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California's Homeowners Insurance Crisis: Examining Nonrenewals, Wildfire Risk, and

Rurality by County

Over the past five years, more than 100,000 California residents have been subject to insurer initiated nonrenewals of their homeowners insurance policies (Munce & Devulapalli, 2024). The California homeowners insurance market has reached a crisis point, driven primarily by severely destructive and costly wildfires over the past decade. Provoked by extreme droughts and dry climatic conditions exacerbated by climate change, these extreme conditions fostered some of the most deadly wildfires in California's history. Fires such as those that occurred in 2018 and 2020 destroyed hundreds of thousands of homes and businesses across the state, resulting in billions of dollars in payouts from insurance companies. Facing financial woes and wary of further wildfires, insurance companies operating in the state of California have instituted policy cancellations, or nonrenewals as well as issuing extremely costly premium increases.

The extreme magnitude of nonrenewals across the state, as well as premium increases, has incited extreme pressures on Californians seeking homeowners insurance, state policymakers, and insurance companies themselves. Some of the largest providers of homeowners insurance in California, including Allstate and State Farm in particular, have issued such increases and nonrenewals in recent years. In August of this year, the California Department of Insurance approved a 34% increase in homeowners insurance rates for Allstate (Darmiento, 2024). In addition, in March 2024, State Farm similarly issued a statewide 20% hike in homeowners insurance rates (Munce, 2024).

Areas of the state prone to wildfires have particularly been hard hit by the homeowners insurance crisis. The factors that have contributed to the California insurance crisis on all ends are crucial to examining the potential solutions to its amelioration. Such factors that may

influence insurers' decision in withdrawing certain policies are high wildfire risk, as well as rurality. While numerous insurance companies may cancel policies for a variety of reasons, examining the particulars of which areas face higher levels of insurance nonrenewals along with wildfire risk and rurality will provide crucial context to assessing whether and how much these factors have contributed to the California insurance crisis at hand.

The research objectives are as follows: broadly, how have wildfire risk and rurality contributed to nonrenewals in the homeowners insurance market across all counties in California over the years of 2015 to 2021? Specifically, from 2015 to 2021, have higher rates of homeowners insurance nonrenewals per capita disproportionately affected California counties with higher proportions of dwellings in high or very high wildfire risks classifications and those with higher proportions of rural populations?

An investigation of the relationships among wildfire risk, rurality, and the resulting nonrenewals across the state is fundamental to presenting a viable remedy for the state to neutralize the insurance market for all parties. The resulting study entails statistical analysis of the relationships among data on wildfire risk and rurality in all 58 counties of California as predictors of rates of nonrenewals per capita from 2015 to 2021.

The research findings indicate that there is a strong correlation between both wildfire risk and rurality as predictors of rates of insurer-initiated nonrenewals across the state from 2015 to 2021. The correlations are also statistically significant, indicating that the policy outcomes aimed at neutralizing the insurance market in California should consider mitigating as well as focusing insurance initiatives on rural and wildfire-prone areas of the state. As policymakers, insurers, and homeowners work to remedy the insurance crisis, wildfire risk and rurality are crucial considerations to implementing effective and equitable policy.

Context and Significance

Over the course of the past decade, the California homeowners insurance market has faced increasingly difficult circumstances. Hazardous climatic conditions that have propelled destructive wildfires in years such as 2017, 2018, and 2020, inciting a dire situation for insurance. In 2017 for instance, California insurance companies paid a hefty bill of nearly $12 billion as a result of wildfires (Johnson & Munce, 2024). Combined with other, more recent complications in the state and nationwide economy, such as inflation, insurance has become an increasingly difficult and costly commodity to obtain. The level of destruction and drastic payouts that resulted from the recent wildfires has put insurance companies operating in California in an extreme position. Some, such as State Farm, are even approaching insolvency as they work to recoup after the wildfires (Munce, 2024).

