UNIVERSITY OF
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School of Public &
International Affairs

Income and Insurability as Factors in Wildfire Risk

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UGA SPIA

Managing wildfire: urgency, complexity & equity

- Urgency
- Complexity
- Equity

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Urgency

2021 wildfire data for California:

- 8,698 fires recorded
- 2.23 million acres burned
- at least 3,629 buildings destroyed
- 3 fatalities

Source: www.fire.ca.gov

Dixie Fire

Source: LA Times

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Greenville, CA August 2021 (Dixie Fire)

Source: NY Times

Hermits Peak-Calf Canyon Fire, NM 2022

Source: National Interagency Fire Center

Air quality in Salt Lake City 8/6/21

Source: NY Times

Denver 8/7/21

Source: CNN

Manhattan 7/20/21

Source: GPB

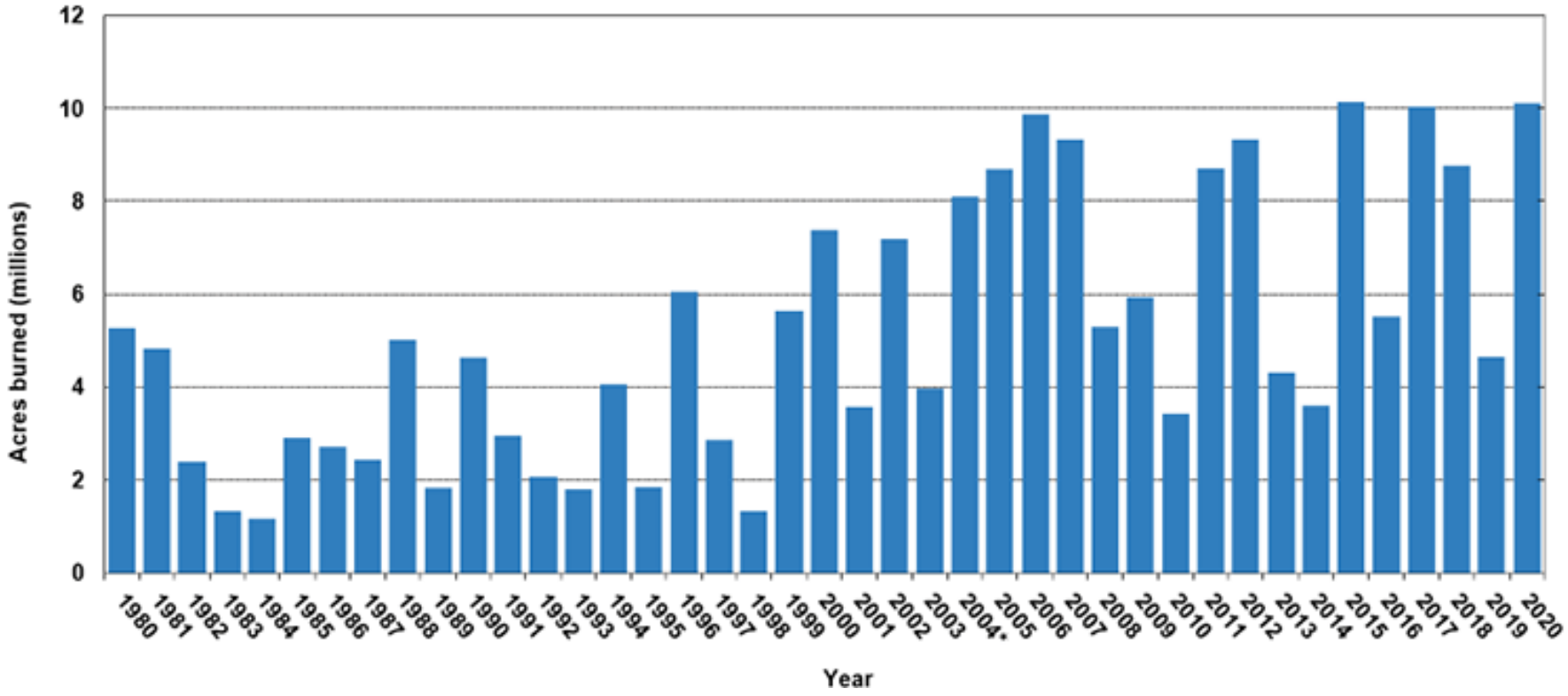
Measurable smoke on east coast

Source: wrdw.com

Wildfire: Annual acres burned, 1960-2020

Since 1960, there have been 3 years when wildfire have burned more than 10 million acres in the US – all since 2014.

