



## Clearing the Smoke from Wildfire Policy: An Economic Perspective

### Summary

*by Dean Lueck and Jonathan Yoder*

#### **Wildfires are getting larger and more expensive.**

Over the past decade, federal spending on wildfire suppression in the United States averaged more than \$1 billion each year. In 2015, wildfires burned more than 10 million acres at a cost of \$2.1 billion—the costliest year on record. By 2050, the U.S. Department of Agriculture estimates that the total area burned annually will be two to three times higher than it is today.

#### **Identifying the cause of these increased wildfire expenditures is exceedingly difficult.**

Have larger fires led to larger wildfire budgets, or have larger wildfire budgets led to larger fires and greater suppression expenditures? The question is complex for two reasons: First, agencies have incentives to lobby for greater fire budgets and to exhaust them, regardless of existing fire conditions. Second, there are confounding factors such as climate change, the effects of past fire exclusion, and increasing development in the “wildland-urban interface,” which contribute to higher wildfire spending.

#### **From an economic perspective, the question is whether these higher costs are justified.**

The optimal level of fire suppression happens when an additional dollar of spending on suppression avoids at least a dollar of wildfire damages. This means that it’s not enough to examine aggregate data on the costs of wildfire suppression, or the cost per acre burned, to assess the efficiency of wildfire suppression. Different landscapes will call for different levels of suppression expenditures. A “let-it-burn” policy may make sense in certain remote areas, whereas “all out” suppression might be justified in the wildland-urban interface, where developed properties are adjacent to and intertwined with fire-prone natural landscapes. This makes it difficult to assess the efficiency of wildfire suppression efforts.

#### **There is an economic justification for vesting wildfire suppression responsibilities in a network of large-scale public agencies, but there are real incentive problems that result from federal wildfire management.**

Wildfires burn across a mosaic of private and public lands in the West. The cost of coordinating wildfire suppression across such vast regions is high. Public agencies, therefore, are well positioned to simplify the coordination process and benefit from economies of scale in wildfire prevention and suppression.

But there are problems with the public approach. Public firefighting agencies do not bear the losses from wildfires. If valuable commercial timber is destroyed during a backfire ignited by firefighters, for example, the timber owner bears the loss. Firefighters also do not directly bear suppression costs, so

wildfire agencies have weaker incentives to be discerning about the efficient allocation of resources than would a private landowner.

Property owners might also influence decisions of public suppression agencies to their advantage. Asset owners can often use political pressure to secure more wildfire-fighting resources for their own benefit and at the expense of protecting valuable assets elsewhere.

### **Federal agencies have a “blank check” to fight fires, which provides little or no incentive for economically efficient suppression decisions.**

Federal agencies essentially have no budget constraint for fighting wildfires. This reduces the incentives for cost-saving and may contribute to ineffective suppression efforts. Aircraft-delivered fire retardant, dubbed “CNN drops,” are one highly visible firefighting activity whose effectiveness is questionable. The increasing use of large and costly backfires is yet another example. As a result, suppression costs sometimes far exceed the value of the resources protected.

### **Existing policy reform proposals are not likely to make things better.**

Much of the public concern over wildfire spending is focused on the increase in fire size and fire expenditures, rather than the underlying incentive structure that contributes to these high costs. None of the funding proposals currently on the table, however, would address the perverse incentive structure public agencies face when it comes to wildfire suppression. There would be just as much incentive to spend as before, and even less fiscal juggling involved. Unless the underlying incentives are changed, there is no reason to think that wildfire management will improve or that total wildfire expenditures will decrease.

### **Real policy change will require changing the incentives.**

There are several policy efforts that could address these challenges:

- Allow the “banking” of wildfire funds. Congress could fix base funding for fire management at a constant level while allowing fire managers to “bank” funds to address future policy needs. This would give agencies an incentive to spend more efficiently on wildfire management.
- Reduce fire risk before fires even start. This can be achieved by reducing hazardous fuels, “fire-proofing” at-risk properties, and investing in “Firewise” programs that focus on reducing the risk of wildfires through landscape and building material modifications.



**For more, see the full report “Clearing the Smoke from Wildfire Policy: An Economic Perspective” by Dean Lueck and Jonathan Yoder, *PERC Policy Series*, No. 56 (2016) at [www.perc.org](http://www.perc.org).**