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Shrinking Resources, Growing Concern

Faced with smaller fire departments, diminished resources, persistent budget struggles, and fading political clout, responders turn to NFPA to help them confront the changing reality of America's rural fire problem.

BY ANGELO VERZONI

In January, NFPA's Public Education Division sent a survey to rural fire departments around the country to gauge their interest in an NFPA-hosted event that would address a range of rural fire issues. Public ed staffers weren't sure they could even attract enough participants to fill a room.

But the survey struck a nerve. More than 1,000 people responded, and the overwhelming answers were yes, we have issues we need to discuss, and yes, we want to do it with the help of NFPA.

In May, 60 members of rural departments from New England to Alaska converged on NFPA's headquarters for the first Rural Fire and Life Safety Symposium in the United

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States to discuss the challenges they face—from finding volunteer firefighters to public education to battling wildfires—and how to address them. NFPA held a similar event in Canada in April. At both meetings, the concerns were as unique and specific as the participants themselves; for one fire department in coastal Washington, the biggest challenge is how to respond to a tsunami.

Rural America has long been known to be at higher risk for fire and life safety threats, says Karen Berard-Reed, who oversees NFPA's high-risk outreach public education activities. With sparsely populated, large expanses of land, it can be hard for the fire service in rural communities to reach people—both physically and in terms of education and enforcement. But it wasn't clear until about two years ago, when NFPA added three regional public education specialists across the country, that rural departments were eager to work with NFPA to fight the problem through public education. "I don't think people in the rural fire service get these kinds of invitations very often," says Berard-Reed of the survey and symposium. "Some of them feel like they don't have a voice, and this was an opportunity for them to be heard."

Outreach focused on rural fire and life safety issues represents a shift for NFPA. Long regarded by some observers as detached from the rural fire service, NFPA is determined to change that narrative, according to Ken Willette, first responder segment director at NFPA. "We've always had great relationships at the national level with the membership organizations that represent the career firefighters, fire chiefs, and volunteers," he says. "But given the size of the volunteer fire service—about 800,000 firefighters in some 20,000 fire departments—they didn't always feel connected to us. We're reaching out to them at the local level to hear what their needs are and develop solutions."

The volunteer conundrum

Every fire department faces challenges, but they're often more pronounced for small departments. NFPA's fourth and most recent [Needs Assessment Survey of the U.S. Fire Service](#), released last November, exposed striking deficiencies in everything from apparatus to personal protective equipment (PPE) to training in departments protecting populations of 5,000 people or fewer.

Rural fire service concerns play out against a backdrop of vast demographic shifts. According to the U.S. Census Bureau, in 2000, 21 percent of the country's population lived in rural areas, defined as anywhere outside an urban area. In 2010, the most recent year data was available, that figure was just over 19 percent. Recent estimates put it at about 15 percent—meaning rural

Sidebar, Making NFPA Work for You:

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Read:

[NFPA's Fourth Needs Assessment Survey of the U.S. Fire Service](#), [the 2015 U.S. Fire Department Profile](#), and [the WUI Fire Department Wildfire Preparedness and Readiness Capabilities Report](#).

Visit:

[The National Volunteer Fire Council's website](#), which includes resources for volunteer firefighters such as [grant-writing courses](#).

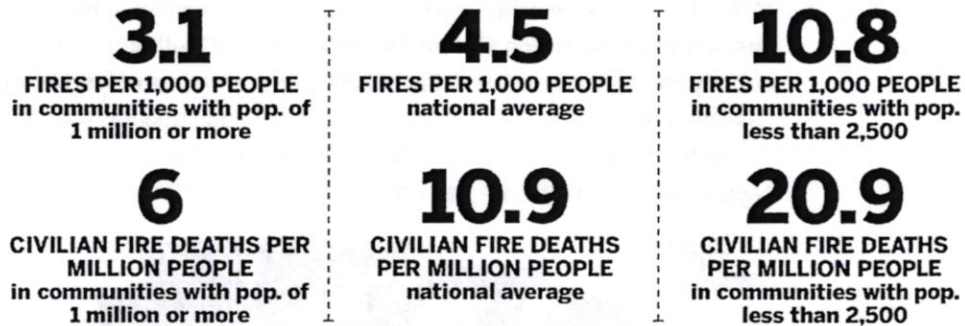
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America is becoming more rural. The continued decline suggests that many problems facing the rural fire service will only become more prominent as resources of all kinds—human, technological, monetary, and more—become increasingly scarce.