The repercussions of the insurance crisis are far and wide, reaching into every facet of the state. Being that it is necessary for all California homeowners to have insurance if they have a home mortgage, the insurance crisis has also contributed to the housing affordability crisis in the state as a whole. Among many consequences that have been observed, the most notable is that the housing market in California has struggled due to many buyers' lack of ability to obtain the adequate home insurance needed for a mortgage. The extensive effects of the insurance crisis indicate that neutralizing it will provide crucial stability and relief for Californians on an everyday basis.

The California Department of Insurance has struggled to repeal decades old insurance regulations that have caused increased pressures on insurance companies. These regulations, initially instituted in the 1980s, make the process for insurance companies seeking premium increases particularly lengthy and arduous. The high payouts that California insurers faced in the

aftermath of extremely costly wildfires in the past decade, along with economic pressures such as inflation, have led to an exodus of insurers canceling policies across the state as well as issuing massive premium increases. The difficulty in instituting such premium increases may have contributed to insurance companies' decisions to simply cancel many of their policies. Companies that make up a significant portion of the state insurance market, such as State Farm, announced over 72,000 statewide nonrenewals in 2023 (Vives, 2024). Coupled with the complexity of state regulations, insurance companies and state policymakers alike have failed to alleviate the extreme magnitude of insurance premium increases and nonrenewals across the state.

In recent years, both the California Department of Insurance as well as state policymakers have attempted to introduce legislation to revamp the old regulations and remedy the crisis. The regulation reforms proposed by the Department of Insurance have aimed to stop insurers from leaving the state altogether, yet have instead made it likely that more premium increases will be faced by California homeowners (Johnson & Munce, 2024). Specifically, the policies will remove roadblocks that have in the past made it arduous for insurance companies to institute premium increases across the state. These proposed policies have yet to take effect despite being aimed for completion in 2024 and will likely take years to have a significant impact on the insurance market.

The California FAIR plan, which is the state-sponsored provider of home insurance in California, has particularly experienced the repercussions of the insurance crisis. Over the past several years, the amount of Californians opting to use the FAIR plan, which is intended to be a last resort for home insurance, and only provides very basic wildfire coverage, has significantly increased. The FAIR plan also comes at a steep cost, once again making it more difficult for

California homeowners to obtain even minimal insurance coverage (Johnson & Munce, 2024). The FAIR plan, although an adequate alternative for many Californians who are unable to attain wildfire insurance elsewhere, does not have adequate assets to cover its entire policy pool and would likely face a severe financial crisis in the event of a disaster impacting its policyholders.

The nonrenewals and astronomical premium increases have created a dire situation for California homeowners as they already struggle economically. A July 2024 statewide survey found that eight in ten Californians are either very or somewhat concerned that home insurance will become more expensive due to climate change risks (Mora, 2024). Combined with factors inciting economic uncertainty in California at present, such as inflation and the high cost of necessities such as gas and groceries, everyday Californians are struggling to maintain their prosperity in the Golden State. The economic consequences of the homeowners insurance crisis in California have made it clear that policymakers, homeowners, and insurance companies must work together to create equitable solutions for the situation at hand.

In instituting new policy regarding homeowners insurance in California, or adjusting existing policy, it is crucial for policymakers, homeowners, and insurers to understand the host of factors that have contributed to the crisis at hand. A more in-depth exploration of insurance nonrenewals through the lenses of wildfire risk and rurality will provide important considerations for remedying the insurance crisis and understanding the greater forces at play.

Literature Review

The California insurance market's relationship to climate change and wildfire risk has emerged as a uniquely economic and policy-centered issue. Limited research exists due to the evolving nature of recent market volatilities and wildfire conditions. However, studies that focus

on the relationships among rising insurance premiums and wildfires have issued significant findings, providing a useful model to similarly apply to nonrenewals in the market.

