

## Mitigation Works

# Fire

► “Fire changes the chemical composition of everything it touches. Nothing that has burned can be recovered. We must learn to protect our homes by building homes in vulnerable areas with fire-resistant materials, by the area surrounding the home free of burnable landscaping and debris, and by keeping fire extinguishers in good working order.”

**Senior FEMA Official**

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► “Mitigation in emergency management can be equated to fire prevention in the fire service, it is doing things that will limit or eliminate a specific threat. When dealing with wildfires in the wildland/urban interface, using FIREWISE concepts has the potential to do as much for homes in danger from wildfire, as residential sprinklers do from the threat of an interior structural fire.”

**David Halstead, Senior Management Analyst, Florida Division of Emergency Management**

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► “Brush and grass fires are a natural occurrence in wildland areas, but there are many things we can do to reduce the risk of starting these fires and the threat of fire spread to urban areas. The fire department responds to fires, however, the public can mitigate the cause of these fires by becoming educated on the cause of fires and promoting fire safety awareness among the community.”

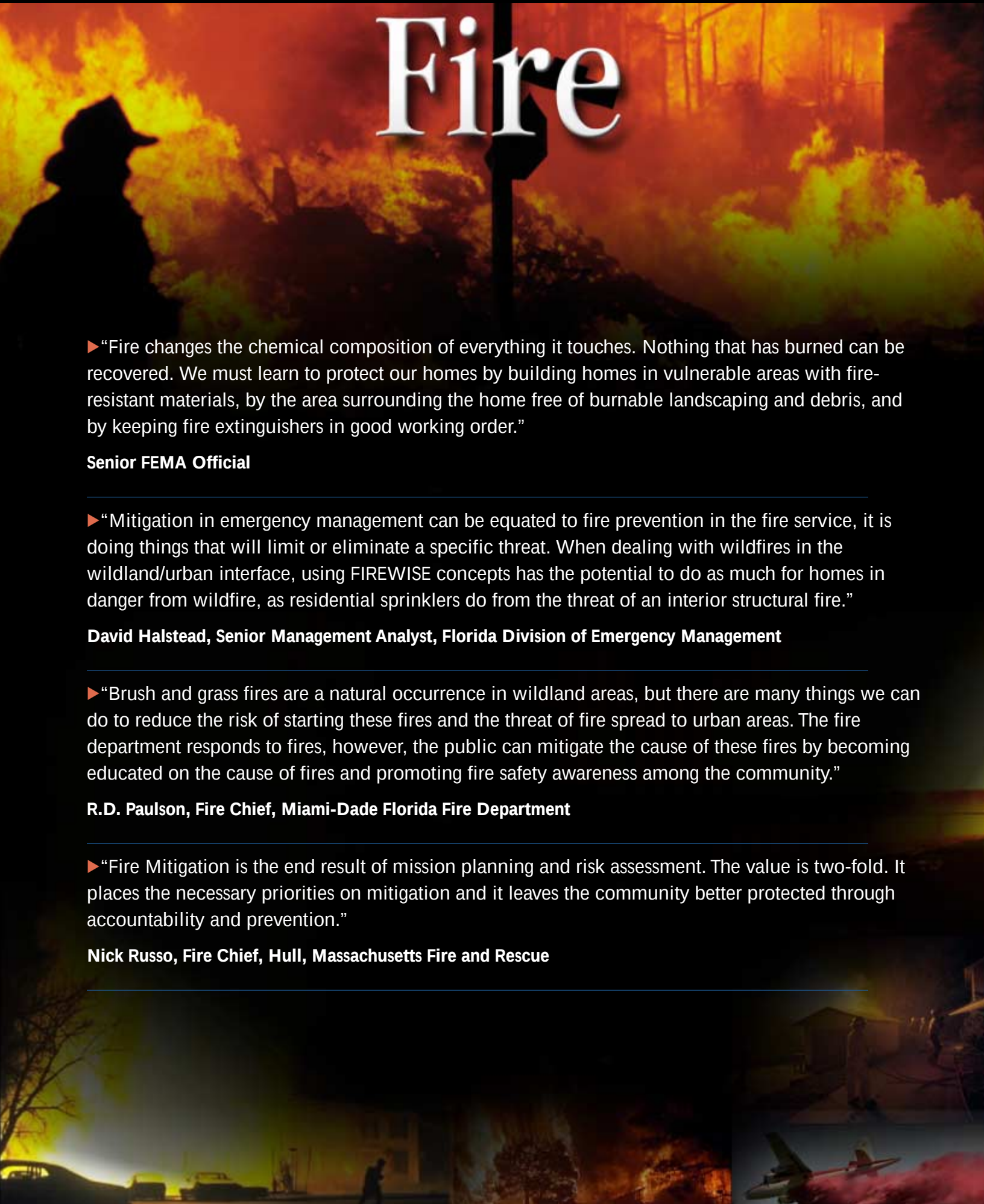
**R.D. Paulson, Fire Chief, Miami-Dade Florida Fire Department**