Sources: National Interagency Fire Center; Insurance Information Institute



Managing wildfire: urgency, complexity & equity

- Urgency
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Drivers of destructive wildfire

- Historical context: Turn of century US Forest Service prescription: prevent and extinguish all fires.
  - “10 a.m. strategy”
    - Applied until 1970.

Gifford Pinchot, first Director of US Forest Service

Photo credit: Post-Gazette

Drivers of destructive wildfire

- Historical context: Turn of century US Forest Service prescription: prevent and extinguish all fires.
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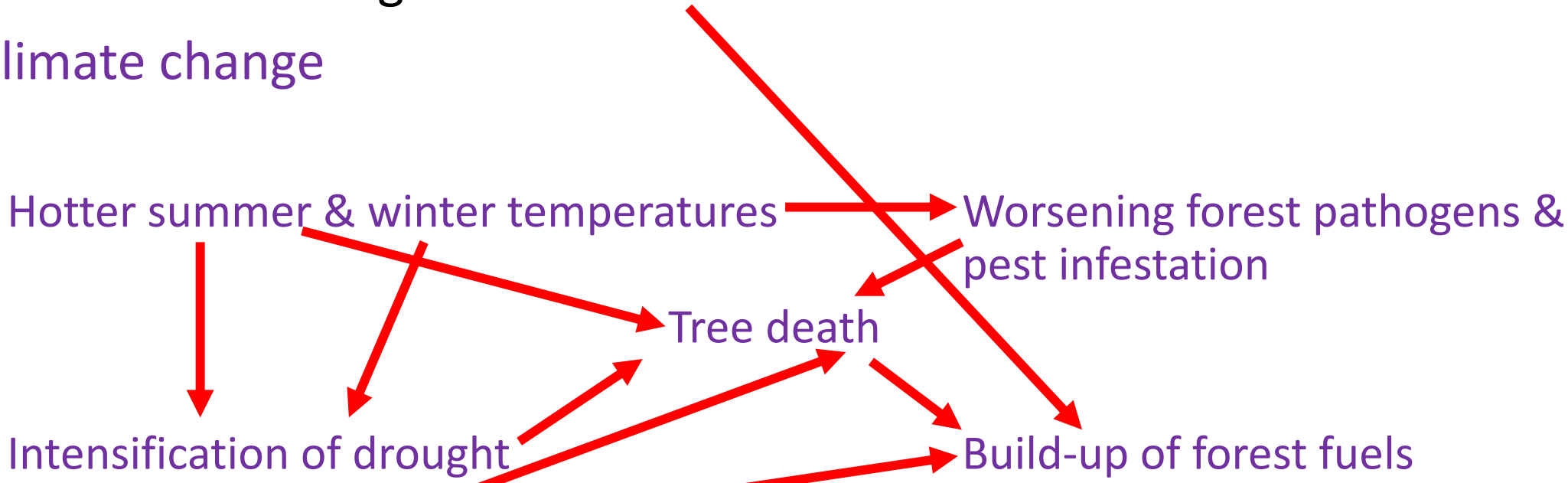
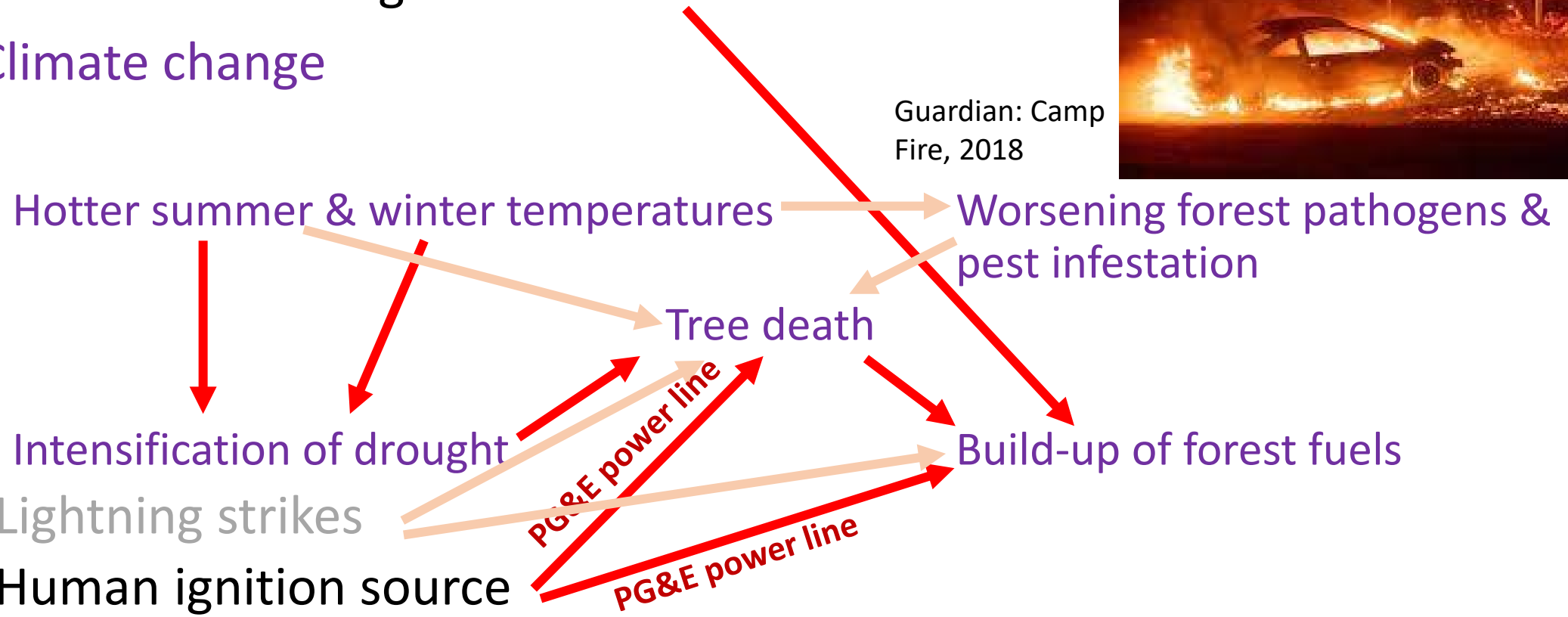


