Big Data Comes to Public Safety

Do You Know Your Community's Safe Grade?

New FireCARES System Determines
if Fire Departments Deploy Resources to Match Risk

Fire Departments Urged to Take Charge of Community's Profile

Washington DC --- Improving public safety and fire fighter safety by building better fire departments to serve communities across the nation is the goal of the new Fire-Community Assessment/Response Evaluation System (FireCARES), an online tool based on emergency response data integrated inside scientific models for community risk assessment and best firefighting practices.

Launched in April, FireCARES includes more than a decade of research on structure fires and related injuries and death, as well as community building footprints, housing and mobile home units, public health and census data, and vulnerable populations. Combined, these data "tells the story" of a fire department's risk environment, resource capacity, and overall capability to respond to emergency incidents.

FireCARES compiles massive amounts of data to produce detailed answers civic leaders and fire department administrators have never had, and delivers scoring metrics to help officials match fire department resources and capabilities to hazards and risks in their communities.

Densely populated neighborhoods. Condensed inner city cores with a high number of vacant buildings. An aging and/or socio-economically challenged population. These factors likely give a city a high-risk grade for fire. Coupled with insufficient resources deployed high risk areas, this scenario likely leads to an overall poor Safe Grade.

According to the FireCARES team, it is critical that fire departments take charge of their FireCARES profiles as the system is developed to ingest as much relevant and timely data as departments have available. "FireCARES is a cutting-edge tool designed to improve public safety and fire fighter safety in every community throughout this country," states Harold Schaitberger, IAFF General President. "It is a game changer and showcases what a collaborative effort within our industry can accomplish with the goal of preventing injuries and saving lives and property."

Page 2/ Do You Know Your Community's Safe Grade?

In today's fast changing economy, local government decision makers often cut fire department resources faster than fire service leaders can evaluate the potential impact. These fateful decisions can leave a community without sufficient resources to safely and effectively respond to emergency calls. "In the constant battle to match critical resources to the needs in our communities, FireCARES provides valuable information designed to decrease overall community risks and vulnerability," noted Chief Otto Drozd, President Metropolitan Fire Chiefs. "FireCARES assists decision makers in the evaluation of options and/or solutions to address each community's individual risk profile, structural hazards, and a fire departments' response capability."

FireCARES data is stored in the cloud making it readily accessible by fire department officials and can be retrieved to produce analyses, comparative reports and other pertinent data for a city. Having this data in real time will help jurisdictions evaluate resources, analyze outcomes and conduct long-term planning. FireCARES will improve fire fighter safety and health and fire department capabilities and performance.

The FireCARES project is already generating meaningful data and scores for U.S. cities. The FireCARES web portal (www.firecares.org) allows any fire department to easily upload new layers of data from fire incidents and other information. The FireCARES analysis and measurements will become more accurate and granular over time as fire departments begin to upload more information gathered from the fire ground.

FireCARES provides three essential scores for each city:

- **The Community Risk Score** -- measures a community's risk for fire, injury, and death based on information such as geography, population demographics, the built environment and critical infrastructure.
- **The Fire Department Performance Score** -- measures how well a fire department performs compared to industry standards.
- **The Safe Grade** -- reflects how effectively fire department resources are deployed to match the level of risks for a structure fire in a city.

Big data and the FireCARES scores will help hold civic leaders to account for the decisions they make regarding budgeting for fire department staffing and resources. And it will give fire departments across the U.S. an unprecedented, real-time tool to analyze and understand fire risks in their communities. Chief John Sinclair, President IAFC notes that "FireCARES was created and designed to be a tool for fire chiefs to assess their community needs and help reduce risk to citizens and firefighters. It can also be an essential planning and budgeting tool that provides a granular look at the risk and resources within the community."

Funded with an Assistance to Firefighters Grant (AFG) from the U.S. Federal Emergency Management Agency (FEMA), FireCARES is a collaborative effort of the Commission on Fire Accreditation International (CFAI-RISK), the International Association of Fire Fighters (IAFF), the International Association of Fire Chiefs (IAFC), the Metropolitan Fire Chiefs, Underwriters Laboratory (UL), the National Institute of Standards and Technology (NIST), Urban Institute (UI), University of Texas at Austin and other partners.

For more information on FireCARES and instructions for fire departments on how to upload data visit www.firecares.org.

Quotes from FireCARES Team /Project Partners

"Good information is gold before response and on the fire ground. It can mean the difference between life and death for fire fighters and the people they are committed to protect. FireCARES will change the nature of work for the fire service because it provides an accurate and up-to-date picture of the risk environment in our communities."

Lori Moore Merrell, DrPH, MPH
FireCARES Project Manager
International Association of Fire Fighters
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"The need for fire service leaders to provide transparency in their actions, make decisions based on hard data, and promote a culture that can adapt quickly, and innovate with creativity, is the new normal. FireCARES serves as a beneficial tool to agencies wishing to improve as it provides easy access to necessary risk and performance data. Such data are critical in the Commission on Fire Accreditation International accreditation process where agencies self-assess their organization to industry best practices to determine risk and safety needs for the community, evaluate performance, and establish methods to continuously improve."

Randy Bruegman, CFO, FIFireE
President, Center for Public Safety Excellence
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"FireCARES is platform that takes the complex issue of data analysis and develops the tools to make data useful for the fire service. It can become a total launch point for the fire service to recognize the power of data and the value of quality data entry."

Stephen Kerber, PE
Director UL Firefighter Safety Research Institute
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"The launch of FireCARES represents a watershed event in firefighter safety. We brought together an interdisciplinary team of engineers, firefighter research scholars, statisticians and the firefighter community, to produce a community assessment risk tool to benefit society."

