STATE OF EMERGENCY: EXAMINING THE IMPACT OF GROWING WILDFIRE RISK ON THE INSURANCE MARKET

HYBRID HEARING

BEFORE THE

SUBCOMMITTEE ON HOUSING,
COMMUNITY DEVELOPMENT,
AND INSURANCE

OF THE

COMMITTEE ON FINANCIAL SERVICES

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STATE OF EMERGENCY: EXAMINING THE IMPACT OF GROWING WILDFIRE RISK ON THE INSURANCE MARKET

Thursday, September 22, 2022

U.S. HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON HOUSING,
COMMUNITY DEVELOPMENT,
AND INSURANCE,
COMMITTEE ON FINANCIAL SERVICES,
Washington, D.C.

The subcommittee met, pursuant to notice, at 9:07 a.m., in room 2128, Rayburn House Office Building, Hon. Emanuel Cleaver [chairman of the subcommittee] presiding.

Members present: Representatives Cleaver, Green; Hill, Posey, Huizenga, and Rose.

Ex officio present: Representative Waters.

Chairman CLEAVER. The Subcommittee on Housing, Community Development, and Insurance will come to order.

Without objection, the Chair is authorized to declare a recess of the subcommittee at any time. We may have to do that because votes are expected shortly.

Also, without objection, members of the full Financial Services Committee who are not members of this subcommittee are authorized to participate in today's hearing.

Today's hearing is entitled, "State of Emergency: Examining the Impact of Growing Wildfire Risk on the Insurance Market."

I now recognize myself for 4 minutes for an opening statement.

The National Interagency Fire Center indicates that five large new fires were reported: one in Kansas, next door to my State of Missouri; one in Montana; one in Oklahoma; one in Texas; and one in Washington. Currently, 97 active large fires and complexes across the country have already burned more than 900,000 acres in 8 States. In response, more than 11,000 wildland firefighter and supportive personnel are assigned to respond to these wildfire incidents across the country.

Americans today are fighting to save their family's homes, businesses, and communities from fire. And make no mistake, the threat of wildfire is growing. Between 1980 and 2022, 20 wildfire billion-dollar disaster events affected the United States. Sixteen of these incidents occurred in 2000. Most recently, the 2021 Dixie Fire consumed over 960,000 acres, making it the second-largest wildfire on record in California, while also destroying more than 1,000 structures. In Colorado, the December 2021 Marshall Fire in Boul-

der County was the most destructive on record in the State's history.

We find ourselves in what some are calling an era of the megafire, extraordinary fires in terms of size, in terms of intensity, and in terms of cost to taxpayers and private industry. These megafires set aflame everyone and everything in their path, but they still disproportionately destroy low-income neighborhoods, and they put in jeopardy low-income families and communities who have the least resources to prepare and respond to them.

We as a nation have and always will have to manage wildfire risk. Unfortunately, due to climate change, scientists predict more megafires in our future. The central question for this hearing is, how do we coexist with wildfire risk? How do we as a country adapt and become more resilient to the growing wildfire threat? And wherever possible, how do we reduce or avoid risk altogether?

And the insurance industry is a piece of this equation. For decades, the insurance sector has continued to underwrite industries and practices that exacerbate climate change and increase exposure levels for their own investment. That is a problem. But the insurance industry is also a part of the solution. Insurers have a plethora of data that can help public and private stakeholders better understand the climate-related risk and can be used in climate-specific stress testing.

In my nearly 20 years in Congress, I have seen these issues with flood insurance and other climate-related perils. My fear is that the wildfire crisis becomes a systemic issue, one where the temporary solutions put forward by State regulators collapse under increased risk. Insurance is primarily a State issue, and States across this nation are grappling with the growing wildfire risk.

During this hearing, we want to know how regulators in the insurance sector are managing this risk in the short term, and if the long-term solutions proposed are viable solutions. And we want to know what the insurers are doing to make sure that American families and communities can recover once disaster strikes. So, I look forward to this hearing and the recommendations.

I now recognize the ranking member of the subcommittee, Mr. Hill, for 5 minutes for an opening statement.

Mr. HILL. Thank you, Mr. Chairman. I appreciate the chance to be with you today, as always, and I am very interested in this topic. It may be the first time the Financial Services Committee has ever held a hearing on the threat of wildfires and the role of insurance since this committee formally became the Committee on Financial Services in the 106th Congress.

Wildfires are, of course, a real challenge and a severe problem, particularly in some regions of the country, and it's certainly worth the time for us to explore and discuss what we are doing right and what we are doing wrong in various aspects of public policy in order for our citizens to better prepare for coping with and dealing with this devastating risk.

Statistics show that over the last 20 years, an average of about 7 million acres per year across the country have been burned by wildfires. Over the decades, that varies with rainfall, obviously. For example, in Arkansas, after the past 9 years of being extremely wet, we are having our first dry year. And, in fact, if you look at

that rainfall, for those concerned about and aware of climate change, rainfall is actually increasing all over the country. We have record rainfall now compared to the period of 1958–1998 in my home State.

An estimated 4.5 million properties are at high or extreme risk from wildfires, and nearly half of those, over 2 million, are in the State of California, which has 3 times as many as the second-most risky State, Texas.

The Chair said that States bear the brunt, and State policy bears the responsibility for insurance, and California in many ways, in my view, represents the absolute worst of the problem. The local market for insurance, which we will get into later, is not impressive. And wildfires are by no means just concentrated out West.

As my colleague from our Arkansas delegation, Bruce Westerman, who is the ranking member on the House Committee on Natural Resources and the only licensed forester in Congress, has said, we have quite literally loved our trees to death through mismanagement, which has led to insect infestation, overstocked stands, and dead and decaying trees. And this is a particular crisis in the Rocky Mountains and the coastal West.

The solution is not unsurprising: the adoption of sound forest management policies. Plus, in addition to that, better land management, public land management, better local land use decisions, and responsible development would all predictably reduce risk.

But prevention is only half of the battle, and that is why we are here today. We also need to make sure that we are making smart financial decisions so that individuals and businesses across the country can access and have the affordable insurance they need to protect their property. Insurance is just a tool and one that works only when the fundamental principles of risk pricing and competitive enterprise are followed.

In the most basic terms, you want lower rates? How about creating an environment of lower risk. And as we have witnessed in energy and water policy, forest management practices, and now in insurance, California is no place to emulate, and, in fact, is a cautionary tale of what not to do.

Instead of allowing premiums to correspond to risk, California has layered on price controls, on top of mandatory coverage, on top of automatic renewals. All of that means that it is losing money and it doesn't add up. And who is hurt? People who are insured.

For a State that claims to be a bold leader on climate change, its regulations literally prevent insurers and policyholders from taking the future risks of rising temperatures into account. And, in fact, too many homeowners are left in the lurch, needing coverage that isn't available in amounts or at prices they want. And outside insurers know better than to invest in California, a market built on unfair rules. That is a painful and costly exercise and one that we will explore today.

But, Mr. Chairman, better insurance markets occur when you send smart pricing signals to poorly-considered municipal and county zoning land use and development practices, which is no doubt a big part of why insured losses in California are larger than they should be.

I thank my friend, and I yield back.

Chairman CLEAVER. The gentleman yields back.

Witnesses who are here today, we welcome you; and those of you who are with us virtually, we appreciate you giving us your time today.

Our witnesses are: Matthew Auer, the dean of the School of Public and International Affairs at the SCC, School of Georgia; Amy Bach, the executive director of United Policyholders; Ricardo Lara, the California Insurance Commissioner; Roy Wright, the president and CEO of the Insurance Institute for Business & Home Safety; and Rex Frazier, the president of the Personal Insurance Federation of California.

Witnesses are reminded that their oral testimony will be limited to 5 minutes. You should be able to see a timer that will indicate how much time you have left. I would ask that you be mindful of the timer so that we can be respectful of both the witnesses' and the committee members' time.

And without objection, your written statements will be made a part of the record.

We are probably going to have some little technical issues because many of you are not going to be able to see the timer. So I will, unfortunately, have to tap on the desk so that you will be given a caution that the time is almost out.

Mr. Auer, you are now recognized for 5 minutes to give an oral presentation of your testimony.

STATEMENT OF MATTHEW R. AUER, DEAN OF THE SCHOOL OF PUBLIC AND INTERNATIONAL AFFAIRS, UNIVERSITY OF GEORGIA

Mr. AUER. Good morning, Chairman Cleaver, Ranking Member Hill, and members of the subcommittee. I am Matthew Auer, dean of the School of Public and International Affairs at the University of Georgia's School of Public and International Affairs.

I began a career in forestry and environmental policy in the 1990s. Back then, policy experts predicted that climate change would challenge how insurance companies typically model and price risk when they underwrite insurance policies. Ample, reliable data tell us now that climate change, including increased heat, extended drought, and lower humidity in Western States is a major driver of wildfires. As predicted, these environmental changes are playing havoc with insurance markets, and this affects everyday policyholders, including lower-income homeowners.

Graduate student Benjamin Hexamer and I wanted to gain a clearer sense of which homeowners are at particular risk in the most wildfire-prone States. We found that 60 percent of counties with moderate to high wildfire risk in the most wildfire-prone States also have a poverty rate exceeding the national poverty rate. Hence, the majority of homes in the most at-risk counties in Western States and in Florida are in areas with comparatively higher poverty rates.

Increasingly, insurance companies, as well as State and local authorities, require homeowners to adopt fire safety measures. For some homeowners, this is a condition for a new policy rule for renewal of coverage. This can pose hardships for lower-income homeowners. If an insurance company were to require a policyholder to

implement wildfire safety measures including, for example, removal of branches or of whole trees overhanging a roof, those costs can add up. Consider that a premium for $250,000 worth of dwelling coverage in New Mexico is around $1,900, which represents over 6 percent of median household income in a county like Mora, County, New Mexico. Mora was one of the counties hit by this year's Hermits Peak and Calf Canyon fire, the largest wildfire ever recorded in New Mexico.

Federal assistance will continue to loom large for the most at-risk communities. Consider that the State of California is currently distributing FEMA funds in a pilot project called the California Wildfire Mitigation Program. Communities selected for assistance have higher concentrations of people over the age of 65, residents with disabilities, people living in poverty, and populations with limited English proficiency or a lack of access to a car.

This is a cost-share program. FEMA pays up to 75 percent of the cost for eligible mitigation projects. The State has made a 25-percent match at the local level. In some parts of the country, the match is not always possible. And communities, including Tribal communities, frequently lack adequate staffing to implement the grant. These problems could be alleviated by more consultation between FEMA and States about which communities to serve and the provision of adequate funds to ensure staff hiring and training.

FEMA-supported programs like the California Wildfire Mitigation Program, and Safer from Wildfires, an initiative spearheaded by California's Insurance Commissioner Ricardo Lara, are designed not only to directly help homeowners make their homes safer, but also to inspire insurance companies to reenter the market. These programs could shift the insurance industry's thinking, transforming risk into opportunity. Nevertheless, even as insurance and reinsurance companies become more proficient at estimating risk, the advantages will be less profound for lower-income homeowners and renters, particularly if better risk forecasting means higher premiums and lower coverage limits.

When it comes to protecting the most-vulnerable communities in harm's way, present and future funds authorized by Congress are essential. Indeed, Congress has made programs like the California Wildfire Mitigation Program possible. All of the relevant trends indicate that today's pilot programs to harden homes and create defensible space, supported by Federal agencies, will need to evolve into longer-term sustained programs that help underserved communities with fire safety measures in local States.

I wish to thank the committee for their attention to this important matter, and for inviting me to today's hearing.

[The prepared statement of Mr. Auer can be found on page 24 of the appendix.]

Chairman CLEAVER. Thank you very much.

Ms. Bach, you are now recognized for 5 minutes to give us an oral presentation of your testimony.

STATEMENT OF AMY R. BACH, CO-FOUNDER AND EXECUTIVE DIRECTOR, UNITED POLICYHOLDERS

Ms. BACH. Good morning, Chairman Cleaver, Ranking Member Hill, and subcommittee members. Thank you so much for the op-

portunity to address the subcommittee on a matter of national importance.

I represent an organization, a 501(c)(3) based in California that informs and helps consumers throughout the country. For over 30 years, we have been working to make the insurance system work for the consumers who pay premiums and deserve fair treatment and the financial safety nets for which they have paid. We have extensive experience with wildfires and insurance markets in California, New Mexico, Texas, Washington, Oregon, Colorado, and Arizona.

And you have the right people in the room here. My organization has been working very closely with four of the witnesses here. Rex Frazier has been speaking on behalf of the insurance industry's perspective on these issues for many years. And then, of course, Ricardo Lara is a very strong leader and a very, very good partner, as is Roy Wright and his organization with the research and the work they are doing. So, we have all locked arms to really tackle the situation that is before us today.

In recent years, my organization has had to shift our focus in wildfire-prone areas from educating consumers about not just shopping for the cheapest policy, but actually buying the coverage that is going to really be there for them. We had to shift from that to helping people find any option. And in many counties throughout California, and increasingly in Colorado and also Oregon and Washington, consumers are now having no choices, no options for insuring their homes and small businesses other than limited and expensive protection through the California FAIR Plan or residual markets in those other States.

And just as insurers have dramatically reduced the number of homes they are willing to voluntarily cover in California, private market options in these other States appear to be shrinking. But with our hardworking partners, the Commissioners of both California and Colorado, we are doing everything we can to fix the situation. As Professor Auer noted, this is a long-range game here, not for the short term.

Through a Wildfire Risk Reduction and Asset Protection workstream, we have for the last 2 years been having monthly meetings with people from all over the country and the States who are working in this space to promote home hardening, defensible space, and community-based programs to help people limb trees, change out their roofs, take away fire hazards around their homes, et cetera. And we are making a lot of progress.

This year, we saw very significant progress with—the Insurance Institute for Business & Home Safety (IBHS) is putting out their standard of Safer from Wildfires, an initiative putting out their standards. And now, we are all on the same page to address what Rex had flagged years ago, which is a skepticism on the insurance industry's part that you can actually move the needle. But we can move the needle. We can reduce wildfire risk, and we are doing it. There is a lot of really good work going on.

My written testimony goes into the details of how this all came about, and it does relate to a combination of unfortunate circumstances. It is not just one thing, which is why we need not just one solution, right? It did start somewhat with the tree mortality

crisis. But again, when you look at how insurance companies make decisions, and you look at what has happened in Florida, it is really—I understand concerns about regulation, but it is really not that.

If you ask people in California if they think there are price controls in place, they will say, "What are you talking about? I am getting hit with $9,000-a-year premium notices." So, it is really more. It is deeper.

Insurance companies are highly-sophisticated professional gamblers. They will take risks in return for money, but only to a degree. Obviously, climate change has caused a lot of concern, and that concern is being exacerbated by all of the tools that insurers are now using, including risk scoring tools and analytics.

And just in conclusion, what do we want to see here? More funding and technical assistance for home hardening and defensible space. We need insurers to reward and incentivize risk reduction through renewal rewards and discounts to those who have reduced risk. We need strengthened, well-run insurers of last resort. We need assistance to residual market property insurance programs similar to what the Florida Hurricane Catastrophe Fund is doing in Florida to try to restabilize that market.

I thank you so much for your time and attention. And I will conclude now.

[The prepared statement of Ms. Bach can be found on page 41 of the appendix.]

Chairman CLEAVER. We thank you very much for your testimony, Ms. Bach.

Commissioner Lara, you are now recognized for 5 minutes to give an oral presentation of your testimony.

STATEMENT OF RICARDO LARA, CALIFORNIA INSURANCE COMMISSIONER

Mr. LARA. Thank you.

Good morning, Subcommittee Chairman Cleaver, Ranking Member Hill, and esteemed members of the subcommittee, and thank you for having me virtually speak to you all today. I also want to personally thank Full Committee Chairwoman Waters for her invitation for me to be part of this hearing and for the overall attention given to this important issue of insurance availability/reliability due to continued, climate-intensified wildfires.

As the elected insurance commissioner of the nation's largest insurance market, I have taken significant steps to safeguard the availability of insurance for consumers and to maintain a competitive insurance market, granted by the California voters in passing Proposition 103 back in 1988. Proposition 103 allows for insurance companies to request rates that are adequate to pay future claims, again, while giving me, as the insurance commissioner, the authority to protect consumers from excessive or unfairly-discriminatory rates.

In December of 2019, I implemented a moratorium law that I proudly authored while I served in the California State Senate, which protects wildfire survivors by preventing insurance companies from nonrenewing policies for those living adjacent to a declared wildfire emergency for a total of 1 year, recognizing that it

is absolutely critical to give consumers some breathing room after a wildfire disaster. Even if they don't lose their home, they might have lost a neighbor, a friend, or a loved one. And my action also gives insurance companies a chance to assess so that they are not so quick to drop their longtime customers. To date, since 2019, I have protected more than 4 million residential policies from nonrenewal by their insurance company.

For years, California and other like-minded States have warned repeatedly to prepare for the impact that climate change is having on risk and our ability to prepare for it. At the National Association of Insurance Commissioners (NAIC), I co-Chair its Climate and Resiliency Task Force with my fellow insurance regulator from Florida. Wildfires, wildfire smoke, flooding, and heat waves do not respect State borders, so we have to work together as State-based regulators of insurance through the NAIC.

I am also proud to be creating an historic sustainable insurance roadmap with the United Nations' Principles for Sustainable Insurance initiative, which will outline key actions that regulators and insurance companies need to take to protect consumers, and to create a more sustainable insurance market in a time of intensified climate risks. Otherwise, insurance companies that threaten to withdraw from wildfire risk regions of California or any State defy the central purpose for insurance: to incentivize home hardening behaviors that will reduce the risk at the end.

That is why I created the first-in-the-nation insurance pricing regulation after 3 years of stakeholder engagement, and in partnership with California's emergency preparedness agencies, which would require all insurance companies to recognize and reward wildfire mitigation efforts made by homeowners and businesses, such as upgraded roofs and windows, defensible space, and living in Firewise communities.

Transparency is another important benefit of my regulation, requiring insurance companies to provide consumers with their property's risk score and to give them a right to appeal that score. I have also advocated for increased State budget funding to help residents and businesses pay for mitigation efforts necessary for them to retain their insurance coverage.

I believe funding for pre-disaster mitigation for local communities is critical, and I commend Congress for passing the Inflation Reduction Act earlier this year, which includes critical funding for hazardous fuel reduction and community resilience and risk mitigation projects. Every dollar of premitigation saves $5 to $7 in avoided future insurance loss, helping make insurance more available and affordable.

And I know you are all familiar with the residential, "insurer of last resort" market, known as the FAIR Plan in California, which will cover you if no insurance company will. Because of an increase of nonrenewals in the Wildland Urban Interface, I have worked to modernize the FAIR Plan by ordering it to provide consumers with increased homeowner and commercial policy coverage limits, as well as offer more comprehensive property coverage options, again, to protect what is, for most of us, is our largest financial safeguard: our homes.

I am committed to continue to look at how we give insurance companies tools to better manage risk so that we can maintain competition. However, there must be a firm commitment from the voluntary insurance market to provide and maintain insurance, especially to our most vulnerable. As you know, many rural residents in our States are retirees and on fixed incomes, working people, and those pushed out of the urban core.

Again, Mother Nature is the best advocate we have on climate change as well as the wildfires. I look forward to having this discussion with you. Thank you again for the opportunity to testify, and I would love to answer your questions when it is appropriate.

[The prepared statement of Mr. Lara can be found on page 47 of the appendix.]

Chairman CLEAVER. Thank you very much, Mr. Lara.

Mr. Wright, you are now recognized for 5 minutes to give an oral presentation of your testimony.

STATEMENT OF ROY E. WRIGHT, PRESIDENT & CEO, THE INSURANCE INSTITUTE FOR BUSINESS & HOME SAFETY (IBHS)

Mr. WRIGHT. Good morning, Chairman Cleaver, Ranking Member Hill, and members of the subcommittee. I do appreciate the opportunity to join you today.

Wildfires have always been part of the American landscape. Yet, the intensity and frequency of wildfires barging into the lives of our families—well, there is more of that coming. I work at the Insurance Institute for Business & Home Safety (IBHS), which squarely focuses on the collision of wildfire in the built environment when wildfire attacks and consumes our homes and communities.

The compelling videos of flames on the nightly news are usually the first wildfire images that come to mind. Yet, most buildings ignite because they are attacked by flying embers, some of which might be as small as the spark you see when you are roasting a marshmallow. Many are the size of your thumb, and it is common to see ones the size of the palm of your hand. Yet, those embers don't just spray forward a few feet. We regularly see embers lofting for a half mile or more, landing, smoldering, and igniting fires.

Wildfire disasters play out differently than floods or wind disasters. Unique to wildfire, the buildings that are hit by embers and ignite become part of the fuel. Instead of dissipating the way you think of flood waters, once a home ignites, that home becomes an amplifier of the disaster. The inflamed home becomes more fuel that further intensifies the damage across the community.

Work on forest management and ignition sources is critical, but we cannot eradicate wildfires from across our landscape. We need to narrow their path of destruction within our communities.

IBHS has pulled the scientific pieces together for home wildfire resilience. The Wildfire Prepared Home needs to address three fundamentals: first, the roof; then, building features like vents; and defensible space. And once all of those are finished—and collectively, it is all three of those pieces—then you turn to additional measures like fencing, noncombustible siding and closed eaves, deck materials, windows, and sheds. The most transformational piece amid all of this defensible space.

We discuss defensible space in bands: the first 5 feet; 5 to 30 feet; and 30 to 100 feet. In a suburban context, the 0 to 5, and 5 to 30-foot, are the game changers. Consumers need to embrace a new view of home landscaping: nothing flammable within 5 feet of your structures. No bushes or trees, no plastic bins or cans, no wooden gates. We can make this aesthetically attractive, yet all homeowners who are within the reach of those flying embers need to reimagine the 5 feet closest to their home. Nothing in that space can burn. Nothing in that space can be hospitable to the wildfire embers that can land, smolder, and ignite.

While we can start at the parcel level of an individual home, wildfire risk requires us to take action at the community scale too. Only when entire neighborhoods take these resilient actions through collective action and stronger codes we will be able to truly bend down the risk of wildfire conflagration, those really catastrophic days when entire neighborhoods fall like dominoes.

At the point of new construction, these wildfire mitigation techniques require as little at $3,000. But retrofitting a home can be harder. The cost of rescaping closest to your home varies. Some have little work to do and others have significant changes to make. And the emotional attachment to the look of your home, well, we can all imagine that.

It is not just IBHS. Others, like the California Department of Insurance, consumer groups, the insurance industry, and the fire services are using the same wildfire science in their work. Speaking with a common voice will affect far more change.

None of this is free. We can't in one breath say the climate is changing and making wildfires worse, and in the next breath say, I want the cost of building and insurance to be cheaper. The changing climate has a cost. For those who can afford to take those actions themselves, we need to nudge them to do so. Others on the panel will speak to the insurance pricing of the risk. However, the cost of mitigating for wildfire cannot be viewed solely through the lens of insurance premiums. Like energy efficiency tax credits, we need to see financial nudges to homeowners and drive them to fund their own retrofits.

And when homeowners cannot afford to take the retrofit action themselves, Federal and State grants need to be targeted to help them close the gap. First among those actions: help homeowners change the landscaping closest to their homes to ensure there is not a hospitable area for embers to take hold and ignite.

Thank you, Mr. Chairman. I look forward to your questions.

[The prepared statement of Mr. Wright can be found on page 55 of the appendix.]

Chairman CLEAVER. Thank you very much, Mr. Wright.

Mr. Frazier, you are now recognized for 5 minutes to give an oral presentation of your testimony.

STATEMENT OF REX FRAZIER, PRESIDENT, PERSONAL INSURANCE FEDERATION OF CALIFORNIA

Mr. FRAZIER. Good morning, Chairman Cleaver, Ranking Member Hill, and members of the subcommittee. My name is Rex Frazier. I am the president of the Personal Insurance Federation of California, an association of insurers that provides over 60 per-

cent of the homeowners insurance coverage in California. Thank you for the opportunity to testify today.

Much has changed since 2017, when California experienced over 250 wildfires. That year, there were devastating fires, including the Tubbs Fire, which killed 22 people, destroyed 5 percent of the City of Santa Rosa's housing stock, and resulted in over $11 billion in insured losses. For 2017 and 2018, insurers made claims payments totaling more than the previous 22 years of underwriting profit.

We now have a better understanding of how climate change operates in California. Peak fire season is no longer a predictable part of autumn. Delayed onset of seasonal rains, possibly as late as December, is resulting in longer periods of dry conditions that overlap with the annual Santa Ana, Sundowner, and Diablo wind patterns, which can turn small fires into major disasters. Instead of having a month of this dry, windy overlap, we can now face 2 or more months.

The insolvency of the Merced Property Casualty Company following the Paradise Fire in 2018, has especially driven home the seriousness of the situation.

On the positive side, and with only one exception, all major home insurers active in the California marketplace prior to 2017 remain in the market today. They have worked with Commissioner Lara and the staff at the Department of Insurance on the difficult balancing act of ensuring financial stability while seeking insurance availability and affordability.

Our member companies believe wildfire risk in California is insurable if rates are adequate to match the growing risk. Even when the regular market experiences problems, insurers provide a residual market for all homeowners seeking coverage, called the California FAIR Plan, which involves no government funding.

But much work remains. The first step is to develop standards for insurers to recognize the benefits of home hardening and defensible space. Of critical importance is the research of the Insurance Institute for Business & Home Safety (IBHS). Its Wildfire Prepared Home designation program holds great promise for helping insurers provide better price signals regarding mitigation. This work is timely because the California Department of Insurance recently issued regulations for how insurers must communicate with customers about available mitigation discounts. Insurers will be submitting new filings with the Department soon.

The next step is to advance the science of community-level mitigation. While home hardening and defensible space is important, many wildfires will only be stopped by efforts beyond the individual parcel. So much of wildfire risk relates to bigger considerations, such as the amount of surrounding brush or trees, whether a community is located near slopes, canyons, or wind tunnels, and the amount of access for firefighters to confront a fire. IBHS is researching these dynamics currently, and insurers look forward to studying and incorporating the results.

While mitigation is important, there is another issue that, if it is not solved, will limit the California homeowners insurance market. California insurance regulations must be amended to allow insurers to incorporate forward-looking climate science into their rate filings.

In California, when an insurer submits a rate filing, it must justify its requested statewide premium for future wildfire losses based upon its average annual wildfire losses over the last 20 years. The request cannot consider the location of the insured properties, their proximity to vegetation, or even if the homes to be insured are hardened. It is a calculation with no sensitivity to changing conditions or evolving knowledge.

An insurer is not permitted to seek a higher premium level even if it would like to go into a higher fire-risk area. Under the regulations, that insurer must first sustain high losses and then request permission for a higher statewide premium level. This is not a reasonable expectation. It encourages insurers to withdraw from the highest-risk areas. If an insurer has data to support how a particular area is being impacted by fuel loads or climate change, then it should be able to submit a filing to the Department which explains the risk and quantifies the premiums that will be needed to pay the expected losses in the area.

There is no other State that requires insurers to look back 2 decades to justify its requested premium levels intended to fund future wildfire losses. Without updating the rating system, it is difficult to see how California—

[Audio malfunction.]

Chairman CLEAVER. We obviously have a technical problem.

Mr. Frazier?

Mr. FRAZIER. Yes, sir.

Chairman CLEAVER. I don't want to cheat you out of your last 5 seconds. You have 5 seconds.

Mr. FRAZIER. I just said thank you, sir.

Chairman CLEAVER. Okay. Thank you.

[The prepared statement of Mr. Frazier can be found on page 44 of the appendix.]

Chairman CLEAVER. I thank all of our witnesses for being with us today. We appreciate your testimony.

The Members who are here today—I want to make sure that everybody understands we may have votes called, so I need everyone to be very crisp in your questioning so that we don't waste any time at all. I want to recognize myself now for 5 minutes for questions, and do what I ask all of the Members to do.

Mr. Wright you kind of hit on some issues that are a very deep concern of mine. I have a son who lives in California, and I go out there and get angry when I see where people build their homes.

