns about costs and a misunderstanding of how sprinklers worked. This perception was supported to some extent by the interviews with staff from schools and local authorities who expressed concerns about expense, accidental operation of sprinklers, water damage and electrical fires.

5 Conclusions and recommendations

5.1 In summary

The evidence presented in Chapter 1 indicates that generally there has been a downturn in the number of school fires (malicious and accidental). Nevertheless, there remain a substantial number of fires in schools each year and the findings from the case-studies illustrate from direct experience the significant impact of school fires on the social and emotional experiences of pupils, staff and the wider community and on teaching and learning in the affected schools.

This evidence provides support for the urgent imperative of addressing fire prevention and management in schools emphasised by Zurich insurance recently who asserted: 'with three schools suffering from arson attacks every day, we cannot afford to be complacent and must continue to put measures in place to stop them'. (Zurich Municipal Insurance, 2007b).

The direct and indirect impacts of fire on schools found in the four case-study schools reflects the evidence from other examples. It is evident that school fires:

- have a considerable **economic** impact both directly for schools and local authorities, and indirectly in terms of costs for parents and staff and for community groups who have to use alternative, more expensive, facilities
- have a detrimental effect on pupils' **education** through disruption caused by loss of facilities and consequent use of temporary facilities and through loss of teaching and learning resources and pupil's own work. This impact is reflected in lower than expected achievement in formal assessments and in the view of Ofsted
- are **emotionally** distressing for staff, pupils and the wider community due to shock at the time of the fire, the loss of personal possessions and the damage to, or loss of, a familiar school building
- have an impact on the **social** life of the school through limiting or preventing extra-curricular activities and access to play areas and negatively affecting catering arrangements.

National and local Government, and specialist fire organisations, have recognised the need to encourage schools to plan for and adopt comprehensive fire management strategies; including drawing up detailed prevention plans, the careful planning for the installation of detection and fire suppression systems and the need to draft incident management and disaster recovery plans (supported within a framework of relevant and targeted training and development). However, the evidence from the review of literature and the case-studies suggests that there remain two key challenges for the future which are the need to:

- persuade all stakeholders of the importance of addressing the issue of schools fires through highlighting their impact, whether or not they have had or are likely to have a direct experience of fire
- ensure that school leaders and local authority decision makers are equipped with accurate, concise and relevant guidance about fire prevention and management in order that they can make informed decisions.

As has been shown in Chapter 1, data clearly demonstrate that sprinklers reduce direct and indirect costs to schools in three respects:

- where sprinkler systems are planned into the design of a new building, this can mean a reduction in the need to incorporate other fire-safety mechanisms and their associated cost
- insurance premiums are reduced where sprinklers are installed
- if a fire does happen, cost-savings are evident in terms of reducing the scope and cost of damage and the resulting reduction in other indirect costs such as less disruption and remedial work.

These advantages are reinforced and supported by the major insurer of schools and by a Government Select Committee that considered this issue. Evidence suggests that the dissemination of such information has become increasingly coordinated with policy makers and the fire industry working closely together to challenge misperceptions and to provide consistent and

unequivocal guidance to schools and the wider education community.

Among the case-study schools, the value of sprinklers had been recognised in some cases and two schools had them fitted following the fire. However, there was evidence from the case-study visits of a polarisation of views between fire service professionals, parents and the local community, who supported the use of sprinklers in schools, and LA staff and some school staff who expressed concern regarding the cost and risk of accidental damage, water damage and concerns regarding electrical fires. This suggests that there is scope for further discussion with these key decision-makers to address these concerns supported by additional resource where required.

5.2 Implications and recommendations

As noted above, a key challenge for insurers, the LGA and the Fire Service is emphasising for schools and other stakeholders generally, and especially those who have not experienced fires, the potential impact of a fire and importance of planning and taking the appropriate prevention and management action, including the installation of systems like sprinklers. For instance, emphasising the cost benefits of incorporating sprinkler systems into schools is one approach already adopted by industry and government, as witnessed by the guidance currently being developed for the DCSF, and campaigns such as *Wise-up-to-fire*, which aim to overcome 'knowledge-deficit' barriers. Such guidance has combined to highlight to schools that the costs of incorporating such systems in 'new builds' would be 3 to 5 per cent of the total build cost, and that in the event of a fire sprinklers can reduce direct costs by up to 99 per cent and furthermore, through reduced insurance premiums, sprinkler systems pay for themselves within five years.