- Lightning strikes

Drivers of destructive wildfire, Camp Fire 2018

- Historical context: Turn of century US Forest Servic
  prevent and extinguish all fires.
- Climate change
- Lightning strikes
- Human ignition source

Guardian: Camp Fire, 2018



Drivers of destructive wildfire, British Columbia, 2021

- Historical context: Turn of century US Fo
  prevent and extinguish all fires.
- Climate change

NYT: Lytton, British Columbia, 8/27/2021

Hotter summer & winter temperatures

Tree death

Intensification of drought

Build-up of forest fuels

- Lightning strikes
- Human ignition source

Spark from train track?

Managing wildfire: urgency, complexity & equity

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Research context

Sustainability Science
https://doi.org/10.1007/s11625-021-01024-8

NOTE AND COMMENT

Considering equity in wildfire protection

Matthew R. Auer[1]

Received: 3 June 2021 / Accepted: 8 August 2021

Abstract
Climate change, drought, forest pest infestations, and pathogens, and high fuel loadings all factor into the expansion of territory in the United States deemed high-risk for high-intensity wildfire. Risks also mount as a decades-long demographic shift plays out, with individuals and families relocating from urban centers to more sparsely populated, vegetated areas on the margins of cities and towns–a trend that accelerated during the COVID-19 pandemic. As some insurance carriers cease underwriting homeowners insurance in wildfire-prone areas, property owners can be expected to shoulder more costs for home hardening. The equity implications of who pays to fireproof homes and neighborhoods will intensify as wildfire risks multiply in areas beyond the comparatively wealthier wildland–urban interfaces (WUI) of the Pacific coastal states. Systems of polycentric governance, consisting of problem-solving actors who collaborate across jurisdictional and geographical boundaries, can help make wildfire mitigation more equitable. Polycentric governance institutions already help communities adapt to destructive wildfire in the United States. Lessons learned from these institutions must be tailored to poor and marginalized communities in harm's way–with a sense of urgency.