What actions have insurers taken to respond to the threat of increased economic losses from wildfire disasters, including how insurers are incorporating mitigation and resilience into the business operation?

Mr. WRIGHT. Thank you, Mr. Chairman. I will let others speak to the specifics of how they get to pricing, but I can say with absolute confidence that the mitigation actions that we call for, this collective set of make sure you have a good roof—and the good news is 99.2 percent of Californians already have that—address the vents and then the defensible space. When the risk has changed, insurers will meet people there.

Insurance is supposed to price risk, and to the degree that you can shape that, I think they would meet there.

Chairman CLEAVER. Thank you.

Let's kind of stay on this for a moment, if you will. What actions have insurers taken in terms of the increase in economic losses from wildfire disasters right now?

Mr. WRIGHT. Again, Chairman Cleaver, I think that others, like Mr. Frazier, can get into the specifics of how it is ultimately priced. But I do think that we are seeing people lose their homes, and the cost of rebuilding has continued to go up. And I think that is really the piece that people feel after the event.

Chairman CLEAVER. Okay. Dr. Auer, and Ms. Bach, are there certain parts of the country facing major disruptions to their insurance markets due to wildfire impacts? And what is the outlook for other parts of the country in our future?

Ms. BACH. If I may, sir, thank you, just briefly. In the State of Colorado, for example, there is a pilot program that has been underway in Boulder County where there are a number of insurers participating in that program. And if the homeowner has their home hardened with help from the program, the participating insurers will agree to not drop them. They will agree to keep them as a customer.

So, we know that can work, but we also know that, in Colorado, where you see—it is just like what you saw in Florida, where if you see a pattern of a number of years where there is a bad hurricane, that is going to really affect the market, right? We saw it in Florida. We see it in California. We are seeing it in Colorado. We see a series of wildfires, and insurers get the jitters. Understandably, they react. The regulator tries to calm the situation, and the rest of us are doing everything we can to help.

You really can't unbuild the homes that have been allowed to be built in these areas, so you just have to work with the built environment as it is. And, again, I think the real challenge is getting insurers to get on the train with the rest of us and say, yes, we are not powerless here. There is a lot we can do and we have to help people do it. And we have to incentivize them.

And that is where we really need the insurers to do what they have been doing in wildfire-prone areas, where they reward people for roof tiedowns, and they reward people for elevating their homes, with preferred pricing.

Chairman CLEAVER. Yes. But is education one of the issues? When I was growing up, you would turn on the TV and Smokey Bear comes up and talks to you. And I haven't seen Smokey in recent years. I don't know if he died or what.

But the issue is, for me, what can we do in terms of education—85 percent of these fires are a result of human activity, not lightning, so there is something that we are not doing, that we must begin to do. Anyone?

Mr. AUER. Thank you for that good question. The efforts, I think, that Commissioner Lara has initiated with Safer from Wildfires, not only technical issues of home hardening and defensible space at the individual homeowner level, but in addition and consistent, I think, with some of the testimony that we have heard here, there usually is a community or neighborhood-level dimension to these initiatives. And that would be true, for example, of the U.S. Forest Service's Community Wildfire Defense Grant program. Some of the

FEMA grants that I mentioned before with their Hazard Mitigation Assistance programs generally have a direct educational component. Moreover, all over the country there are these community wildfire level plans that have been put in place over the past 10 or 15 years which also focus on education.

Chairman CLEAVER. Thank you very much.

I now recognize the ranking member of the subcommittee, the distinguished gentleman from Arkansas, Mr. Hill, for 5 minutes.

Mr. HILL. Thank you, Chairman Cleaver. And again, thank you to the panel for bringing your expertise, albeit virtually. We miss seeing you in person.

Mr. Wright, has your organization testified before the State legislature in Sacramento or gone to zoning or local planning districts in California and argued against people building houses in places they should not?

Mr. WRIGHT. We have appeared at the State legislature and at the local level. And while we have not gotten into the specifics of where you choose to site the house, we have aggressively advocated, however, that wherever you need to build, you must build in a way that can narrow the path of wildfires.

Mr. HILL. And do you think that local planning and building specs in California reflect your recommendations?

Mr. WRIGHT. For brand new construction in the highest area of concern, the answer is yes. California leads the way on the building code. We, though, would say they too narrowly apply it, and more homes need to be built to that higher standard to be able to withstand it. One additional piece is that defensible space has to be maintained year after year after year, so that is not a new construction.

Mr. HILL. Thank you for that.

Commissioner Lara, with a $300-billion surplus in California, what is California doing to help low-income residents on this mitigation piece? Not the insurance piece you are responsible for, but just that county support of mitigation. And do you believe that zoning in California is not done appropriately, from a public safety point of view?

Mr. LARA. Thank you, Mr. Hill, for that question. We have seen the legislature and the governor put a record amount of money into fighting these wildfires, everything from working on creating incentive programs to helping people rebuild as quickly as possible. Additionally, providing incentives and funding so that people have the opportunity to mitigate against these wildfires, which is critical.

I would just say, we should have done this before, but, fortunately, we have the money now to do this.

Mr. HILL. Okay. Thank you, Commissioner. I appreciate that.

Because one of my concerns is that the FEMA flood program encourages people to build where they should not build. Let's face it. And I believe that land use planning in California does the same and, therefore, it puts you as the commissioner in direct conflict, because you are trying to protect consumers. We get that. But you are not really facilitating insurers being paid for risk. And it is those risk prices that then inform mayors and counties that they shouldn't approve that development or that they should develop mitigation in this particular high-risk area.

Mr. Frazier, in your testimony, you are saying insurers are not permitted to seek a higher premium level even if they would like to go into higher-risk areas. Under regulations, that insurer must first sustain high losses, then request permission for a higher statewide premium level. That doesn't seem like a reasonable expectation. It encourages insurers to withdraw from high-risk areas. Is that what you are seeing happen in California, Mr. Frazier?

Mr. FRAZIER. Yes, sir. In the highest-risk areas. [inaudible] For 2017, the FAIR plan, which is the residual market, had a resting point of about 125,000 people per homes regularly. That number has gone up to about 270,000. Clearly, the shock in the system from the megafires of 2017 and 2018 has had an impact. And companies certainly looked at their rules for risk selection and compared it to the prices to figure out if they matched. And there has been some holdback, but, obviously, the vast majority of policies have been and are renewed.

But, certainly, a system that doesn't allow statewide premiums to be looked at—

[Audio malfunction.]

Mr. HILL. Thank you. I will move on quickly there, Mr. Chairman, and submit that question in writing.

Mr. Wright, you have great experience as the former Deputy Associate Administrator for the National Flood Insurance Program, so you know exactly what I am talking about on the challenges of reforming our Flood Program, on its 17th extension under the continuing resolution.

Would you submit in writing for me what your views are of having a National Wildfire Insurance Program? Is that good for taxpayers and good for insured people?

Mr. WRIGHT. I will submit a fuller answer in writing. It is a bad idea.

Mr. HILL. Thanks. I yield back.

Chairman CLEAVER. The ranking member yields back.

I just have to say I agree with the ranking member on allowing people to move where they should not live.

I now recognize the distinguished gentleman from Texas, Mr. Green, for 5 minutes.

Mr. GREEN. Thank you, Mr. Chairman. And I thank the witnesses for appearing.

I am interested in the area that the chairman has introduced, and that is mitigation. With reference to mitigation, do we have policies that require mitigation before issuance? This is a means by which homeowners can have an opportunity to improve their property if they make adjustments and also get insurance. Do we have policies that address it in this fashion? Anyone, please?

Ms. BACH. The regulations that are hopefully about to go into effect in California that Commissioner Lara brought forth do provide that the homeowner gets to know what their risk score is, what number the insurer has put on their home, and then has the opportunity to know why they got that score, which I think is really important.

Because people have just been getting the price signal. They have been getting these much higher prices and they have been getting dropped, but they don't know what—in many cases, when

my organization surveys homeowners, when we ask, did your insurer tell you what you could do to keep your policy, they will say, no, they didn't. Again, I think we are making some progress in that direction as a result of the regulations that are pending now in California.

Mr. GREEN. Thank you.

Anyone else?

Mr. AUER. Representative Green, it is also the case that, frequently at the local or county level, you see some regulatory—that is to say, the authorities have the ability to go house to house as relevant to say—for example, on, let's say, El Cerrito, California, to move up a street and tell each one of those homeowners, you need to work on your ignition zone and defensible space or else you could be fined. So, wholly apart from what the insurance carrier might be saying, there is also pressure at the local law level.

Mr. LARA. Quickly, if I may, again, the regulation will also do something that it hasn't done before, which is look at community-wide mitigation. And working with the insurance trade groups and consumer groups is also providing communication about the community-wide risk reduction. Because if we bring down the risk for the entire community, we keep insurers writing in those communities, and consumers are able to have more insurance products that they can—the insurance companies can compete for and drive that cost down.

Mr. FRAZIER. Yes, if I may, we appreciated very much the chance to work with the commissioner on these regulations. I think they will bring a lot more transparency so that people understand what they are being asked to do as part of this overall solution.

Mr. GREEN. Mr. Chairman, I am going to yield back, because I know that time is of the essence for you.

Chairman CLEAVER. The gentleman yields back.

At this time, the gentleman from Florida, Mr. Posey, is recognized for 5 minutes.

Mr. POSEY. Thank you very much, Chairman Cleaver.

Mr. Frazier, at a September 8th hearing of the Senate Banking Committee, the National Association of Insurance Commissioners' witness referred several times to the kinds of risks that are just too large and uncertain for private sector and State regulators to tackle. Are we anywhere near that now on fire insurance?

Mr. Frazier?

Mr. FRAZIER. I'm sorry, sir, I didn't hear your question.

Mr. POSEY. At a September 8th hearing of the Senate Banking Committee, the National Association of Insurance Commissioners' witness referred several times to the kinds of risks that are just too large and uncertain for private sector and State regulators to tackle. Are we anywhere near that now on fire insurance?

Mr. FRAZIER. We do not believe so, sir. At this point, the private insurance market still functions in a robust fashion in California. We stand ready to work with policymakers and stakeholders to continue serving these communities. Obviously, we are in a time of transition because of how climate change has become manifest. But at this point, this is still a situation that the private market can serve.

Mr. POSEY. Okay. Thank you.

Can you please describe how State insurance commissioners are ensuring or will ensure that insurance carriers who give incentives to policyholders to mitigate wildfire risk can reduce premiums?

Mr. Frazier, that is you again.

Mr. FRAZIER. Sorry. I am having some delay issues, sir.

Mr. POSEY. Will somebody else start to weigh in on that?

Mr. LARA. Yes. Representative Posey, this is Commissioner Lara. That is exactly what the regulation is intended to do. We brought all the State agencies together so that we can all be operating with the same fire science with the insurance industry and consumer groups to give those incentives, so that consumers know exactly what they need do to protect themselves or property and their families, and then price the insurance accordingly so that people are paying for the risk of where they are living.

Mr. POSEY. Thank you, Commissioner.

I know we are talking about wildfires today, but on a parallel and similar matter, let me ask you a question about the impacts of deferring approval of premium rate increases during a period of rampant inflation. It is my understanding that you haven't approved an auto rate increase since April of 2020. And according to the U.S. Bureau of Labor Statistics, a 40-year-high record inflation means that costs have increased 16 percent for nearly everybody over the past 2 years.

If your department won't accept any rate increase filings but costs have increased 16 percent, wouldn't that undermine the capital adequacy solvency and the ability to continue to force insurers out of the State, harming insurers?

We didn't like paying for gas in Florida when it was just 2 bucks a gallon, and then it went up to 4 bucks just a couple of years ago. And I know it is even worse in California because of the policies out there. But we are glad we can get it, because $4-a-gallon gasoline is better than no gasoline. I would like your opinion of that.

Mr. LARA. You are talking about private passenger auto rate filings?

Mr. POSEY. Yes, sir.

Mr. LARA. Oh, okay. We are currently reviewing the various passenger private auto filings, and we are putting it through our regulatory process to make sure that those rates are adequately fair, and that they are not discriminatory, and they are currently moving through our process.

What we are also looking at is making sure the insurance companies, that during the pandemic made so much profit, are returning some of that, because we knew that Californians were driving less, therefore the risk profile changed so that they were paying premiums that no longer reflected that risk. But we are moving as quickly as possible to make sure that we are reviewing these rate filings and we will be taking action in the future.

Mr. POSEY. I am glad to hear they are driving less out there during the pandemic, because on my trip out there, everywhere I went, the traffic was bumper to bumper.

Mr. Frazier, is there still room for mitigation incentives to substantially reduce the premiums in wildfire areas?

Mr. FRAZIER. We believe so, sir, both at the parcel level and at the community level. Obviously, at the community level, it is a lot

harder because fuel treatments can be controversial in communities and opposition can develop. So, while everyone wants safer communities, there is also the difficult, on-the-ground conditions of implementation.

Mr. POSEY. I get it. What role are State forest management plans playing in the current trends in fire insurance premiums?

Mr. FRAZIER. We certainly look forward to the updating of our CAL FIRE maps. The State puts out hazard maps, and we are due for a refresh. It has been over a decade. There is a lot of concern about the impact these maps will have, but we do need the updating of these maps, and then from there, figuring out how we move to—

Mr. POSEY. Thank you.

Mr. Chairman, I see my time is about to expire, so I will yield back.

Chairman CLEAVER. The gentleman yields back.

The gentleman from Tennessee, Mr. Rose, is now recognized for 5 minutes.

Votes have been called, we have one vote. But in respect of your time, we are going to try to continue with the hearing. And we will have Members come in after they vote. And I will try to make sure somebody comes takes over as Chair when I go to vote.

Mr. Rose, you are now recognized for 5 minutes.

Mr. ROSE. Thank you, Chairman Cleaver, and Ranking Member Hill, for holding this hearing on wildfire insurance.

As many of you know, wildfires present a growing risk to life and property, mostly in Western States. We know, however, that Tennessee is no stranger to wildfires itself. In 2016, as I think most know, a deadly wildfire swept through the Smoky Mountains, burning over 16,000 acres and destroying 2,500 homes, which caused an estimated $2 billion in damages. Many of you know the area around Gatlinburg and the Smoky Mountains. I appreciate the opportunity to continue to examine ways in which we can both respond to and mitigate risk associated with wildfires.

Mr. Frazier, my first question is for you. Overly-rigged local environmental and land-use standards in places like California prevent homeowners from being able to take specific steps needed to make their homes more resistant to fire. Mr. Frazier, can you talk about the impact that environmental standards have on new construction and how this is having the ultimate effect of making homes less resistant to wildfire?

Mr. FRAZIER. Yes. It does seem like the pressing question in land use is that it is difficult to build in the urban core and so you have to continue to build—

[Audio malfunction.]

Chairman CLEAVER. We apologize. We are having—

Mr. ROSE. We lost you for a second there, Mr. Frazier.

Mr. FRAZIER. Hopefully, I am back.

I was just saying, it is much more difficult to build in the urban core in California, and so you have to build further out, and placing more and more homes in closer proximity to fuel is certainly making the situation more difficult. But that is why we do the work with IBHS and others, and these new regulations that the commissioner developed, I think, will help the situation.

Mr. ROSE. Sure. And I am curious, Mr. Frazier, if you could speak a little more on the question of the broad policies that California has in place with respect to forest management and whether there is any recognition that more aggressive long-term traditional forest management practices that need to be restored in order to deal with the threat of wildfires going forward.

Mr. FRAZIER. Yes. There is no doubt that there has been a shift just from providing funding for immediate response to fires to starting to look at pre-fire loss mitigation, and that includes fuels treatment. Obviously, in California, it is a difficult environment because you have the traditional conflicts between foresters and environmentalists. But certainly, things are improving.

The governor has been quite committed to working with the legislature to make sure there is considerable new funding for fuels treatment in a way that just simply wasn't being discussed 5 or 10 years ago.

Mr. ROSE. Sure. Switching gears a little, since we have Commissioner Lara, I would like to touch on some issues that are broader than wildfire insurance, because California is such a large market for insurance products, and the policy decisions you are making can have ripple effects across the entire industry.

Commissioner Lara, California's Proposition 103 requires prior approval of California's Department of Insurance before property and casualty companies can implement insurance rates. Isn't it true you have, over the last 2½ years, withheld approval of rate increases for all pending auto rate filings because of your view that insurers provided inadequate COVID premium refunds to customers?

Mr. LARA. Thank you, Representative Rose. As I said earlier, those rate filings are currently within the Department. They are being reviewed under Proposition 103 to ensure that they are fair, they are adequate, and that they are not discriminatory.

And, yes, I am proud of the fact that in California, we mandated rebates back to California drivers who were driving less during the pandemic, and $2.4 billion has been returned to California motorists, because again, the risk profile changed during that pandemic. And therefore, consumers were paying for a policy that no longer reflected that risk because we asked them to stay home.

We are moving now, understanding that the pandemic is moving towards the end, and we are now in the process of reviewing those rate filings for the private passenger auto.

Mr. ROSE. Why have insurance companies like GEICO, Progressive, and Allstate begun to leave California's insurance market?

Mr. LARA. Representative Rose, they have not left the market. They left the brick-and-mortar. They are still doing business through their online businesses, and I fear that this is going to be a move as more companies move towards online services as they modernize their business practices. But they have not left the California insurance market.

Mr. ROSE. Okay. I see my time has expired. I yield back.

Chairman CLEAVER. The gentleman yields back.

The Chair now recognizes the notable Chair of the Full Committee, Chairwoman Waters.

Chairwoman WATERS. Thank you very much, Mr. Cleaver.

Commissioner Lara, when buying a home, the only current Federal requirement surrounding natural hazard risk is FEMA's flood zone determination requirement. However, our home State of California has gone above and beyond in improving risk disclosures to mandate the inclusion of wildfire risk and other natural hazards.

Given the current state of the wildfire insurance market, along with the increasing frequency and intensity of wildfires, would you recommend that similar disclosure mechanisms be enacted across the country for those purchasing a new home? If so, do you think it should be done on a State-by-State basis so that State insurance commissioners are able to customize their disclosure forms to best encompass the specific risk that home buyers in that State need to be aware of?

Mr. LARA. Thank you, Chairwoman Waters. I believe that in order for us to really protect and ensure that consumers know exactly the risks they are getting into, disclosure is critical. People need to understand the risk, and that disclosure becomes critical.

It is true that as insurance commissioners, we have to adapt to the individual needs and topographies and requirements within the individual States, so I would say it is important for us to ensure that we respect the jurisdiction of individual States. But at the end of the day, we know that consumers need to have this information before they purchase a home and understand the type of insurance they are going to need.

As you know, one of the biggest issues we are facing nationally is the issue of consumers being underinsured, especially during these wildfires, floods, or climactic events, in which people feel that they are properly insured, but after realizing that they are not, they cannot rebuild to the standard that they were expecting to. Transparency is critical so that they understand, not only their coverage limits, but understand the risk that they are undertaking.

Chairwoman WATERS. Thank you very much.

Ms. Bach, climate-related disasters such as wildfires have posed an increasing threat to the United States mortgage market as more people are living in disaster-prone areas. For instance, more than 46 million homes with an estimated value of $1.3 trillion are now at risk from the impacts of wildfire.

Given the systemic risk that wildfires and other natural disasters pose to the mortgage market, what role can Federal agencies, such as the Federal Housing Administration, USDA, and the Federal Housing Finance Agency, play in setting standards for homeowners insurance coverage?

Ms. BACH. Thank you so much, Chairwoman Waters. It is an honor to be with you. And I just saw your star in St. Louis, and I was so proud.

First of all, California has passed a disclosure requirement now that REALTORS have to use if a home that is being purchased is in a high-risk wildfire area, so that is already in place.

And as far as the lending sector, the Fannie Mae guidelines that Congress has set do require that homes which are subject to a federally-backed mortgage have replacement value insurance on that home. So, you have that in place, but I think that it has to be enforced that, insurers are, of course, doing all kinds of nipping and tucking of coverage to try to balance their books in the face of cli-

mate change. Maintaining the basic standard that is already in the law is important for homes to have replacement value coverage.

That being said, Fannie Mae is very much engaging in our efforts to promote and facilitate risk reduction in the wildfire context. So, we are on the right trail, but more consumer education, of course, at a very granular level, what can you do at your home to reduce your risk is developing fast.

There are a lot of tech companies now—Zest Technologies, DaiTechCorp, Betterview—that are developing tools mostly for insurers. What we need is tools for property owners so they can quickly put their address in and see what their risks are.

Chairwoman WATERS. Thank you very much, Mr. Chairman. I just want to tell you, in California, where we also need earthquake insurance, we are going to be insurance-poor. It is going to cost more than our mortgages. I don't know what to say about that, but it is going to be very costly.

Thank you. I yield back.

Chairman CLEAVER. We thank the chairwoman for making it here in time to raise issues with our illustrious witnesses.

I would like to thank you very much for coming to the hearing today or being a part of the hearing. We apologize for any technical difficulties that—I almost said that may have happened, but that did, in fact, happen. We apologize for that.

The Chair notes that some Members may have additional questions for these witnesses, which they may wish to submit in writing. Without objection, the hearing record will remain open for 5 legislative days for Members to submit written questions to these witnesses and to place their responses in the record. Also, without objection, Members will have 5 legislative days to submit extraneous materials to the Chair for inclusion in the record.

The hearing is now adjourned.

[Whereupon, at 10:18 a.m., the hearing was adjourned.]

A P P E N D I X

September 22, 2022

Testimony of Matthew R. Auer

Dean and Arch Professor of Public and International Affairs
School of Public and International Affairs
University of Georgia

State of Emergency: Examining the Impact of Growing Wildfire Risk on the Insurance Market

House Committee on Financial Services

Subcommittee on Housing, Community Development and Insurance

September 22, 2022

Good morning, Chairman Cleaver, Ranking Member Hill and members of the Subcommittee. I am Matthew Auer, Dean of the School of Public and International Affairs at the University of Georgia's School of Public and International Affairs. I began a career in forestry and environmental policy in the 1990s. Back then, policy experts predicted that climate change would challenge how insurance companies typically model and price risk when they underwrite insurance policies. According to the National Oceanic and Atmospheric Administration, "Climate change, including increased heat, extended drought, and a thirsty atmosphere, has been a key driver in increasing the risk and extent of wildfires in the western United States during the last two decades" (NOAA, 2022; Zhuang, 2021). As predicted, these environmental changes are playing havoc with insurance markets and this affects everyday policy holders, including lower income homeowners.

I became especially interested in the problem of wildfire risk and insurance nonrenewal in 2018 after learning about policyholders in wildfire-prone areas of California who were receiving letters from insurance companies declaring the termination of their coverage. My own mom received a letter like this. But she was lucky. She could find replacement insurance, and it was insurance she could afford. As committee members know, when homeowners cannot find regular, replacement insurance, they can opt for insurance of last resort which is called FAIR Plan insurance. This is bare bones insurance that will cover losses due to fire or smoke. But typically, a homeowner must obtain a difference in conditions policy to make up the gap between FAIR Plan and regular homeowners insurance so as to cover claims like water damage, theft, and liability. Even when a homeowner is able to find regular replacement insurance, they can typically expect to pay more for the same or less coverage (United Policyholders, 2022). In many markets, these trends are particularly disadvantageous for lower income homeowners.

Benjamin Hexamer, a University of Georgia graduate student, and I, wanted to gain a clearer sense of which homeowners are at particular risk in the most wildfire-prone states. Research we authored on the subject of wildfire, income, and insurance is attached to this testimony. We found that, among the 14 states with the highest total acreage burned by wildfires between 2016 and 2020, 98 counties had a moderate to high wildfire hazard potential or WHP, which the U.S. Forest Service developed to measure wildfire risk. We found that 60 percent of these counties had a poverty rate exceeding the official

national poverty rate (Auer and Hexamer, 2022). Hence, the majority of homes in the most at-risk counties in the American West and in Florida are in areas with comparatively higher poverty rates.

We were also struck by how different data sources provide different estimates of risk. Hence, when considering counties that have high concentrations of homes with significant wildfire risk, combined with higher poverty rates, it matters a great deal whether you use data from the Forest Service or from organizations with more up-to-date, higher resolution data. This has implications for how Congress and the federal government understand the problem of wildfire and risks to homeowners. Technology companies that help insurance carriers estimate risk – or insurtech companies – tend to have more powerful tools and methods for estimating risk than do federal agencies, but algorithms they use are generally proprietary.

Our research also pointed to a potential red flag for wildfire prone states when it comes to the concentration of insurance underwriting. We were interested in market share or the proportion of net premiums held by the largest insurance companies. There are nine states where the cumulative market share of the top-10 property and casualty insurers is 60 percent or more of the market. Seven of those states are among the 14 most wildfire-prone states in the lower-48. There is research showing that higher market concentration is associated with lower financial stability of insurance firms (Shim, 2017). Even in the seven states with comparatively highly concentrated markets for underwriting, the carriers tend to be large, name-brand companies with strong balance sheets and high credit ratings. So, most of these firms are financially stable. Yet, we have observed even major underwriters leaving natural disaster-prone markets due to losses from wildfire and hurricanes (Florida Chamber of Commerce, 2022). One bad fire season or handful of major natural disasters can rapidly change market share composition in different states. Going forward, it would be prudent for Congress and for insurance regulators in these states to consider whether a dwindling set of insurance companies are making risk decisions for large numbers of policyholders – regardless of whether those companies are admitted or approved surplus line insurers.

Increasingly, insurance companies as well as state and local authorities require homeowners to adopt fire safety measures. For some homeowners, this is a condition for a new policy or for renewal of coverage. Property owners can and should play a significant role in protecting their own homes from wildfire. However, we must do a better job of helping disadvantaged homeowners help themselves.

For lower income homeowners, the financial burdens of home hardening and creating defensible space can be considerable. Consider, for example, the situation in some wildfire-prone counties in New Mexico that have median household incomes of $35,000 or less. Lower income residents are already burdened by relatively high rates for homeowners insurance in that state. New Mexico ranks among the top-15 in the nation (Vitu, 2022). If an insurance company were to require a homeowner to implement wildfire safety measures, those costs will add up. The premium for $250,000 worth of dwelling coverage in New Mexico is around $1,900. That represents over six percent of median household income in a county like Mora, New Mexico. Mora was one of the counties hit by this year's Hermit's Peak-Calf Canyon fire – the largest wildfire ever recorded in New Mexico.

Some strategies for reducing the cost of insurance are impractical for lower income homeowners. When we urge policy holders to increase the deductible on dwelling coverage instead of lowering the actual dwelling coverage limit on the home, that's good advice in general, but it is unreasonable to expect lower income homeowners to rebuild on a high deductible policy. We also tell homeowners to shop

around for their policy. Again, that is good advice. However, underserved communities may be the least likely to shop around. Many property owners may not even be aware of the services of independent insurance agents.

Underserved communities may not be the loudest or best organized voices reaching the ears of state insurance commissioners. In fact, there are a great many stakeholders, not limited to homeowners, who are pressuring insurance commissioners about wildfire. These voices are not always in concert. On the one hand, commissioners are watchdogs for consumers. On the other hand, they must be fair-minded as they regulate and respond to demands for rate increases by insurance companies who incur higher costs and losses. If a state commissioner's decisions are arbitrary, unfair, or simply deemed harsh by insurance companies, those firms can decide to close shop and leave the market.

Increasingly, insurance commissioners are hearing and responding to the wildfire-related concerns of homeowners, in particular. Yet, the present context in many states resembles a game of whack a mole with commissioners responding to complaints that insurance companies are placing limits on fire-related coverage, denying claims, or failing to recognize and reward the fire safety measures taken by homeowners. Since coming into office, California Insurance Commissioner Ricardo Lara has been especially proactive at addressing these concerns. His efforts include ordering California's FAIR Plan to offer comprehensive or HO-3 coverage and to raise the ceiling on coverage limits (California Department of Insurance, 2019). The California Fair Plan Association has resisted the call for comprehensive coverage, specifically, and has lost a relevant case in court, yet, as of Monday of this week, the FAIR Plan continued to advertise only HO-1 coverage for fire and lightning, smoke, and internal explosions while directing customers needing additional insurance to consider difference in conditions coverage (California FAIR Plan, 2022).