Notwithstanding these ongoing developments in guidance for schools and local authorities, the findings from this research suggest the following implications for education professionals and policy makers, and for those fire professionals who work with them to inform activity and cope with the result of fire in schools.

- Schools that experienced a fire had heightened awareness of the importance and value of fire

prevention and management procedures. In addition, they had learned from experience the value of contingencies such as storing key files and documents at a secure off-site location. Their experience, and the strategies that they considered most effective, could usefully be shared with other schools.

- It was evident that the emotional impact of the fires on staff, pupils and the wider community were considerable and ongoing. Schools could benefit from sharing effective practice in supporting individuals through this distressing experience.
- Supporting informed decision-making could be enhanced by better 'integration', clarity and consistency of information provided to all interested stakeholders. Fire & Rescue services should be involved at an earlier stage of the process as they maybe able to assist in any facilitation of sprinkler systems.
- With the above in mind, the LGA may wish to consider taking advantage of the current and ongoing extensive programme of rebuilding and refurbishing schools through the Building Schools for the Future (BSF) programme as an opportunity to explore how the *Wise Up to Fire* campaign could usefully inform local authority staff in the BSF process and how this could be most effectively communicated.
- Further research could be commissioned aimed at providing an evidence base on which guidance and action can be set and which would help enhance the credibility, power and legitimacy of such guidance and action. This could include an assessment of the impact of fires in schools which had sprinklers in place.
- Opportunities for addressing any misperceptions about the disadvantages of sprinklers should be further explored; perhaps through a concerted face-to-face campaigning including presentations at events such as annual association meetings. This could usefully be supplemented by evidence from schools where sprinklers are in place where the anticipated risks of extensive water damage, or vandalism, did not materialise.
- A consensus view from central and local government and fire service professionals regarding the advantages of sprinklers could be further disseminated through multi-media methods, targeting, accessing and seeking to influence the full range of education stakeholders.

- A possible area for future study could be a detailed study of the likely impact on local businesses using an appropriate methodology. Whilst this study hasn't identified obvious disadvantages for local businesses a broader study could reveal other consequences for business.

Finally, the evidence reviewed in the literature suggests that, while there are some complexities in considering installing sprinklers in existing buildings, the advantages of doing so in **new buildings** is more clear. In *Counting the Cost*, LGA quote a House of Commons Select Committee Report that stated (LGA, 2004):

... we strongly recommend in this year's revision of the Building Regulations, ministers introduce a requirement for sprinklers to be fitted to all new build properties of this

type (including schools) as this would have more impact on public fire fighting safety than any other proposal in the White Paper

While new guidance, toolkits and encouragement may be planned, and toolkits may be designed to lead 'inevitably' to the adoption of sprinklers in new build schools, it does not make such installation compulsory. Hence, in line with current governance policy, LAs have the responsibility for decision-making. Therefore, given the programme of school building through Building Schools for the Future, it is perhaps timely for campaigns such as *Wise Up to Fire*, and for the LGA to ensure that decision-makers in local authorities and schools are fully informed about the impact of fires in schools and the effectiveness of sprinklers in minimising this impact.

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Appendix A – Research aims and methods

Research aims

The main aim of the study was to investigate the economic and social impact of school fires, for schools and the wider community. In meeting this aim the study gathered information as it related to the following research questions that underlay this overall aim:

- What are the economic impacts of school fires for schools and the wider community, including the direct and indirect costs?
- What are the educational impacts of school fires for pupils and students?
- What are the social impacts of school fires for schools and the wider community?
- What are the emotional effects of school fires for staff and pupils?
- What factors appear to be associated with the impact of school fires?
- What are stakeholders' perceptions of fire prevention measures for schools, including perceptions of the 'Wise Up to Fire' Campaign?

The research entailed four in-depth, illustrative case studies of schools that had experienced fires. The case studies were situated within the context of school fires within England and, drawing on available quantitative data (see Chapter 1), implications arising from the research have been drawn and were presented in Chapter 5. Further details of the research methods are provided in the next section.

Research methodology

The project involved two strands:

Strand 1: Focused desk research to identify and analyse data relating to school fires (see Chapter 1)

Strand 2: Case study visits to four schools which had experienced fires (see Chapters 2 to 5).

Strand 1: Desk research

NFER identified and reviewed available data relating to the extent and nature of school fires between 2002 and 2007. Sources of data included:

- Office for National Statistics
- DfES
- Department for Communities and Local Government
- Fire Protection Association
- Fire and Rescue Services
- Insurance companies (e.g. Zurich Municipal)
- Arson Prevention Bureau.