Robert Santos
Chief Methodologist, Urban Institute
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"FireCARES uses advancements in measurement science allow for a better understanding of how community characteristics uniquely define their fire risks and demand for fire department services."

David T. Butry, Ph.D.
Chief, Applied Economics Office National Institute of Standards and Technology

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 "FireCARES is a cloud-based, big-data analytical platform that brings together numerous layers of information — from residential parcel data to detailed characteristics of high-rise and commercial buildings — to help policy makers and fire departments allocate the right resources for their unique communities. It is an important tool that will improve our ability to assess and prepare for hazards, and the Cockrell School of Engineering at the University of Texas at Austin is a proud partner in its development."

Dean Sharon Wood
Cockrell School of Engineering
The University of Texas at Austin
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Quotes from Industry Leaders
(As reflected in body of release)

"FireCARES is a cutting-edge tool designed to improve public safety and fire fighter safety in every community throughout this country. FireCARES is a game changer and showcases what a collaborative effort within our industry can accomplish with the goal of preventing injuries and saving lives and property. FireCARES is a big-data analytical system that can hold policy makers accountable and educate taxpayer on their investment in fires services in their neighborhoods."

Harold A. Schaitberger
General President International Association of Fire Fighters
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"In the constant battle to match critical resources to the needs in our communities, FireCARES provides valuable information designed to decrease overall community risks and vulnerability. FireCARES assists decision makers in the evaluation of options and/or solutions to address each community's individual risk profile, structural hazards, and a fire departments' response capability. The Overarching goal of FireCARES is to assist in making sound decision, based on quantifiable data that will provide for safe, effective, and efficient emergency response services"

Chief Otto Drozd, III
President Metropolitan Fire Chiefs Association
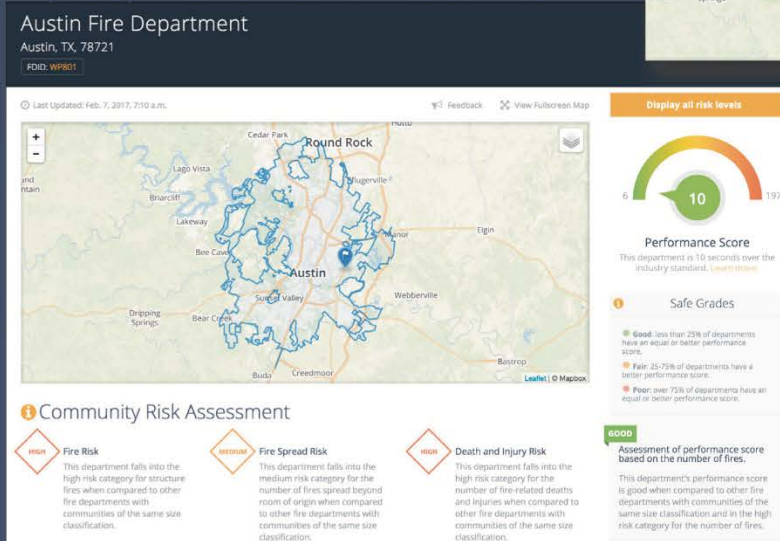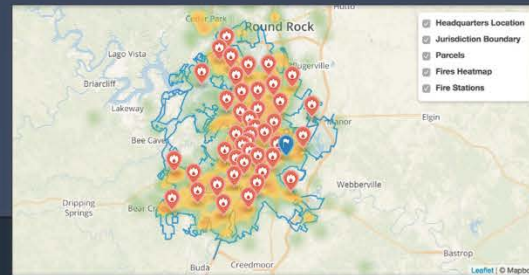Orange County Fire Rescue Department
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"FireCARES was created and designed to be a tool for fire chiefs to assess their community needs and help reduce risk to citizens and firefighters. It can be an essential planning and budgeting tool that provides a granular look at the risk and resources within the community."

Chief John Sinclair
IAFC President and Chairman of the Board

Get Started With FireCARES:
Take Charge of Your Community's Profile

Unlock the Power of FireCARES

1. Register at firecares.org/accounts/registration-check
2. Log-in and review your department's assets.
3. Check your jurisdiction borders.
4. Review your Community Risk, Performance Score and Safe Grade.
5. Check your station list for accuracy.
6. Alert the FireCARES Team to data errors via email links in the FAQ section.
7. Dive into the data regularly to ensure that resources are appropriately deployed to match your community's risk level.

Headquarters Location
Jurisdiction Boundary
Parcels
Fires Heatmap
Fire Stations

Austin Fire Department
Austin, TX, 78721
FDID: WP801

Last Updated: Feb. 7, 2017, 7:10 a.m. Feedback View Fullscreen Map

Display all risk levels

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Performance Score
This department is 10 seconds over the industry standard. Learn More

Safe Grades

Good: less than 25% of departments have an equal or better performance score.
Fair: 25-75% of departments have a better performance score.
Poor: over 75% of departments have an equal or better performance score.

Use the interactive map to see a host of data overlaid with your community.

Community Risk Assessment

Fire Risk HIGH
This department falls into the high risk category for structure fires when compared to other fire departments with communities of the same size classification.

Fire Spread Risk MEDIUM
This department falls into the medium risk category for the number of fires spread beyond room of origin when compared to other fire departments with communities of the same size classification.

Death and Injury Risk HIGH
This department falls into the high risk category for the number of fire-related deaths and injuries when compared to other fire departments with communities of the same size classification.

GOOD
Assessment of performance score based on the number of fires.

This department's performance score is good when compared to other fire departments with communities of the same size classification and in the high risk category for the number of fires.

FIRECARES

REGISTER TODAY
www.firecares.org

DO YOU KNOW YOUR SAFE GRADE?

FireCARES (Community Assessment/Response Evaluation System) is funded by the Assistance to Firefighters Grants (DHSFEMA/AFG)