The problem of protecting homeowners from losing their insurance or having to replace it with expensive or bare-bones FAIR Plan insurance is not exclusively the responsibility of insurance companies nor of state insurance commissioners. Federal assistance will continue to loom large for the most at-risk communities. Consider, for example, the $100 million in FEMA Hazard Mitigation Grant funds that are flowing to California to help homeowners make their homes safer from wildfire. The Office of Emergency Services and CAL FIRE are distributing these funds in a pilot project called the California Wildfire Mitigation Program. Communities selected for assistance have higher concentrations of people over the age of 65, residents with disabilities, people living in poverty, and populations with limited English or lack of access to a car. This is a cost-share program. FEMA pays up to 75 percent of the cost of eligible mitigation projects. The California state legislature has enabled California's Office of Emergency Services to make a 25 percent match at the local level. The local communities in this case are fortunate insofar as the state is making this match possible. Sometimes the match simply is not on the table. Consider that FEMA's Building Resilient Infrastructure and Communities program requires a 30 percent match. There are communities that cannot find the match nor have the staffing to manage the grant. A stronger, consultative role by states in the allocation of these funds could help address these problems.

FEMA-supported programs like the California Wildfire Mitigation Program and the Safer from Wildfires initiative spearheaded by California's Insurance Commissioner are designed not only to directly help homeowners make their homes safer but also to inspire insurance companies to re-enter the market as homeowners and communities become more resilient to wildfire. These strategies and others could shift the insurance industry's thinking, transforming risk into opportunity (Sidoti, 2022). Nevertheless,

even as insurance and reinsurance companies become more proficient at estimating risk, lower income homeowners and lower income renters will not be the primary beneficiaries, particularly if better risk forecasting leads to higher premiums and lower coverage limits.

When it comes to protecting the most vulnerable communities in harm's way, present and future funds authorized by Congress are essential. Indeed, FEMA, with support from Congress, has made strategies like the California Wildfire Mitigation Program possible. All the relevant trends indicate that today's pilot programs to harden homes and create defensible space, supported by federal agencies, will need to evolve into longer-term, sustained programs that help underserved communities with fire safety measures in multiple states.

I wish to thank the Committee for their attention to this important matter and for inviting me to join today's hearing.

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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 with high wildfire risk and higher poverty rates.

Keywords: wildfire; wildfire hazard potential; poverty rate; homeowners insurance

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1. Introduction

Numerous destructive and deadly wildfires, particularly in the American West, have garnered national attention over several years. In the ten-year period ending 2021, undesirable and erratic wildfire (as opposed to fire managed intentionally for forest health and for the safety of nearby communities) burned an average of 7.36 million acres per annum in the United States, representing a 37.4 percent increase in acres burned annually over the prior 20-year period [1]. Memorably, cataclysmic fires are often associated with California including the deadly 2018 Camp Fire that largely destroyed the town of Paradise and the massive 2021 Dixie and Caldor Fires. However, in the early months of 2022, destructive blazes beyond the Pacific coastal region received national attention, including in Arizona, Colorado, and Texas. New Mexico confronted the largest wildfire in that state's modern recorded history.

Climate change is an overarching driver of increased wildfire activity, magnifying the effects of other variables, including persistent drought, mild winters, increased days of scorching summertime temperatures, earlier snowmelt timing, increased vapor pressure deficit and wind speeds, increased length of rain-free intervals, the geographical expansion of forest-killing pests and pathogens, and the build-up of forest fuels—the latter partly resulting from a prior era of faulty forest management practices [2–5]. Communities' capacities to plan for, endure, and recover from wildfire differ across wildfire-prone regions of the country. Increasingly urgent is the need for stakeholders, including federal, state, and local officials, to support communities that are most at-risk, including lower-income and minoritized communities—many of which are outside of California [6,7].

One manifestation of disproportionate, wildfire-related risk for lower-income people is the problem of property insurance nonrenewal and cancellation. Discontinuance of homeowners' policies due to wildfire risk increased substantially in California in 2018 and 2019 as insurance companies incurred major losses on policies in wildfire-prone regions. Many homeowners were resigned to adopt "last resort" insurance through California's FAIR Plan which generally entails expensive premiums and more limited coverage. For homeowners whose policies are suspended, securing replacement insurance, including FAIR Plan insurance, may require homeowners to retrofit homes with fire-resistant technologies and/or create defensible space in and around insured properties. Adopting these measures, out of pocket, poses comparatively higher economic burdens on lower-income households ([7,8]). The present article triangulates data on poverty, wildfire risk, and insurability risk to identify the most at-risk counties in the coterminous U.S. We consider county-level data, recognizing that counties, in collaboration with states, are especially important in mustering resources to prepare for, withstand, and recover from wildfire.

2. Income and Insurability as Factors in Wildfire

Over the past several years, multiple studies have documented disadvantages for lower-income or minority communities in their abilities to prepare for, respond to, and recover from destructive wildfire including in California [9], Florida [10], and Oregon [11]. Nationwide, Davies et al. [6] found that the vulnerability to wildfire increased as the proportion of Native Americans and Black individuals increased in a given community. Using census tract data, the authors estimate that majority Native American, Black, or Hispanic communities experienced around 50 percent greater vulnerability to wildfire compared to other census tracts. More recently, using wildfire risk data generated by the First Street Foundation, the *Washington Post* predicted that by 2052, around 44 percent of all Native Americans and one in four Hispanic people will live in areas with significant probability of wildfire [8].

Ability to recover from destructive fires is affected by the reliability of property insurance [8]. Insurance insecurity is of particular interest in the present research, inspired by a recent surge in wildfire-related insurance claims as well as insurance nonrenewal and cancellation in California [12,13]. In that state, a major increase in claims by policy owners in 2017 and 2018 led to large numbers of nonrenewed or suspended policies. Coverage by California's FAIR Plan—last-resort insurance for properties deemed high-risk—jumped from 140,000 in 2018 to 200,000 in 2019. Since 2018, multiple moratoria have been issued in California, prohibiting the cancellation or nonrenewal of policies in or adjacent to areas that have been subject to fire-related state-of-emergency orders.

In 2021, California unveiled the "Safer from Wildfires" framework that aims to attract insurers back to wildfire-prone areas as homeowners undertake fire safety measures. The latter include interventions such installing fire-resistant vents and eaves, upgrading windows, creating defensible space around the home, and coordinating with neighbors to establish wildfire evacuation routes. Safer from Wildfires responds to complaints that insurance companies too often fail to account for out-of-pocket fire-protection measures taken by homeowners. The new program requires insurance carriers to recognize fire safety efforts through "wildfire risk scores" that rate individual and commercial properties. Safer from Wildfires includes a partnership with the Federal Emergency Management Agency to make USD 100 million available to qualifying property owners in wildfire-prone areas who adopt home-hardening and defensible-space measures.

Safer from Wildfires or comparable programs could be models for wildfire-prone areas outside of California. We assume that direct, governmental aid programs—comparable to Safer from Wildfires—will be needed to assist lower-income homeowners, considering the intersection of areas with high wildfire hazard potential and higher poverty rates. We examine data on wildfire risk and poverty at the county level, recognizing that counties are major participants in wildfire planning, response, and recovery efforts. In addition,

counties are vital service-providers for rural and unincorporated areas, including sparsely populated, lower-income areas that receive few or no municipal services.

3. Materials and Methods

Wildfire risk data are derived from the Wildfire Risk to Communities datasets of the U.S. Forest Service [14] and from the First Street Foundation Wildfire Model [15] Wildfire Risk to Communities features multiple raster geospatial data sets on wildfire risk, depicting relative risk for communities at 270 m horizonal resolution. We adopted the Wildfire Hazard Potential (WHP) dataset—an index that quantifies the relative potential for wildfire that may be difficult to control [16]. WHP is derived from Large Fire Simulator (FSim) data developed by the US Forest Service Missoula Fire Sciences Laboratory, and includes modules for weather generation, wildfire occurrence, fire growth, and fire suppression, in addition to weather data from the National Weather Service and demographic data from the U.S. Census Bureau. FSim models the probability of the occurrence and growth of wildfire under tens of thousands of hypothetical contemporary fire seasons so as to estimate the probability of uncontrolled wildfire in a given area [17]. WHP is also informed by point locations of past fires (circa 1992–2005), and data on spatial fuels and vegetation provided by the public–private collaborative, LANDFIRE [18]. We adopted Mean WHP which is the housing-unit weighted mean of the WHP raster within each summary polygon [19].

The Forest Service notes that WHP "is not a forecast or wildfire outlook for any particular season, as it does not include any information on current or forecasted weather or fuel moisture conditions [19]". Other recently developed data sets offer more refined predictions of wildfire risk at the neighborhood and individual-property level [20]. The First Street Foundation Wildfire Model (FSFWM), released in May 2022, uses a 30 m spatial resolution approach to predict wildfire exposure for any location in the United States. The great strength of FSFWM over the Forest Service's Wildfire Risk to Communities' model is the ability to compare risk within communities, rather than across sets of communities [15] (p. 6). FSFWM incorporates data from the Forest Service on wildfire fuels, probable ignition location based on historic fires, data from the National Oceanic and Atmospheric Administration on past weather patterns that impact fuels, and data on the probabilistic spread of fires [21]. In addition, FSFWM includes a 10-point (and elsewhere, 5-point) "Fire Factor" (or "Risk Factor") scale that measures the cumulative likelihood of a specific property being affected by wildfire over a 30-year period [21]. First Street Foundation catalogued properties by triangulating public real estate and tax assessor records, data from the U.S. Geological Survey, and data from the U.S. Department of Agriculture. We compared FSFWM and the Forest Service's Wildfire Risk to Communities model to identify discrepancies in the designation of counties with moderate-to-high wildfire risk.

The 14 states among the lower 48 with highest wildfire risk were identified by comparing the average annual acres burned by wildfire, by state, across the coterminous U.S. between 2016 and 2020, according to data from the National Interagency Fire Center [1]. Those states are Arizona, California, Colorado, Florida, Idaho, Montana, Nevada, New Mexico, Oklahoma, Oregon, Texas, Utah, Washington, and Wyoming. Among the 14 states with high wildfire risk, we isolated counties with moderate-to-high WHP combined with a poverty rate at or above the national average. WHP is a continuous variable with five categories: very low (1), low (2), moderate (3), high (4), and very high (5). After Davies et al. [6], we adopted WHP ≥ 3 as the lower boundary for identifying counties with comparatively higher risk of destructive wildfire. From First Street Foundation's 10-point Fire Factor scale, we identified all counties with Fire Factor scores of moderate or higher in the 14 states with the highest wildfire risk. The goal of the comparison of the Forest Service and First Street Foundation data was to identify differences in the two models' designation of counties combining comparatively high wildfire risk and higher poverty rates. Poverty rate data are derived from the American Community Survey data of the U.S. Census Bureau [22]. In 2019, the national poverty rate was 12.3 percent. We propose that among counties with WHP of 3 or greater, it is counties with comparatively higher poverty rates, i.e., equal to or

greater than 12.3 percent, that are especially vulnerable to the safety and economic risks posed by destructive wildfire.

Other materials include archival research on reportage of nonrenewal and cancellation of homeowners' insurance in the United States due to wildfire risk. More so than in any other state, homeowners in California have grappled with the suspension of policies, as insurance companies attempt to contain wildfire-related losses and avoid future liabilities. In the absence of moratoria, it is fair to expect increased incidence of insurance discontinuance in other states with elevated wildfire risk [23]. We consider which counties in the top wildfire-prone states are especially vulnerable considering the prevalence of lower-income households.

4. Results

4.1. Geography of Wildfire Hazard and Poverty

In the coterminous United States, among the 14 states with the highest total acreage burned by wildfire between 2016 and 2020, 98 counties had a WHP of 3 or greater. Of those 14 states, Oklahoma and Wyoming had no counties with a WHP $\geq$ 3. In the remaining 12 states, counties combining moderate-to-high WHP and higher poverty rates (WHP $\geq$ 3 and PR $\geq$ 12.3 percent) outnumbered counties combining moderate-to-high WHP and lower poverty rates. Sixty percent of counties with WHP $\geq$ 3 had a poverty rate $\geq$ 12.3 (shaded red in Figure 1). Forty percent of counties with WHP $\geq$ 3 had a poverty rate of < 12.3 (shaded pink).

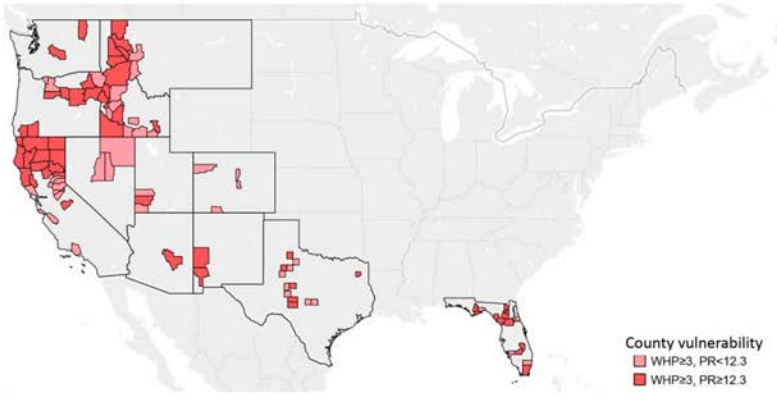

Figure 1. Higher wildfire hazard potential and poverty rates in high wildfire risk states.

The geographical distribution of areas in the high-wildfire-risk states, which combine moderate-to-high WHP and higher poverty rates and take the form of clusters of adjoining counties. For example, several at-risk northern California counties are adjoining, and the cluster is contiguous with two counties in southwest Oregon. Elsewhere in Oregon, a cluster of moderate-to-high WHP and higher poverty rate counties are in the state's north-central and northeast regions. An unbroken set of coterminous counties running along the western axis of Idaho and adjacent to counties in Nevada combine elevated wildfire hazard potential and higher poverty. In contrast, one dozen counties in Florida combine moderate-to-high WHP and higher poverty, but there is comparatively greater geographical dispersion of these regions in different parts of the state.

Figure 2 exhibits the 59 counties with moderate-to-high wildfire hazard potential that are comparatively lower-income (red), and 39 moderate-to-high WHP counties with poverty

rates below the 2019 national poverty rate of 12.3 percent (blue). Not only are there more higher-poverty-rate counties among the 98 counties, there is also greater variance in the poverty rate in the higher-poverty-rate vs. lower-poverty-rate counties (σ^2 = 8.68 vs. 2.38). The variance is greatest in the poorest subset of counties (steeper-sloping, far-right-hand portion of the red distribution in Figure 2).

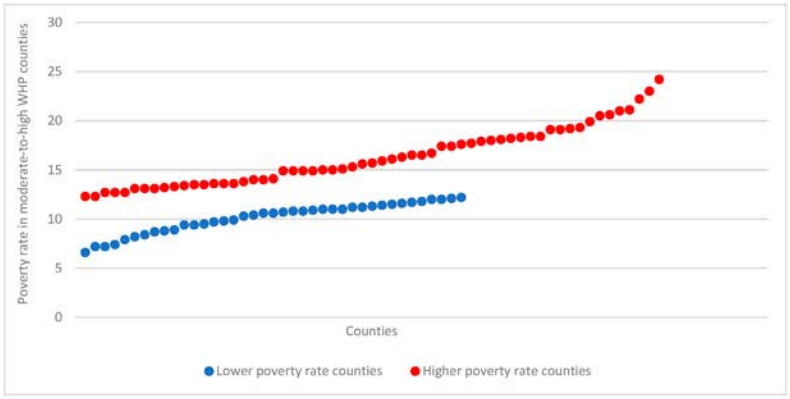

Figure 2. Poverty rate range in counties with moderate-to-high wildfire hazard potential.

Figure 3 combines three datasets: counties with moderate, major, severe, or extreme wildfire risk among the 14 highest wildfire risk states, per First Street Foundation's Fire Factor scale; all WHP $\geq$ 3 at the county-level per the Forest Service's Wildfire Risk to Communities data; and county-level poverty rate data from the U.S. Census Bureau. With the exception of Lincoln County, Montana, all higher-poverty-rate counties that the Forest Service model designates as having moderate-to-high wildfire risk are identical to at-risk counties identified by the First Street Foundation's Fire Factor (all red-shaded counties in Figure 3). Similarly, lower-poverty-rate counties that the Forest Service recognizes as having moderate-to-high wildfire risk are matched by Fire Factor data (pink-shaded counties). The major differences between the Forest Service and First Street Foundation model outputs are instances of lower-poverty-rate counties that the Forest Service categorizes as lower wildfire risk (WHP < 3) but that First Street Foundation labels moderate or higher wildfire risk. The latter counties are shaded yellow in Figure 3.

It is important to consider that the Forest Service's WHP and the First Street Foundation's Fire Factor are not directly comparable metrics. WHP is an index that quantifies the relative potential for wildfire that may be difficult to suppress. In contrast, First Street Foundation's 1-to-10 (and alternately, 1-to-5) scale for measuring Fire Factor considers the cumulative likelihood of a property being affected by wildfire over a 30-year period. Notwithstanding these differences, the two models rely on comparable data: WHP and Fire Factor both incorporate data on spatially derived estimates of burn probability. Second, Fire Factor incorporates the Forest Service's LANDFIRE fuels dataset as a baseline for fuel type and fuel behavior [24]. Third, the metric adopted by the two models is a continuous integer value that depicts probabilistic risk.

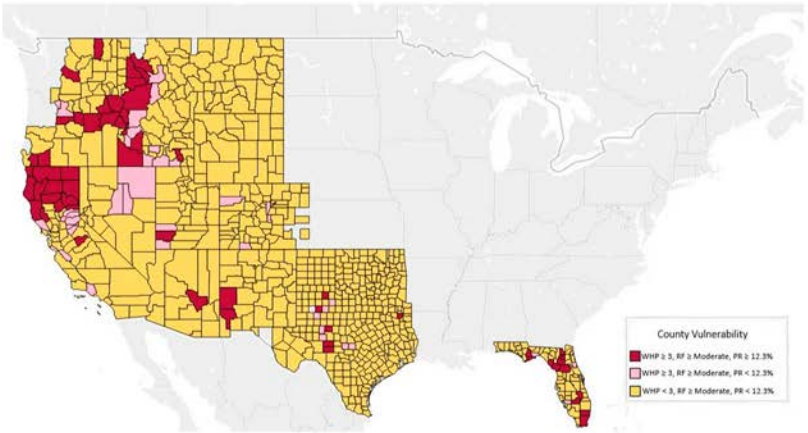

Figure 3. Higher wildfire hazard potential in combined Forest Service/First Street Foundation/U.S. Census Bureau datasets.

4.2. Wildfire, Housing Concentration, and Insurance Risk

From an insurance perspective, concentration of housing units in wildfire-prone areas is another important variable to consider, whether relying on Forest Service WHP or First Street Foundation Fire Factor data as an indicator of wildfire risk. We are particularly interested in the intersection of concentrated housing, poverty, and insurance insecurity. Data on housing concentration in wildfire-prone areas was provided by Verisk, a data analytics firm that models wildfire risk for the insurance industry. Verisk's FireLine risk management tool combines remote-sensing imagery, data on fuel abundance and fuel regrowth in previously burned areas, slope of terrain, access (i.e., road access for fire containment), and U.S. Census Bureau data on housing unit density. Data for Florida were unavailable. We matched counties in each of 12 states that combine Verisk's 2020 data on the concentration of housing units in counties with high and extreme wildfire risk (where "high and extreme" is the top tier of Verisk's three categories of wildfire risk) combined with our 2020 data set of 59 moderate-to-high WHP and higher-poverty-rate counties (red-shaded counties in Figure 1). These triangulated data are shown in Figure 4.

The overlay of housing unit concentration data in Figure 4 serves to highlight the particular vulnerability of communities in central and northeast Oregon and the adjacent counties of Idaho's panhandle. In contrast, northern California counties are fewer in Figure 4 vs. Figures 1 and 3, underlining the comparatively lower concentration of at-risk housing units in California.

Compared to the Forest Service's WHP, First Street Foundation's Fire Factor yields more counties with moderate-to-high wildfire risk. Figure 5 replaces WHP with Fire Factor data, with an overlay of Verisk housing concentration data.

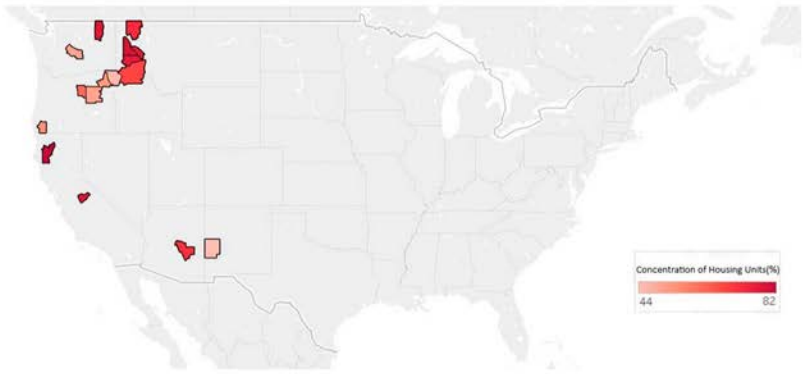

Figure 4. Higher-poverty-rate counties with the greatest concentration of housing units in Forest-Service-designated moderate-to-high risk areas.

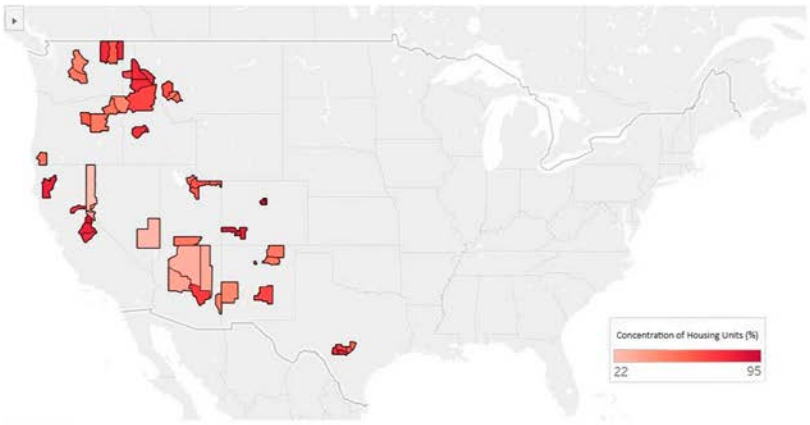

Figure 5. Higher poverty rate counties with the greatest concentration of housing units in Fire Factor moderate-to-high risk areas.

The Fire Factor overlay on Verisk data in Figure 5 shows comparatively more counties with high concentrations of housing units at high or extreme risk from wildfire. Whereas WHP + Verisk data (Figure 4) implicate seven states with very high concentrations of housing units in high- and extreme-wildfire-risk counties, Fire Factor + Verisk data (Figure 5) reveal 11 states with this combination of elevated risks. The concentration of housing units with high to extreme wildfire risk in at least two counties in Figure 5 reaches or exceeds 90 percent.

4.3. Wildfire-Prone States and Market Share of Insurance Companies

California's comparatively more sparsely populated, at-risk homeowners are beneficiaries of the 2021 Safer from Wildfires program, with 2022 marking the first year of implementation. In terms of design and scope, Safer from Wildfires, which aims to improve protection of properties in wildfire-prone areas and restore confidence among insurance companies, has no direct equivalent among the other, major wildfire-prone states in this study.

One measure of risk is access to replacement insurance. Although there are hundreds or even thousands of licensed primary and out-of-state insurers operating in every U.S. state [25], our research reveals that in many of the most wildfire-prone states, homeowner policy underwriting is comparatively highly concentrated. We examined the total number of premiums sold to insured entities (excluding premiums destined for reinsurance) in each of the lower 48 states. Data are published by the National Association of Insurance Commissioners [26]. There are nine states where the cumulative market share of the top 10 property and casualty insurers is 60 percent or more of the market. Seven of those states are among this study's fourteen most wildfire-prone states: Arizona, Colorado, Montana, New Mexico, Oregon, Washington, and Wyoming. The abundance of licensed insurers in these states does not imply that policies are underwritten by a large and varied set of insurers. New Mexico led all U.S. states with 2604 licensed out-of-state insurers in 2020. Yet, that same year, the market share of the state's top 10 property insurance underwriters was 60.6 percent, placing it among the states with most concentrated insurance markets. A relatively high percentage of homeowners in at least seven major wildfire-prone states are subject to the risk determination decisions of a comparatively small group of policy underwriters.

5. Discussion

5.1. Results and Policy Considerations

The results in the present study underscore the geographical distribution of homeowners in major wildfire-prone states whose risk factors include not just wildfire exposure risk, but also socioeconomic risk. The data reveal that many of the affected regions are outside of California, and yet California is a leader nationwide in developing moratoria on insurance nonrenewal and cancellation due to wildfire-related risks, in providing subsidies to homeowners to protect properties, and in enticing risk-averse insurers back to the market. Lower-income homeowners as a proportion of all homeowners in areas of high wildfire risk are prominent not only in northern California, but in 12 of the 14 major wildfire-prone states in the coterminous U.S., including the majority of counties in Idaho and significant portions of Oregon and Texas. This paper points to the need for additional research on socioeconomic variables, such as income and insurability risk, as overall determinants of wildfire risk. In the process, we expect more studies to bring attention to at-risk homeowners in geographical areas beyond wildfire-plagued parts of California. Consider that the deadly 2018 Camp Fire which destroyed Paradise, California affected homeowners who by California income standards are comparatively less wealthy. Butte County, California, where Paradise resides, had a 2019 median household income of USD 52,537. In comparison, the median household income of counties most directly affected by the massive 2022 Hermits Peak–Calf Canyon wildfires in New Mexico ranged from USD 28,446 to USD 30,946.

An open question this research highlights is how stakeholders such as insurance companies and insurance commissioners outside of California will respond to the intertwined problems of climate-driven, destructive wildfire, insurance risk in high- and extreme-wildfire-risk areas, and the plight of low-income homeowners in these areas. California's moratoria, which are meant to be time-limited, and its recent efforts to enable homeowners to harden homes and create defensible space, offer potential models for other at-risk regions of the country. Federal-level programs such as Firewise USA, which channels congressionally authorized funds for wildfire education and risk reduction to communities, are also part of the solution [7]. However, like California's Safer from Wildfires program

which, to date, is the most well-resourced program for wildfire prevention and protection of any state, Firewise USA does not earmark assistance for lower-income households. Since aid is unlikely to flow to all or even most individual homeowners, the community-scale assistance provided by programs such as Firewise USA and Safer from Wildfires may prove particularly important for lower-income homeowners who simultaneously confront natural disaster risk and severe economic risk. Safer from Wildfires makes resources available to engage whole neighborhoods in fuel reduction efforts in common areas and in creating evacuation routes and emergency communication plans. Presently, in poorer, rural precincts in high-wildfire-risk areas of the American Southwest and in the western mountain states, these efforts are piecemeal. More intentional and more generously resourced programs will become increasingly urgent as the risks from major, destructive wildfires continue to mount.

5.2. Further Research Needs

This article considers the combination of wildfire risk and insurance risk for lower-income households in wildfire-prone states. Additional research is required to explore the full range of wildfire-related risks that affect vulnerable populations in and near wildfire-prone areas. A broad set of environmental, public health, and economic risks from wildfire extends far beyond the factors considered in conventional homeowners' policies and in commercial-fire-insurance policies.