Studies have highlighted that rural areas, characterized by their exposure to natural elements and limited access to emergency services, face particularly distinct challenges with regard to wildfire risk and insurance accessibility. A state sanctioned study issued by the California Natural Resources Agency in 2018 examined the relationship between changing wildfire risk and premiums in the residential insurance market. The study found that premiums in high risk areas are higher and growing more rapidly than those in lower risk areas (Dixon, Tsang, & Fitts, 2018). Similarly, researchers Patricia Gallagher and Devika Hazra identified through regression analysis that hazard class significantly impacts California FAIR plan premiums compared to other voluntary market providers (Gallagher & Hazra, 2020). Gallagher and Hazra conclude with a recommendation to modify current fire insurance practices in order to usher homeowners out of high-risk areas. These findings underline the impact of geographic and environmental factors, particularly rurality and wildfire prone areas, on insurance costs and access.

Despite these insights, most analyses narrowly focus on southern California or very populous counties, leaving gaps in understanding the broader implications across the state, particularly in rural regions. A more comprehensive inclusion of California's diverse geographic contexts is essential for assessing the insurance market's volatile dynamics in recent years.

Repeated wildfire exposure, particularly in dry forest regions, significantly influences the proliferation of insurance deserts—areas where affordable insurance is unavailable or inaccessible. Studies have shown that as wildfire risks increase, insurers either raise premiums to

unaffordable levels or exit the high-risk markets altogether. For example, Stanford University researcher Anisha Singh theorizes that insurers struggle to adequately price wildfire risk, prompting market withdrawals in wildfire-prone areas (Singh, 2022). Singh further discusses policy implications, capitalizing on the need to utilize advanced climate science data to ensure a healthy insurance market, yet concedes that adoption requires significant oversight. The implication of such inability to incorporate modern climate science and accurate risk assessments highlights the ongoing issue for insurance companies to provide and institute appropriate policies for homeowners throughout the state.

On the economic side of insurance, Boomhower and fellow researchers similarly present the need for insurers to have access to high quality information when assessing property risk (Boomhower, et al., 2024). They find that insurers using harsher risk measures either charge higher premiums or exit high-risk areas entirely. Boomhower and contributors theorize that the acceleration of exit from high-risk segments is a product of risk information asymmetrics across various firms, as well as underlining the need for more thorough research on wildfire risk with regard to the insurance market. These trends exacerbate the spread of insurance deserts, particularly in regions repeatedly impacted by wildfires.

University of Georgia scholar Matthew Auer's qualitative study further contextualizes this issue by examining the societal effects of wildfires and insurance market exits (Auer, 2024). He highlights the disproportionate impact on underinsured populations and stresses the importance of considering socioeconomic outcomes in policy discussions. Auer overall conceptualizes insurance as a scarce and uncertain resource in times of climate change and increasing wildfire risk. This broader perspective emphasizes the cascading consequences of

repeated wildfire exposure, including the erosion of community resilience and increased vulnerability in affected regions.

While these studies provide valuable insights in assessing the insurance market crisis, few, if any, address the nuanced relationship between wildfire risk and nonrenewals, particularly in rural and underserved areas. This gap necessitates further exploration to fully understand and mitigate the spread of insurance deserts.

Despite significant progress in understanding the relationships among wildfire risk and the insurance market, almost no research has provided concrete analyses of the issue. Current literature often overlooks and entirely excludes the role of rurality as a critical factor in wildfire risk and insurance accessibility. Methodologies focusing solely on quantitative data fail to capture the socioeconomic and geographic nuances that shape insurance outcomes in rural and wildfire impacted regions across the state.

Additionally, the limited geographic scope of many studies, primarily concentrated in southern California, neglects a holistic understanding of statewide trends. Expanding research to include northern and rural areas of California is crucial for developing comprehensive policy solutions. Furthermore, while repeated wildfire exposure and the resulting spread of insurance deserts have been discussed, their relationship with more recent development of high rates of nonrenewals remains understudied. Understanding how insurers' decisions to withdraw from high risk areas could inform targeted policy interventions to neutralize the market and relieve struggling Californians.

