

Study finds humans are behind costly, increasing risk of wildfire to millions of homes

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People are starting almost all the wildfires that threaten U.S. homes, according to an innovative new analysis combining housing and wildfire

data. Through activities like debris burning, equipment use and arson, humans were responsible for igniting 97% of home-threatening wildfires, a University of Colorado Boulder-led team reported this week in the journal *Fire*.

Moreover, one million homes sat within the boundaries of wildfires in the last 24 years, the team found. That's five times previous estimates, which did not consider the damage done and threatened by small fires. Nearly 59 million more homes in the [wildland-urban interface](#) lay within a kilometer of fires.

"We have vastly underestimated the [wildfire risk](#) to our homes," said lead author Nathan Mietkiewicz, who led the research as a postdoc in Earth Lab, part of CIRES at the University of Colorado Boulder. "We've been living with wildfire risk that we haven't fully understood."

To better understand wildfire trends in the United States, Mietkiewicz, now an analyst at the National Ecological Observatory Network, and his colleagues dug into 1.6 million government spatial records of wildfire ignition between 1992 and 2015; Earth Lab's own compilation of 120,000 incident reports; and 200 million housing records from a real estate database from Zillow.

Among their findings:

- Humans caused 97% of all wildfires in the wildland-urban interface, 85% of all wildfires in "very-low-density housing" areas, and 59% of all wildfires in wildlands between 1992 and 2015.
- Human-started wildfires are expensive, eating up about one-third of all firefighting costs.
- Overall, about half of fire suppression costs were related to protecting houses in all locations: the wildland-urban interface,

low-density [housing](#) areas, and elsewhere.

- Most human-caused wildfires were relatively small (

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