An important challenge for stakeholders to consider is the complexity of public and private property regimes in wildfire-prone areas. To illustrate, there are federally designated wilderness areas in some at-risk counties in this analysis, and these public lands are often contiguous with private land holdings. Fire management efforts in these areas have been complicated historically and continue to pose challenges. Beginning in the 1970s, federal agencies managing public lands in the West began adopting "let burn" policies to enable forest regeneration in fire-adapted ecosystems, including in wilderness areas. However, in practice, fire suppression continued (and currently continues) in these areas due to the abundant presence of homes and other structures in and near federally designated wilderness [27]. More broadly, wildfire-prone areas of the West include complex mosaics of public and private lands, with private property "inholdings" inside of the National Forest and National Park systems—legacies of the 1862 Homestead Act. There is also "stranded land"—parcels of public property landlocked by private land holdings. These lands are not easily accessed by fire crews (considering trespassing norms on private land), creating obstacles for fire suppression. Across 11 western states, there are approximately 6 million acres of stranded land, and research indicates that fires originating on stranded land are more likely to escape containment and increase in size versus comparable fires originating on accessible land [28,29]. Land swaps are one potential solution to this challenge: federal agencies can arrange to exchange stranded land for comparable private property, thereby reducing the patchiness of property types and improving fire safety on public lands.

Wildfire, including in the wildfire-prone/higher-poverty-rate counties examined in this article, poses risks to a variety of environmental assets and services neither covered in insurance policies nor properly valued in state or national income accounting. By way of illustration, Ferry County, Washington, a higher-WHP/higher-poverty-rate county, is home to the Colville Indian Reservation where timber extraction and recreation are key economic activities. Along a stretch of the Columbia River running through the county, a salmon hatchery was established nearly a decade ago to aid restoration of a salmon run. Considering wildfire risks, a major wildfire in this area could affect water quality, wildlife habitat, other environmental service values, and livelihood values, but these assets are not addressed in conventional insurance policies. It is unrealistic to expect households in and around the underserved Colville Indian Reservation to bear the costs of insuring larger, landscape- and societal-scale environmental, health, and economic risks posed by wildfire.

Future research is needed to properly assess the full suite of values threatened by wildfire, particularly in underserved areas where local economies and livelihoods tend to

be more natural-resource-dependent. Were "non-market" values to become incorporated into private insurance contracts, a "carrot" approach for homeowners is more likely to be accepted by policyholders. Incentives might include discounted premiums in return for reducing hazardous fuels and adoption of other fire safety measures on insured property or in wildfire-prone communal areas such as neighborhood woodlots or right of ways. As part of the U.S. Department of Agriculture's Conservation Reserve Enhancement Program, farmers and landowners are incentivized to set aside or manage land to protect water quality, reduce soil erosion, secure critical wildlife habitat, and protect areas with high recreation value [30]. A comparable program could aim to prompt property owners to reduce wildfire risks on their own lands and adjacent lands by, for example, cost sharing of fuel reduction activities, creating fuel breaks in vegetated landscapes, protecting water sources for firefighters, and comparable risk reduction measures.

6. Conclusions

Improved methods, models, and refined datasets are enabling more precision in the arena of wildfire science. In contrast, policy responses to protect vulnerable communities from erratic, destructive wildfire lag behind. This article triangulates data on wildfire risk, income, and insurability, with the goal of understanding the vulnerability of lower-income homeowners—homeowners that are more likely to experience property insurance nonrenewal or cancellation due to wildfire risk. Using data from the U.S. Forest Service, we find that counties with moderate to high wildfire risk are more likely to be counties with higher poverty rates (59 out of a total of 98 counties in 12 high-wildfire-risk states). A more refined dataset from the risk-modeling organization, First Street Foundation, finds many additional counties, beyond those identified by the Forest Service, that are at moderate, major, severe, or extreme risk of wildfire, although both the Forest Service and First Street Foundation datasets are in close agreement regarding the set of wildfire-prone, high-poverty-rate counties. Differences in these datasets have implications for agencies and organizations tasked with managing wildfire risk, with First Street Foundation's data proving more granular and comprehensive.

California homeowners, who experienced a surge of insurance nonrenewal and cancellation decisions by insurance carriers in 2018 and 2019, are experiencing regulatory relief in 2022. The Safer from Wildfires program adopted in late 2021 aims to incentivize homeowners and neighborhoods to adopt fire safety measures and to oblige insurers to recognize and reward these interventions. California is ahead of other states in the wildfire-prone West in addressing the challenges of wildfire-related property insurance risk. In the absence of comparable policies, lower-income homeowners in nearby states may be at higher risk of insurance termination. The concentration of insurance underwriting in wildfire-prone states elevates these risks, limiting opportunities for homeowners to find replacement insurance. More research is needed to determine risks to the most vulnerable communities on a location-by-location basis. No less urgent is the identification of resources to support wildfire planning, response, and recovery efforts among underserved communities. New initiatives such as Safer from Wildfires and older established programs such as Firewise USA will prove important for community-based wildfire management, as will widespread adoption at the local level of multistakeholder Community Wildfire Protection Plans [7]. The high probability of continued, destructive wildfires across the American West and beyond, and the varied stakeholders affected by wildfire, point to the urgent need for planning and response strategies involving multiple interests—from federal, state, local, and tribal governments to businesses, nonprofits, homeowner associations, neighborhoods, and individual homeowners. Insurance companies are among the interested parties in this urgent work, as are vigilant state insurance commissioners.

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United Policyholders
www.uphelp.org

9/22/22 Testimony of United Policyholders
Co-Founder and Executive Director
Amy R. Bach

Good morning Chairman Cleaver, Vice Chair Hill and Subcommittee members. Thank you for the opportunity to address this Committee on a matter of national importance.

United Policyholders ("UP") is a 501(c)(3) non-profit organization based in California that informs and helps insurance consumers throughout the country. For over 30 years we've been working to make the insurance system work for the consumers who pay premiums and deserve fair treatment and the financial safety net they've paid for. UP has extensive experience with wildfires and insurance markets in CA, AZ, NM, TX, WA, OR and CO.

We help renters and homeowners protect their assets by shopping and comparing options and by not making small claims. We use lessons learned the hard way by underinsured disaster survivors to teach consumers not to just shop for the cheapest policy.

But in recent years we've had to shift our focus in wildfire-prone areas to helping people find *any* policy, let alone the best one. In many counties throughout California, there are now *no* choices – no option for insuring homes (and small businesses) other than limited and expensive protection through the California Fair Plan.

Just as insurers have dramatically reduced the number of homes they're willing to voluntarily cover in California, private market insurance options for property owners in Colorado, Washington and Oregon also appear to be shrinking.

Together with our hard-working partners – including California's Insurance Commissioner Ricardo Lara and Colorado Commissioner Mike Conway - we're doing everything we can to fix the situation.

Because increased wildfire risk is driving insurer non-renewals and price increases, we're working to promote wildfire risk reduction through our Wildfire Risk Reduction and Asset Protection (WRAP) initiative. We're supporting funding and technical assistance programs to help property owners clear brush, limb trees, and comply with the new home hardening and defensible space standards.

One of the most critical things we need to tackle this situation is for insurance companies to reward risk reduction through policy renewals and discounted rates for those who've invested time and money into risk reduction, and whose neighbors are doing the same. Incentives and rewards are

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essential to get people who are on a tight budget to spend money on the equivalent of "infrastructure" repairs.

Why is this happening? Insurers are reacting to climate change predictions and data by dropping long time customers and raising premiums sharply. Reinsurers are reacting by raising their rates and limiting the amount of catastrophic risk they're willing to reinsure. Insurance regulators are doing their best to monitor company's reserves, assets and solvency. State legislators are working to strengthen the Citizens Property Insurance Corporations in Louisiana and Florida and the California Fair Plan, The situation is challenging all around.

How did this all come about? The answer lies in an unfortunate confluence of events associated with climate change, an explosion in risk assessment and prediction models and tools, granular satellite imagery, risk scores, inflated home and construction material values, development in WUI[1] areas, forest management practices, and a whole lot of nervous investors.

Insurance companies are highly sophisticated professional gamblers. They will take risks in return for money (premiums) – that's the business they're in, but only to a degree. When a drought-driven bark beetle infestation and tree mortality crisis hit the news in California in 2016, insurers and reinsurers took notice. Around that time, multiple insurers began using a new risk scoring tool. The tool assigned a numerical score between 1-30 to every home. Homes with high scores got non-renewal notices, insurers stopped competing for them. The tree mortality crisis was followed by a succession of record-breaking CA mega wildfires in 2017 and 2018.

Similar to the factors that have made Florida's coastal property insurance market extremely turbulent and challenging, the confluence of events referenced above have created the wildfires and insurance situation we're grappling with today. A succession of wildfires in Colorado that began in 2010 portend similar challenges and are making UP, insurers, residents, regulators and lawmakers nervous about that state's property insurance marketplace as well.

As to risk modeling technology, some would say the genie is out of the bottle, but we believe that reasonable limits should stay in place for rating models. Unlike traditional rate making based on actual events, predictive rate models are highly likely to overstate risk. As to risk scores, consumers should have a right to understand what went into the score assigned to their home and a process for challenging incorrect information – just as we provide consumers in connection with a credit score.

To find solutions to the affordability and availability problems that are plaguing the property insurance marketplace, consumers and stakeholders, UP turned to history, firefighters, scientists and people who are living and working in the areas insurers are fleeing.

History: Scores of homeowners had sought help from UP in the early 90's after insurance companies non-renewed them in the aftermath of the expensive and destructive 1991 Oakland/Berkeley firestorm. We recruited local independent insurance agents and partnered with them and the City of Oakland to create the "Match UP" program. By matching the non-renewed homeowners with a pro-

[1] The WUI (Wildland Urban Interface) is the zone of transition between unoccupied land and human development. It is the line, area or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels. https://www.usfa.fema.gov/wui/what-is-the-wui.html

active insurance agent we helped the dropped homeowners secure replacement coverage, and after approximately a year things went back to normal and the program was no longer needed.

Fast forward to today, we're hosting free shopping help webinars with pro-active insurance agent expert panels and pointing consumers to tools for finding an insurer that may be willing to offer them a policy. We're coordinating with community-based risk reduction programs and resiliency experts to get as many people as possible in wildfire prone communities to get on board with home hardening and brush clearing.

We are not expecting things to return to normal any time soon.

While climate change is making it hard for people in wildfire-prone regions to find affordable insurance for their homes and businesses in wildfire-prone regions, their problems are our problems, and not limited to those regions.

Painfully high premiums and drastically reduced insurance options have hit residents of hurricane, hail, flood, tornado and derecho-prone areas hard, and there's a ripple effect to the pain: The ripples include:

- An increase in people dropping insurance ("going bare") or carrying far less coverage than they need
- A compounding of the financial strain that inflation and wage stagnation are putting on so many households
- Increased debt when people let their insurance lapse and their lender force places expensive coverage
- Higher demands on FEMA and government-sponsored insurers of last resort
- Underinsured mortgage collateral

The impact of the insurance sector's decreasing willingness to sell disaster protection for real property at a reasonable price is not just being felt by home and business owners. Local, state and federal officials and agencies and programs, as well as the banking, real estate and lending sectors are feeling the impact right along with home and business owners.

In conclusion, we can't solve this problem here today, but we know the pieces that have to be put into place for the long term:

- Funding and technical assistance for home hardening and defensible space
- Renewal rewards and premium discounts to those who reduce wildfire risk
- Strengthened, well run insurers of last resort
- Assistance to residual market property insurance programs similar to the FL Hurricane Catastrophe Fund

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Statement of Rex Frazier
President,
Personal Insurance Federation of California

State of Emergency: Examining the Impact of Growing Wildfire Risk on the Insurance Market

Thursday, September 22, 2022

Before the U.S. House Committee on Financial Services
Subcommittee on Housing, Community Development and Insurance

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Good morning, Chairman Cleaver, Ranking Member Hill, and Members of the Subcommittee,

My name is Rex Frazier. I am President of the Personal Insurance Federation of California, an association of insurers that provide over 60% of the homeowners' insurance coverage in California. Thank you for the opportunity to testify today.

Much has changed since 2017, when California experienced over 250 wildfires. That year, there were devastating fires, including the Tubbs Fire which killed 22 people, destroyed 5% of the City of Santa Rosa's housing stock, and resulted in over $11 billion in insured losses. For 2017 and 2018, insurers made claims payments totaling more than the previous twenty-two years of underwriting profit.

We now have a better understanding of how climate change operates in California. Peak fire season is no longer a predictable part of autumn. Delayed onset of seasonal rains (possibly as late as December) is resulting in longer periods of dry conditions that overlap with the annual Santa Ana, Sundowner, and Diablo wind patterns that can turn small fires into major disasters. Instead of having a month of this dry-windy overlap, we can now face two or more months.

The insolvency of Merced Property & Casualty Insurance Company, following the Paradise fire in 2018, has especially driven home the seriousness of the situation.

On the positive side, and with only one exception, all major home insurers active in the California marketplace prior to 2017 remain in the market today. They have worked with Commissioner Lara and his staff at the California Department of Insurance on the difficult balancing act of ensuring financial stability while seeking insurance availability and affordability.

Our member companies believe wildfire risk in California is insurable if rates are adequate to match the growing risk. Even when the regular market experiences problems, insurers provide a residual market for all homeowners seeking coverage, called the California FAIR Plan, that involves no government funding.

But, much work remains ahead.

The first step is to develop standards for insurers to recognize the benefits of home hardening and defensible space. Of critical importance is the research of the Insurance Institute for Business & Home Safety. Its "Wildfire Prepared Home" designation program holds great promise for helping insurers to provide better price signals regarding mitigation. This work is timely because the California Department of Insurance recently issued regulations for how insurers must communicate with customers about available mitigation discounts. Insurers will be submitting new filings with the Department soon.

The next step is to advance the science of community-level mitigation. While home hardening and defensible space is important, many wildfires will only be stopped by efforts beyond the individual parcel. So much of wildfire risk relates to bigger considerations, such as the amount of surrounding brush or trees; whether a community is located near slopes, canyons, or wind tunnels; and the amount of access for firefighters to confront a fire. IBHS is researching these dynamics currently and insurers look forward to studying and incorporating the results.

While mitigation is important, there is another issue that, if it is not solved, will limit the California homeowners' insurance market. California insurance regulations must be amended to allow insurers to incorporate forward-looking climate science into their rate filings.

In California, when an insurer submits a rate filing, it must justify its requested statewide premium for future wildfire losses based upon its average annual wildfire losses over the last twenty years. The request cannot consider the location of the insured properties, their proximity to vegetation, or even if the homes to be insured are hardened. It is a calculation with no sensitivity to changing conditions or evolving knowledge.

An insurer is not permitted to seek a higher premium level even if it would like to go into a higher fire-risk area. Under the regulations, that insurer must, first, sustain high losses and, then, request permission for a higher statewide premium level. This is not a reasonable expectation. It encourages insurers to withdraw from the highest risk areas. If an insurer has data to support how a particular area is being impacted by fuel loads or climate change, then it should be able to submit a filing to the Department which explains the risk and quantifies the premiums that will be needed to pay the expected losses in that area.

There is no other state that requires insurers to look back two decades to justify its requested premium levels intended to fund future wildfire losses. Without an updated rating system, it is difficult to see how California insurers will be able to serve the needs of the most at-risk communities in the future. Fortunately, there is a solution to the problem.

I would be happy to answer any questions. Thank you.

RICARDO LARA
CALIFORNIA INSURANCE COMMISSIONER

Good morning, Subcommittee Chairman Cleaver, Ranking Member Hill, esteemed members of the Subcommittee. Thank you for having me virtually speak to you all today. I also want to personally thank Committee Chairwoman Waters for her invitation to me to be a part of this hearing, and for the overall attention given to this important issue of insurance availability and reliability due to continued climate-intensified wildfires.

As the elected Insurance Commissioner of the Nation's largest insurance market, I have taken significant steps to safeguard the availability of insurance for consumers and to maintain a competitive insurance

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market – granted by California voters in passing Proposition 103 back in 1988. Proposition 103 allows for insurance companies to request rates that are adequate to pay future claims, while giving me the authority to protect consumers from excessive or unfairly discriminatory rates.

In December 2019, I implemented a "moratorium" law that I proudly authored while in the California State Legislature, that protects wildfire survivors by preventing insurance companies from non-renewing policies for those living adjacent to a declared wildfire emergency for one total year, recognizing that it's absolutely critical to give consumers "breathing room" after a wildfire disaster. Even if they did not lose their home, they might have lost

a neighbor, a friend, a loved one. My action also gives insurance companies a chance to assess so they are not so quick to drop their longtime customers. To date, since 2019, I have protected more than 4 million residential policies from nonrenewal by their insurance company.

For years, California and other like-minded states have warned – repeatedly – to prepare for the impact that climate change is having on risk and our ability to prepare for it. At the National Association of Insurance Commissioners, I co-chair its Climate and Resiliency Task Force with my fellow insurance regulator from Florida; wildfires, wildfire smoke, flooding, and heat waves do not respect state borders so we have to work together as the state-based regulators of insurance through

the NAIC. I am also proud to be creating a historic "Sustainable Insurance Roadmap" with the United Nations Principles for Sustainable Insurance Initiative, which will outline key actions that regulators and insurance companies need to take to protect consumers and to create more sustainable insurance markets in a time of intensifying climate risks.

Otherwise, insurance companies that threaten to withdraw from wildfire risk regions of California or any state defy a central purpose for insurance: To incentivize home hardening behaviors that will reduce risk. That is why I created a first-in-the-nation insurance pricing regulation that, after three years of stakeholder engagement and in partnership with California's

emergency preparedness agencies, would require all insurance companies to recognize and reward wildfire mitigation efforts made by homeowners and businesses such as upgraded roofs and windows, defensible space, and living in Firewise communities. Transparency is another important benefit of my regulation, requiring insurance companies to provide consumers with their property's "risk score" and a right to appeal that score. I have also advocated for increased state budget funding to help residents and businesses pay for mitigation efforts necessary for them to retain their insurance coverage. I believe funding pre-disaster mitigation for local communities is critical, and I commend Congress for passing the "Inflation Reduction Act" earlier this year that

includes critical funding for hazardous fuel reduction and community resilience and risk mitigation projects; every dollar of pre-disaster mitigation saves $5-to-$7 in avoided future insurance losses – helping make insurance more available and affordable.

You are familiar with the residual "insurer of last resort" market -- known as the FAIR Plan in California -- which will cover you if no insurance company will. Because of an increase of nonrenewals in the Wildland Urban Interface, I have worked to modernize the FAIR Plan by ordering it to provide consumers with increased homeowners and commercial insurance coverage limits as well as offer more comprehensive property coverage

options to protect what for most of us is our largest financial safeguard – our homes.

I am committed to continue to look at how we give insurance companies tools to better manage risk so we can maintain competition; however, there must be a firm commitment from the voluntary insurance market to provide and maintain insurance, especially to our most vulnerable. As you know, many rural residents in our states are retirees on fixed incomes, working people, and those pushed out of the urban core. When people cannot obtain affordable insurance and have no incentive to harden their homes and communities, it can lead to a downward spiral of increased community wildfire risk, falling home values, lower property tax rolls, and less

revenue for basic services like emergency response and school facilities for our kids.

In sum, Mother Nature is the best advocate we have on climate change. As one looks at the wildfires, heat waves, and atmospheric river flooding events, one cannot deny the reality of what we are facing or the need for immediate action. Further reducing risks and closing protection gaps are vital for strengthening our Nation's climate resilience today and tomorrow.

Thank you again for the opportunity to testify and I would be pleased to take your questions.

-- END --

Testimony of Roy E. Wright

President & CEO
Insurance Institute for Business & Home Safety (IBHS)

"State of Emergency: Examining the Impact of Growing Wildfire Risk on the Insurance Market"

Before the U.S. House of Representatives
Committee on Financial Services
Subcommittee on Housing, Community Development and Insurance

September 22, 2022

Members of the Subcommittee, thank you for the opportunity to speak with you today about the importance of residential resilience as we think about strengthening families, communities, and adapting to the adverse effects of wildfires across the American landscape. My name is Roy Wright, and I am President & CEO of the Insurance Institute for Business & Home Safety (IBHS). IBHS is a 501(c)(3) organization, enabled by the property insurance industry's investment, to fund building safety research that leads to real-world solutions for home and business owners, helping to create more resilient communities.

Severe weather disrupts lives, displaces families, and drives financial loss. IBHS delivers top-tier science and translates it into action so we can prevent avoidable suffering, strengthen our homes and businesses, inform the insurance industry, and support thriving communities. The perils we study at IBHS are part of the natural world in which we live, but social and economic disasters occur when these perils meet human populations that live or work in harm's way. To break the cycle of destruction, it is essential to address all aspects of the building performance chain: where you build, how you design and construct, and how well you maintain and repair. As a building science institute, IBHS focuses on the ways that weather behaves, what makes homes and businesses vulnerable, and how our buildings can be more resilient. We exist to help ensure that the places where people live, learn, work, worship, and gather are safe, stable, and as strong as the best science can equip them to be.

Wildfires have long been part of the American landscape. However, in recent years they have become more frequent and intense, often spreading into densely populated suburban neighborhoods where the economic losses and human suffering are significant. For instance, the 2020 wildfires burned 10.27 million acres and caused $16.5 billion in damage, destructive but still less costly than 2017 ($24 billion) and 2018 ($22 billion). And yet, we understand how to reduce the risk of ignition for these homes — how to make our families and communities stronger and safer when smoke fills the air.

Today, I would like to speak to you about what we know about wildfire risk and resilience: where the science is now and what we have yet to learn, as well as the resilience solutions that can help homeowners—right now—to meaningfully reduce the chance that their homes will burn. To start, I want to highlight three key points:

1. We must address the resilience of the built environment as a fundamental part of federal, state, and local wildfire public policy—and the heaviest lifting will occur at the state and local level.
2. We are not powerless. More than a decade of research, at IBHS and elsewhere, contribute to a scientific understanding of the mitigation actions, when undertaken collectively, that are most essential to reducing wildfire losses for individual properties.
3. Actions undertaken in California can serve as a model for other states looking for ways to protect their residents from wildfires. Much like the collective set of mitigation actions necessary to protect a given home, effective public policy must also be system of mutually supportive actions at the individual, collective, and government level.

None of this is free. We cannot in one breath say "the climate is changing and making wildfires worse," and in the next breath say "I want the costs of building and insurance to be cheaper." The changing climate has a cost, and yet let me underscore my second point: we are not powerless. Strengthening our resilience to wildfire is among the most pressing challenges faced by too many American families, but solutions are within our reach.

The State of Wildfire Science

Wildfire is one of the most important perils we study at the IBHS Research Center. Our facility is the only place beside real-world wildfire events that can expose full-size buildings and building components to realistic thermal exposure of flames and embers. Our researchers meticulously recreate realistic wildfire scenarios to better understand the interaction of embers, wind, and the built environment. This lab-based work is then extended through field-based, post-event investigations. IBHS not only funds and leads these research endeavors, IBHS also partners with other wildfire science leaders – the California Department of Forestry and Fire Protection (CAL FIRE), the USFS's Rocky Mountain Research Station/Missoula Fire Sciences Laboratory, and NIST's Fire Research Division. In the last decade, our research has covered topics including ember characteristics, decking, vents, fire-retardant coatings and gels, and the home ignition (0-5 foot) zone around structures. *It's about solutions, not just studying the problem.*

Based on this research, we now understand the behavior of wildfire around the built environment far better than we did ten years ago. Generally, wildfire causes damage to homes through three channels: flames, radiant heat, and embers. While the images of flames on nightly news reports gain the most attention, it is the embers that cause the vast majority of damage to homes and communities. Embers — smoldering pieces the size of a hand — can be carried aloft by wind for a half mile or more, bringing a wildfire well outside the predictable path of the flames. These embers are responsible for the vast majority of home ignitions caused by wildfires. And once a home ignites, it will be a complete loss 90 percent of the time. These findings have taught us that wildfires are essentially a home ignition problem, and that embers are the primary driver of these ignitions. By finding ways to reduce the likelihood that an ember ignites a home, we can meaningfully reduce that home's wildfire risk.

These findings are important and necessary, but they are not sufficient to fully understand and mitigate wildfire risk. We know that managing and mitigating wildfire risk requires actions undertaken at the property level to both the structure and the defensible space, and actions undertaken at the community level.

To date, the scientific understanding of community wildfire resilience is not as advanced as our understanding of mitigation at the individual home level. Understanding community resilience to wildfire is challenging because of the multiplicity of variables that contribute to – or reduce – it. These variables include topography, wind, vegetation management, seasonal drought conditions, neighborhood density, nature-based solutions (like fire breaks and buffers), the percentage of homes in a neighborhood that have undertaken meaningful property-level mitigation actions, and community-wide engagement through programs like Firewise. Understanding which of these variables are most important to community resilience, the availability of data for each of these variables, and how these variables interact are subjects of ongoing research for IBHS and others in the wildfire science space. I am confident that we will solve for this problem—and more work must be done to do so.

The Criticality of a Wildfire Resilient Built Environment

In California and beyond, more communities than ever are at risk of wildfires**.** Per a recent FEMA report, nearly 99 million Americans, one-third of our nation, live in areas considered the Wildland Urban Interface – the area where homes and communities intermingle with the undeveloped wildlands and vegetative fuels of the natural environment. Think about that: nearly one-third of all Americans now live in areas that we know to be of heightened wildfire risk. In fact, a study from

2020 found that approximately 60 million homes in the U.S. are within an area that has already burned or are within a kilometer of previous fire. In light of the wildfires that have occurred in the last two years, including more than 7 million acres burned in 2021, this figure is surely higher today.

These startling statistics do not even fully capture the actual risk wildfire poses to people's homes and communities, given what we know about the behavior of wildfire. As I referenced earlier, embers — which cause the vast majority of building ignitions during wildfires — can fly a half mile or further ahead of the flames of a wildfire. As these embers land and ignite, they create more embers that winds carry even further ahead. What this means: more Americans than ever are moving into areas of known high wildfire risk, while wildfire risk encroaches outward.

Unlike any other natural peril, wildfires are strengthened when they reach the built environment. Buildings are literally fuel for the fire, meaning that our homes are not just at risk from wildfire, they contribute to its spread. In our post-disaster investigation of Colorado's December 2021 Marshall Fire, we saw a grassland fire turn into a suburban conflagration when it reached neighborhoods: it was flames and embers from burning homes – not from grasslands – that caused much of the destruction. What this means: investing in a built environment is not only about protecting the vulnerable – it is about controlling the severity and scope of wildfires.

Given these two unique facets of wildfire, our policy response must include making the built environment more resilient to wildfire. Wildfire resilience requires policy responses that recognize the complex interaction of the built environment and the natural environment. The federal government invests considerable resources into wildfire response and recovery – and most of these funds go to wildfire response and forest management. We also need to take action where people live.

We Know How to Make Homes Safer from Wildfires

In response to this critical need, IBHS developed Wildfire Prepared Home™ – a wildfire resilience standard and designation program incorporating available wildfire science, building performance characteristics, data analytics insights, and contributions from a diverse group of wildfire leaders – to provide homeowners, insurers, and policymakers with a risk reduction tool to prevent avoidable suffering, harden homes, and support thriving communities. In its initial phase, a Wildfire Prepared Home designation is available for single-family, site-built homes in California that meet the technical requirements in the standard. We anticipate scaling the program to other states in the future — but there is no reason why the mitigation actions included in Wildfire Prepared Home cannot be adopted by homeowners and communities outside of California right now.

Wildfire Prepared Home is grounded in research identifying core mitigation actions that, when taken together, significantly reduce a given property's wildfire risk. These mitigation actions reduce the risk of ignition when embers reach suburban properties and, should ignition occur, remove pathways leading flames to the home. Our decade of wildfire research instructs that wildfire resilience requires a systems-based approach to mitigation actions—meaning that homeowners must undertake and maintain all the requisite mitigation actions to drive down their risk. Once achieved, the Wildfire Prepared Home designation signals that the wildfire risk to the designated home can be meaningfully distinguished from unmitigated or partially mitigated properties. The requisite mitigations actions included in Wildfire Prepared Home, which are achievable for both new construction and existing homes, focus on the roof, building features, and defensible space.

Roof. The Wildfire Prepared Home standard requires a Class A roof and non-combustible gutters and downspouts. The good news is that many homes throughout the American West already have this in place.

Building Features. The Wildfire Prepared Home standard has two requirements relating to building features. First, homeowners must have ember-resistant vents to prevent embers from intruding into a structure. In addition, homeowners must have a six-inch vertical noncombustible zone around the base of the house, an area in which wildfire embers are known to collect.