Keywords Wildland fire · Wildland–urban interface · Polycentric governance · Firewise · Homeowners insurance

forests

Article

Income and Insurability as Factors in Wildfire Risk

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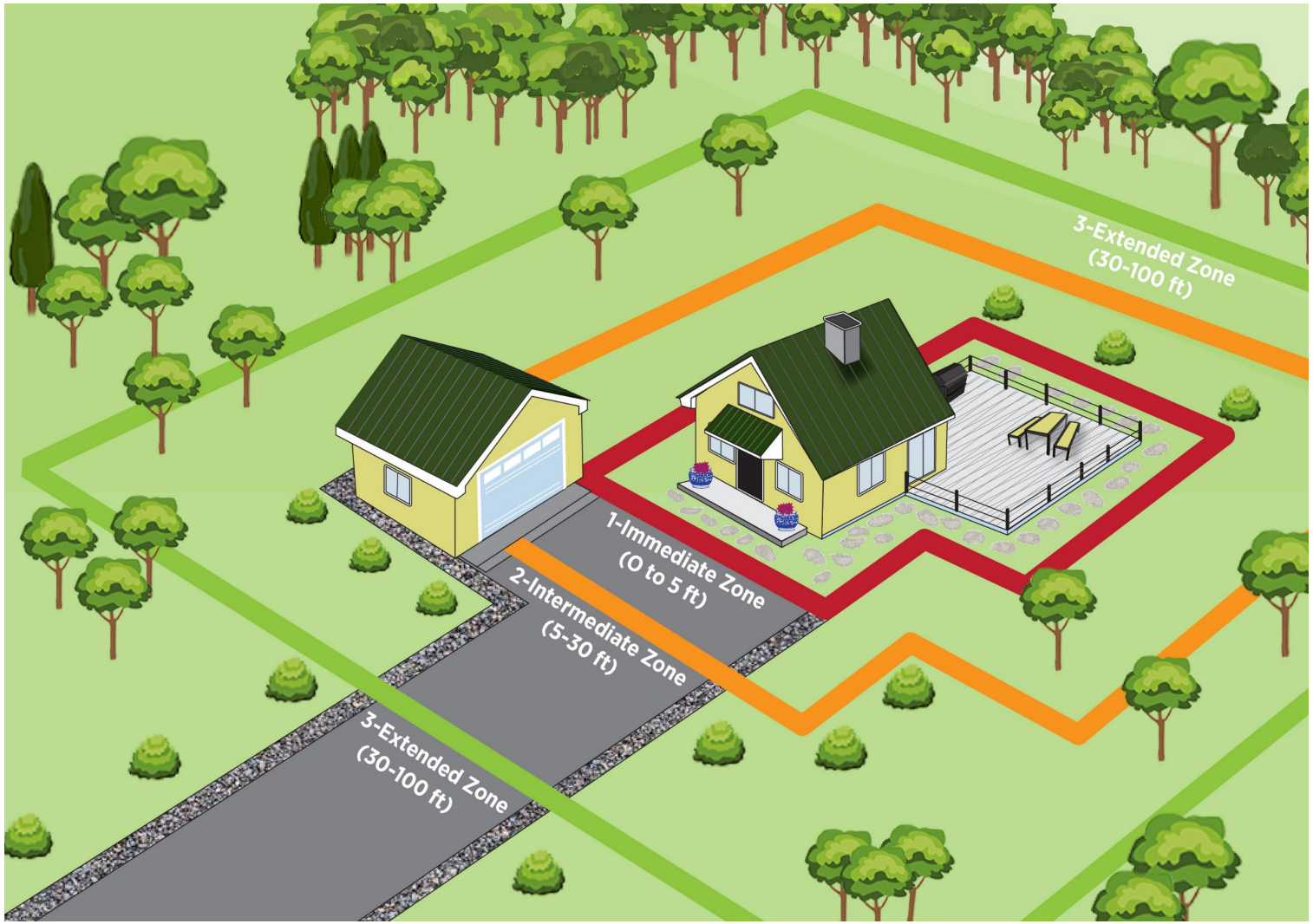
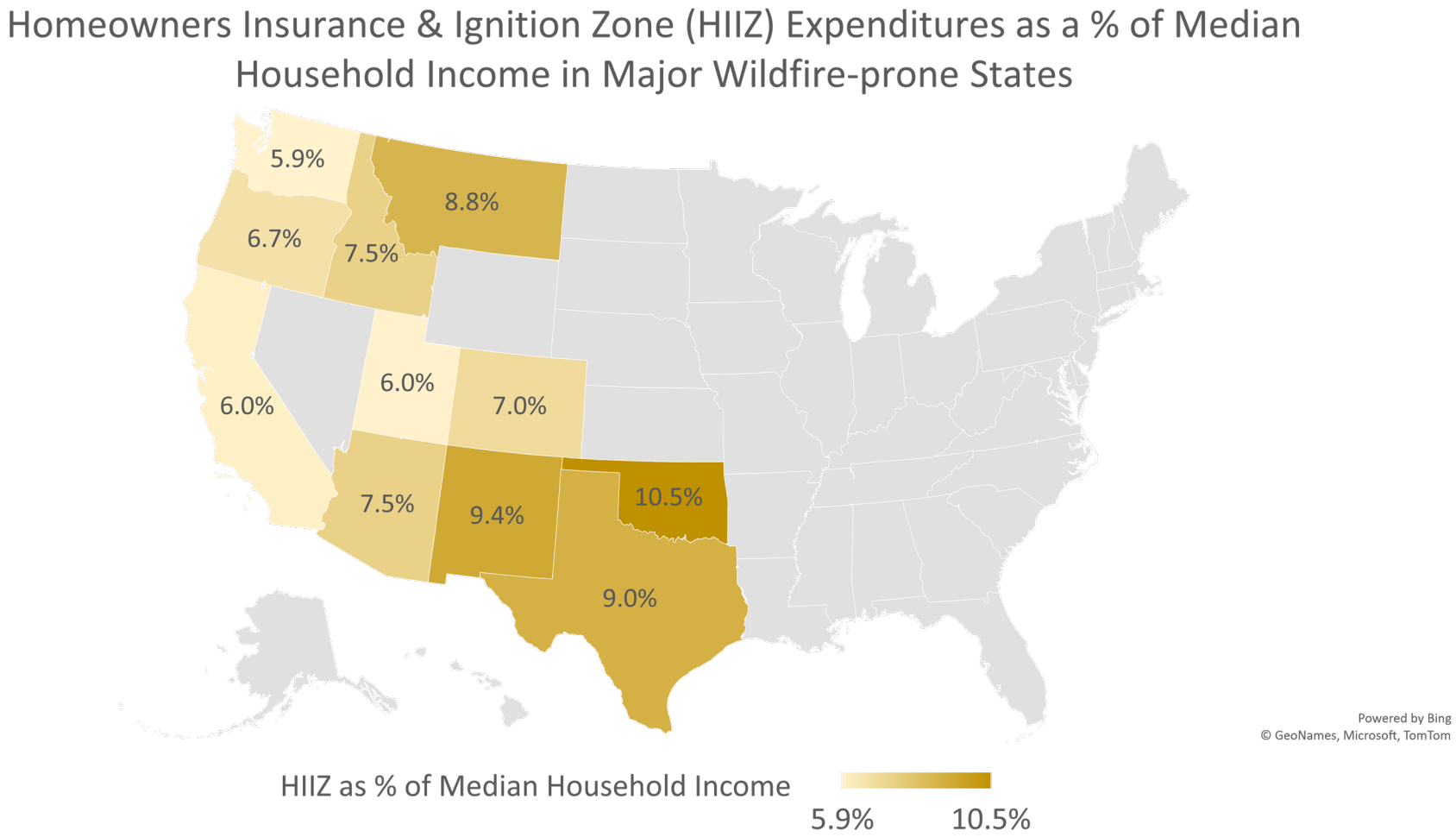
Abstract: The increasing frequency of destructive wildfire incidents in the United States, particularly in the West, is well-documented, and the key causal variables are increasingly well understood. Among stakeholders with heightened concerns about risks from destructive wildfire are insurance companies and the homeowners they insure. The cancellation and nonrenewal of insurance due to wildfire risk has received media attention in the wake of major wildfire seasons, particularly in California. However, less attention has been directed to wildfire-related risks borne by lower-income policy holders, specifically. For example, the probability of maintaining or replacing an at-risk policy increases when a homeowner invests in fire protection measures. However, these investments are comparatively costly for lower-income homeowners. The present research aims to identify regions in the lower 48 states where moderate and high wildfire risk, lower income, and insurability are coterminous risks. The concentration of at-risk homes in counties with comparatively high wildfire hazard potential and comparatively higher poverty rates are considered. This paper also considers how the concentrated market share of insurance underwriting may pose a risk to lower income homeowners, considering the overlap between highly concentrated insurance markets and states