It is worth noting that a search for data on school fires indicates that such data is (and in the past has been) gathered inconsistently across areas and regions; meaning that there were limitations to the extent to which it can be aggregated to provide an overall national analysis (see Chapters 1 and 5). Nevertheless, the available data provides a broadly consistent picture and therefore this has meant that the study was able to make use of it in so far that it provided a broad context within which the research findings have been contextually set and implications drawn.

Strand 2: Case studies

Rationale for case-study approach

In order to investigate the social and economic impacts of school fires on the school and wider community, case studies were undertaken in four schools that had experienced a fire between December 2003 and December 2006. The case studies entailed a visit to each of the schools, and were supplemented by a programme of telephone interviews. Such an approach allowed for:

- a range of characteristics of schools to be represented and for the research to comment on the extent of any similarities and differences in the social and economic impacts of these school fires

- a detailed understanding of the impact on a range of individuals within a school
- the views of pupils and students to be examined
- an effective use of the time and resource available.

Further details are provided below.

School selection

A list of potential case study schools was provided by LGAR and from these four schools were selected. Schools on the list were selected as potential case study schools according to key criteria, as follows:

- in order to ensure that individuals interviewed would be in a position to recall the fire's immediate impact
- the experience of a fire in the case study needed to be sufficiently recent but also sufficiently removed (in terms of time) so that any medium and longer-term impacts had been experienced
- with the above in mind, schools were selected that had experienced a fire between December 2003 and December 2006
- that schools who had experienced 'larger' fires were selected on the assumption that these fires might have been reasonably expected to have a greater economic, educational, social and emotional impact than smaller fires – therefore schools were selected where the resulting had been valued at £50,000 or more (see Chapter 1)
- that the sample reflected a range of school types, such as primary, special and secondary schools.

Wherever possible the sample of schools included those from urban and rural areas, and in different geographical locations, as defined by Government Office Regions. In addition to the size of fire, as outlined above, the case study schools comprised schools that had been significantly affected by fire in some way. Therefore, the sample included schools with varying extents of damage such as:

- a school where the entire school had been forced to close and for the community to be relocated
- a school where part of a school, or one department, had been affected by fire.

Finally, it was intended that the sample would include one or two extended schools where the potential impact of the fire on the school's wider community

could be explored (e.g. a community group had lost the use of school building and/or equipment). Table A1 summarises the criteria covered by the schools selected. While the profile of the achieved sample was dependent upon schools' ability to accommodate participating in the research, the four schools represented a range of characteristics and experiences.

Table A1 School characteristics

	School			
	1	2	3	4
Date of fire	Dec 03	March 07	Sept 04	Oct 04
Primary school		✓	✓	
Special school				✓
Secondary school	✓			
Entire school destroyed				✓
One department destroyed	✓			
Urban/rural	R	U	U	R
Community affected (yes)	✓	✓	✓	✓

Case study visits – interviews

Four schools were visited, supplemented by targeted telephone interviews with key individuals. Each case study involved a visit to a school for a day to conduct semi-structured interviews with:

- the headteacher or member of the Senior Leadership Team
- up to two teachers, including those whose department was directly affected by the fire, if relevant
- up to two members of the wider school staff, such as pastoral staff and facilities management staff
- four pupils in two pairs.

In addition, in relation to each case study visit (and where possible), to provide an insight into the wider impact of the school fire on the community, telephone interviews were sought with:

- a local authority education officer
- a county fire officer
- one parent
- a representative of a community group that had made use of the school facilities, where appropriate

- a local business representative, where appropriate.

The research team sought the guidance of the school staff in order to identify appropriate individuals to invite to participate in the interviews. The research team gave letters to pupils who were interviewed to give to their parents inviting them to participate in a telephone interview.

Table A2 summarises the interviews conducted in relation to each case study school. A total of 57 interviews were conducted across the four schools.