Defensible Space. While all mitigation actions included in the Wildfire Prepared Home program are necessary, perhaps none are as important as the defensible space requirements. First and foremost, homeowners must have *and maintain* an impeccable five feet, completely free of combustibles, around the entire base of their home (this area has also been called the "home ignition zone", the "ember-resistant zone", or "Zone 0"). This area must be free of vegetation, sheds, hoses, boats, propane tanks, or any other materials that could burn. Roofs and decks must also be kept clear of combustible material. Time and again, our research has demonstrated that embers collect in the five-foot area around a home, and those embers will ruthlessly seek out combustible material to ignite. A home that does not remove all combustibles from this area are at risk.

In addition, homeowners must trim trees and branches away from the five-foot zone around the house, including those located above the roof. Also, yards must be well-maintained and clear of debris, such as fallen branches, leaves, and other combustible materials. The program also requires that for homes with decks, underdeck areas must be cleared of combustibles and well-maintained, and underdeck areas four feet or less in height must be enclosed to reduce debris accumulation and resist embers. For homes with fences, any fencing attached to a home must be noncombustible.

In addition to the requisite mitigation actions required by the Wildfire Prepared Home standard, IBHS also has identified six additional mitigation actions that even more substantially reduce risk and qualify a home for a Wildfire Prepared Home + Plus™ designation:

- All fencing on the parcel must be single line and not back-to-back with neighboring parcels to reduce debris accumulation.
- Non-combustible siding materials are used on the exterior envelope of the home.
- Enclosed eaves.
- Enclosed the space under bay windows.
- Homes with decks use upgraded wildfire resistant deck materials.
- Windows are wildfire resistant or exterior shutters can be deployed.

These actions are achievable and effective, and a recent study of the California market by IBHS and Headwaters Economics demonstrates that they are reasonably affordable as well. The study, which compares the construction costs of three versions of a wildfire-resistant home in California, found that for a small additional investment of as little as $3,000 homeowners can mitigate vulnerable areas of the home to further reduce wildfire risk. The study found building an enhanced wildfire-resistant home in California adds only 2-8 percent to the total construction cost. Bringing a typical new home up to an optimum wildfire resistant level adds 4-13 percent to the total construction cost of a new home in California.

Moreover, this mitigation approach should have salutary effect on the insurance system in California and, once the program grows, other states as well. Following the launch of the Wildfire Prepared

Home program in June of this year, the American Property Casualty Insurance Association recognized the powerful effect that the program could have on the California insurance market:

> Insurers look forward to leveraging Wildfire Prepared Home™ as effectively as they have used IBHS's FORTIFIED Home™ program in hurricane-prone regions to identify properties that have received meaningful mitigation measures. Wildfire Prepared Home™ may be a game changer for consumers and insurers in the wildfire space.... As more homes are hardened and more communities follow Paradise's lead, California should see a meaningful decrease in losses, which should positively impact availability and affordability of insurance in the state.

Mitigating wildfire risk is essential for the safety of families and communities and for reducing the damage, disruption, and dislocation all too often associated with wildfire conflagrations; and its positive effect on the insurance system should be neither understated nor overstated.

Pulling Together: Federal, State and Local Actions to Reduce Wildfire Risk

Just as the mitigation actions to reduce property level wildfire risk must be undertaken collectively, so too must the actions of federal, state, and local policymakers to assist homeowners to achieve a higher degree of resilience. Three essential public policy lanes for reducing wildfire risk are:

- **Stronger codes and standards** for building and defensible space;
- **Appropriately tailored financial incentives and support mechanisms** to help homeowners invest in meaningful wildfire resilience; and
- **Public education and consistent messaging** about wildfire risk reduction – especially critical mitigation actions like a combustible-free home ignition zone in the five feet around the home.

It is important to note that while the federal government can play a supporting role in each of these policy lanes, the role of state and local governments is more direct and essential than that of the federal departments and agencies. In the building code space, the Biden-Harris Administration is providing strong leadership through the National Initiative to Advance Building Codes. Even so, building codes are within the jurisdiction of, ideally, states, or local governments if the state fails to act; the federal governments can only do so much in this context. Likewise, financial incentives and financial support programs, like grants, are best planned and administered at the state and local level. And while public education and messaging from federal sources is important, most homeowners will be more receptive to voices in their own community — highlighting the crucial role of the fire services in providing good information on wildfire resilience.

Stronger codes and standards.

A recent study found that homes that meet wildfire codes were 40% less likely to be destroyed, compared to older homes. Unfortunately, while codes and standards for wildfire resilience have existed and evolved through regular code updates for decades, the adoption rates for existing wildfire codes and standards are even lower than the shamefully low adoption rates for modern versions of the International Residential Code, and far more sporadic in their usage. To strengthen the resilience of vulnerable homes and communities, adoption and enforcement of wildfire codes and standards must increase.

One key model for wildfire standards comes from the consensus process of the International Code Council (ICC) which, in 2003, published the first model wildfire code, the International Wildland-Urban Interface Code (IWUIC) – a process to which IBHS continues to contribute. Another example can be found in California, which adopted Chapter 7A of its Building Code, a wildfire-specific section titled "Materials and Construction Methods for Exterior Wildfire Exposure," in 2008. IBHS has also played a role in contributing technical assistance toward the development of Chapter 7A. Other states should follow California's lead by enacting statewide wildfire building codes. In doing so, states should not leave out strong requirements around defensible space, particularly in suburban environments, so that embers do not find fertile ground to ignite in and around houses.

In the absence of state action, or in addition to it, local governments can also use town and county ordinances to enact and enforce wildfire resilience measures. For example, the Town of Paradise — which is already subject to the requirements of California's Chapter 7A — has enacted new town ordinances bringing the town's requirements into alignment with the mitigation actions required by Wildfire Prepared Home. This will put all newly constructed homes in the town in an excellent position to achieve designations from this program.

Appropriately tailored financial incentives and support mechanisms.
For existing homes, homeowners must invest in retrofits to improve the resilience of their home and property. As with other natural perils, financial incentives can help provide needed nudges to encourage wildfire resilience investments, and more significant financial mechanisms may be necessary to help low- and moderate-income homeowners mitigate their risk. Actions at the federal, state and local level can provide these financial mechanisms to spur resilience-enhancing actions by homeowners.

Many people have difficulty effectively evaluating risk, particularly high impact, low likelihood risk like wildfire disasters. When it comes to natural perils like wildfires, people usually feel more protected than they are. This complacency can be an obstacle to people investing in their own resilience. This complacency is a place where Congress can play a role — by providing financial incentives, such as tax credits, can provide the additional nudge homeowners may need to invest in their own resilience.

However, some people need more than a nudge — they need financial support to undertake mitigation actions that they cannot otherwise afford. For these individuals, mitigation grant programs can mean the difference between resilience and ignition when embers fly through the air. California again serves as a model in this lane of wildfire resilience policy. Through the California Office of Emergency Services and CAL FIRE, the California state government has stood up a mitigation program that will help homeowners take necessary structural and defensible space actions on their properties. In addition, county governments — such as Sonoma County — are standing up grant programs to help residents strengthen their resilience. Federal money through FEMA's grant programs can be used to leverage programs like these to expand their reach to even more homeowners. At both the state and local level, policymakers have leaned on IBHS science and resources to ensure that the mitigation programs are grounded in science and aligned to the mitigation actions that the insurance industry cares about most. As other states and localities develop similar programs, we urge them to use IBHS as a resource so that public dollars are used for mitigation actions that will actually bend down the wildfire risk curve.

Public education and consistent messaging.
As more states and communities confront wildfire risk, a multitude of public, non-profit, and for-profit programs have sprung up in response. In any given community, a homeowner may hear messaging about wildfire from the local fire department, a wildfire prevention authority, town and county leaders, a neighborhood Firewise community, a local Fire Safe Council, their insurance company, nightly news reports, and advertisements from wildfire mitigation services companies. Even with the best of intentions, the signal can be lost in all this noise, particularly when the messages from these sources emphasize different things.

IBHS always strives to translate our research into action so we can prevent avoidable suffering, strengthen our homes and businesses, inform the insurance industry, and support thriving communities. Risk communications is an important tool for doing so, because we understand that our science is only as good as people's ability to understand it and put into action. We strongly encourage federal, state, and local policymakers to coalesce around a science-driven set of recommendations for wildfire resilience and the actions that will mitigate such risk. A common message across multiple stakeholders will simplify and amplify the signal to homeowners, hopefully giving them clear guidance as well as a measure of hope. The newly formed Wildland Fire Mitigation and Management Commission — with its membership from federal, state, local, academic, non-profit, and private sector representatives — may be well-placed to contribute to such an initiative.

In closing, I would like to thank you for the recognizing the importance of wildfire mitigation for both resilient communities and healthy insurance markets, and the critical role IBHS research plays to help strengthen the built environment. Americans are not powerless against wildfire resilience — it *is* possible to take actions today to meaningfully reduce the risk that one's home will ignite and burn. I appreciate the opportunity to share some of our ideas with you today.

American Property Casualty Insurance Association
INSURING AMERICA apci.org

APCIA Statement for The Record
Subcommittee on Housing, Community Development, and Insurance
House Financial Services Committee
September 22, 2022

"State of Emergency: Examining the Impact of Growing Wildfire Risk on the Insurance Market"

Chairman Cleaver and Ranking Member Hill, the American Property Casualty Insurance Association (APCIA) commends the Subcommittee on Housing, Community Development, and Insurance for holding a hearing recently to highlight the growing risks seen across the country related to wildfires; and respectfully requests the following statement be included in the hearing record. APCIA is the primary national trade association for home, auto, and business insurers whose members represent all sizes, structures, and regions—protecting families, communities, and businesses in the U.S. and across the globe. From this position, APCIA has been a leading stakeholder in confronting the evolving challenges that policymakers, insurers, and their policyholders have faced regarding the growing threat presented by wildfires.

Introduction

As the U.S. faces more frequent and severe wildfire catastrophe events, insurers are facing increasing challenges in managing wildfire risk due to a growing number of underlying issues impacting overall exposure and claims costs for insurers. While the insurance industry continues to try to confront these challenges, they unfortunately have resulted in higher costs and fewer choices for consumers looking to protect their homes, property and businesses against the growing threat of wildfires. As more communities continue to face devastation, tragically impacting property, lives, and livelihoods from these catastrophic events, increasing attention is needed from all stakeholders to examine the full spectrum of issues related to wildfires including forecasting, preparing, responding, and ensuring economic recovery and protection.

Issues of affordability and availability of insurance in wildfire-prone regions stem from many factors, including recent, severe losses and public policies that have made it difficult for insurers to provide coverage in high-risk markets in an efficient and financially responsible manner. This includes, for example, long standing policies that have failed to address growing risk exposure (i.e., forestry management policies that have enabled significant buildup of hazardous fuels) and housing and land use policies that have significantly expanded the number of homes and communities in harm's way. These public policies that contribute to the growth of the risk are compounded with insufficient consideration given to hazard reduction policies such as strong building codes and vegetation management standards. Of particular concern is the number of vulnerable populations now residing in the wildland urban

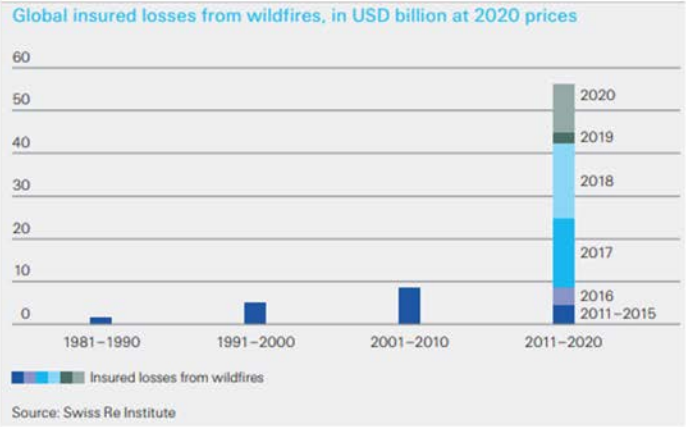
interface (WUI) and resulting disproportionate impacts such policies have created for these communities.

In addition, the introduction of new laws and regulations has added further volatility and costs for insurers in several wildfire-prone states all while insurers and consumers deal with unprecedented losses and severe inflation. However, as insurers work to navigate these challenges, they are also encountering state regulatory constraints that limit the ability of insurers to manage risk and adjust premiums in a timely fashion to account for rapidly rising costs and growing wildfire risk.

Collectively, these are the underlying issues contributing to growing pressure in wildfire-prone regions, thus impacting affordability and availability of insurance, as insurers have grown less confident in their ability to responsibly provide coverage. To ease pressure and restore market health, insurers need public policies that address the underlying issues leading to market disruption – not that further compound them. Together, these are the issues that need to be addressed to restore stability and confidence in the private insurance market.

Unprecedented Wildfire Losses

Insurers in the U.S. are facing increasing fiscal pressure following a severe multi-year period of wildfire losses. According to Swiss Re, prior to 2015 the globe recorded only four years in which aggregated wildfire-related insured losses had topped $2 billion (2021 USD).



To date, the peak global insured wildfire loss years have been 2017, 2018, and 2020, resulting in insured wildfire losses of $18 billion, $17 billion, and $14 billion, respectively, primarily due to losses in California. Since 2017, Aon has indicated eight of the ten costliest insured wildfire events in the world have occurred in California, resulting in nearly 40,000 homes lost alone due to wildfire.

Top 10 Costliest Insured Global Wildland Fires
($ millions) shaded are CA-based wildfires since 2017

Year	Name	Location	Insured Losses in 2021 USD	Acres	Structures
2018	**Camp**	Butte (CA, USA)	**$10,750**	153,336	18,804
2017	**Tubbs**	Napa & Sonoma (CA, USA)	**$9,560**	36,807	5,636
2018	**Woolsey**	Ventura, Los Angeles (CA, USA)	**$4,520**	96,949	1,643
1991	Oakland (Tunnel)	Alameda (CA, USA)	$3,350	1,600	2,900
2017	**Atlas**	Napa & Sonoma (CA, USA)	**$3,300**	51,624	783
2016	Horse Creek	Fort McMurray (CANADA)	$3,200	1,456,810	3,244
2020	**Glass**	Napa & Sonoma (CA, USA)	**$3,070**	67,484	1,520
2020	**CZU Lightning Complex**	San Mateo & Santa Cruz (CA, USA)	**$2,600**	86,509	1,490
2017	**Thomas**	Ventura & Santa Barbara (CA, USA)	**$2,470**	281,893	1,063
2020	**LNU Lightning Complex**	Lake, Napa, Sonoma, Solano & Yolo (CA, USA)	**$2,340**	363,220	1,491

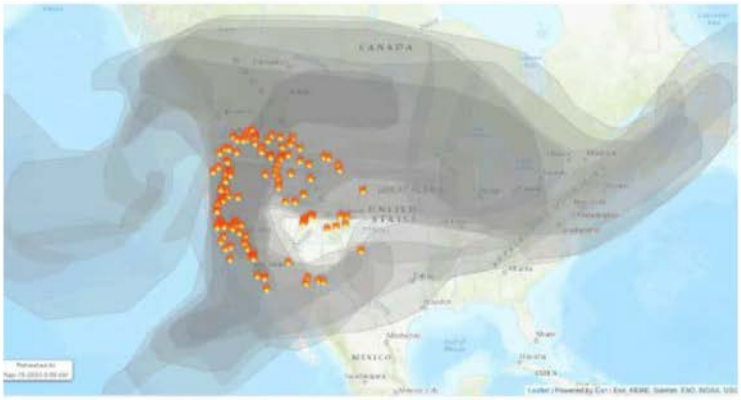
Sources: Triple-I, Aon

According to an analysis from Milliman, the losses in 2017 and 2018 were so significant that they wiped out over 20 years of underwriting profits for homeowners insurers. Recent data indicates that on a cumulative basis, the homeowners line of business remains unprofitable, dating back to the 1991 Oakland Tunnel fire, as shown in the chart below.

Notes
1996 - 2021 data from P&C Combined Industry Annual Statement data from SNL.com.
1991-1995 Earned Premium and Loss Ratio data from the California Department of Insurance. Expense ratios for 1991-1995 are estimated as the average of 1996-1998.
Profit is based on direct industry earned premium, losses, and expenses.
Excludes impact of reinsurance and investment income.

Other western states have similarly faced recent record-breaking wildfire events. For example, in 2020, Oregon and Washington experienced double the 10-year average for acres burned, resulting in 6,000 structures lost, while Colorado experienced three of its four largest wildfires on record (at the time), resulting in almost 1,000 structures lost. Wildfire events in 2020 were so large and widespread, by mid-September drift smoke from wildfires had "covered almost the entirety of the Lower 48, even reaching

D.C.", darkening skies to an ominous red and exposing millions to hazardous levels of air pollution.[1] Indirect losses due to smoke damage and evacuations were significant, contributing to approximately 20 percent of losses in California and Colorado, and 35 percent in Oregon and Washington.[2]



Extent of smoke from 2020 fires in the Lower 48. Large wildfires are also shown. (AirNow)

In Colorado, such events were tragically followed by the Marshall wildfire in December 2021, which resulted in 1,100 homes lost in a matter of hours, quickly becoming the costliest and most destructive wildfire in Colorado state history. Estimates from Jefferies indicates potentially $2.5 billion in insured losses have been incurred and Aon expects the Marshall wildfire will be the costliest U.S. wildfire event outside of California.[3]

The extent of devastation wildfires pose to communities is alarming. According to final Damage Assessment Reports compiled by the CAL FIRE Damage Inspection Specialists (DINS), between 2017 to 2021, 56 thousand structures[4] have been affected by wildfire in California with damage levels ranging from minor to destroyed. Of these 56 thousand structures, 51.5 thousand were destroyed (92 percent), of which 70 percent were residential structures.

Growing Environmental Exposure

Climate change, intensifying drought, and the related environmental conditions are among factors affecting the alarming growth in wildfire exposure and resulting losses. The annual State of the Climate Report, compiled by scientists at the National Oceanic and Atmospheric Administration (NOAA), provides a comprehensive update on global climate indicators and weather events. The 32nd report, released in August 2022 and covering calendar year 2021, notes that the last seven years were the

[1] Matthew Cappucci & Jason Samenow, Washington Post, 'From ferocious fires to a historic hurricane season, 2020 took weather to new extremes' Dec 29, 2020

[2] Newswire, 'RMS Estimates that Total Insured Losses from the 2020 Western U.S. Wildfires Will Be Between US$7bn – US$13bn' Dec 17, 2020

[3] https://www.artemis.bm/news/december-cat-losses-include-3-9bn-tornadoes-2-5bn-marshall-fire-jefferies/

[4] All permanent structures greater than 120 square feet.

warmest seven years on record since records began in the mid-1800s, and the total global land area experiencing drought set a record.[5]

Nationally summer temperatures across the United States have continued to set new records in recent years and the western U.S. is currently experiencing its worst megadrought in over 1,200 years. The current 20-year megadrought has led to aridification of the region including, most notably, the Colorado River Basin, which has seen its natural flows diminished by nearly 20 percent since 2000.[6] The Fourth National Climate Assessment, released in 2018 by the U.S. Global Change Research Program, indicated climate change has intensified the severe drought in California and is worsening drought in the Colorado River Basin. Research has shown that climate change makes such droughts hotter than they might've been just a few decades ago, which draws more moisture out of soils and vegetation, thereby worsening the drought in a positive feedback loop. These conditions are resulting in fires igniting more easily and spreading more rapidly, resulting in much higher average acres burned per fire due to extremely dry vegetation.

Prolonged warm and dry conditions are leading to an expansion in the area of land traditionally susceptible to wildfire. In a study entitled "*Warming enabled upslope advance in western US forest fires*," published in Proceedings of the National Academy of Sciences in June 2021, researchers found climate warming has diminished the 'high-elevation flammability barrier' – the point where forests historically were too wet to burn regularly because of the lingering presence of snow. They further noted, over three decades (1984-2017) fires have advanced 252 meters uphill in Western mountains, or roughly 800 feet in elevation, amongst other findings.[7]

According to the U.S. Global Change Research Program, the wildfire season has also lengthened in many areas due to warmer springs, longer summer dry seasons, and drier soils and vegetation.[8] Fire season, a period that has historically been viewed in the western U.S. as May through October, is now widely viewed to be year-round. CoreLogic, a leading property information, analytics and solutions provider, highlighted an observed change in wind patterns in a December 2020 wildfire presentation, noting extreme duration and intensity of winds that year, including wind events in California occurring outside of the typical "windy season" for Santa Ana and Diablo winds. Such wind events often lead to the rapid spread of wildfires, resulting in catastrophic losses. Such conditions resulted in the explosive growth of the Marshall Wildfire, which devastated communities outside of Boulder, Colorado in late December 2021.

Along with increasingly warm and dry conditions, large-scale insect infestation (e.g., bark beetle) and a decades-long national policy of prioritizing fire suppression has concentrated resources in fighting

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[5] Blunden, J. and T. Boyer, Eds., 2022: "State of the Climate in 2021". Bull. Amer. Meteor. Soc., 103 (8), Si–S465, https://doi.org/10.1175/2022BAMSStateoftheClimate.1

[6] https://www.discovermagazine.com/environment/how-the-u-s-megadrought-will-affect-2022-and-beyond

[7] https://www.mcgill.ca/newsroom/channels/news/mountain-fires-burning-higher-unprecedented-rates-331540

[8] USGCRP (U.S. Global Change Research Program). 2018. Impacts, risks, and adaptation in the United States: Fourth National Climate Assessment, volume II.

wildfires rather than managing forests to proactively mitigate future risk. According to data from the National Interagency Fire Center, federal firefighting costs were almost $2.3 billion in 2020. The five-year average of $2.4 billion is 23 percent higher than the ten-year average of $1.9 billion, while the percent of the budget for the U.S. Forest Service spent on fire suppression has ballooned from 15 percent to over 55 percent over the last few decades.

Land Use Policies Exacerbating Effects of Climate Change

These evolving environmental conditions are further exacerbated by federal, state, and community land use policies. According to a study from the U.S. Forest Service, "*Rapid growth of the U.S. Wildland Urban Interface raises wildfire risk*", from 1990-2010, the Wildlife Urban Interface (WUI) grew rapidly, increasing from 30.8 to 43.4 million homes (41 percent growth) and expanding in area by almost 33 percent from 143,568,227 acres to 190,271,144 acres in area. WUI refers to the area where the built environment, such as homes and businesses, meets or intermingles with a natural environment, like forests or open grasslands that may be more prone to burn. The vast majority of newly expanded WUI was caused by new housing development (97 percent), not an increase in wildland vegetation.[9] In the last two decades, we have seen the largest increases in the number of houses and people in the WUI in the South and Southwest, with increases of 70 percent or more in Nevada, Arizona, Florida, Utah, and Colorado.

Data from Cape Analytics and HazardHub further highlighted housing growth in the WUI since 2011. Between 2011-2020, 22,382 new homes were built in zones identified to be at 'high' risk of wildfire.[10] California led the states in the west for the highest number of new homes built in high-risk wildfire areas, with just over 10,000; however, Utah was not far behind. According to Verisk Wildfire Risk Analysis, which uses data from FireLine®[11], Verisk's wildfire risk management tool, there are now over 4.5 million properties estimated at high to extreme risk from wildfire in the U.S.[12]

While some wildfires are naturally occurring events, such as those originating from lightning, studies have shown 85 percent of wildland fires in the U.S. are caused by humans.[13] This is often due to accidental or negligent actions, such as leaving a campfire unattended or escaped debris burns, or more common day-to-day activities such as welding, grinding, weeding at the wrong time of day, driving with a loose chain, or pulling an overheated vehicle to the side of the road. This may also include recent wildfire events involving utility equipment or intentional acts, such as arson.

The potential for human-caused catastrophic wildfire events makes wildfire unique from all other naturally occurring disasters (i.e., hurricanes, earthquakes, flooding, or convective storms) where the conditions that lead to loss are almost entirely driven by mother nature, and the potential for damage may diminish as storms move ashore, such as flooding, or further from the epicenter, as in the case of

[9] https://www.nrs.fs.fed.us/news/release/wui-increase
[10] https://content.capeanalytics.com/the-wildfire-west-lp
[11] FireLine evaluates wildfire risk at the address level using advanced remote sensing and digital mapping technology to assess the primary factors contributing to wildfire risk—fuel, slope, and road access. FireLine also identifies properties located in Special Hazard Interface Areas, indicating risks exposed to wind-borne embers.
[12] Verisk disclaims U.S. figures are based on data from the 2010 U.S. Census and Canadian figures based on data from the LOCATION® database; figures are rounded to the nearest 100.
[13] https://www.nps.gov/articles/wildfire-causes-and-evaluation.htm

earthquakes or convective storms. However, in the case of wildfire, the built environment may become the fuel that further propels the fire as structures ignite and spread embers deeper into communities, amplifying the potential for suburban conflagrations. Thus, continued expansion in wildfire-prone regions is a significant concern for property insurers, as the potential for catastrophic wildfires (and in turn insured losses) increases as human activity increases in these areas. This concern is further amplified in regions where WUI-specific building or vegetation codes have not been adopted, adapted or enforced to reduce the likelihood of ignition.

This concern has not only drawn the attention of insurers, but researchers in the scientific community. The current insurance market affordability and availability challenges are often a symptom of broader issues, and recent studies have highlighted land use policies in high-risk areas as a significant contributor to such insurance market challenges, particularly in the wildfire space.

For example, in a 2021 article from USA Today[14] it was noted, "[z]oning is a local matter, and politicians are mostly interested in keeping property values high and increasing the tax base with more building." The article went on to note that mortgage companies continue to sell in risky areas as there's no incentive for them to stop providing mortgages in high-risk areas when banks can easily unload them to the secondary market. The construction industry similarly benefits from the continued expansion in high-risk regions as communities are built and then must be rebuilt following a disaster.

Thus, collective public policy decisions have created a situation that incentivizes increasing risk exposure without the need to bear the full costs of that risk, which is otherwise known as "moral hazard". In stark contrast, the insurance industry has been forced to bear the growing risk and associated costs, while simultaneously facing increasing pressure from consumers, lawmakers, and insurance regulators because of the growing unaffordability of insurance coverage in these high-risk regions. As a result, insurers have begun to raise these concerns and discuss solutions among stakeholders within the broader property development industry, to help address the growing pressure and call attention to the underlying problem to be solved for the benefit of all stakeholders.

[14] https://news.yahoo.com/climate-change-freight-train-making-093004857.html

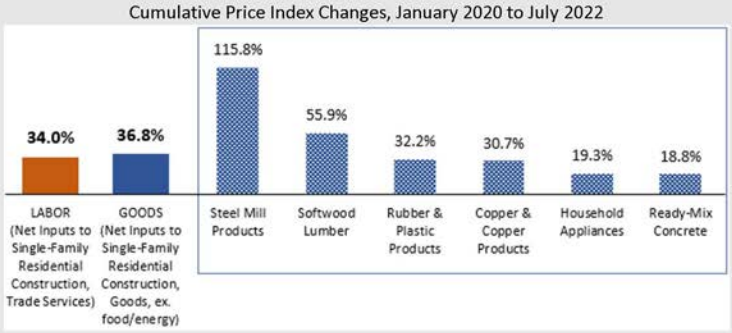
Increasing Costs Beyond the Fire

In the last couple of years, demand for skilled contractors and construction materials to build new homes and complete home remodeling projects during the height of the pandemic in 2020 collided with the end of a record-breaking year for catastrophe losses when thousands of homes across the U.S. would also need to be repaired or reconstructed following devastating hurricanes, wildfires, and other natural catastrophe events. At the same time, due to supply chain disruptions resulting from the pandemic and geopolitical events impacting global trade, materials and labor supply were further strained as natural disasters remained elevated in 2021.

The resulting impacts have led to significantly higher material and labor costs across the U.S. to reconstruct homes, in addition to longer timeframes needed to rebuild. This has led to insurance claims inflation rising faster than the U.S. inflation rate, and outpacing homeowners insurance premiums collected. These loss amplification effects have been particularly pronounced in regions experiencing a demand surge following a natural disaster, such as wildfire. Because of these factors, if the same losses that happened in record loss years, such as 2017 and 2018, happened today, the losses would result in substantially higher costs to insurers.