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► “Fire Mitigation is the end result of mission planning and risk assessment. The value is two-fold. It places the necessary priorities on mitigation and it leaves the community better protected through accountability and prevention.”

**Nick Russo, Fire Chief, Hull, Massachusetts Fire and Rescue**

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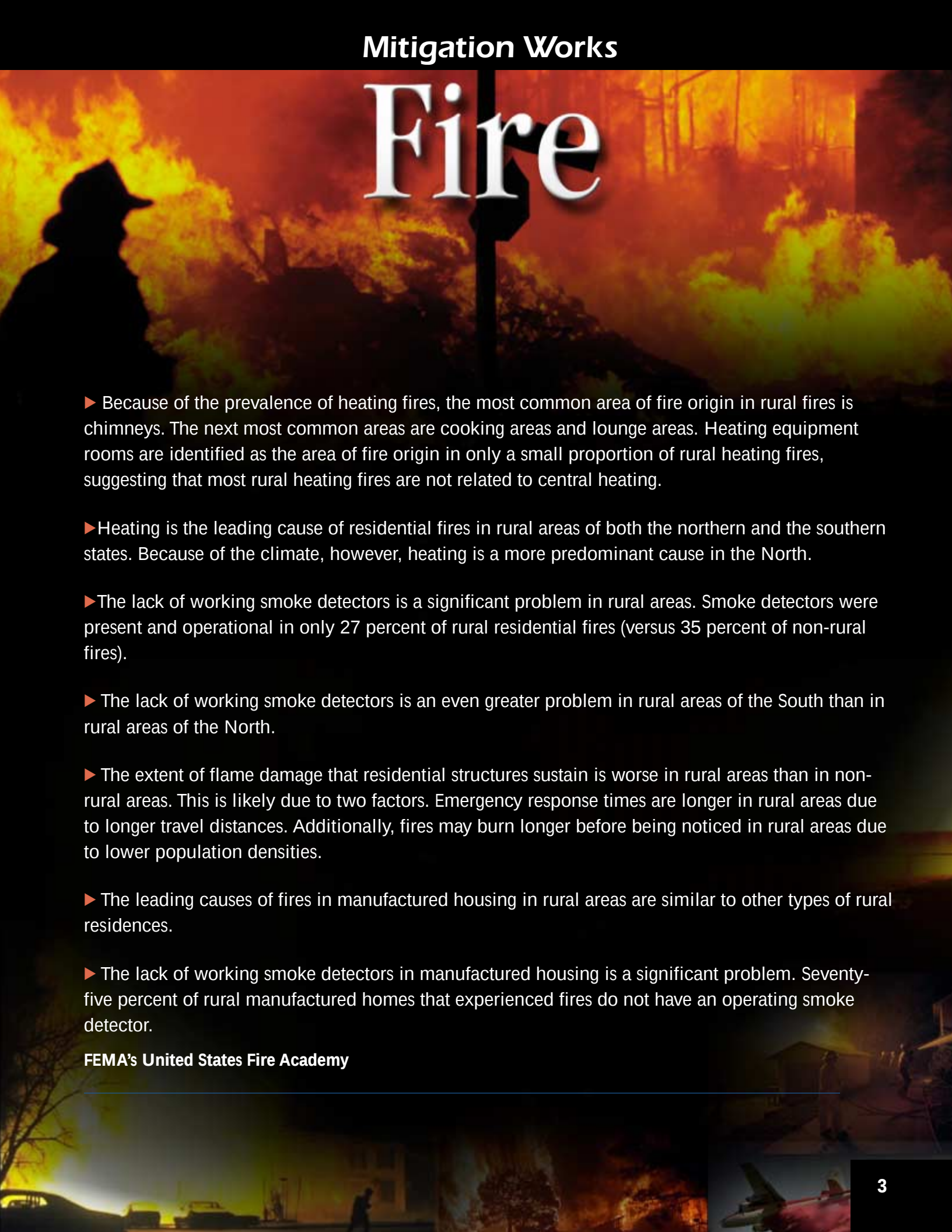
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(The following quotes are attributable to FEMA's United States Fire Academy)