A few rural numbers...

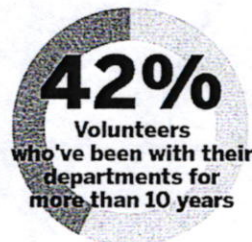
As the rural fire problem becomes more acute compared to larger communities...



...and as smaller communities continue to rely on volunteer fire departments...



...those volunteers are getting older...



...and new volunteers are getting tougher to find.



All statistics: NFPA

Those are the kinds of big-picture concerns that worry Dickey Brigance, a safety officer for the Woolwich Fire Department in Woolwich, Maine, a town of about 3,000 situated 30 miles northeast of Portland. The fire department is located in a white, no-frills, two-story building that also houses Woolwich's town offices. On a sunny morning in May, Brigance is standing in the fire station's garage, watching as four of the department's volunteers return from the scene of a car accident on nearby U.S. Route 1. Soon everyone but Brigance will be gone from the station, back to their jobs and their lives outside the fire service. It's a succinct but accurate picture of the hectic schedule of a volunteer firefighter, a calling that has seen dwindling interest in recent years.

"After 9/11, it was way up," says Brigance of volunteerism in the fire service. He is in his 70s and has served on Woolwich Fire for 18 years. Since 9/11, though, interest has dropped off. "I guess nobody wants to run into burning buildings anymore," he quips, before offering a more serious assessment. "The interest just isn't there with young people. They're more interested in stuff like computer science." The Woolwich Fire Department consists of just over 30 volunteers, Brigance says, adding, "Of those, we can only count on about 10."



Aging Out As the nation's volunteer fire service grows older, fire officials struggle to attract younger recruits. Photograph: Getty images

Recruitment and retention of volunteer firefighters is a critical challenge for the rural fire service, where the majority of departments rely on volunteers. According to NFPA's [2015 U.S. Fire Department Profile](#), 70 percent of firefighters nationwide are volunteers, and about 85 percent of departments were either all-volunteer or mostly volunteer. (Majority-volunteer departments are also found in suburban areas, not just rural ones.)

The number of volunteer firefighters in the U.S. fluctuates. In 2015, the figure stood at about 815,000, about 26,600 more than the previous year, according to NFPA's fire department profile. But the rate of volunteers per 1,000 people has steadily declined for the last 30 years, from a high of 8.05 in 1987 to a low of 6.37 in 2011, the result of a mix of social and economic factors. The attacks of 9/11 ignited a flame of civic duty in Americans, and many joined the military, police force, and fire service. Despite all that perceived volunteering, though, the rate of volunteer firefighters per 1,000 from 2002 to 2008 was 7.13, which was identical to the rate from 1995 to 2001 and below the rate of 7.45 from 1988 to 1994. In the end, 9/11 didn't actually increase the rate of volunteers as much as it may have stemmed the decline that had occurred during the 14 years prior 2001. Gradually, the sense of civic duty spurred by the attacks waned, and in 2008 the economy crashed. Young people found themselves in debt and without work. All of this, at least in theory, has contributed to decreased volunteerism in the fire service since then. From 2009 to 2015, the average volunteer rate fell to 6.66.

Others offer a more critical explanation. "The younger generation is all about me, me, me," Cliff McClure, a fire chief from Interior, South Dakota, tells me over dinner the night before the rural symposium. "People want something out of it nowadays. They want money." McClure's department protects 1,500 people scattered over 1,200 square miles. Fifteen years ago, people were "knocking the door down" to volunteer, he says. Now his squad of dedicated volunteers is aging and there aren't enough young people lined up to replace them. Despite his harsh take on millennials' priorities, McClure understands that dedicating time to volunteer firefighting is no easy task. He and his wife are both volunteer firefighters, and it's caused them to miss out on a lot as parents. "I have to explain to my kids, 'Daddy or Mommy is out helping people.' It's a huge sacrifice," he says.