Making the homes more fire-resistant: costs add up



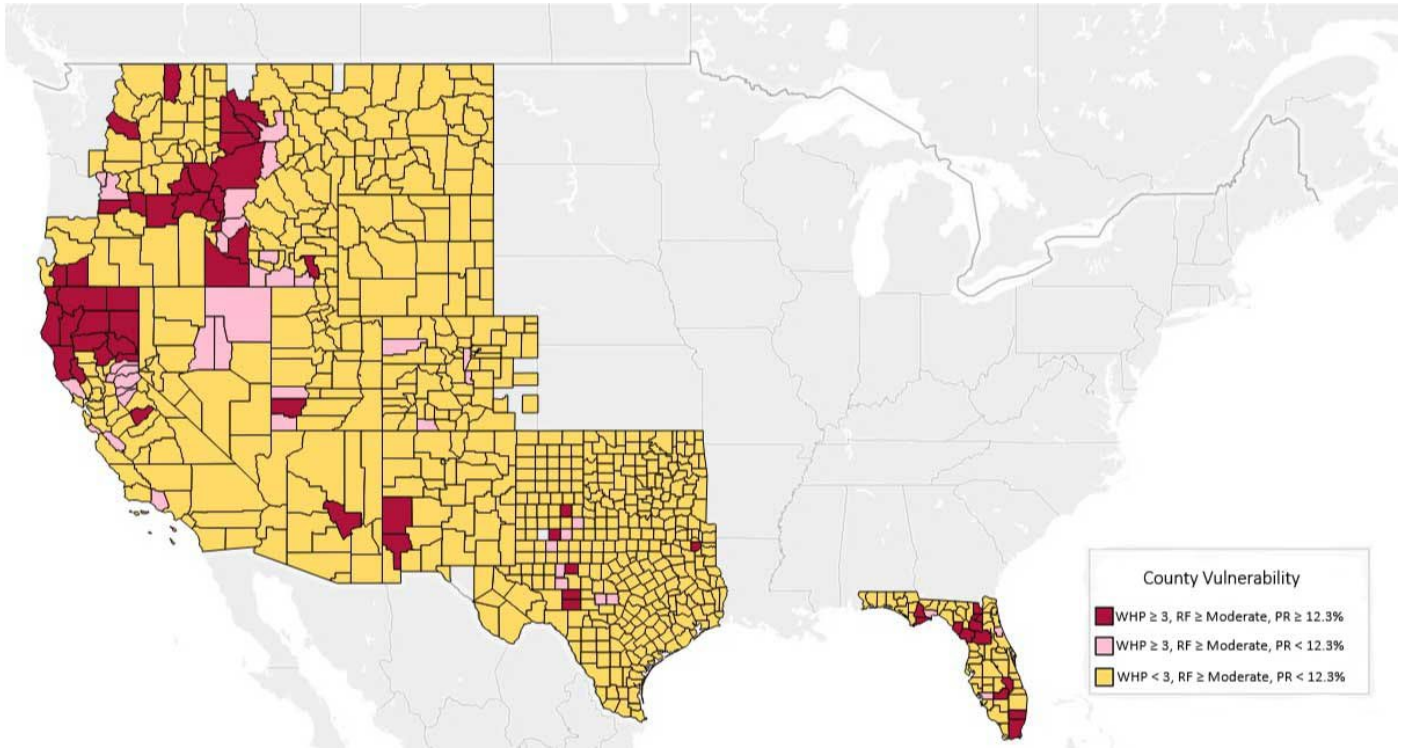
basc.pnnl.org

Wildfire mitigation: comparatively costly in wildfire-prone West and South



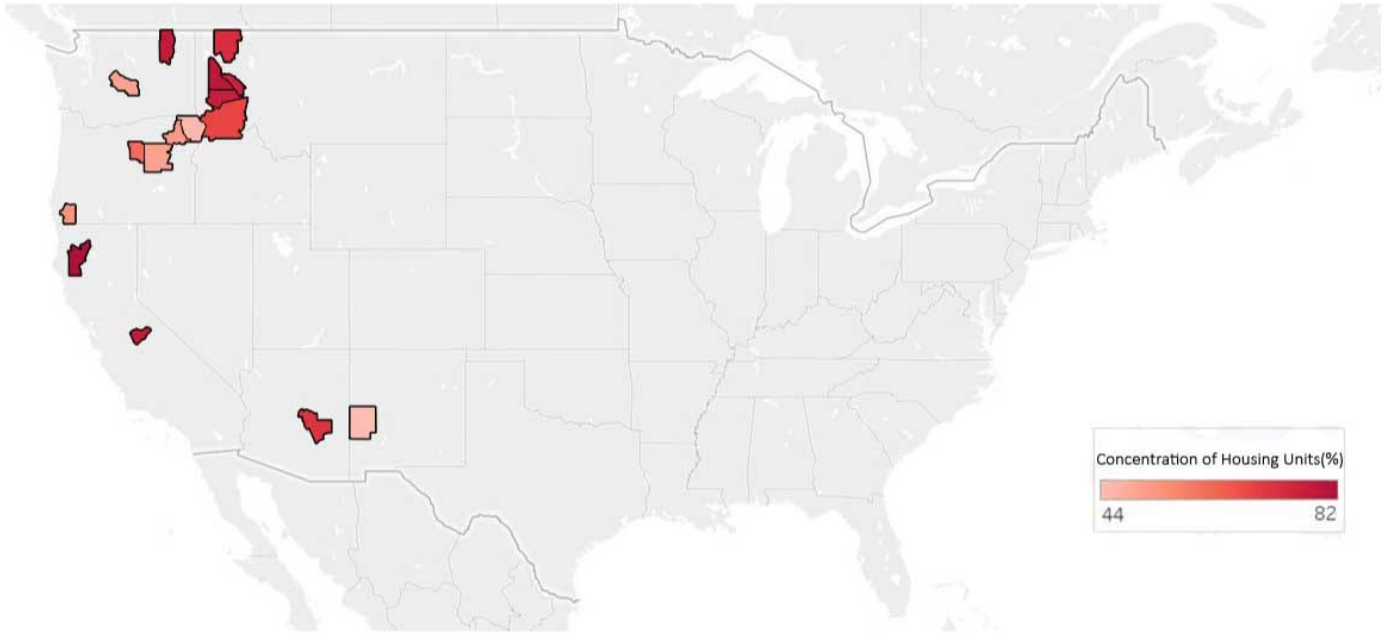
Regional-scale planning: careful which data you use

Higher Wildfire Hazard Potential in Combined Forest Service/First Street Foundation/US Census Bureau Datasets



Regional-scale planning: careful which data you use

Higher Poverty Rate Counties with the Greatest Concentration of Housing Units in Forest Service-designated Moderate-to-High Risk Counties