Construction Cost Inputs since COVID-19 Pandemic

Cumulative Price Index Changes, January 2020 to July 2022



Producer Price Index by Commodity

Source: Bureau of Labor Statistics. Data as of September 9, 2022

Challenges in Managing Wildfire Risk

As noted, insurers providing coverage in wildfire-prone regions are facing an increasingly challenging financial situation amid recent losses, increasing environmental exposure with generally little to no enforcement or mitigation to reduce risk, and rapidly rising costs. However, insurers are also adjusting to recent laws that have expanded coverage benefits and modified claims handling expectations, which have added further pressure.

For example, California, Oregon, and Colorado have enacted in the last few years various legislative changes that extended timeframes for policyholders to collect full replacement cost and additional living expenses, which may amplify ultimate loss value due to inflation over time, and the ability to combine

coverages when policy limits for coverage to rebuild or replace the primary dwelling are insufficient, which is not contemplated under the policy. In allowing policyholders to combine coverage following catastrophic wildfires, insurers and reinsurers must remodel potential loss exposure. In addition, such mandates may inadvertently introduce uncertainty in policy contract terms or reinsurance treaties for certain provisions, which could result in potential disputes and litigation. In California, insurers are also now required to provide coverage for additional living expenses during mandatory evacuations. As wildfires have become more frequent and larger in size, tens of thousands of residents may be under mandatory evacuation orders for extended periods throughout the state, at any point in the year given the year-round fire season, posing a substantial expansion of coverage for indirect losses. In addition, California enacted new regulatory authority to implement non-renewal moratoria in the immediate aftermath of a wildfire. Collectively, these and other recently enacted policies have introduced significant volatility and amplified potential loss costs and expenses due to wildfires.

When faced with growing catastrophic exposure, insurers might typically respond in a few ways, such as raise premiums or purchase additional reinsurance to help pay for the cost of future losses, limit their exposure by writing fewer policies, or require certain mitigation to reduce the chance of loss as a condition of writing coverage. However, insurers are increasingly facing challenges, such as untimely rate approvals, increasing reinsurance costs for secondary perils such as wildfires, and nonrenewal moratoria in the aftermath of disasters. Insurers might also consider adjustments in product design, though individual state laws and regulations pose further constraints that limit insurers from implementing such features in some wildfire-prone states.

For example, in some states Standard Fire Policy laws limit wildfire-related catastrophe product design, such as catastrophe deductibles. Catastrophe deductibles are designed to provide consumers with the option to select a higher or lower level of shared risk for catastrophe exposure, that best fits their needs and budget. If a consumer is willing to assume a higher share of the catastrophic risk (i.e., the out-of-pocket cost following a disaster), they may select a higher deductible, which in turn would result in a lower insurance premium. Such policy features are generally recommended when combined with a mitigation strategy that helps reduce the likelihood of a loss. In addition, in states that implement favorable tax treatment laws, property owners also have the option to pre-fund a disaster savings account to help pay for large catastrophe deductibles in the event a loss does occur. Together, these tools and financial strategies can help keep insurance rates more affordable for consumers in disaster-prone regions. However, many states prone to wildfire have not taken steps to provide consumers with these options or may have existing laws that prevent such options.

To help better manage growing catastrophic wildfire risk, insurers need tools that allow them to adapt to the growing impact of climate change and future losses due to perils such as hurricanes, flooding, winter and other severe storms, earthquakes, and wildfires. The best tool for to acknowledging this exponentially growing risk is through the use of catastrophe models.

Often when insurers underwrite and rate certain risk, they look at extensive historical data to better understand risk and determine what level of exposure they can responsibly take on while remaining financially solvent. However, for risks such as wildfires that have not tracked historical loss trends due to climate changes, insurers must go beyond just historical data and incorporate catastrophe simulation models, or simply "cat models." Cat models are based on science spanning a variety of fields, including atmospheric science, environmental science, actuarial science, and engineering, and help address a number of the shortcomings associated with basing future losses on historical averages.

As such, cat models specific to wildfire risk provide a critical solution to help understand the interactions between weather, local vegetation, and topography, and are becoming increasingly more granular by considering additional parcel-specific factors such as defensible space and construction materials, as well as mitigation efforts. However, the ability of insurers to leverage the benefits of wildfire cat models varies by state, according to state regulation. For example, in California the state insurance regulator, the California Department of Insurance (CDI), currently does not permit insurers to use wildfire cat models. Instead, insurers are required to rely on 20-years of historical loss experience, which generally does not reflect the extensive housing growth in high-risk areas in recent years, or the increased fuel load following years of drought and fire suppression strategies.

Not only does this limitation discourage communities and policyholders from learning about their true risk related to wildfires and it robs them of the opportunity to undertake mitigation efforts to address this risk; but it directly counters efforts by many policymakers, including members of this very Subcommittee, to ensure that climate change is adequately incorporated into the planning and financial preparedness of government agencies and other stakeholders. Recently the California Insurance Commissioner has proposed a rulemaking (10 C.C.R. § 2644.9 Mitigation in Rating Plans and Wildfire Risk Models) that would finally allow insurers to incorporate climate change risk related to wildfire, even if only in a limited capacity. Unfortunately, however, the rulemaking provides no intellectual property protections, which discourages modelers who would otherwise provide insurers access to their latest proprietary technology and tools, thus negating the impact of the rulemaking.

CDI also refuses to permit insurers to include the net cost of reinsurance in their rates; costs which have climbed significantly in recent years amid the increasing frequency and severity of natural disasters. Historically, secondary perils, such as wildfires, tornadoes, and severe thunderstorms, have generally occurred more frequently but tend to be relatively small events when compared to the severity of tropical storms or earthquakes. As such, they don't typically result in widespread losses that lead to massive pay-outs for the insurance industry. However, secondary perils are more frequently driving annual losses and they accounted for more than half the losses in 2021. The growing impact from these losses on insurers and reinsurers has led to significantly higher reinsurance costs in recent years. Thus, the inability to reflect such net costs in rates puts significant financial pressure on insurers and adversely impacts the willingness of other insurers to enter the California market. This poses a significant concern to the insurance industry, as California represents over forty-five percent of properties across the U.S. at high or extreme risk of wildfire.

For the system to work properly, insurance rates must accurately reflect the risk assumed and they must be developed through sound standards of actuarial practice. However, faced with increasing risk and their limited ability to manage wildfire exposure with the resulting implications for solvency and on their ability to pay claims, a growing number of insurers have made the difficult decision to either significantly reduce their exposure in some states or, in some cases, exit the market entirely or operate on a non-admitted basis. Insurers that choose to operate on a non-admitted basis are generally seeking greater flexibility to manage overall risk, including the ability to quickly respond to rapidly evolving market conditions.

The collective impacts on the property insurance market have resulted in hundreds of thousands of policy non-renewals that have led many consumers to seek coverage in state residual market plans. Residual market plans are generally intended to be insurance markets of last resort in that they provide temporary coverage for properties viewed as an extremely high insurance risk, until risk is reduced, and

coverage can once again be obtained in the admitted market. Additionally, the increased concentration of high-risk wildfire properties in state residual markets due to the lack of coverage capacity in the private market resulting from regulatory constraints, have together led to increased rates for coverage under the plans.

For example, in California, the state insurance regulator proposes to substantially expand coverage available under the state's residual market, the CA FAIR plan. This includes ignoring statutes that limit the FAIR plan to selling a "basic property insurance policy" by requiring the CA FAIR plan to offer consumers an HO-3 comprehensive insurance policy. The FAIR plan has also struggled to secure necessary rate filing approvals and resorted, instead, to litigation to increase rates to reflect recent and significant increases in costs to settle claims in order to remain financially solvent. Most recently, the Commissioner is pushing to significantly expand coverage for large commercial structures up to $100 million. In doing so, the FAIR plan may require a substantial expansion of administrative and operational resources to support these endeavors, though it may encounter challenges in securing the necessary reinsurance to enable sufficient claims paying capacity. The state regulator has also disallowed the FAIR plan from including the net cost of reinsurance in rate filings, contrary to statute.

The expansion of policies in residual market plans also weighs heavily on admitted insurance companies, as the concentration of high-risk properties could result in substantial losses in any given year. Should losses exceed a residual market plan's claims paying capacity, generally assessments are made, forcing admitted market insurers (and ultimately their policyholders) to pay the shortfall.

Simultaneously, in California, the state insurance regulator has delayed regulatory approval for necessary rate increases that help ensure the FAIR plan remains solvent. In denying rate increases to reflect the growing exposure and rising costs, the state is subsidizing risk by artificially suppressing rates for the state's highest risk properties. In effect, the FAIR plan is being restructured to function more as a competitor with the admitted market, resulting in a government program with the backstop of private companies through assessment, versus the intended design of residual markets providing a government backstop for the admitted market.

The expansion of state residual markets without appropriate measures to ensure rate adequacy, as seen in California, can inadvertently incentivize actions that lend to increased risk exposure without needing to bear the full costs of that risk, or a "moral hazard". As these actions fail to address the underlying issues in the admitted market, and loss costs continue to climb, market health further erodes by increasing the threat of assessments and financial pressure on admitted insurers. Ultimately, this becomes a self-perpetuating cycle of market deterioration as insurers lose confidence in their ability to operate efficiently and profitably, and further retreat.

Case Study: Is California the next Florida?

A closer look, contrasting the issues that have led to market contraction in these states

Florida's response to managing coastal risk following Hurricane Andrew offers a cautionary tale of the impact that growing risk can have on the availability of insurance when combined with outside influence limiting insurers' ability to properly manage their risk exposure.

Following Hurricane Andrew, which devastated the state in 1992, the Florida insurance market experienced a significant period of disruption, including multiple carriers that became insolvent. In response, Florida implemented numerous measures to stabilize the insurance market, focused on three key areas: risk reduction, improved risk management and product design, and expanded risk transfer options.

Risk reduction

- Stronger building codes introduced and enforced, and retrofits required

Improved risk management and product design

- New hurricane deductibles introduced to increase shared risk
- Sophisticated catastrophe modeling was developed and rapidly evolved
- Surplus and capital standards were reevaluated

Expanded risk transfer options

- Alternative risk transfer and catastrophe bonds emerged, in response to a contraction of reinsurance capacity

As a result of the historic losses, and some insurers exiting the market, the residual markets greatly expanded, until the market stabilized. However, these targeted measures dealing with the underlying cost of insurance were ultimately successful in helping stabilize the insurance market in the state over time.

In the mid-2000's, however, Florida once again faced significant losses and market disruption. A new study related to hurricane mitigation had been released and premium credits (i.e., discounts) based on this study became a mandatory part of the Florida insurance market. Unlike efforts in the 1990s focused on addressing the underlying cost drivers of the higher risk, this newer effort attempted to address affordability not by focusing on the underlying cost but instead by focusing on achieving an artificially lower cost with mandatory discounts, which undermined the risk modeling and underwriting system insurers relied on to match price to risk. In addition, in the wake of record hurricane losses in 2004 and 2005, rather than seeking to bring new insurance capacity to the state, policymakers froze private insurer rate increases in 2007 and reverted to 2006 rates for Florida Citizens (the state-run insurer of last resort) and froze rates at those levels for two years. These actions created a direct risk to insurer solvency, leading many to significantly scale back their business in the state. Over a million policyholders were forced to purchase coverage through Citizens as the market significantly contracted again. In addition, due to the increased number of policyholders in the Citizens program, and fewer admitted carriers to cover program shortfalls, premiums within the Citizens program grew to unaffordable levels. To address this, the state enacted reforms that eventually restored a measure of stability to the system that rejuvenated the private market, which allowed for the depopulation of the residual market that was the Citizens program resulting in lower average premiums across the state.

Challenges in Mitigating Wildfire

Wildfires have long been a natural part of our nation's landscape. However, with increased community development in the WUI, the exposure to catastrophic and costly wildfires has grown exponentially in recent years.

Wildfire risk is unique from other catastrophic perils, such as hurricanes, in that to reduce wildfire risk effectively and meaningfully, mitigation requires both structural adaptation (also referred to as "home hardening") as well as management of fuels, the latter of which must be done on a recurring basis. Also, this mitigation must be done for an individual property as well as the surrounding community, as wind-driven embers can travel from one property and ignite a nearby or adjacent property, creating a tragic domino effect of losses within neighborhoods.

Since there are 4.5 million properties across the U.S. currently at high or extreme risk of wildfire, insurers strongly believe it is critical that home and business owners focus on preparedness and mitigation to help reduce the likelihood of property damage. This poses quite a unique challenge for the property insurance industry. For all other perils insured in the private insurance market, insurance companies have only needed to establish a standard focused on hardening a single home, with validation done as a one-time event. Wildfire not only breaks that mold, but the private insurance industry is still developing the standard and how it should be validated for properties situated in the WUI. The National Flood Insurance Program's (NFIP) Community Rating System (CRS) offers one approach for community-level mitigation. The CRS program is a voluntary program that considers community efforts that help reduce flood risk through flood insurance premium credits for the community's property owners. However, it is important to note that premium credits are only provided for efforts that exceed minimum standards for eligibility, and mitigation efforts do not require the same frequent and recurring attention that may be needed to maintain defensible space in a wildfire-prone region.

While home hardening and mitigation do come with costs, a recent study by the Insurance Institute for Business & Home Safety (IBHS) and Headwaters Economics, which examined the cost of building more wildfire-resistant homes in California, found vulnerable areas of the home can be mitigated for less than $3,000 during new construction. The study also found that there were negligible cost differences between a home built with wildfire-resistant materials and typical homes being currently constructed. There is clear evidence that a holistic approach to home and community hardening that incorporates building design, scientifically tested materials, and wildfire mitigation focused landscaping, significantly reduces risk of destruction by wildfire.

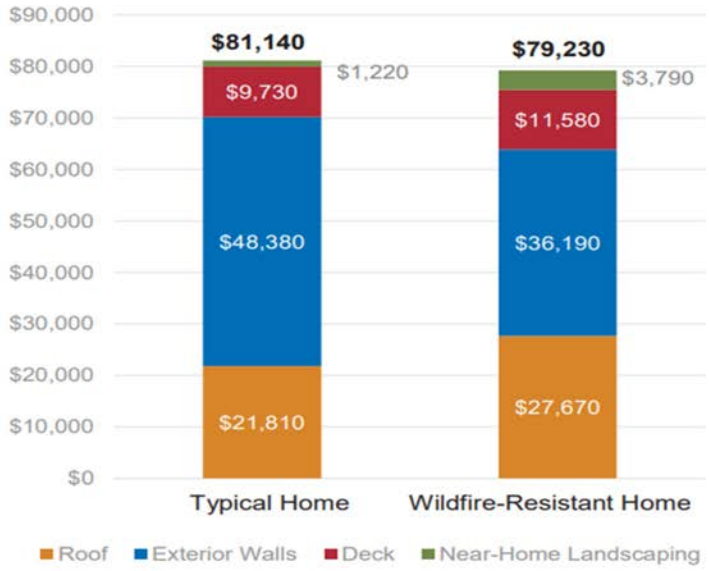


Figure: New construction by component in typical and wildfire-resistant home.

Source: Headwaters Economics: *Building a Wildfire-Resistant Home: Executive Summary*, 2018

As more homes and communities are hardened and improve defensible space, we anticipate a meaningful decrease in losses, which should positively impact availability and affordability of insurance. Thus, mitigation is a key solution and priority for our industry to help protect families and communities.

Wildfires Adversely Impact Traditionally Underserved Communities

Some studies have shown that lower-income and traditionally underserved individuals and communities face increased risk and harm from wildfire and other climate related events. This is largely due to land use policies that encourage WUI growth and expansion of housing in rural, wildfire-prone areas often done as a solution to provide a cheaper cost of living for lower-income residents. In addition to the issue of larger concentration of traditionally underserved communities in the WUI, several additional factors contribute and compound the disproportionate economic impacts of wildfire on vulnerable populations.

Property Specific Mitigation is Cost-Prohibitive - Lower-income property owners moving into wildfire-prone areas may not be aware of the increased risk and may not have the financial resources to harden their homes to increase fire resistance and create defensible space by removing flammable materials around them.

Limited Community Resource – In some cases, lower-income, minority and tribal communities do not have the financial and other resources needed to compile and submit grant proposals through the complicated bureaucratic process in place within state and federal government mitigation grant programs; thus, leaving them out of receiving mitigation assistance that could be available to them.

Outdated Government Allocation of Mitigation Funding – In addition to the overly complicated and expensive grant writing and submission processes that disadvantage some under-served communities, the allocation of some federal grants are based on outdated systems that prioritize economic values over what is best for the greatest number of people. While steps have begun to address this through executive orders, including the establishment of the government-wide Justice40 Initiative that has the goal of delivering 40 percent of the overall benefits of relevant federal investments and grants to disadvantaged communities.

Even with these limitations, communities can help safeguard vulnerable populations from the impacts of wildfires. Additionally, there are several legislative proposals currently before Congress that could help address some of these inequities in access to mitigation assistance including: (1) an expansion of federal tax credits can support communities and lower-income residents in mitigating wildfire risks and hardening their homes; (2) simplifying the grant proposal process and establish programs to provide assistance to lower income communities in submitting grant proposals; and (3) reforming federal mitigation assistance programs to ensure that underserved communities are not systematically disadvantaged.

At the local level, governments can evaluate whether land use policies promote development in wildfire-prone areas and consider the practicality of building more affordable housing in urban centers that tend to be more protected from wildfires. Additionally, state and community governments can take steps to mitigate wildfire risk trough the adoption of the latest building codes and establishment of voluntary buyout programs to prevent rebuilding in the most high risk areas, which may also help incentivize homeowners to relocate to less wildfire-prone areas.

The Science of Wildfire Mitigation

The dramatic rise in losses of homes and commercial buildings to wildfire in recent years has increased focus on structural improvements, leading to the development of WUI-specific building codes, including new International Wildland-Urban Interface Code (IWUIC) standards. However, as is customary with building codes, these new codes only address structural adaptation within the WUI and not surrounding vegetation or other combustible materials that increase risk of loss to wildfire.

While new codes have been developed and put forward, adoption of those codes remains a problem. Few states have adopted WUI codes, which creates significant exposure across the western U.S. In addition, even in states that have adopted the newer WUI codes, code inspections and enforcement have varied widely, resulting in millions of homes built, or rebuilt, over the last number of years that are not resilient to wildfires.

To address these shortcomings, the insurance industry has raised the issue of the need for clear data on:

(1) building code standards at a parcel level (including for a newly constructed structure vs. an existing property structure); and

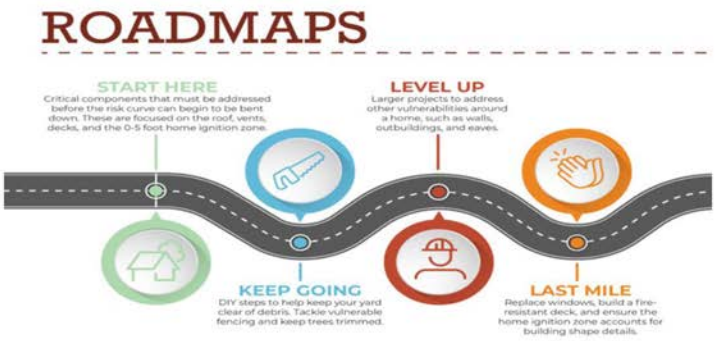
(2) if a parcel has been inspected, when it was last inspected, and whether the parcel met the code in effect at the time of inspection.

Insurers are also working to identify similar information for all the surrounding structures in the community to fully understand potential risk exposure.

To help understand building code adoption and enforcement in high-risk areas, like coastal regions, insurers have often relied upon the ISO Building Code Effectiveness Grading Schedule (BCEGS®) program. ISO refers to an independent organization called Insurance Services Office, which is a leading source of information about property insurance risk. The ISO BCEGS® assesses the building codes in effect in a particular community and how the community enforces its building codes, with special emphasis on mitigation of losses from natural hazards. However, this program focuses on adaptation of the structure, not vegetation and defensible space, which is a critical component of wildfire mitigation. California has recently made significant strides in addressing this issue with the recent launch of their "Safer from Wildfires" framework and other code changes that will require adoption and enforcement of wildfire-specific structural and vegetation management codes throughout the state, with significant emphasis in higher risk wildfire regions. This framework was largely informed by and generally consistent with the research of the Insurance Institute for Business & Home Safety (IBHS).

Insurers have long been engaged in the research of factors that contribute to property loss from severe weather and natural catastrophes; as well as methods to reduce the risk of loss. At the forefront of their effort to produce scientific research and building standards is IBHS, an institution created to help incentivize policyholders to take actions to reduce costs associated with weather-related losses. IBHS has developed safety standards that may exceed typical building codes, to help provide consumers with the peace of mind that they can better protect their homes and businesses, and better preserve the irreplaceable heirlooms and memories within them.

Recent work by IBHS has included addressing the issue of wildfire, with a focus on both structural adaptation and defensible space through management of vegetation and other combustible materials. Following years of wildfire research, insights, and engineering knowledge, IBHS released *Suburban Wildfire Adaptation Roadmaps* in 2020, which is a widely regarded best practices guide for consumers and the broader public on wildfire mitigation to help fill a critical gap in wildfire science.



The Roadmaps identify a core set of priority actions that can be undertaken to effectively reduce a home's vulnerability. By comparing the vulnerability of each building component such as roofs, walls, decks based on their elements, as well as defensible space, IBHS identified effective and actionable ways to drive down the growing losses that occur when wildfire spreads beyond the wildland-urban interface (WUI) into dense suburban communities. Their work signaled a shift in wildfire mitigation from a "one-size-fits-all" approach to one nuanced and tailorable to specific properties to address the intricate and unique characteristics of dense neighborhoods where losses can be devastating.

Wildfire Mitigation Grant Programs

FEDERAL FUNDING PROGRAMS

- *Building Resilient Infrastructure and Communities (BRIC)* – Created in 2020, the BRIC program is a competitive grant program that provides states, communities, and tribes funding to address high-level future risk to natural disasters and aims to shift the federal focus away from reactive disaster spending towards research-supported, proactive investment in community resilience.
- *The Housing and Urban Development (HUD) Community Development Block Grant (CDBG)* – Supports the development of urban and rural communities by expanding economic opportunities and improving quality of life. The program provides annual grants to more than 1,200 recipients, including in support of wildfire projects such as infrastructure programs that reduce fuel break reduction measures and watershed management activities.
- *US Forest Service Community Wildfire Defense Grants* – Provides grants intended to help at-risk local communities and tribes plan and reduce the risk against wildfire as well as prioritize at-risk communities in areas identified as having high or very high wildfire hazard potential. The program seeks to restore and maintain landscapes, create fire adapted communities, and improve wildfire response in participating jurisdictions.

PARCEL LEVEL MITIGATION PROGRAMS

- *IBHS Wildfire Prepared Home™* -- Released in 2022, the IBHS Wildfire Prepared Home framework is based on the latest wildfire research and is designed to create a direct path for homeowners to apply IBHS research to their homes and demonstrate their commitment to mitigation through a designation, and meaningfully reduce wildfire risk.
- *Wildfire Partners* -- A voluntary wildfire mitigation program that supports homeowners in and around Boulder County, Colorado through free initial independent risk assessment of wildfire risk, financial assistance to help complete forestry-related mitigation, and facilitating independent verification that mitigation has in fact been completed. Certifications can be provided to insurance companies and used to help market and sell at risk properties.

COMMUNITY LEVEL PROGRAMS

- *Firewise USA®* -- A voluntary program focused on community-scale wildfire risk mitigation that provides specific steps on how to increase ignition resistance for individual homes within a community. The program focuses on risk in specific zones around a home, starting with that closest to the home. The program is administered by the National Fire Protection Association (NFPA)® and is co-sponsored by the USDA Forest Service and the National Association of State Foresters, with strong partnerships with state fire agencies.
- *California Fire Safe Councils (CFSCs)* -- Grassroots, community-led organizations that work to bring together community leaders, governmental agencies, and corporations to educate and promote prevention through mitigation. CFSCs work with local fire officials to increase wildfire survivability. CFSCs also work with the US Forest Service, the Bureau of Land Management, the National Park Service, and the Fish & Wildlife Service to help secure and distribute large master grants.

Key Solutions

Insurers need greater regulatory flexibility and stability to manage growing natural disaster risk and the true cost of claims, while continuing efforts to reduce risk through mitigation.

To increase availability and affordability of insurance and restore property markets to good health, insurers need greater confidence they can operate in the admitted market in a financially solvent manner. To accomplish this, lawmakers and regulators must strike a healthier balance between affordability for consumers and the rate adequacy needs of insurers. Insurers must be given flexibility to collect adequate premiums reflective of the exposure. When the private market is allowed to function in this way with less volatility and counterproductive constraints, the result is increased competition and ultimately greater consumer choice.

To further address affordability for consumers, lawmakers and regulators must focus on ways to reduce exposure and future losses. While climate change is expected to increase the frequency and severity of natural disasters, including wildfires, communities must be hardened to withstand natural catastrophes. Recent years have underscored the need for public and private stakeholders to work together to make communities more resilient. Stronger homes, built for the local risks, should result in a meaningful decrease in future expected losses, enabling insurers to continue to provide affordable and available coverage for consumers.

As such, the insurance industry has placed a substantial focus on mitigating future loss costs to ensure the private insurance market remains well positioned to provide coverage in high-risk wildfire regions. This requires better community planning, increased fuels management, and stronger building code and vegetation management standards in wildfire-prone areas. Insurers are also strongly advocating for additional resources that will help support retrofits to harden existing homes and businesses, particularly within vulnerable communities. In addition to supporting programs that promote community-wide adoption of hazard-resistant building codes, such as the International WUI code, insurers are also advocating for safe evacuation routes and increased investments in tools and technology that can support improved forecasting and early detection and communication systems.

We appreciate the opportunity to provide this statement and look forward to working with all members of the Committee going forward.

California's Ban on Climate-Informed Models for Wildfire Insurance Premiums

*Rex Frazier**

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INTRODUCTION

Popular news outlets have effectively covered how homeowners living in high fire risk areas find it increasingly difficult to obtain property insurance.[1] However, there is very little public discussion of, and little scholarship[2] on, how

*DOI: https://doi.org/10.15779/Z384X54H5B

1. Nicole Friedman, Californians in Fire-Prone Areas Find It Harder to Buy Insurance, WALL ST J., Aug. 20, 2019, https://www.wsj.com/articles/californians-in-fire-prone-areas-find-it-harder-to-buy-insurance-11566338023; Nathan Rott, It's Becoming Increasingly Hard for California Homeowners to Get Insurance, NPR (Jan. 12, 2018), https://www.npr.org/2018/01/12/577713360/its-becoming-increasingly-hard-for-california-homeowners-to-get-insurance; Ry Rivard, In Risk-Prone Areas, Fire Insurance Is Getting Harder and Harder to Come By, VOICE OF SAN DIEGO, (June 14, 2019), https://www.voiceofsandiego.org/topics/news/in-risk-prone-areas-fire-insurance-is-getting-harder-and-harder-to-come-by/; Katherine Chiglinsky & Elaine Chen, Many Californians Being Left Without Homeowners Insurance Due to Wildfire Risk, INS. J. (Dec. 4, 2020), https://www.insurancejournal.com/news/west/2020/12/04/592788.htm.

2. A very recent examination of insurance regulation and climate change can be found in KAREN CHAPPLE ET AL., U.C. BERKELEY CTR. FOR CMTY. INNOVATION, REBUILDING FOR A RESILIENT

California's rules *against* using current and future risk data – including cutting edge climate science – in insurance premiums contributes to this difficulty. This lack of legal commentary likely results from few attorneys reading actuarial journals, and even fewer actuaries being remotely interested in publishing in legal journals.

