

Firefighter Hourly

Landmark Report States Four Person Crews Essential for Firefighting

The report is finished and four and five person engine, ladder and rescue company staffing has been validated:

The four-person crews were able to deliver water to a similar-sized fire 15 percent faster than the two-person crews and 6 percent faster than three-person crews, steps that help to reduce property damage and lower danger to the firefighters.

"Fire risks grow exponentially. Each minute of delay is critical to the safety of the occupants and firefighters, and is directly related to property damage," said Averill, who leads NIST's Engineered Fire Safety Group within its Building and Fire Research Laboratory.

"Our experiments directly address two primary objectives of the fire service: extinguishing the fire and rescuing occupants," said Lori Moore-Merrell of the International Association of Fire Fighters (IAFF) and a principal investigator on the study.

The four-person crews were able to complete search and rescue 30 percent faster than two-person crews and 5 percent faster than three-person crews, Moore-Merrell explained. Five-person crews were faster than four-person crews in several key tasks. The benefits of five-person crews have also been documented by other researchers for fires in medium- and high-hazard structures, such as high-rise buildings, commercial properties, factories and warehouses.