There's also a new appreciation of the risks that come with the job. Decades ago, the concern was being burned or falling off the truck. Now, other hazards have taken center stage—cancer, post-traumatic stress disorder, heart attacks. "There's evidence that says [as a firefighter] you might be exposed to agents that can lead to cancer or other debilitating conditions," Willette says. "People are asking themselves if they really want to be exposed to all that."

Meanwhile, towns like Woolwich wonder where their new volunteers will come from. Maine is the oldest state in the country by median age—44—and its firefighters are older, too. The average age of a Maine firefighter is higher than the average for a Maine citizen, falling somewhere between 45 and 55, according to Ken Desmond, president of the Maine State Federation of Firefighters. "Not many more years and they'll be aged out," Brigance says. "There'll be nobody to replace them."

We leave the fire station and drive across the Kennebec River to Bath, a city of about 8,000. We bump down a dirt road flanked by gravel piles to a grassy field, home to a charred metal structure. The property is a training facility for the Bath Fire Department, but today it's being used by the Maine State Fire Academy to train a group of new firefighters, most of them young volunteers from across the state. The academy, a program of the Maine Fire Service Institute, is seen in part as a recruitment and retention tool for departments, says James Graves, the institute's director. "Training is a significant part of recruitment and retention—it keeps firefighters motivated," he says. "Firefighters don't stay at stagnant departments."

Brigance squints at the scene and offers a bit of perspective. Seven or eight years ago, he tells me, such classes would draw 50 or 60 firefighters. I do a quick count of the trainees hauling hose under the hot sun. Today's class numbers 11.

Enforcement & education

As daunting as volunteer recruitment and retention can seem, when symposium attendees are asked to identify the biggest challenges facing their departments, the top answer is human behavior and a lack of fire safety knowledge.

"They're ignorant, typically" of fire safety, Kayla Cross of the Mapleton, North Dakota, Volunteer Fire Department says of people in her community, who accidentally start fires with space heaters or by cooking. Others share similar "I didn't know I shouldn't do that" stories of residents who inadvertently start fires with generators, electronics chargers, unattended grills, and more.

While such behavior is largely universal and hardly limited to rural communities, other pursuits lend themselves to the isolated nature of rural areas. Troy Lumley of South McCreary Fire and Rescue in Pine Knot, Kentucky, says burning trash and other unwanted items is a common occurrence in his community, resulting from an unfamiliarity with fire safety as well as learned behavior from previous generations. "We had a gentleman literally burning a house," Lumley says. "He took the whole house down and piled it in a pit he dug. There was PVC, couches, everything, and I'm like, 'Come up here and talk to me.' I said, 'Do you realize what you're burning?' He said, 'Oh, I've done this forever. It don't bother me. Grandpa used to do it down here.' We get a lot of that mentality: 'Grandpa used to burn his garbage so it's OK for me to burn my garbage.'"



Farm Aid With their potentially volatile mix of components—fuel, machinery, combustibles, animals, and more—coupled with their isolation, farm fires can present significant challenges for small rural fire departments. Photograph: Getty Images

According to NFPA data, communities of fewer than 5,000 people have a higher frequency of fires per thousand population and a higher rate of civilian fire deaths than larger communities. The rate of fires per thousand population in communities of 1 million or more is 3.1, according to NFPA's "Fire loss in the United States in 2015" report, released last September. The national average is 4.5. For communities of 2,500 to 4,999, it's 6.8, and for communities under 2,500, it's 10.8—more than double the national average. The trend holds true for fire deaths, as well. According to the report, the rate of civilian fire deaths per million people in communities of 1

million or more is six, almost half the national average of 10.9. For communities of 2,500 to 4,999, it's 19.3, and for communities of under 2,500, it's 20.9.

