The power of incentives: How insurance premiums and availability shape homeowner mitigation decisions

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Main questions or issues that you addressed

How can we rethink risk after such huge losses, for individuals and housing stock and the economy, after the wildfires in Fort McMurray (a $3.6 billion loss) and Gatlinburg (an estimated $1 billion loss)? And how well do we truly understand and rate for wildfire risk?

Location and ecosystem investigated

None specifically - focus is nationwide.

Key findings of your research

Insurance carriers have at their disposal two big levers to back up their mitigation messages and spur action by their customers. The first lever is the provision of insurance discounts to policyholders for performing wildfire mitigation actions, either at the individual homeowner level or community level. While these discounts are not a large amount of money relative to the amount that homeowners typically spend to perform mitigation activities, they serve as a meaningful signal by providing incentive or reward to motivate behavior. The second lever that insurance carriers have at their disposal is the provision of insurance itself. In the private marketplace, insurance carriers are generally free to choose whom to offer policies to and whom to refuse coverage to. This decision on whether to offer or decline to offer insurance coverage can be for homeowners making an initial inquiry to quote coverage, or it can occur at the policy renewal for existing customers, most often annually.

How did you answer the main questions or inform the issues?

Conceptually, the cost of protecting a home or other structure is reflected in the insurance premium that is paid by the property owner. This premium should reflect both the likelihood of ignition or smoke damage and the cost to repair or remediate the damage. Insurance premiums, however, fail to capture the full economic cost of protecting structures built in areas exposed to loss from wildland fire. The main reason for this is the presence of fire response efforts. No organization actively "puts out" a tornado or earthquake or tropical storm, but agencies do put out wildland fires. These suppression efforts play a large role in determining whether a particular structure ignites and suffers a loss. However, fire response resources are typically supported through taxes and fees to local homeowners, and therefore they act (inadvertently) as a subsidy for insurance premiums. If an insurance carrier does not pay a claim on the property because a potential loss has been avoided through the efforts of fire response, then the claim does not flow through to and affect their actuarial indications, which are used to set premiums.

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HOW MIGHT/WILL IT INFLUENCE FIRE MANAGEMENT DECISIONS OR PRACTICES?

Since historical losses are used as the basis for setting insurance premiums to cover expected losses from wildland fire, and since suppression efforts prevent many structures from suffering economic losses, insurance premiums tend to under-represent the true economic costs associated with construction in areas prone to wildland fire. This directly reduces the power of offering insurance discounts to spur mitigation activities by property owners. In addition, often the governmental agencies responsible for suppression are not connected with the agencies responsible for land use planning and development. As a result, the governmental agency responsible for approving new construction in areas with high exposure to wildland fire may not fully incorporate the total cost to government of providing fire response services to those property owners. When these two factors come together in a community — the inadequacy of insurance premiums to account for the full exposure to loss from wildland fire, and the failure of governmental land use planning agencies to fully account for the costs of providing response capabilities — the result can be greater development in high-risk areas than would otherwise occur.

WHO IS THE MAIN END-user OF YOUR RESEARCH?

Finding the best way to bring the insurance industry into the set of key stakeholders at the national, regional, and local level will vary greatly. A great place to start engaging with the insurance industry is through trade associations that represent a large segment of the insurance carriers as well as through governmental agencies tasked with regulating the insurance industry in your jurisdiction. Umbrella organizations such as the International Association for Wildland Fire (IAWF) and the National Fire Protection Association (NFPA) are also great resources that can assist in bringing stakeholders together. Once engaged, a great first step is to identify common interests: namely, working together to prevent the loss of life and property from wildland fire while recognizing the integral part that wildland fire plays in many ecosystems. Just as government agencies and fire departments may not sense the role of insurance, many insurance carriers also lack the line of sight connection to all of the relevant stakeholders and are not familiar with efforts to coordinate actions in pursuit of common goals such as the Cohesive Strategy in the United States. Thus, a discussion of shared objectives between stakeholders that identifies areas of mutual interest and benefit will help greatly to better coordinate activities from traditional stakeholders as well as the insurance industry. By working together towards these common objectives, traditional stakeholders can benefit from the powerful levers that insurance carriers have at their disposal to motivate action by homeowners to help create fire adapted communities. Additionally, through coordination of efforts, less time will be spent by insurance carriers and government agencies in a back-and-forth discussing of the insurability and proper mitigation of individual properties to retain insurance coverage, and more time providing a consistent message to property owners. And a core element of this message — that effective fire response may undercount the full economic risk of development in fire-prone areas — is a message we all need to learn, share and put into practice.

CONGRESS SESSION

Policy Issues