- ▶ The United States Fire Administration (USFA) encourages you to keep fire safety at the forefront by learning how to landscape and maintain your property to minimize possible fire damage and slow fires if they start. Remember, fire safety is your personal responsibility... Fire Stops With You!
- ▶ During the 1993 raging Malibu fires, a number of homes were saved as a result of the owners' careful pruning and landscaping techniques that protected their homes. In a fire situation, the dead trees and shrubs surrounding your home act as fuel for fire.
- ▶ Wildland fires destroy hundreds of homes and acres of land every year across the country. Fire-safe landscaping is an effective tool that creates an area of defensible space between your home and flammable vegetation that protects against devastating fires.
- ▶ The leading cause of fires is different in rural areas than in non-rural areas. Heating is the leading cause of residential structure fires in rural areas and causes 34 percent of rural residential fires. Heating is the cause of only 15 percent of residential fires in non-rural areas. In contrast, cooking is the leading cause of residential fires in non-rural areas.
- ▶ In particular, the lack of maintenance of heating devices is a serious cause of residential heating fires in rural areas. Lack of maintenance includes creosote build-up in chimneys and stovepipes. Lack of maintenance was cited in 78 percent of rural heating fires. This suggests a critical need for public education in rural areas to make people aware of the hazards of not properly maintaining heating equipment, chimneys, and vents.
- ▶ Stationary heating units are the leading type of equipment involved in ignition of rural residential heating fires. Chimneys, vents, and flues are the second leading category of equipment involved in ignition. Together, these two types of equipment account for 62 percent of all rural heating fires

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- ▶ Because of the prevalence of heating fires, the most common area of fire origin in rural fires is chimneys. The next most common areas are cooking areas and lounge areas. Heating equipment rooms are identified as the area of fire origin in only a small proportion of rural heating fires, suggesting that most rural heating fires are not related to central heating.
- ▶ Heating is the leading cause of residential fires in rural areas of both the northern and the southern states. Because of the climate, however, heating is a more predominant cause in the North.
- ▶ The lack of working smoke detectors is a significant problem in rural areas. Smoke detectors were present and operational in only 27 percent of rural residential fires (versus 35 percent of non-rural fires).
- ▶ The lack of working smoke detectors is an even greater problem in rural areas of the South than in rural areas of the North.
- ▶ The extent of flame damage that residential structures sustain is worse in rural areas than in non-rural areas. This is likely due to two factors. Emergency response times are longer in rural areas due to longer travel distances. Additionally, fires may burn longer before being noticed in rural areas due to lower population densities.
- ▶ The leading causes of fires in manufactured housing in rural areas are similar to other types of rural residences.
- ▶ The lack of working smoke detectors in manufactured housing is a significant problem. Seventy-five percent of rural manufactured homes that experienced fires do not have an operating smoke detector.

**FEMA's United States Fire Academy**