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RING

THE

ALARM

ASSOCIATE PROFESSOR'S RESEARCH,  
VOLUNTEERISM AIMS TO SAVE LIVES





education is not the filling of a pail, but the lighting of a fire.”

Bauer Decision and Information Sciences Associate Professor Elizabeth Anderson Fletcher personifies this statement from an essay written by Greek philosopher Plutarch.

She is working to improve emergency response times, not only through scholarly research, but through participation as a volunteer firefighter in a local fire department.

A Bauer College alumna (Ph.D. '92), Anderson Fletcher was serving as associate vice chancellor/vice president for research at the University of Houston when she decided she wanted to give back through volunteering.

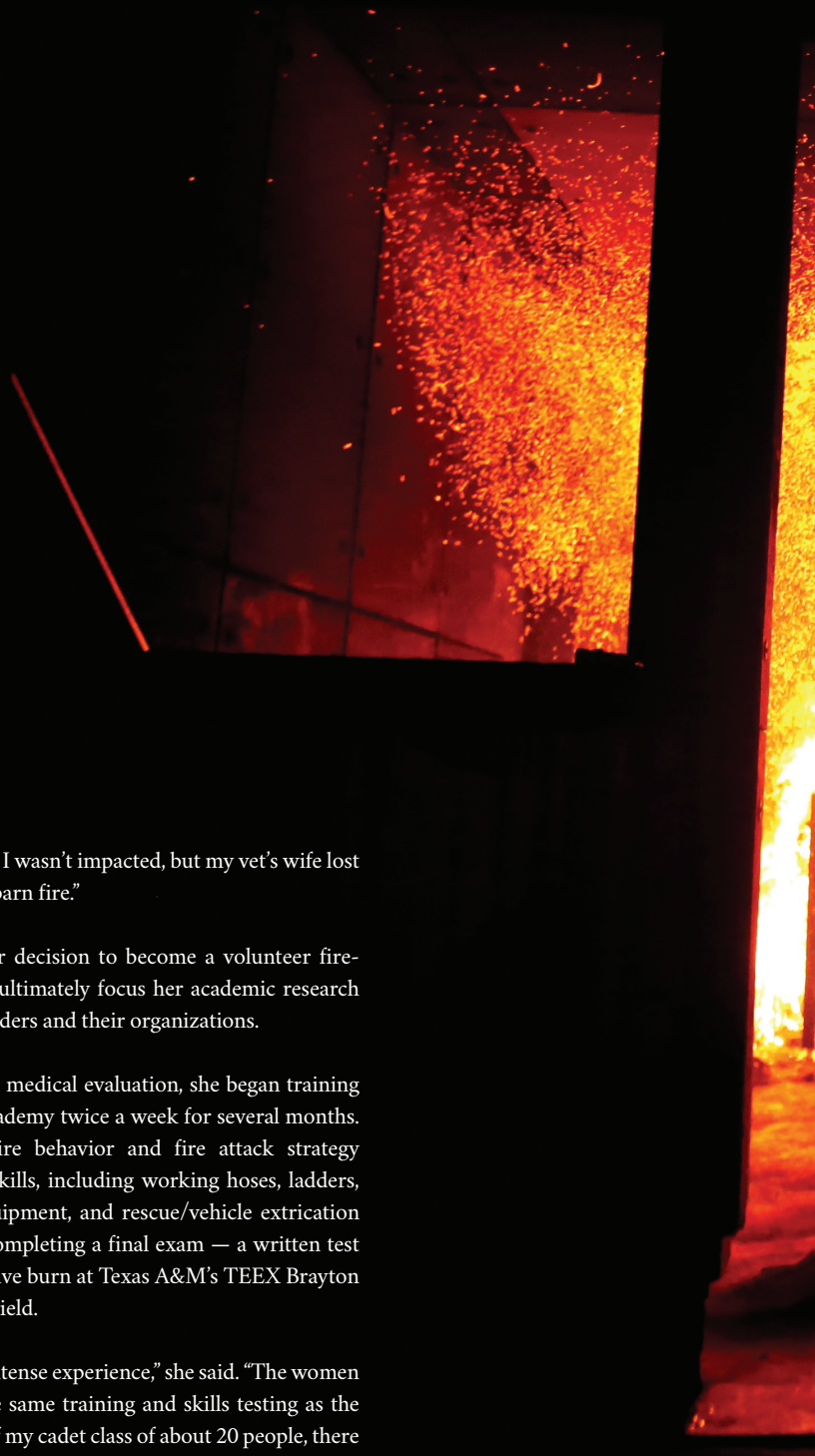
“I felt this way for a few years, but didn’t know what to do with that feeling,” she said. “Then the grass fires in Magnolia-Montgomery happened in 2011. I board my

horse up there. I wasn’t impacted, but my vet’s wife lost her horse in a barn fire.”