California regulations have long required insurers to seek state approval of future rates for catastrophic fire risk based upon at least twenty years of their actual, historical fire losses.[3] However, according to the California Commission on Catastrophic Wildfire Cost and Recovery, "[t]he science is clear that wildfire severity and the frequency of large fires are increasing due to climate change."[4] Five of the six largest wildfires in recorded history occurred in 2020[5] and fifteen of the twenty most destructive fires in the state's history have taken place since just 2015.[6] Clearly, Californians are living in a period of unprecedented, rapid change in their physical realities.

While the current, backward-looking rating method may have worked in the past, it cannot account for how escalating wildfire activity is already increasing the amount of money needed in the insurance system to fund rapidly increasing insured losses. If California law will not permit insurers to develop rates using advanced scientific understanding, such as recognition of changing seasonal rain patterns,[7] then it is likely that insurers will choose to limit issuance of policies in high-risk areas where insurance rules make it difficult to obtain adequate prices. Reliable catastrophe models that account for various risk factors—such as vegetation type and moisture, topography, housing density and location, and wind conditions—are currently available to insurers. California insurers use such models for internal analysis and decision-making, but California law bans use of these tools to develop catastrophic wildfire pricing. State permission to use these models to formulate prices would enable insurers to develop strategies for serving specific, high-risk areas.

While there are reasonable questions that should be addressed before state officials permit use of these modern, scientific models, none of these questions

RECOVERY: PLANNING IN CALIFORNIA'S WILDLAND URBAN INTERFACE 10 (2021), https://www.next10.org/sites/default/files/2021-06/Next10-Rebuilding-Resilient.pdf ("Regulations also limit insurers to using historical damage data to determine risk estimates even though updated catastrophe models can provide more realistic risk determinations that reflect climate change's impacts on the frequency and intensity of wildfires.").

3. *See* CAL. CODE REGS. tit. 10, § 2644.5 (2021).

4. COMM'N ON CATASTROPHIC WILDFIRE COST & RECOVERY, FINAL REPORT 8 (2019), opr.ca.gov/docs/20190618-Commission_on_Catastrophic_Wildfire_Report_FINAL_for_transmittal.pdf.

5. *See*, CHAPPLE ET AL., *supra* note [2], at 2.

6. Dep't of Forestry & Fire Prot., Top 20 Largest California Wildfires (Sept. 10, 2021), https://www.fire.ca.gov/media/t1rdhizr/top20_destruction.pdf.

7. Daniel L. Swain et al., *Increasing Precipitation Volatility in Twenty-First-Century California*, 8 NATURE CLIMATE CHANGE 427-433, [427] (2018) ("Mediterranean climate regimes are particularly susceptible to rapid shifts between drought and flood—of which, California's rapid transition from record multi-year dryness between 2012 and 2016 to extreme wetness during the 2016–2017 winter provides a dramatic example.").

are novel and all are resolvable. The biggest question that should be asked is, "Why is it illegal in California to consider climate-informed catastrophe models when setting wildfire insurance premiums?"

This Article consists of three parts. In Part I, I describe California's regulation of catastrophic fire insurance premiums and argue why the rationale for this system is no longer persuasive. In Part II, I summarize an alternative approach to regulation using forward-looking data, including emerging climate science. Finally, in Part III, I outline important considerations in transitioning to this new model.

I. OVERVIEW OF CALIFORNIA INSURANCE PRICE-SETTING

Unlike most consumer products, homeowners' insurance rates are subject to state control. An insurer cannot charge a rate to a member of the public without the California Insurance Commissioner's prior approval.[8] The California Department of Insurance (CDI) has promulgated a lengthy and complex set of regulations for determining the range of permissible rates. Known as the "prior approval regulations,"[9] these CDI rules specify every element necessary for developing an insurance rate, including permissible expenses,[10] the maximum permissible rate of return,[11] and projected losses.[12] This last factor, which is a forecast of the frequency and severity of future insured losses, is squarely within the realm of actuarial science and typically demands a more sophisticated analysis than a layman can muster. Nonetheless, this last factor is at the heart of this Article.

When projecting expected fire losses, an insurer distinguishes between ordinary and catastrophic fire losses. For ordinary fire losses (e.g., a single kitchen fire), an insurer's projected losses are based on its "historic losses per exposure"[13] over a relatively short period of time (e.g., one to three years). For catastrophic losses (e.g., a conflagration damaging multiple homes, whether that be a dozen, hundreds, or thousands), California rules require an insurer to project its losses differently– using a "multi-year, long-term average of catastrophic claims…[t]he numbers over which the average shall be calculated shall be at least 20 years…"[14] So, for a simple example, if an insurer has paid $20 million for catastrophic fires over the last twenty years, the insurance regulations would permit the insurer to collect an extra $1 million a year ($20 million over twenty years) in premium to pay for catastrophic fire losses on top of the premium needed to pay for ordinary fires. This is the "catastrophe adjustment."

8. *See* CAL. INS. CODE § 1861.05 (2021) ("No rate shall be approved or remain in effect which is excessive, inadequate, unfairly discriminatory or otherwise in violation of chapter.").
9. CAL. CODE REGS. tit. 10 §§ 2644.1–2644.28 (2021).
10. *Id.* § 2644.12 (the so-called "Efficiency Standard").
11. *See id.* § 2644.16. [3]
12. *See id.* § 2644.4. [3]
13. *See id.* § 2644.4(a). [3]
14. *See id.* § 2644.5. [3]

The traditional reliance upon this method to smooth the impact of catastrophic fire losses is understandable. Catastrophic fires are "low frequency, high severity" events. [15] Recognizing this, the state allows insurers to accumulate premiums over a long period of time to pay for the enormous number of claims produced by the occasional catastrophe. But, as climate change has recently become more obvious, so have the traditional rating system's vulnerabilities. It is a fair question to ask whether building tomorrow's insurance rates based on information from twenty or more years ago is scientifically justifiable. Does the existing historical "look-back" system undermine the need to encourage climate adaptation and reward resiliency efforts?

A. Looking Backward has Become Less Effective in Predicting the Future

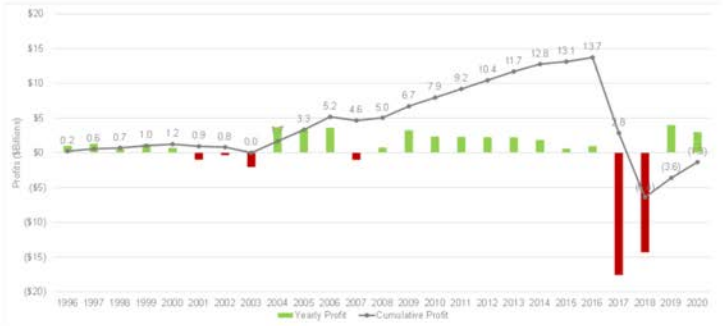
Figure 1 depicts how insured catastrophic losses have changed rapidly and why this issue has become extremely prominent for insurers over the past few years. The chart displays industrywide underwriting profitability dating back to 1991, measured through the end of 2018.[16] If a bar is red, that means the industry, as a whole, lost money for that year; a green bar indicates an annual gain. The blue line is the cumulative profitability result – if the blue line is below $0, that means a cumulative loss since 1991; if the line is above $0, that means a cumulative gain since 1991. The once unimaginably large firestorm that killed twenty-five people in Oakland Hills, California[17] drove the industrywide loss in 1991, with several years of small losses thereafter, but the chart shows that this 1991 industrywide cumulative loss was erased by 2005, with a period of significant underwriting profitability through 2016.

15. AM. INS. ASS'N, PROPERTY-CASUALTY INSURANCE BASICS 1, https://www.aig.com/content/dam/aig/america-canada/us/documents/careers/property-casualty-basics.pdf.

16. Insurers were ultimately able to recover a portion of these 2017 and 2018 losses from the electric utilities that caused significant fires. These recoveries are reflected in the chart, but do not change the chart's trend. The 2021 losses, when finally tallied, are likely to be similar to 2017 and 2018. Don Jergler, *Grim California Wildfire Outlook Has Insurers Forking Over Big Bucks for Modeling*, INS. J. (June 18, 2021), https://www.insurancejournal.com/news/west/2021/06/18/619392.htm; Steve Evans, *California's Caldor Wildfire Behaviour Said Extreme, To Drive Rising Losses*, ARTEMIS (Aug. 18, 2021), https://www.artemis.bm/news/california-caldor-wildfire-behaviour-extreme-rising-losses/.

17. *Fire Sweeps Through Oakland Hills*, HISTORY: THIS DAY IN HISTORY (Nov. 13, 2009), https://www.history.com/this-day-in-history/fire-sweeps-through-oakland-hills.

Figure 1[18]



An initial observation about the chart is how stable homeowners' insurance profitability was through the 1990's. Insurers viewed wildfire risk as manageable and not a significant driver of long-term profitability. Credit rating agencies did not consider California wildfire risk when rating insurers.

Then, in the early 2000's, the picture was even better for insurers with successive years of underwriting profitability. By the middle of the 2000's, the CDI was so concerned about "excess profit" being earned by insurers that it began asking them whether their then-prior approved rate levels were excessive due to low loss experience.[19] A critical flashpoint materialized in 2015 when the CDI not only rejected a rate increase request by the state's largest homeowners' insurer, State Farm, but also ordered both a prospective rate reduction and retroactive premium refund. This triggered a lawsuit by State Farm in 2016,[20] which, as of 2021, is still ongoing.[21]

In the face of this rate litigation from just five years ago, Figure 1 illustrates the stark impact of climate change following several years of drought. These climate change-related conditions led to unprecedented and unfathomable insured losses starting in 2017 with the Thomas Fire[22] in Southern California and the Tubbs Fire[23] in Northern California. The losses in 2017 eliminated the entire industrywide profitability dating back to 1991, and the losses in 2018 doubled this loss. Yet, just the year before commencement of these massive losses, the

18. Milliman (August, 2021).

19. During the author's time working at the Personal Insurance Federation of California, member insurance companies reported receiving such letters from the CDI and engaging in discussion with CDI staff about whether then-approved rate levels were "excessive" under Proposition 103.

20. Matthew Renda, *State Farm Sues California Over Refund Demand*, COURTHOUSE NEWS SERV. (Dec. 5, 2016), https://www.courthousenews.com/state-farm-sues-california-over-refund-demand/.

21. State Farm Gen. Ins. Co. v. Lara, No. D075529 (Cal. Dist. Ct. App. Filed Feb. 25, 2019).

22. Dakin Andone, *The Thomas Fire, the largest wildfire California's modern history, is out*, CNN, June 2, 2018, https://www.cnn.com/2018/06/02/us/thomas-fire-officially-out/index.html.

23. CalFire, https://www.fire.ca.gov/incidents/2017/10/8/tubbs-fire-central-lnu-complex/ (last visited Sept.28, 2021).

state regulator and a licensed insurer were arguing whether homeowners' insurance rates should go down.

These unprecedented losses came after a decade of relatively low homeowners' insurance premium growth. As the chart below illustrates, the growth of California's average homeowners' insurance premium was less than half the growth across the United States from 2010 – 2018.

Figure 2[24]

Homeowners' Insurance Average Premium

Low Historical Losses Lead to Slow Rate Inflation

State	2018	Rank	2010	Rank	10 year change
Louisiana	$1987	1	$1546	2	39.0 %
Florida	$1960	2	$2014	1	34.2 %
Texas	$1955	3	$1578	3	29.4 %
Colorado	$1616	7	$926	19	81.0 %
California	*$1073*	*31*	*$939*	*17*	*16.4 %*
United States	$1249		$909		41.9 %

Source: *Property Insurance Report*
National Association of Insurance Commissioners Data

Under the historical loss ratemaking system during this period, California premium growth was constrained despite widespread public discussion of the already observed and looming climate change fire impacts.[25]

24. BRIAN SULLIVAN, PROPERTY INSURANCE REPORT 2-3 (2021).

25. *Wildfires: A Symptom of Climate Change*, NASA (Sept. 24, 2010), https://www.nasa.gov/topics/earth/features/wildfires.html ("We already see the initial signs of climate change, and fires are part of it."); *The Connection Between Climate Change and Wildfires*, UNION OF CONCERNED SCIENTISTS (Sept. 9, 2011), https://www.ucsusa.org/resources/climate-change-and-wildfires ("Wildfire activity in the United States is changing dangerously, particularly in the west, as conditions become hotter and drier due to climate change."); Suzanne Goldberg, *Climate Change Causing US Wildfire Season To Last Longer, Congress Told*, GUARDIAN (June 4, 2013) https://www.theguardian.com/world/2013/jun/04/climate-change-america-wildfire-season ("America's wildfire season lasts two months longer than it did 40 years ago and burns up twice as much land as it did in those earlier days because of the hotter, drier conditions produced by climate change."); Justin Worland, *How Climate Change Is Making Wildfires Worse*, TIME (July 15, 2015), https://time.com/3959260/climate-change-wildfires/ ("Increasingly hot and dry climates, the result of global climate change, have led to a worsening of wildfires around the world."); Adam Voiland, *Study: Fire Seasons Getting Longer, More Frequent* (July 27, 2015), https://climate.nasa.gov/news/2315/study-fire-seasons-getting-longer-more-frequent/ ("The authors attribute the longer season in the western United States to changes in the timing of snowmelt, vapor pressure, and the timing of spring rains—all of which have been linked to global warming and climate change."); *Here's How Climate Change Affects Wildfires*, ENVTL. DEF. FUND, https://climate.nasa.gov/news/2315/study-fire-seasons-getting-longer-more-frequent/ ("Not only is the average wildfire season three and a half months longer than it was a few decades back, but the number of annual large fires in the West has tripled — burning twice as many acres."); *How Does Climate Change*

Taken together, the low premium growth coupled with staggering losses that are expected to continue absent some significant change in current conditions, present a challenge to property insurers. Because of this, it is not surprising that property insurers would restrict the availability of their services in high-risk areas[26] (with a corresponding increase in policies issued by the "insurer of last resort," the California FAIR Plan,[27] which costs significantly more than obtaining insurance from a regular insurer[28]). According to a CDI study, "residential non-renewals by insurance companies increased statewide by 31% and FAIR Plan policies increased statewide by 36% from the end of 2018 to the end of 2019."[29] The impact on California consumers is clear; according to the California Senate Insurance Committee, FAIR Plan policies are "expensive and offer slim benefits." [30]

This availability issue seems likely to persist until insurers can "dig out of the hole" by obtaining approval for rates that rise to a new, climate-adjusted normal,[31] and permitting a ratemaking methodology that will prevent another hole from being dug in the future. A report issued by the California Senate Insurance Committee summed up the situation:

> "The chief emergent issue for many California insurance consumers remains the impact of climate change on wildfire risk, and the resulting long term fallout in the form of increased insurer nonrenewals, a growing secondary market, and more expensive policies. The 2017, 2018, and 2020 California wildfires set records for area burned, structures destroyed, and lives lost. Some records that stood for decades were broken and broken again in this short time span."[32]

Affect Forest Fires CLIMATE REALITY PROJECT (May 24, 2017, 6:00 AM), https://www.climaterealityproject.org/blog/how-does-climate-change-cause-forest-fires ("In the American West, fire season is now two-and-a-half months longer than it was just 40 years ago.").

26. TONY CIGNARALE ET AL., CAL. DEPT. OF INS., AVAILABILITY AND AFFORDABILITY OF COVERAGE FOR WILDFIRE LOSS IN RESIDENTIAL PROPERTY INSURANCE IN THE WILDLAND-URBAN INTERFACE AND OTHER HIGH-RISK AREAS OF CALIFORNIA (2018), www.insurance.ca.gov/0400-news/0100-press-releases/2018/upload/nr002-2018AvailabilityandAffordabilityofWildfireCoverage.pdf.

27. Press Release, Cal. Dept. of Ins., *Data on Insurance Non-Renewals, FAIR Plan, and Surplus Lines* (2015-2019) (Oct. 20, 2020), www.insurance.ca.gov/0400-news/0100-press-releases/2020/upload/nr104Charts-NewRenewedNon-RenewedData-2015-2019-101920.pdf.

28. Dale Kasler, *CA Insurance Crisis Deepens as Homeowner Rates Increase*, SACRAMENTO BEE (Dec. 8, 2020), https://www.sacbee.com/news/california/fires/article247680725.html.

29. Press Release, Cal. Dept. of Ins., *supra* note [25], at 1.

30. STAFF OF S. COMM. ON INS., 2021–2022 SESS., BACKGROUND PAPER: INFORMATIONAL HEARING ON WILDFIRES AND INSURANCE 8 (Cal. 2021).

31. Lana Cohen, *As California Fire Insurance Prices Skyrocket, Residents Ask Themselves: Should I Stay?*, MENDOCINO VOICE (Nov. 25, 2020), https://mendovoice.com/2020/11/as-california-fire-insurance-prices-skyrocket-residents-ask-themselves-should-i-stay/; Kasler, *supra* note [26]; Ed Leefeldt, *California Homeowners Face Higher Insurance Costs After Fires*, CBS NEWS (Jan 31, 2019), https://www.cbsnews.com/news/california-homeowners-face-higher-insurance-costs-after-fires/.

32. STAFF OF S. COMM. ON INS., *supra* note 28, at 2.

B. How Does the Long-Term Average Catastrophe Adjustment Fit into This Discussion?

Significant questions exist as to whether the current, backward-looking catastrophe adjustment process is sufficient for developing insurance rates in today's climate change reality.[33] Actuaries and scientists have referred to California's current insurance rules as "primitive"[34] and "unreliable."[35] They have noted that reliance on historical loss experience for catastrophic fires ignores current reality, such as dry vegetation from drought or increased housing units built in the wildland urban interface (WUI).[36] Additionally, the benefits of adaptation, resiliency, and mitigation efforts cannot be reflected using historical loss data.[37]

II. A BETTER ALTERNATIVE TO THE CURRENT CATASTROPHE ADJUSTMENT METHODOLOGY

Reliable models that measure current and future risk factors are readily available for insurers to project catastrophic wildfire losses, but they are prohibited from setting total premiums under California law.[38] These so-called

33. JEFFREY CZAJKOWSKI ET AL., CTR. FOR INS. POLICY RESEARCH, APPLICATION OF WILDFIRE MITIGATION TO INSURED PROPERTY EXPOSURE 76 (2020), p.76, https://content.naic.org/sites/default/files/cipr_report_wildfire_mitigation.pdf ("With already 4 million acres burned in 2020 alone in California – more than three times the annual average acreage burned in the 2010s – and climate research suggesting that the average area of California that burns may increase by more than 75%, clearly there is a need for improved wildfire risk reduction activities to play a more prominent role moving forward.").

34. Cody Webb & Eric Xu, The California Wildfire Conundrum, MILLIMAN (November 27, 2018), https://us.milliman.com/en/insight/the-california-wildfire-conundrum ("By contrast, California insurance law for property insurance as dictated by Proposition 103 remains primitive… Ultimately, California regulators, insurers, and policyholders are all 'stuck' until insurance laws change. Insurance companies facing mounting probability issues may have no recourse but to attempt to raise rates in high-risk areas, or to tighten their belts around underwriting of high-risk policies. Consequently, policy cancellations and nonrenewals may persist in higher numbers.").

35. About Catastrophe Modeling, AIR, https://www.air-worldwide.com/models/About-Catastrophe-Modeling/ (last visited Sept. 14, 2021) ("In the case of rare but severe events, historical loss information has proven unreliable in assessing future loss potential.").

36. David Evans et al., Wildfire Catastrophe Models Could Spark the Changes California Needs, MILLIMAN (October 28, 2019), https://www.milliman.com/en/insight/wildfire-catastrophe-models-could-spark-the-changes-california-needs.

37. CZAJKOWSKI ET AL., CTR. FOR INS. POLICY RESEARCH, *supra* note [31].

38. It is important to note that CDI regulations currently permit the use of probabilistic models for two, other types of low-frequency, high-severity catastrophic perils: 1) earthquake risk and 2) "fire-following" earthquake risk. *See* CAL. CODE REGS. tit. 10 § 2644.4(e) (2021) ("For the earthquake line of business and for the fire following earthquake exposure in other lines, projected losses and defense and cost containment expenses *may be based on complex catastrophe models* using geological and structural engineering science and insurance claim expertise. The use of such models shall conform to the standards of practice as set forth by the Actuarial Standards Board and the applicant shall have the burden of proving, by a preponderance of the evidence, that the model is based upon the best available scientific information for assessing earthquake frequency, severity, damage and loss, and that the projected losses derived from the model meet all applicable statutory standards." (emphasis added)).

wildfire "probabilistic models,"[39]—versions of which also exist for other perils--projects catastrophic losses by taking into account many factors such as proximity of structures to other structures and wildlands, structure type/materials, weather patterns, topography, fire suppression resources and risk mitigation measures.[40]

CDI regulations currently permit the use of probabilistic models for two, other types of low-frequency, high-severity catastrophic perils: 1) earthquake risk and 2) "fire-following" earthquake risk.[41] When filing rate applications for these perils, an insurer projects its losses using these models and the CDI can accept or reject the modeled losses, or request that the insurer modify the projections as a condition of obtaining state approval. Further, members of the public are permitted to intervene in such filings, challenge the projections, and receive compensation for their efforts.[42]

There are several companies offering probabilistic wildfire models to insurers. AIR Worldwide offers its Wildfire Model for the United States;[43] CoreLogic offers its US Wildfire Model;[44] and RMS offers its North America Wildfire Model.[45] Each of these models is distinct, but shares the same basic approach: 1) understand the various possible fire locations, intensities, and frequencies that can occur, 2) apply thousands of different fire scenarios to an insurer's property portfolio to determine various property damage possibilities, and 3) calculate the expected financial loss from these different damages depending upon insurance policy terms and coverage amounts. AIR explains its model generation process as follows:

39. The National Association of Insurance Commissioners has produced an overview of such models. *Catastrophe Models*, NAIC, https://content.naic.org/cipr_topics/topic_catastrophe_models.htm (last updated April 26, 2021).

40. Anthony Cappelletti, The Increasing Risk of Wildfire Catastrophes, SOC'Y OF ACTUARIES (June, 2019), https://www.soa.org/news-and-publications/newsletters/general-insurance/2019/june/gii-2019-iss-7/the-increasing-risk-of-wildfire-catastrophes/.

41. *See* CAL. CODE REGS. tit. 10 § 2644.4(e).

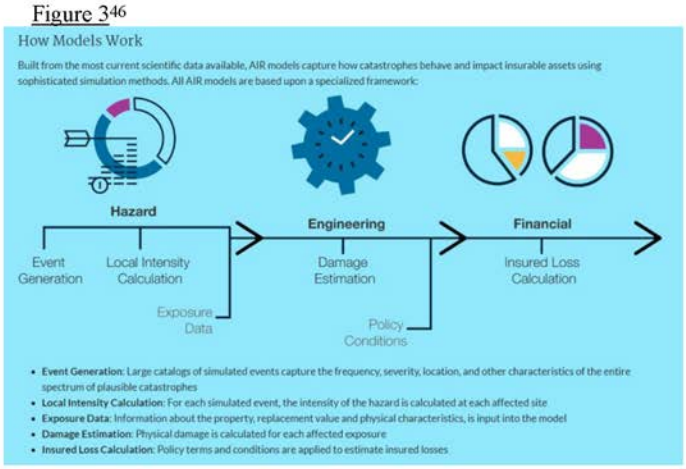
42. CAL. INS. CODE § 1861.10 (2021).

43. *AIR's Wildfire Model for the United States*, AIR, https://www.air-worldwide.com/models/wildfire2/Introducing-AIR-s-Wildfire-Model-for-the-United-States/ (last visited Sept. 14, 2021).

44. *Catastrophe Risk Management Solutions*, CORELOGIC, https://www.corelogic.com/protect/catastrophe-risk-management-solutions/ (last visited Sept. 14, 2021).

45. *North America Wildfire HD Model Suite*, RMS, https://www.rms.com/models/wildfire (last visited Sept. 14, 2021).

Figure 3[46]



Using such a model, an insurer not only can understand the current vulnerability associated with its existing customers, but it can project losses in areas it may wish to enter if its state-permitted premium levels would be sufficient to pay the expected losses. While it may be true that models could indicate higher premium levels in certain locations, it is equally true that insurers are disincentivized to ever issue policies in these places absent the underwriting and pricing knowledge that can be provided by these models. Is it better to have a system of "lower prices and less availability" that sends significant numbers of consumers in high-risk areas to the expensive FAIR Plan, or to have a system of "accurate prices and more availability" that helps consumers find robust coverage from admitted carriers at prices lower than the FAIR Plan?[47]

Instead of being constrained to a simple calculation based upon historical losses,[48] an insurer can understand its expected financial losses based on "key location and community level attributes to determine potential insured property losses. These models can calculate risk by looking at a range of location-specific factors such as topography, distance to vegetation, slope, and building-specific

46. AIR, https://www.air-worldwide.com/models/About-Catastrophe-Modeling/, (last visited 9/28/21).

47. Some may ask whether there is a role for government support of property insurance premiums given government subsidies of health insurance premiums. To date, neither the California Legislature nor the CDI has publicly considered such support for catastrophic property insurance, whether for earthquakes or fires.

48. David Evans et al., *supra* note [34] ("As an alternative to relying solely on historical experience, stochastic catastrophe simulation models, or 'cat models,' draw from fields like atmospheric science, environmental science, actuarial science, and engineering, and have been developed for a variety of catastrophic perils, such as hurricanes, floods, winter storms, earthquakes, and wildfires, to address many of the shortcomings associated with the use of insurers' historical averages.").

information including roof system covering, roof vents, suppression, and accessibility conditions."[49]

These models can also recognize the value of mitigation efforts in a way that historical loss analysis cannot.[50] The existing historical loss approach only allows the impact of mitigation activities to influence rates over time as losses are reduced. As the science of home hardening and defensible space continues to develop,[51] modeling firms can incorporate the beneficial aspects immediately into insurance ratemaking.[52] For instance, Figure 4 illustrates how the modeling firm AIR provides a method for insurers to include "secondary modifiers" in their rate applications that change justifiable premium levels based upon the actual conditions of its insured properties. As Figure 4 shows, the AIR model recognizes 1) home features (such as roof covering, wall siding, and windows, 2) yard features (such as defensible space), and 3) community efforts (such as Firewise communities).

Figure 4[53]

Immediate inclusion of mitigation impacts cannot happen in a system relying upon historical loss experience. Rather, an insurer must, under the current

49. CZAJKOWSKI ET AL., CTR. FOR INS. POLICY RESEARCH, *supra* note [36] at 4.

50. *Id.*

51. *Suburban Wildlife Adaption Roadmaps*, INSURANCE INST. FOR BUSINESS & HOME SAFETY, https://ibhs.org/wildfire/suburban-wildfire-adaptation-roadmaps/ (last visited Sept. 14, 2021).

52. David Evans et al., *supra* note [45] ("By recognizing mitigation features in the modeling process, insurers can calculate discounts for homeowners who mitigate risk. For wildfire, this includes features such as fire-resistive siding, specific roofing materials, and landscaping mitigation. For example, CoreLogic and AIR explicitly reflect community and homeowner mitigation characteristics in their models.").

53. Reproduced with permission from AIR.

regulatory regime, experience the beneficial aspects of mitigation through years of loss experience before the impacts could dampen rate escalation.

III. ISSUES TO CONSIDER BEFORE PERMITTING MODELED LOSSES

While many states have long permitted loss projections based upon probabilistic models,[54] it is natural for California to chart its own course and ask its own questions, that I will address in turn.

A. Are Insurer Actuaries Competent to Understand These Models?

With respect to understanding the models, there are many actuaries and experts in the insurance industry who are familiar with catastrophe models and have developed rigorous protocols for testing model input and output in order to assess the reasonableness, consistency, and reliability of results. Insurers often test model results against their actual catastrophic claims in order to better understand their strengths and weaknesses. The American Academy of Actuaries has developed extensive guidance on this subject in an "Actuarial Standard of Practice" (ASOP), ASOP 38, entitled "Using Models Outside the Actuary's Area of Expertise (Property and Casualty)."[55]

Section 3.1 of ASOP 38 instructs actuaries that intend to use models that incorporate specialized knowledge outside of the actuary's own area of expertise to: 1) determine appropriate reliance on experts; 2) have a basic understanding of the model; 3) evaluate whether the model is appropriate for the intended application; d. determine that appropriate validation has occurred; and e. determine the appropriate use of the model. Further, Section 4 of ASOP 38 requires actuaries to document evaluation and use of such a model and disclose such information when interacting with regulatory authorities.

