



QUESTIONS AND ANSWERS

What prompted NIST and the study partners to undertake this study?

High-rise fires pose unique and potentially catastrophic risks to Fire Departments. Because of their size and scope, high-rise fires test the limits of fire department manpower and resources. NIST conducted this study to provide Fire Departments with detailed quantitative data on high-rise fires so fire departments and local elected officials make informed decisions about funding resources before high-rise fires occur.

What is the key take-away from this study for fire chiefs in cities with high-rises?

Seconds can mean the difference between life and death in any fire. Time becomes more precious in a high-rise fire with the potential for many more victims and exponentially greater property damage. The NIST study shows conclusively that responding with more fire fighters per fire apparatus makes a critical difference in the time it takes to put out a fire and save potential victims trapped in a high-rise building.

Is this the first time a study like this has been done?

Fire Departments over the years have gathered valuable anecdotal data on how to respond to high-rise fires. But until now, there has been no formal examination of the impact of various deployment strategies on high-rise fires. The NIST high-rise study will most certainly help fire departments formulate the most effective method for responding to these emergencies.

In 2010, NIST released a similar study that showed the size of fire-fighting crews has a substantial effect on the fire service's ability to protect lives and property in low hazard residential fires.

Are there more or fewer risks of high-rise fires today?

High-rise buildings are no longer found only in major metropolitan areas; they are now sprinkled across the landscape in suburban, outer-suburban and even rural areas. Though high-rise fires occur less frequently than other types of fires, about 43 happen every day. On average 53 people die each year in high-rise fires, 546 people are injured and property damage amounts to \$235 million annually.

How important are the findings in this study to the understanding of the fire service response to 9/11?

The terror attacks of 9/11 continue to provide important lessons to fire departments on deploying crews and communications. The NIST high-rise fire study now provides essential quantitative data on crew sizes and apparatus deployment that will no doubt be considered when fire fighters are called to respond to the next domestic terror attack.

For fire fighters what are some of the unique challenges to responding to high-rise fires?

Unlike most house fires, high-rise fires are high-hazard situations that pose unique operational challenges. They require a coordinated response from multiple stations and various fire apparatuses to attack the fire and rescue civilians. In addition, high-rise fires test the very limits of the endurance of individual fire fighters who must carry heavily equipment up several stories.

Are metropolitan fire departments as equipped and trained to handle these types of fires as they should be?

Fire departments across the nation have undergone a difficult period of fiscal austerity in the years since the 2008 financial crisis. While some city officials have resisted the temptation to slash department budgets and staffing, far too many have not. As a result too many fire departments are now responding to emergencies without the industry recommended number of fire fighters on rigs.

How important is staffing when it comes to high-rise fires? Do we have enough fire fighters to effectively respond to high-rise fires?

The right level of staffing provides fire officers with the ability to make critical strategic decisions on the fire ground. The right level of staffing allows fire crews to split up into teams so that some fire fighters can begin work in the lobby of the building assisting evacuating occupants while others can quickly enter and begin search and rescue.