

# Wildfire prevention pays big dividends in Florida, study finds

July 21 2010

---

A study by USDA Forest Service Southern Research Station (SRS) scientists and research partners suggests that wildfire prevention education in Florida pays for itself several times over by saving millions of dollars in fire-fighting costs and reducing damages from human-caused fires. Researchers published their findings in a recent issue of the journal *Forest Science*.

"This is the first study to document the effectiveness of wildfire [prevention](#) education targeted at human-caused fires such as debris-burning escapes, campfire escapes, children playing with fire, and cigarettes," said Jeff Prestemon, SRS research forester and lead author of the paper. "We found that Florida's investments pay for themselves multiple times over in terms of suppression spending avoided and fire damages avoided."

Researchers developed a model to quantify the effects of wildfire prevention education on preventable [wildfires](#) in Florida from 2002 to 2007. Scientists analyzed how wildfire prevention efforts reduce the occurrence, area burned and net economic losses associated with preventable wildfires. Researchers defined wildfire prevention education as public education efforts by wildfire managers that focus on the avoidance of accidentally ignited human-caused wildfires. Education could come in the form of public service announcement via media, distribution of brochures, in-person presentations, or home visits.

Researchers analyzed data from actual wildfire prevention efforts and

fires between 2002 and 2007. They found that the benefits exceeded costs in Florida's fire management regions by 10- to 99-fold, depending on assumptions about how wildfire prevention education spending is allocated to these regions. Overall, results show that statewide benefits of wildfire prevention education efforts significantly outweigh their costs, where every dollar of additional spending in wildfire education prevention efforts could reduce wildfire damages and firefighting costs by up to \$35. To put this into perspective: a doubling of wildfire prevention efforts in Florida compared to average 2002-2007 levels costing a half million dollars annually would have potentially averted over 800 wildfires and an estimated \$11 million in combined wildfire damages and firefighting costs each year.

"We also noted that between 1999 and 2008, Florida more than doubled the number of wildfire mitigation specialists in the state," said Karen Abt, SRS research economist and co-author of the paper. "This increase in personnel is likely to have already yielded positive net benefits for residents of [Florida](#)."

The study also netted useful information regarding the effectiveness of the various types of wildfire prevention education methods. The research suggests that there might be additional potential economic gains to altering the mix of wildfire prevention education methods. Statistically, media efforts (radio, television, etc.) yield the largest net benefits per unit. Media efforts have the additional advantage that some of their costs are paid for by broadcasters, not the state. The study also suggests that presentations in public venues such as school assemblies and to homeowner associations may be another way to effectively distribute the prevention message to the public and yield larger net benefits than increasing all other education methods equally.

**More information:** The study is detailed in a paper titled "Net Benefits of Wildfire Prevention Education Efforts" published in the

April issue of the scientific journal Forest Science.

Provided by USDA Forest Service

Citation: Wildfire prevention pays big dividends in Florida, study finds (2010, July 21) retrieved 8 April 2024 from <https://phys.org/news/2010-07-wildfire-big-dividends-florida.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.