However, not all regulators have actuaries on staff with this type of expertise. Importantly, ASOP 38 notes:

> While most actuaries conceptually agree that catastrophe models may provide more realistic measures of catastrophic risk than those provided by analyzing the latest twenty to fifty years of catastrophe losses, most actuaries are not experts in many of the underpinnings of these models.[56]

B. How Should Insurance Regulators Validate Probabilistic Models?

Given how hurricane risk became a significant issue decades before catastrophic wildfire risk, state insurance regulators have spent considerable time

54. People's Insurance v. Allstate, 36 A.3d 464 (Md. 2012) (upholding Allstate's use of probabilistic modeling to project hurricane losses and demonstrating that there has been little litigation on the use of probabilistic models in insurance ratemaking.).

55. *Using Models Outside the Actuary's Area of Expertise*, ACTUARIAL STANDARDS BD. (2000), http://www.actuarialstandardsboard.org/asops/using-models-outside-actuarys-area-expertise-property-casualty/.

56. *Id.* at p.iii.

analyzing probabilistic wind models and creating methods for validation. For instance, in 1995, the state of Florida established the Florida Commission on Hurricane Loss Projection Methodology to review hurricane catastrophe models for use in insurance ratemaking. In 2001 the Florida Office of Insurance Regulation also commissioned the development of a public hurricane loss projection model.[57] The South Carolina Department of Insurance (SCDOI) convened a Catastrophe Model Panel which conducted public hearings and published an "Evaluation of Hurricane Catastrophe Models in South Carolina"[58] to assist in developing a set of guidelines and recommendations to SCDOI for reviewing hurricane rate filings. Many other state regulators hire experts to assess the suitability of catastrophe models for the purpose of ratemaking and rely on these expert reviews in the course of fulfilling their regulatory duties.

Based upon individual state experiences, the NAIC, Casualty Actuarial and Statistical Task Force, has developed a "best practices" document for regulatory review of models.[59] Relevant issues include ensuring rate accuracy, understanding important model assumptions, protecting the confidentiality of the models in accordance with relevant state laws, and timely review of insurer requests to use these models. The NAIC also published a lengthy "Catastrophe Computer Modeling Handbook" in 2010.[60] In addition to an exhaustive overview of how models work, this publication urged insurance commissioners to exercise care in communicating with the public about use of models:

Efforts should be extended to educate and inform those affected about the use of models. Targeted audiences include elected officials, insurance companies, insurance regulators, advisory organizations, consumer advocates, the media, the engineering community, builders, building inspectors and consumers.[61]

Additionally, at its Virtual Summer National Meeting in July 2020, the NAIC Catastrophe Insurance (C) Working Group heard presentations regarding a collective approach that could be adopted by California and other states through an interstate regulatory Catastrophe Model Clearinghouse.[62] The Catastrophe

57. *Wind & Hurricane Impact Research Lab'y: Fla. Public Hurricane Loss Model (FPHLM)*, FLA. TECH, https://research.fit.edu/whirl/projects/florida-public-hurricane-loss-model-fphlm/ (last visited Sept. 14, 2021).

58. Martin M. Simons et al., *Evaluation of Hurricane Catastrophe Models Used in South Carolina*, SOUTH CAROLINA DEP'T OF INS. DIV. OF ACTUARIAL AND MARKET SERV., (2013) https://doi.sc.gov/DocumentCenter/View/7184/SCDOI-PUBLIC-Hurricane-Model-Review-Report---October-4-2013?bidId=.

59. NATI'L ASS'N OF INS. COMM'R (NAIC), CASUALTY ACTUARIAL AND STAT. (C) TASK FORCE REGUL. REVIEW OF PREDICTIVE MODELS (2020), https://content.naic.org/sites/default/files/inline-files/9-15%20CASTF%20-%20Predictive%20Model%20White%20Paper%209-09-2020.pdf.

60. NATI'L ASS'N OF INS. COMM'R (NAIC), CATASTROPHE COMPUTER MODELING HANDBOOK (2010), https://www.naic.org/documents/prod_serv_special_ccm_op.pdf.

61. *Id.* at 33.

62. NATI'L ASS'N OF INS. COMM'R (NAIC), PROPERTY AND CASUALTY INS. COMM. (2020), pgs. 10-14,

Model Clearinghouse would be a multi-disciplinary panel to develop standards, select expert reviewers and manage the review process for wildfire, flood, and other catastrophe models. Individual states would have the option to participate in the clearinghouse and rely on the expert reviews of these countrywide models, removing duplication of model review effort and cost across multiple states.

CONCLUSION

The pace of any regulatory change, whether federal, state, or local, is typically slower than proponents would like and, oftentimes, can be frustrating. However, regulatory caution is also understandable given the difficulty of determining how new procedures might lead to consumer harm. It is particularly difficult to achieve public support for regulatory change on highly technical issues because commentators and journalists are typically unable to fully understand the charges of active advocacy groups. In the absence of clear public sentiment in favor of a change and articulation of the concomitant benefits, regulators face headwinds. California currently faces these challenges on the issue of wildfire loss projections using probabilistic models.

This author believes the justification for setting California insurance rates by looking backward is becoming less persuasive. While use of historical experience to project future losses is administratively easier than working with more complicated models, the backward-looking methodology suffers from significant problems. It has driven significant property insurance unavailability and driven far too many California to higher priced options, such as the California FAIR Plan or the non-admitted market. Wildfire catastrophe models can provide up-to-date, science-based information to help California reset its course, allowing insurers and policymakers to accomplish significant public objectives. Risk-based pricing incorporating the learnings from these models allow insurers to connect homeowners' pocketbooks with climate-related risk. This connection provides an important signal to discourage future risk accumulation and encourage climate adaptation and resiliency efforts that government, to date, has been unable to accomplish.

Today's reliance on historical losses causes insurers to generally avoid high-risk areas without providing a pathway for recognizing adaptation activities within communities. Many states already permit insurers' use of probabilistic models in ratemaking for a variety of perils, including California for earthquake and fire-following earthquake rates. While there are significant details to be worked out in order to update California's insurance regulations and chart a path forward to allow use of advanced scientific models for wildfire rating, the effort is necessary to ensure a functioning property insurance market in the era of climate change.

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https://content.naic.org/sites/default/files/national_meeting/Property%20and%20Casualty%20Insurance%20%28C%29%20Committee%20-%202020%20Summer%20National%20Meeting_0.pdf.

SMARTERSAFER.ORG
Americans for Smart Natural Catastrophe Policy

September 22, 2022

The Honorable Emanuel Cleaver
Chair
House Financial Services Subcommittee on Housing, Community Development, and Insurance
2335 Rayburn HOB
Washington, D.C. 20515

The Honorable French Hill
Ranking Member
House Financial Services Subcommittee on Housing, Community Development, and Insurance
1533 Longworth HOB
Washington, D.C. 20515

Dear Chair Cleaver and Ranking Member Hill:

SmarterSafer is a national coalition made up of a diverse chorus of voices who champion a united front for environmentally responsible and fiscally sound approaches to natural catastrophe mitigation and the promotion of public safety. SmarterSafer commends the House Financial Services Subcommittee on Housing, Community Development, and Insurance for holding this hearing to examine the risk wildfire poses to communities, taxpayers, and insurance markets.

Warmer, drier conditions across the globe, and particularly in the Western United States, have led to longer and more severe fire seasons. This new reality has exacerbated the consequences of wildfires on both properties and human life, leaving many homeowners and broader communities unprepared. According to Verisk's 2019 Wildfire Risk Analysis, nearly 4.5 million homes in the U.S. are at high or extreme risk of wildfires, 2 million of which are in California.[1] Wildfire risk is also increasing throughout the country as newer homes are built near wildlands. The "wildland-urban interface" (WUI)—the transition areas between unoccupied land and human development—is growing in size and putting communities at greater risk for wildfire. From 1990 to 2010, the WUI increased from 30.8 to 43.4 million homes and expanded in surface area from 143,568,227 acres to 190,271,144 acres.[2]

Wildfires cause widespread physical damage and pose public health and environmental risks. The smoke from these fires contains very fine particles, and when inhaled, can cause serious chronic respiratory problems.[3] Additionally, climate change has contributed to the rise of megadroughts; droughts that last for decades. These megadroughts have become especially common in the Southwest region of the U.S., where normal weather conditions had already included high temperatures and low precipitation.[4] These megadroughts create the perfect conditions for wildfires to form. During the summer of 2021, roughly 100 percent of the western

[1] https://www.verisk.com/insurance/visualize/verisk-2019-wildfire-risk-analysis-highlights-evolving-peril/
[2] https://www.nrs.fs.fed.us/news/release/wui-increase
[3] https://www.epa.gov/pm-pollution/how-smoke-fires-can-affect-your-health
[4] https://www.nytimes.com/article/what-is-a-megadrought.html

U.S. was in a drought[5], the region's worst since 800 A.C.E.[6] These droughts make the region even more sensitive to the emergence of wildfires and cause the dangers that wildfires impose on people and property to intensify.

It must be emphasized that the effects of wildfires are not only felt by the areas that they immediately impact. WGLA 8, a local Pennsylvania news station, recently posted a video showing hazy skies in the Keystone State. "The haze was picked up in the jet stream and transported all the way here to the Susquehanna Valley," WGAL meteorologist Christine Ferreira said.[7] An instance such as this demonstrates that mitigation measures are vital to not only shielding Americans who are near the wildfires, but also to protect citizens who could be affected by the smoke that stems from thousands of miles away.

Beyond physical destruction and dramatic health effects, the financial costs of these devastating events to homeowners, renters, and taxpayers are significant. For example, last year El Dorado County, California lost an estimated $50.3 million as a result of the damage caused by the Caldor Fire.[8] The National Fire Protection Association published an estimate from the National Interagency Fire Center that stated that "Federal wildfire suppression costs in the United States have spiked from an annual average of about $425 million from 1985 to 1999 to $1.6 billion from 2000 to 2019".[9] In 2017, $86 billion of the estimated $100 billion wildfire season costs for California was directly linked to indirect costs associated with environmental cleanup, lost business and tax revenue, and property and infrastructure repairs.[10] In 2021, President Biden authorized $1.36 billion in disaster relief funds for the USDA Forest Service to support post-disaster recovery and restoration in states across the country, including nearly $600 million for recovery efforts in California following the devastating 2020 and 2021 fire years.[11] These numbers are only going to increase as climate change worsens. SmarterSafer advocates for increased funding for pre-disaster mitigation and resiliency efforts; these changes will significantly reduce the financial burden that American taxpayers face.

Given that climate change and its impacts are spreading quickly across the country, it is almost impossible to predict where the next disaster will strike and how much that disaster will cost. For this reason, SmarterSafer advocates for a variety of taxpayer-saving and effective solutions that can better protect American homeowners from the devastating consequences of these natural catastrophes.

First, SmarterSafer fully encourages policymakers to collaborate with and allow for private sector innovation and participation. To ease the financial risk of wildfires to taxpayers and homeowners, private companies can implement weather-risk transfer contracts in sectors and

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[5] https://www.discovermagazine.com/environment/how-the-u-s-megadrought-will-affect-2022-and-beyond
[6] https://www.nbcnews.com/science/environment/us-megadrought-worst-least-1200-years-researchers-say-rcna16202
[7] https://www.wgal.com/article/hazy-skies-over-pennsylvania-from-western-wildfires/41244011#
[8] https://calmatters.org/economy/2021/10/california-wildfires-economic-impact/
[9] https://www.nfpa.org/News-and-Research/Publications-and-media/NFPA-Journal/2020/November-December-2020/Features/Wildfire
[10] Ibid.
[11] https://www.usda.gov/media/press-releases/2022/01/21/biden-harris-administration-announces-over-1-billion-disaster

locations vulnerable to wildfire risk. Such a move will help mitigate costs of weather sensitivities across various industries. Improved data sharing among federal, state, and local government agencies and with the private sector is essential to understanding and offsetting risk through government initiatives and public/private partnerships.

The knowledge that comes from improved data will also assist homeowners and renters to better understand the risks associated with specific properties. As such, it is essential that insurers have the ability to underwrite based on forward-looking metrological data in order to set rates that reflect actual risk. SmarterSafer also believes that policymakers should, as wildfire data is shared and becomes more readily available, require enhanced disclosures on real estate transactions so that homebuyers and renters better understand the catastrophic risks associated with properties. Supporting buyer education will create a more informed purchasing decision that energizes homeowners to implement pre-disaster mitigation strategies, such as installing drought-tolerant and fire-resistant landscaping around their property.[12] Beyond education, tax holidays and tax-preferred savings accounts for disaster supplies, bipartisan and bicameral legislation to exempt from federal taxation state mitigation funds for home improvements to protect against natural hazards such as a wildfire[13], can serve as incentives to promote disaster preparedness.

Further, the methods employed in building new and modernizing existing residential and commercial structures also merit reconsideration. Climate-resilient buildings and investment in natural mitigation elements are preventative tools that can save structures and, as a result, crucial taxpayer dollars. Adapting construction practices to meet the demands of a changing climate and incentivizing projects that increase the resilience of existing structures are logical steps that better protect our communities and will prove to be cost-effective over time.

We appreciate the Subcommittee's focus on this important topic and consideration of the aforementioned policy suggestions. SmarterSafer stands ready to serve as a resource as Congress continues to grapple with the devastating effects of wildfires and other natural catastrophes. We are confident that, with your dedication and leadership, we will continue to see tangible change.

Respectfully,

SmarterSafer Coalition

[12] https://ucanr.edu/sites/Wildfire/Surroundings/Plants/
[13] https://www.congress.gov/bill/117th-congress/house-bill/4675; https://www.congress.gov/bill/117th-congress/senate-bill/2432?q=%7B%22search%22%3A%5B%22%22%5D%7D&r=3&s=1

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MEMBERS

Environmental Organizations

Center for Climate and Energy Solutions (C2ES)
ConservAmerica
Defenders of Wildlife
National Wildlife Federation
Natural Resources Defense Council (NRDC)
Surfrider Foundation

Consumer and Taxpayer Advocates

Coalition to Reduce Spending
National Taxpayers Union
R Street Institute
Taxpayers for Common Sense
Taxpayers Protection Alliance

Insurer and Reinsurer Interests

Association of Bermuda Insurers and Reinsurers (ABIR)
Chubb
Liberty Mutual Group
National Association of Mutual Insurance Companies (NAMIC)
National Flood Association
Reinsurance Association of America
Swiss Re
USAA

Mitigation Interests

Natural Hazard Mitigation Association

Housing

Habitat for Humanity
National Housing Conference
National Leased Housing Association

ALLIED ORGANIZATIONS

Allianz of America
American Conservation Coalition
American Consumer Institute
American Property Casualty Insurance Association (APCIA)
Center for Clean Air Policy
CoreLogic
Friends of the Earth
Institute for Liberty
Zurich Insurance

Patrick Celestine
Lead Counsel
Federal Affairs
Law & Regulation

September 27, 2022

The Honorable Emanuel Cleaver, Chair
Subcommittee on Housing, Community
Development and Insurance
U.S. House of Representatives
2335 Rayburn House Office Building
Washington, DC 20515

The Honorable French Hill, Ranking Member
Subcommittee on Housing, Community
Development and Insurance
U.S. House of Representatives
1533 Longworth House Office Building
Washington, DC 20515

Dear Chair Cleaver and Ranking Member Hill:

I'm reaching out to you on behalf of Allstate Insurance Company, to thank you for your leadership examining the impact of growing wildfire risk on the insurance market. Allstate applauds the Subcommittee for holding its recent hearing on this important topic. Our top priority is protecting what matters most to our customers, so we are ever focused on appropriately modeling, pricing, and managing weather-related risks, including those from wildfires.

Climate change and other factors such as longstanding fire over-suppression and continued home development in the wildlife urban interface (WUI) have increased wildfire risk to our customers across the country. According to the EPA, climate change has already led to an increase in wildfire season length, wildfire season frequency, and burned area. Wildfire season is lengthening in many areas due to various factors, including warmer months in spring, longer summer dry seasons, and drier soils and vegetation. Consequently, increased risk from fire is spreading nationwide and across different environments. States with the highest wildfire risk now include Arizona, California, Colorado, Florida, Idaho, Montana, Nevada, New Mexico, Oklahoma, Oregon, Texas, Utah, Washington, and Wyoming (University of Georgia). Additionally, the New Jersey Pine Barrens saw its largest fire in 15 years this past July.

This is an ever-growing problem. Climate change is not only affecting the length and frequency of wildfire season, but also the frequency, extent, and severity of each fire (EPA), translating to real and realized loss damage for our customers and other key stakeholders. According to NOAA, 66% of all direct losses since 1980 occurred in the last five years. And almost 80 million U.S. residential and commercial properties face some risk of damage from wildfires in the next 30 years (First Street Foundation). **When comparing the first half of the last decade (2011-2015) to the last half (2016-2021), Allstate losses have increased 1,665% – a factor of 16 times**. Wildfires have caused billions of dollars in damage over the last several years and experts expect that estimate to cross into the trillions over the next 30 years. Realtor.com estimates that one in five single-family homes in the U.S. is at risk of being in a wildfire during that same timeframe. Allstate customers alone have experienced increasing loss costs surpassing the hundred-million-dollar mark annually due to the increasing number of catastrophic fires.

As states grapple with how to manage these catastrophes, some have looked to further regulate the insurance market. Insurers must be able to adequately assess, price, and model the climate-related risks inherent to the local environment. Restrictive insurance codes inhibit the proper functioning of insurance markets to the detriment of homeowners seeking insurance. Unfortunately, this leaves Allstate and many of our peers unable to adequately and appropriately price homes and leaves insureds and prospective homeowners unaware of the true and inherent risk of the property(s) they occupy or intend to purchase.

Our Recommendations

Support local environment-specific and science-backed mitigation and mitigation verification

Encouraging individuals to take verifiable steps to mitigate and continue mitigating their wildfire risks is critical. However, these steps can also be expensive. The Insurance Institute for Business & Home Safety's (IBHS) best-practice mitigation tactics include but are not limited to:

- **Install a fire-rated roof** – Asphalt shingles are one of the most common roof types with nearly 80% of homes in the United States covered by a Class A asphalt shingle roof. The estimated cost for a replacement of wood shake to asphalt class A ranges from $10,000-$25,000.
- **Create a buffer around your home** (up to 5 ft) – Using a landscaper or contractor to help remove igniting materials from close proximity to your home can cost up to $15,000 and $5,000 in DIY materials.
- **Remove items under your deck –** Ensuring your deck, porch and under-areas around your house are clear from ignitable materials can typically be done by the homeowner.
- **Add or upgrade your vent screens** – Replacing vents and applying metal screens with 1/8 inch or finer screens to block flying embers from entering the home can cost around $200.

IBHS' first level of tactics (summarized above), alone, could cost homeowners nearly $45,200, and there are three additional levels. We support these research-backed mitigation tactics, which also include multi-pane windows, enclosed eaves, and six-plus inches of noncombustible vertical clearance at the bottom of the exterior surface of a building. Still, it's easy to see how challenging these costs can be for homeowners.

Public-private partnerships can help address the significant costs to insurers of verifying mitigation and to homeowners and communities of implementing mitigation measures. Colorado has shown some success with its Wildfire Partners program, which is funded through Boulder County, the Colorado Department of Natural Resources, and FEMA. Wildlife Partners helps fund mitigation assessments of homes which provide actionable information to homeowners. Additionally, some insurers voluntarily accept certification as proof of mitigation for underwriting and rating purposes. Public-private partnerships like Wildlife Partners can address the costs of insurer verification. Other states should establish similar programs and programs to help consumers implement mitigation, and the federal government should consider increasing funding.

Strengthen building codes and incentivize building in lower-risk areas

As changing weather creates increasingly unsafe environments for homeowners, strengthening building codes may reduce the impact of disasters on properties and people. Looking at coastal states with hurricane and flood-based resiliency models as examples, states like Florida, Virginia, South Carolina, New Jersey, and Connecticut consistently rank as having the strongest building codes for their state-specific perils (IBHS). Per the latest research from IBHS, only four states have WUI-specific building codes adopted statewide and struggle with enforcement, and eight states have guidelines or programs to reduce wildfire risk. More robust and thorough state-by-state, peril-specific plans are imperative to effectively protect homeowners from environmental risks, including repeated dangers.

Additionally, people continue to construct new property and move into in high-risk areas. This is particularly true in western states where wildfire risk is high. This influx of people and property increases the potential for disasters and the resulting damages, and climate change will only exacerbate this over time. Incentives to build in lower risk areas would slow the increasing risk.

Avoid or fix harmful insurance regulation practices at the individual state level

Insurance is intended to protect homeowners. If high-risk states restrict insurers' use of catastrophe models, those restrictions will harm homeowners by limiting insurers' abilities to effectively assess and price risk. As the destruction and impact from wildfires grow, and larger population areas become susceptible to wildfire risk, healthy state-level insurance regulation is ever-more important to ensuring that insurers can protect customers, and to encouraging additional capital to enter the market. We encourage state policymakers nationwide to work with all stakeholders to

ensure that insurers can appropriately manage and price insured risks, including with catastrophe models, on behalf of homeowners. *Examples include*:

a) Allow insurers to accurately model and price wildfire risk

When regulations impede insurers' ability to accurately model risk, we lose the ability to signal a property's true risk. That increases the likelihood that a customer will purchase property likely to repeatedly be destroyed by wildfires, putting them in harm's way. Substantive limitations on insurers' abilities to accurately assess wildfire risk also impede their abilities to collect sufficient premium to cover their expected losses and such uncertainty can cause market disruptions, as seen in California.

Cal. Code Regs. tit. 10, § 2644.5 (Catastrophe Adjustment) requires each homeowners' insurer to replace all historical losses related to catastrophes with a loading based on a multi-year, long-term (at least 20 years) average of catastrophe claims. This requirement is problematic for perils demonstrating evolving intensity and frequency, and it is especially problematic when average wildfire losses trailed well below $5B annually for years before surging to over $26B in 2017 and 2018. Clear divergences in loss trends need to be acknowledged and accurately incorporated into rates, not obscured within averages that include years of relative wildfire data that are no longer reliable for modeling.

§ 2644.5 also requires the catastrophe adjustment to reflect any changes between the insurer's historical and prospective exposure to catastrophe due to a change in the mix of business. However, an insurer cannot effectively estimate future wildfire losses to homes located in a newly built community based upon the insured losses previously experienced there. Even if a wildfire passed through the area within the past 20 years, because no houses existed there at the time, historical local insured losses were zero. § 2644.5 also does not permit insurers to adjust for changes in the underlying nature of the insured peril, which will be critical as the environment changes in ways that exacerbate the risks of wildfire ignition and spread.

California's current average homeowners' rates, which are less than the national average, are unsustainable and will continue rising. However, if California removes its artificial barriers to competition, it can improve its homeowners' insurance market for all consumers. Additionally, carefully crafted mitigation efforts – without an unworkable mandate that insurers reduce premiums – may help reduce wildfire risk to people and property. Insurers also need to be able to make forward-looking adjustments with a long-term view of wildfire risk in order to determine more accurate premiums, avoid solvency risks, and reduce the likelihood of repeated massive, yet foreseeable, increases in future rates charged to consumers. Insurers should be allowed to use modern catastrophe models which combine historical loss experience with scientific, engineering, and statistical expertise and knowledge to measure the range of potential outcomes, and a current view of exposed homes. Insurers have leveraged catastrophe models for deriving rate relativities in California, yet the California Department of Insurance (CDI) interprets § 2644.5 to prohibit their use in setting base rates at the portfolio level.

Consumers benefit when insurers can better estimate losses with catastrophe models. Florida's experience with private flood insurance is instructive. In 2014, the state moved to increase private flood insurers' rating freedom, including liberalizing requirements related to filing and the use of catastrophe models. This freedom to experiment, since extended to 2025, has promoted rapid market growth, with the Florida Office of Insurance Regulation recently reporting that 35 insurers were offering private flood insurance.

Though some may deride catastrophe models as incomprehensible "black boxes", rigorous protocols have been developed for testing model input and output in order to assess the reasonableness, consistency, and reliability of results, and regulators often rely on experts to assess catastrophe models' suitability for ratemaking. Concerns about catastrophe models' complexity and alleged opacity can be addressed. A catastrophe model clearinghouse (CMC) with necessary and effective protections for confidential information and trade secrets established through an interstate compact or by the federal government could efficiently provide stakeholders with additional confidence that catastrophe models used by insurers are valid. A Milliman actuary suggested the creation of an interstate CMC at a recent NAIC meeting. The federal government should also consider establishing a CMC administered by FIO or FEMA, with both participating.

b) Overhaul any unnecessarily onerous administrative hearing process for rate reviews

Insurers are facing rising costs due to increasing wildfire risk and need to collect adequate premium based on that risk. States with healthy regulatory environments where insurers do not face unnecessary administrative obstacles to collecting adequate premium encourage additional capacity to enter the local insurance market, helping improve insurance availability for consumers. Unfortunately for Californians, regardless of whether CDI determines that an insurer's filed rate increase for personal lines coverage is appropriate, if the increase exceeds 7%, Cal. Ins. Code § 1861.05(c)(3) permits a member of the public to force the matter into formal administrative hearings. This statutory requirement, along with related administrative procedures that have proven time-consuming and costly, have deterred most insurers from seeking justified and needed rate increases, instead limiting their increase filings to 6.9%. Insurers would otherwise be forced to spend money on lawyers and experts, and to recognize time and costs for their employees, to litigate the appropriateness of increases that even CDI believes are justified – and associated litigation can last months or years.

These issues are particularly challenging for the homeowners' insurance market because California's historic wildfire damage and related insurance losses have overwhelmingly occurred in very recent years (i.e., 2017, 2018, and 2020 wildfires). Insurers are instead increasingly forced to evaluate reducing their exposure to the state's homeowners' insurance market, especially with respect to homes near the WUI. Insurers have suggested several potential reforms to the administrative process related to rate filings with only base rate changes, including: (1) using an informal resolution process; (2) establishing pre-hearing limitations on the scope of issues; (3) expedited written testimony requirements; (4) using hearing officers with ratemaking expertise; and (5) strict time requirements for the conclusion of a hearing and the acceptance or rejection of the hearing officer's decision.

While these reforms are needed, we recognize that even rate filings with increases limited to 6.9% take time and resources for CDI to process. We believe that CDI can also take steps to prioritize and streamline homeowners' rate filings more generally and are open to working with CDI to develop such reforms.

c) Support state level catastrophe funds

We believe that state lawmakers should consider establishing catastrophe funds to compensate insurers for wildfire losses like the fund Florida established after Hurricane Andrew, a devastating storm resulting in skyrocketing local reinsurance costs. Such a fund can encourage additional capital to come into the state at a lower cost than relying solely on private reinsurance. It would help covered insurers to manage and spread wildfire-related insurance risk and may allow the state to purchase private reinsurance more efficiently and economically. Florida's fund (FHCF) has been demonstrably beneficial for Florida's market, attracting additional insurers – often capitalized by reinsurers – into the state and helping to stabilize rates.
In addition, the revenue generated from investment income can be used for mitigation, such as individual home hardening and community mitigation. The FHCF is critical to the health of the Florida economy both before and after a catastrophic hurricane. All admitted residential property insurers must participate as a condition of doing business in Florida and the FHCF must provide coverage to each insurer on identical terms. The FHCF also must charge actuarily indicated premiums. Participating insurers select coverage at 45%, 75%, or 90%, and absorb copayments well as a deductible.

We appreciate your attention to the serious risks that wildfires pose to homeowners and look forward to continuing to engage with you and policymakers at all levels of government about how to best protect our customers and communities, including through mitigation and healthy state insurance regulatory systems.

Sincerely,

Patrick Celestine

Patrick Celestine

cc:

The Honorable Maxine Waters, Chairwoman, Committee on Financial Services
The Honorable Patrick McHenry, Ranking Member, Committee on Financial Services

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