Federal agencies are increasingly relying on contracts to respond to wildfire. Although present since the 1970s, private equipment contractors have come to play an important role following extreme fire seasons in the 1990s. Understanding how these businesses operate and provide equipment for suppression work is critical for ensuring that sufficient and efficient resources are available for wildfire suppression when it is needed. In this research, we investigated the types of businesses that contract equipment for federal fire suppression in the Pacific Northwest, and the strategies they use to both meet unpredictable demand and remain profitable.

Approach
We interviewed 131 businesses from Oregon and Washington with preseason agreements for fire suppression equipment in 2015.

Results
We identified four distinct types of businesses providing equipment services to the fire suppression market.

Forestry equipment contractors tend to have a background in forest work and use suppression contracts to supplement and extend the forest work season. Fire suppression is a natural extension of their forestry work because it uses existing equipment and staff and provides employment at a time of year when they cannot conduct other forestry work due to high fire danger season. Forestry contractors we interviewed owned a greater amount and variety of fire equipment, had more trained employees, and contained more suppression hand crews (which in most cases were made up of a subset of the existing forestry crews) than other businesses. These business most commonly provided 9-month employment, but some provided year-round or seasonal employment. Nearly three-quarters of forestry contractors indicated that their businesses are low to moderately dependent on wildfire suppression work. Forestry equipment contractors have been present in the wildfire suppression market since the 1970s.

Commercial services equipment contractors are typically in the construction and transportation businesses and have equipment such as hand washing stations and crew carriers or buses. They often already owned equipment relevant for fire contracting when they entered the market. Many of these contractors got into fire work primarily because they saw a financial opportunity and demand for their equipment. Although these contractors had less variety of equipment than forestry businesses, they listed higher numbers of equipment. Most commercial services contractors viewed fire suppression work as an additional source of income for their pre-existing equipment. Nearly half of the
commercial services businesses we talked to had 10 or more employees; employees of these businesses generally worked in fire camps versus on active fire suppression. Commercial services equipment contracting businesses entered the suppression market in the 1980s, and the number of these businesses grew quickly in the 2000s.

**Fire-focused equipment contractors** are those that started in fire suppression because they saw an opportunity to fill a need for these services. These contractors purchased equipment specifically for fire suppression and had less equipment variety and numbers than commercial services or forestry contractors. They often also hired fire suppression hand crews, generally all as seasonal employees for the fire season only. Nearly all of the fire-focused contractors we talked to had started conducting other work outside of fire season subsequent to starting their fire businesses to increase their work year and increase security. Mostly they work in forestry services, a sector where they could use their existing equipment and staff training. These businesses were the most dependent on fire suppression income, and lacked longer-term job security as they primarily depend on income made during the fire season to support them year round. Fire-focused equipment contracting businesses expanded their presence in the fire suppression market in the 1990s and even more so in the 2000s.

**“Other” equipment contractors** come from backgrounds unrelated to forestry, fire, or fire equipment. These contractors are primarily retired individuals or people looking for summer employment to supplement existing jobs (e.g. a teacher with summers off). They generally owned just one or two pieces of equipment, and businesses were run primarily by the owner and operator of that equipment (e.g., a retired individual with a water tender or a truck). Any employees were typically family members, retirees, or students, all working highly seasonally and on-demand. These contractors had a moderate dependence on fire contracting but often had other sources of income such as a pension or income from an unrelated job. These businesses first entered the suppression market in the 1990s.

**Challenges**

Contractors cited common challenges in maintaining their businesses, including growing competition in the market, equipment requirement changes, and in particular, unpredictable demand for their equipment. Contractors are most concerned with the variability between contract seasons, and the difficulties in business planning it can create. Businesses said they are adapting by listing equipment at multiple dispatch locations, increasing the amount of equipment they contract, and diversifying the types of contracts they are seeking, particularly between fire suppression and forestry work.

**More information**

For additional information about this research: http://ewp.uoregon.edu/managingthemarket