Regional-scale planning: careful which data you use

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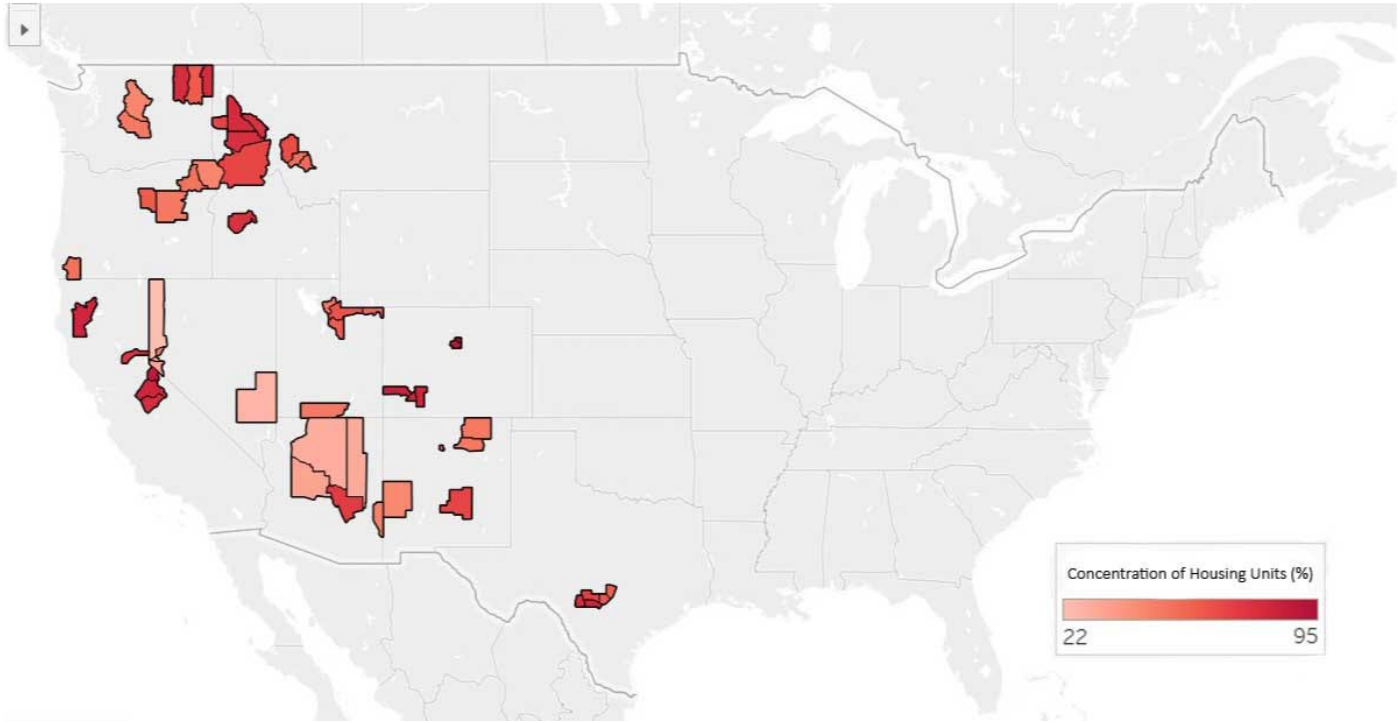
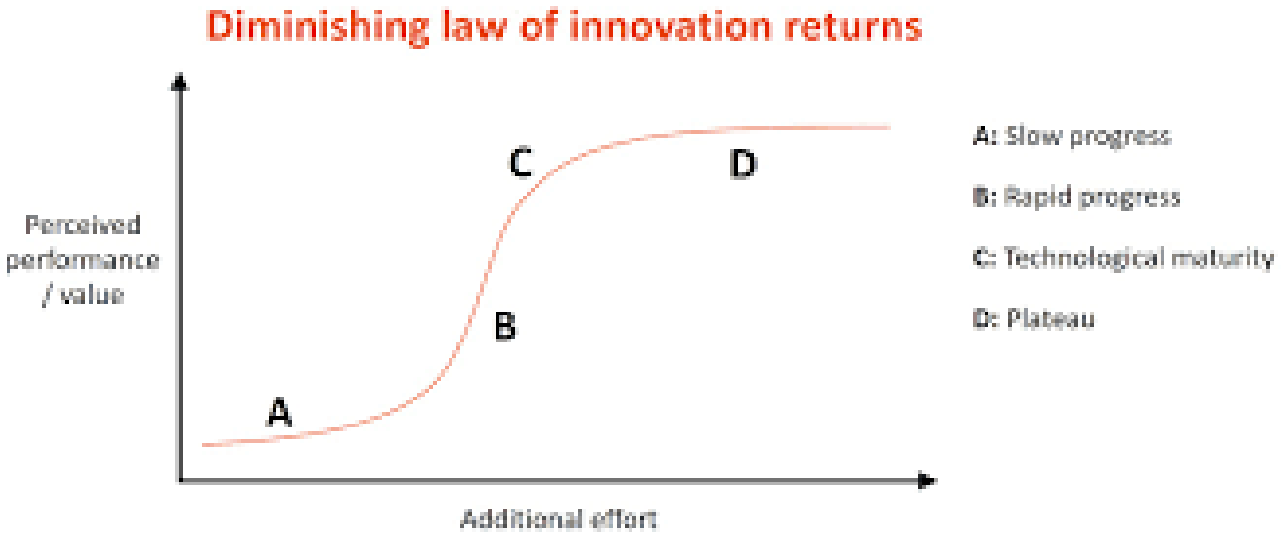


Closing thoughts

- How skillful are we at balancing urgency, complexity, and equity?
  - Understanding risk pathways & estimating risks?
  - Are we properly balancing urgency with accuracy?
  - Are our prescriptions translatable?
  - Are we considering equity?

Credit: npr.org



Credit: Ideatovalue.com

Credit: homeland.technology