

HB18-1051

Jordan H. Cottrell

Professor Jeffrey Zax

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Wildfires pose a huge threat to the state of Colorado. Colorado is the third most fire prone state in the nation, behind California and Texas, with a total wildfire frequency of 1,190 in 2016 that destroyed a total of 129,495 acres of land. Not only is there an extremely high frequency of these disastrous events in this state, but due to our expansive urban wildland interface, a massive 17 percent of Colorado households are at high or extreme risk of being exposed to wildfires (Insurance Information Institute).

The economic costs to these events can also be exorbitant. In 2013, the Black Forest Fire cost state residents over \$420 million dollars in insured losses, and \$9.8 million on state expenditures to stop the burn (Rocky Mountain Insurance Information Association). This is only a single event, albeit an extreme example. However, for a state that experiences hundreds and potentially thousands of these types of events a year these aggregate costs can be quite significant. Similarly, as more people move their residences into urban wildland interface zones, the potential cost that these events can pose to civilians will only increase in upcoming years, as more people expose themselves and their property to areas at greater wildfire risk (Theobald).

The National Parks Service estimates that over 90% of all wildfires in the United States are manmade. They can be attributed to unattended fires, negligently discarded cigarettes, as well as intentional arson (National Parks Service). There is clearly a government role in attempting to manage and mitigate the risk of wildfire. Since the actions of an individual can impose such severe costs upon others, negligent fire practices constitute a negative non-pecuniary externality.

Therefore, action aimed at altering the behavior of individuals and discouraging negligent behavior appears as if it would be an effective means of mitigating the frequency with

which these events occur, and would constitute a justifiable use of government authority. One manner in which to do this would be to raise the private costs imposed upon individuals for engaging in negligent practices.

HB18-1051 is an attempt to do just this by raising the potential private costs that an individual may bear for leaving a fire unattended. Under current Colorado law, this type of negligence is considered a class 2 petty offense, and can be punished with a \$50 fine. This bill expands on this by specifying that failing to properly attend to, or failing to properly extinguish one's fire is consistent with leaving it unattended. It is thus expanding the scope of actions considered negligent under Colorado law.

Similarly, this bill raises the classification of the transgression to a type 3 misdemeanor if it occurs in a grassland area, a forested area, or on Colorado Parks and Wildlife lands. A type 3 misdemeanor will be punished with a minimum fine of \$50 up to a maximum penalty of \$750, or six months in jail, or both. This bill also eliminates the requirement that counties post notices informing people of the requirement to extinguish fires, and the potential fees associated with such acts of negligence.

Punishments, like fines and incarceration, work to deter socially undesirable practices by raising the level of risk that is associated with engaging in those practices. The higher the expected cost becomes the less willing one is to take it, and the more effective the punishment is at deterrence.

The expected cost of a punishment can be influenced in two ways: by adjusting the severity of the punishment, or by adjusting the probability that one will have to endure the punishment assuming they commit the relevant offense. By increasing either of these factors

one raises the level of risk that is associated with engaging in socially undesirable practices, and thus increases the punishment's deterrence value.

This bill, at first, appears very encouraging. By raising the level of the offense for an unattended fire to a class 3 misdemeanor charge, under certain conditions, the potential cost incurred by negligent fire starters is fifteen times higher than it otherwise would be. This constitutes a substantial increase in the potential costs incurred by leaving one's fire unattended. Therefore, the frequency by which individuals leave their campfires unattended ought to be reduced, as more people seek to avoid these costs.

However, these punishments only extend into high wildfire risk- Forested, grassland, and Parks and Wildlife- areas. It by no means encompasses all areas in which fires may potentially be left unattended, and therefore fails to discourage negligence in all places.

Similarly, while this bill increases the costs associated with negligent behavior by raising the offense to a class three misdemeanor, it still comes short of fully realizing and accounting for the costs associated with wildfires. Examples of other class three misdemeanors in Colorado are: intentional arson where damages are less than \$1000, theft where the total value of stolen property is between \$300-\$750, or criminal mischief where damage is less than \$500 (Colorado Legal Defense Group).

To put things into perspective, the lower bound estimate- according to the US Department of Commerce- for the average direct costs associated with wildfires is about \$9.6 million. This includes suppression costs, loss of life, costs associated with injuries, as well as insured property losses (Thomas). Now let us assume that every unattended fire has a 0.1% chance of causing a wildfire. This would imply that the average cost of leaving a fire unattended

is probably around \$9,600. While these estimates are far from perfect, this does indicate a severe disparity between the potential costs associated with leaving a fire unattended and the costs associated with other class three misdemeanors.

From this we can infer that the top penalty for this type of negligence ought to be closer to \$10,000 rather than the mere \$750 dictated by this bill. While HB18-1051 is on the right track by raising the penalty associated with unattended fires, it is clearly insufficient to account for the real costs associated with this type of negligence.

Likewise, this bill does nothing to address the probability that individuals will even be subject to these punitive measures. Over the past three years only 24 citations have been handed out in the state of Colorado for leaving one's fire unattended. This is an astonishingly low number in a state with such a high wildfire frequency, and indicates a low probability that these costs will even come to bear on transgressors.

If the probability is low enough, the risk of engaging in socially undesirable practices will be relatively low, and thus the severity of the punishment will be less relevant in the decision making process of individuals. Therefore, although HB18-1051 successfully raises the costs associated with punishment, the relative risk of leaving one's fire unattended is limited by the low probability that these punishments will even come to bear if one acts negligently, and so is its deterrence value.

Similarly, in order for the level of risk to be a determining factor in the decision making processes of individuals the individual must be aware of the risk. In this regard, HB18-1051 counteracts its own objective. By revoking the mandate that requires counties post signage informing campers of the punishments that they will face for leaving a fire unattended, this bill

is ensuring that fewer people will be aware of some of the risks involved with their own negligence. If fewer people are aware of the risks then the deterrence value of these risks are limited, as they will not be taken into account in the individual's decision making, and therefore they will not be dissuaded in acting negligently.

HB18-1051 ought to be commended for recognizing the cost that wildfires pose to the State of Colorado. It marks a positive step in the right direction by promoting responsible campfire practices. However, in its current form, this bill is insufficient in bringing to bear the relevant private risks associated with negligence. In light of these concerns it only seems fitting that the fines outlined in this bill are significantly increased, and the condition requiring counties inform campers of the penalties be reinstated in order to ensure this bill will be as effective as possible in reducing the frequency that campfires are left unattended.

Works Cited:

"Class Three Misdemeanors in Colorado." *Shouse Law*, Colorado Legal Defense Group, 2018, www.shouselaw.com/colorado/class3misdo.

“Facts + Statistics: Wildfires.” *Facts + Statistics: Wildfires | III*, Insurance Information Institute, 2018, www.iii.org/fact-statistic/facts-statistics-wildfires.

Theobald, David M. “Expansion of the US Wildland–Urban Interface.” *Landscape and Urban Planning*, Elsevier, 24 July 2007, www.sciencedirect.com/science/article/pii/S0169204607001491.

Thomas, Douglas, et al. “The Costs and Losses of Wildfires: A Literature Review.” *National Institute of Standards and Technology*, US Department of Commerce, Nov. 2017.

“Wildfire Causes and Evaluations (U.S. National Park Service).” *National Parks Service*, U.S. Department of the Interior, www.nps.gov/articles/wildfire-causes-and-evaluations.htm.

“Wildfire.” *Rocky Mountain Insurance Information Association*, www.rmiaa.org/catastrophes_and_statistics/Wildfire.asp.