While rural fire officials address human behavior-related problems through education and enforcement, many say their communities lack the money to spearhead large-scale education campaigns. Similarly, enforcement efforts can be hamstrung by a failure on the part of town governments to adopt the necessary codes, and by citizens' unwillingness to listen or comply. Dustin Free of the East End Fire Department in Little Rock, Arkansas, says his solution to problems like these lies in treating enforcement like customer service. "You have to get the community to buy in to what you're telling it," he says. "If you go out there and try to enforce something, people are gonna try to enforce something back, so if you go out there and make it their idea and build a positive relationship with your customers then all these things are gonna be very easy. You'll run into a few bad apples, but for the most part you're gonna get your community's support."

More specific demographics breed equally specific challenges. Farming, for example, remains the livelihood of many rural communities. But with properties that stretch for hundreds or thousands of acres, barns stuffed with hay and gasoline, caches of heavy, expensive equipment, and unpredictable animals, farms can be challenging places for the fire service to protect. During a roundtable discussion on this topic at the symposium, chicken coop fires in particular emerge as a concern. Even if heat lamps, which are needed in coops in areas with cold winters, are kept at a safe distance from combustible materials like hay, there's no telling how a live animal can change that. "A spastic chicken can make hay fly everywhere," says Sue Scott of the Wilsall, Montana, Fire Department.

If a fire or other emergency does occur on a farm, getting people and animals to evacuate the area becomes a challenge in its own right. "Every animal wants to go back in [to the barn]," says Stephen Sadowski of the North Stonington, Connecticut, Volunteer Fire Company. "Farmers want to go back in for their new, \$100,000 tractor. We have to say, 'No way.'"

Wildfire challenge

Coco Kelly, a firefighter with Central Calaveras Fire and Rescue in California, has been part of the fire service for just a year; she joined after losing her home in the 2015 Butte Fire, a massive wildfire that destroyed 500 structures in her department's district alone.

Calaveras County is in what's known as the state responsibility area, where the California Department of Forestry and Fire Protection, or CAL FIRE, is the primary responder to fires—many of them wildfires. But during a discussion on wildfire at the symposium, Kelly says that's not always the case. In the winter, for instance, CAL FIRE shuts down some of its stations, she says, leaving Central Calaveras Fire largely responsible for conducting its own wildland firefighting. Even when CAL FIRE's stations are up and running, Kelly says it doesn't take the responsibility away from her department to respond to wildfires, which make up about 98 percent of the fires in Central Calaveras. "We either beat [CAL FIRE] there, or we get there at the same time," she says. "We work really closely with our local [CAL FIRE district], but there are still issues."

Overall, the idea that state or federal fire services are the primary line of defense against wildfires is a misnomer. According to a 2013 NFPA report on wildfires, local departments in the U.S. responded to an average of 334,200 wildfires each year from 2007 to 2011. And with their

vast stretches of grasslands, woods, swamps, and chaparral, rural communities often bear the brunt of that wildfire activity.



Resource Focus In many parts of the country, brush, grass, and forest fires represent a significant portion of the fire events that small departments respond to annually. Photograph: Getty Images

An NFPA report released in March, which analyzed fire departments' wildfire preparedness, showed equipment and PPE deficiencies in rural departments that fight wildfires. "What tends to happen is when you have all the structural equipment then you don't have the ability to go off road, you don't carry all the tools you need for wildland [firefighting]," a chief from the rural western U.S. told researchers for the report. Another chief from the rural South said some volunteer firefighters in his county try to fight wildfires wearing structural PPE, "which creates some real issues." The Fourth Needs Assessment Survey of the fire service also showed a lack of wildland firefighting training among rural departments. Seventy-seven percent of departments protecting communities of fewer than 2,500 people did not train all their personnel in wildland firefighting, according to the survey. By contrast, only 23 percent of departments protecting communities of 500,000 people didn't train all their personnel.

Since 2002, NFPA has promoted wildfire preparedness through Firewise, an education-based program that stresses wildfire prevention for residents and property owners through community participation. More than 1,300 communities throughout the country participate. In Canada, a similar program called Firesmart exists. At the symposium, Firewise seems to be the biggest tie attendees have to NFPA. "We have Firewise back in South Dakota, on the western part, and it's taken off very well," says McClure. "I have found that if you sit down with people and start talking to them about Firewise they start to understand."