Table A2 Number of interviews conducted, by school and interviewee category

	School				Inter- viewee category N=
	1	2	3	4	
Headteacher	1	1	1		3
Other member of SLT				1	1
Teacher	1	2	1	1	5
Other school staff	1	2	1	1	5
Pupils	4	15	4	4	27
Parent/s	1		1		2
LA officer		1	1	1	3
Fire officer	1	1	2	2	6
Community group		1	1	1	4
Business	1				1
By school N=	11	23	12	11	57

As Table A2 shows, arranging interviews with some of these staff proved impossible and the reasons for 'missing' interviews are summarized below:

In some cases, it was not possible to interview relevant individuals and Table A3 outlines the main reasons where this was the case. Of note were interviews with local businesses; three of the four schools were unable to provide contact details of businesses that were affected by the school fire, and further request through, for example, local chambers of commerce, were not fruitful. Exploration of public databases revealed that there were often no businesses located near to the schools. However, where businesses were identified and contacted, a major reason for no interview being conducted was in schools where the fire had occurred some years previously and local businesses were found to have changed ownership and the new staff were unable to answer questions about the impact of the fire on their business.

Table A3 Interviews planned, but not contactable

Interviewee Category	Reason for no interview
LA Officer	Questions sent by email to second contact at LA who have yet to respond
Parents	No contacts for one school. One response from one school, parent un-contactable on number provided
Business	No useful contacts for three out of the four schools

Content of interviews

So that interviews could focus on questions that were specific to the interviewees' role or experience, separate instruments were developed for each of the categories of interviewee detailed in table A2.

The interview schedules, which were developed in consultation with LGAR, included core questions or themes across all interviewees, to allow for triangulation (multi-perspective exploration of issues). The interviews included questions relating to:

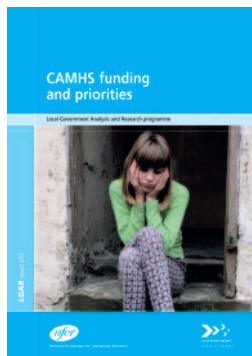
- the background and context to the fire in the school and schools fires more widely
- the economic impact of the fire
- the impact on teaching and learning
- the social and wider impacts of the fire
- awareness of, and views on, a range of fire prevention and control measures.

Analysis

The analysis of available quantitative evidence provided a context in which the findings from the case study visits have been situated. The data gathered through interviews during the case-study visits, and supplementary telephone interviews, was analysed thematically. This analysis reflected the aims and objectives outlined above and examined the evidence of the economic, educational, social and emotional impacts of school fires across the four case-study schools. In addition, the analysis explored the extent of any similarities or differences between schools and triangulated the views of the various individuals within a case-study in order to provide an insight into the various experiences, concerns and priorities of individuals in different roles.

Recently published reports

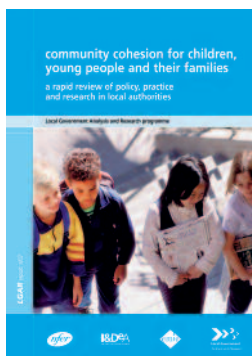
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CAMHS funding and priorities

The Local Government Association (LGA) commissioned NFER to examine the funding mechanisms and priorities in CAMHS. The report identifies main CAMHS priorities and gaps in provision and makes recommendations for local authorities. This research is important reading for all local authority staff, schools, Primary Care Trusts and other organisations involved in social care or the equivalent children's services.

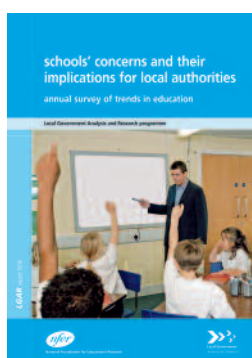
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With three schools suffering from arson attacks every day, we cannot afford to be complacent and must continue to put measures in place to stop them.

Zurich Municipal Insurance

A school fire can have a significant impact on the social and emotional experiences of pupils, staff and the wider community, which in turn can affect teaching and learning. The findings presented in this important report provide information about key issues concerning school fires.

- What are the economic impacts of school fires for schools and the wider community?
- What are the social and emotional impacts of school fires on pupils, staff and the wider community?
- What are the educational impacts on children and young people?
- What are the key factors that school staff, local authority staff and fire officers take into consideration when examining fire prevention measures for minimising the impact of a fire in a school?
- What factors appear to be associated with the impact of school fires?

The review found that fires have a large direct and indirect cost, and evidence suggests that there are some key challenges for the future.

- Persuade all stakeholders of the importance of addressing the issues of schools fires through highlighting their impact.
- Ensure that all school leaders and local authority decision makers are equipped with accurate and relevant guidance about fire prevention and management.
- Consider further the case for making the installation of sprinkler systems in schools a statutory requirement under building regulations.

This report is essential reading for local authority staff, children's services staff and those working in fire prevention in schools.