This led to her decision to become a volunteer firefighter and to ultimately focus her academic research on first-responders and their organizations.

After passing a medical evaluation, she began training in the cadet academy twice a week for several months. She learned fire behavior and fire attack strategy among other skills, including working hoses, ladders, ventilation equipment, and rescue/vehicle extrication tools, before completing a final exam — a written test followed by a live burn at Texas A&M’s TEEX Brayton Fire Training Field.

“That was an intense experience,” she said. “The women go through the same training and skills testing as the guys do. Out of my cadet class of about 20 people, there was one other female.”



A silhouette of a firefighter in full gear, including a helmet and a tool, stands in profile against a background of intense fire and sparks. The fire is bright orange and yellow, with a large plume of sparks rising from the left. The firefighter is holding a tool, possibly a pike pole, and appears to be working in a high-temperature environment.

“

*We see people on their worst day, the absolute worst day of their lives. We have to be on our best game. **Their worst day has to be our best day.** Simple as that.*

”



Anderson Fletcher wanted to get as strong and as quickly as she could, so she hired a personal trainer to help her focus on functional training and strength building to keep up with the physical demands of the job. This proved helpful when she finally had the chance to fight her first fire — a fully-involved garage fire.

“I went in as backup on the hose line with my captain coaching me. I couldn’t see a thing, which is usual. I knew I was in a garage, but I couldn’t tell what I was stepping on. Stuff piled up everywhere, no stable surface to walk on,” she said. “We saved the house. We knocked down the fire before extension through the attic breezeway into the house.”

During this time, she transitioned back to the Bauer faculty after over a decade in administration. She soon discovered that her role as a research professor overlapped with her role as a firefighter — both are physically demanding in their own right, requiring mental engagement, proper focus and constant problem-solving. However, in stark contrast to working with students over the course of an entire

semester, firefighters and the lives they are responsible for saving rely on every second to act quickly and respond accordingly.

“We see people on their worst day, the absolute worst day of their lives. We have to be on our best game,” Anderson Fletcher said. “Their worst day has to be our best day. Simple as that.”

This inspired her to do something different with her research. She spent the better part of a year evaluating response times of Cypress Creek’s volunteer staffing initiative. Originally, volunteer firefighters responded to calls from their homes, requiring them to drive to the station before the crew could leave for a scene. Cypress Creek implemented a volunteer staffing initiative in 2012, where volunteers would staff the fire station nights and weekends, rather than responding exclusively from home. Her research, co-authored with Terry Mayes (Hobby Center for Public Policy) and Timothy Gibson (Assistant Chief of Cypress Creek Fire Department), evaluated the effectiveness of the staffing program by analyzing pre and post response



**Associate Professor  
Elizabeth Anderson  
Fletcher’s latest  
operations  
management  
research allows her  
to use her skills as a  
volunteer firefighter  
to help save lives.**





Visit [facebook.com/ccvfd](https://www.facebook.com/ccvfd) to learn more about the Cypress Creek Volunteer Fire Department.

## BY NIGHT

*As part of the Cypress Creek Fire Department's volunteer unit, Anderson Fletcher undergoes extreme physical and mental stress to save lives in the community.*

times. These crucial minutes had a big potential impact on the team's ability to save a house or a life, Anderson Fletcher found.

"It has cut out the time it takes a crew to get out the door at home and drive to the station and get on the engine," Anderson Fletcher said. "Response time has improved significantly, and thus, customer service in terms of reduction in response time."

After this project, she transitioned her research scope from better serving the community to better serving those putting their lives on the line for the community. She is partnering with Bauer Management Associate Professor Richard DeFrank to research physiological and psychological stress of first responders.

"Firefighters have a very dangerous job with high stakes. The job, in spite of all the technological advances, is still very labor intensive," Anderson Fletcher said. "The human body has certain physiological reactions to stress that are important."

Their research is focusing on evaluating physiological stress through cortisol testing and psychological stress through well-known survey instruments.

They hope to help answer why cardiovascular and stress-related causes are the biggest killer of firefighters in the line of duty. Additionally, they aim to shed more light on the growing awareness of the impact of emotional and psychological stress on first responders.

"I have seen more teamwork in the fire service than I have in any other corporate culture. But I have seen the toll some of the calls take on people," Anderson Fletcher said. "I really care about my colleagues and other first responders, hence my interest in research on stress and emotional health. I feel like, in my small way, I'm actually making a difference in the lives of people."