Politics, inside and out

After Calaveras County was devastated by the Butte Fire, the Federal Emergency Management Agency (FEMA) moved in to assist the families who lost their homes. Wildfires like this require departments to work with multiple agencies on multiple levels, which can be difficult. But disaster management isn't the only time departments have to work with state and federal agencies, and for rural departments, working with these agencies and even with local politicians can prove more troublesome than it does for larger departments. From struggling with the grant-writing process to answering to municipal governments that don't allocate tax money to them,

rural departments are often at a disadvantage when it comes to the politics of keeping the public safe.

In March, about 40 volunteer fire chiefs from New England gathered at a National Volunteer Fire Council event in New Hampshire to discuss the challenges they face, and grant writing emerged as a leading issue. According to the Fourth Needs Assessment, departments of all sizes rely on Assistance to Firefighters Grant (AFG) funding from FEMA, mostly for PPE. It's the process of obtaining the money where rural departments often fall behind.

When I interviewed NVFC Chairman Kevin Quinn late last year for an article about the need for behavioral health care in the fire service, he told me the quality of the grant requests matters as much as the need. "You read some of these grants and you'll know the department needs this money, but they're not following directions or writing it clearly and concisely enough, and so they aren't funded," Quinn said. A pattern of denied grants can leave rural departments feeling discouraged, so they stop applying for them altogether. Quinn said teaching grant-writing skills to the volunteer fire service is one of NVFC's highest priorities. The organization already offers online courses on grant writing for its members. On the local level, volunteer departments sometimes elect a chief versus having one appointed by the municipal government, a system that can create tension between firefighters and town officials. In May, an entire volunteer department in the small central Maine town of Newburgh quit after a disagreement with town selectmen, who refused to reinstate the former chief. "There's a strong sense of loyalty and support for the chief, and the firefighters don't want to work for anyone else," Willette says. At the same time, departments can feel disconnected from their local governments, especially if they receive little or no tax revenue from the towns.

Conflicts can also arise between neighboring departments. Faced with recruitment and retention issues and districts that can be thousands of square miles in area, rural departments often rely on mutual aid. In theory, the practice means more manpower, more expertise, and more equipment. But when disparities in training and resources run deep, as is the case in many rural areas, it can become more problematic than beneficial. "If you've got 15 guys and a heated barn, you can start a department [in South Dakota]," McClure tells me, shaking his head in disapproval. The result, he says, is departments that can show up at an incident with no PPE and little training and can become a liability to the incident commander. As Jon Craig of the Petersburg, Indiana, Fire Department, puts it, "mutual aid is not mutual in that situation."

Better-equipped and trained departments like Craig's can find themselves picking up the slack for less-prepared ones. He mentions a department near Petersburg that has "zero money and zero training," whose calls "take our equipment and people out of service while we respond to their problems." The people who live in that district don't care about the shortfalls of their department, he says; they take his department's response for granted. With no support on the local level, Craig says states should be more diligent about identifying and providing assistance to underperforming departments.

Within departments, attempts to solve the volunteer recruitment and retention problem can also cause rifts. While incentivizing firefighters by shifting from all-volunteer departments to combination departments, where some firefighters work as full-time, paid employees, might seem like an effective retention strategy, McClure says he's seen the practice divide even the best of friends. Imagine you've returned from a call, he says, and now it's time to clean the truck. The volunteer is going to tell the career firefighter, "I'm going home. You clean the truck," because he's not the one getting paid.

One way Willette and Berard-Reed hope NFPA can address these myriad issues is by encouraging more rural fire service representation in the NFPA standards-development process. Willette sees technology as a way to "break down barriers" and address rural challenges; as remote as some departments are, nearly every firefighter has Internet access, which means they can find free content on nfpa.org, download NFPA's new 1st Responder Connection smartphone app, and follow NFPA on social media.

Berard-Reed says the next step for public education is to prove to symposium participants that they weren't just talking to each other—NFPA was listening. "It's important that they see we listened to what's going on and are attending to it," she says.

ANGELO VERZONI is staff writer for NFPA Journal. Top Photograph: Thinkstock

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