Further research on the insurance crisis and its potential solutions should prioritize a focus on the impact of rurality and wildfire risk on insurance premiums and nonrenewals.

Additionally, the socioeconomic consequences are insurance deserts, especially in areas prone to wildfires is an important consideration. The integration of both scientific and economic approaches, considering the far-reaching impacts of the insurance crisis should as well be paramount in proposing policy to remedy the insurance market.

By addressing these research gaps, academics can contribute to a more nuanced understanding of California's homeowners insurance market crisis and inform policies aimed at mitigating the effects of climate change and wildfire risk on vulnerable populations.

Theory, Hypotheses, and Causal Mechanism

The theory fundamental to understanding the relationships among wildfire risk, rurality, and nonrenewals is that proportions of wildfire risk and rurality contribute to insurers' decisions in pulling out of the market. The conceptual hypothesis is that over the past decade in California, high or very high wildfire risk classifications have led to more homeowners insurance nonrenewals in rural areas than nonrural areas. The causal mechanism is that the wildfire losses and climate change in these high wildfire risk areas have led insurance companies to issue nonrenewals, sidestepping the state's intensive regulations. More specifically, the potential reason insurers are pulling out of the market at high proportions due to the likelihood of wildfire and liability of potential disastrous financial repercussions. The null hypothesis is that there is no difference in the rate of homeowners insurance nonrenewals per capita among California counties from 2015 to 2021 across varying classifications of wildfire risk and rurality. The general alternative hypothesis is that there is a difference in the rate of homeowners insurance nonrenewals per capita among California counties from 2015 to 2021 across varying classifications of wildfire risk and rurality.

Research Design

The research design to analyze the relationships among wildfire risk, rurality, and nonrenewals involves gathering numerical data from various sources to conduct statistical tests. The independent variables are respective proportions of rural population and dwellings in high or very high wildfire risk classifications per each California county. The wildfire risk classification is provided by the California Department of Insurance and is based on modelers risk assessments, using a commercial product to assess dwellings. The data on wildfire risk classification is from a 2015 report by the California Department of Insurance, and lists the proportion of the total dwellings in each county that are considered high or very high wildfire risk, sourced from a weighted average of modeler's risk assessments. More specifically, the modelers' assessments of dwellings is an output from a commercial tool that models a property's exposure to fire risk based on environmental and community level factors such as fuel, slope, and road access (California Department of Insurance, 2015). The operationalization of wildfire risk in terms of proportion and through an average of various modelers is based on the high variance of wildfire risk across the state, as well as the numerous factors that contribute to wildfire risk, which will be accounted for with the average weighting.

The second independent variable of rurality is measured in proportion to a given county's population that is rural, based on the 2020 census. As defined by the United States Census Bureau, rural is defined as "Any place with fewer than 5,000 people or 2,000 housing units—or low population densities (less than 425 housing units per square mile)" (United States Census Bureau, 2023). The data on rurality is sourced from the Public Policy Institute of California's (PPIC) report on rural California, which notates the rate (in percentage) of rural population in each California county. The PPIC utilized population data from the 2020 US Census to compile the rurality proportions for each county (Johnson & Mejia, 2024). While

rurality could also be designated as simply a binary rural or non-rural, the range or rurality in California counties is similarly large, and a cutoff would discount the many counties that are in the mid-range of proportion of rural population.

The dependent variable is the rate of homeowners insurance nonrenewals per capita, in a given county, per each 10,000 residents. The data on the rate of homeowners insurance nonrenewals is similarly sourced from a report by the California Department of Insurance. It provides a county by county breakdown of the number of insurer initiated insurance nonrenewals from 2015 to 2021. To account for variances in the amount of nonrenewals depending on a county's population, a transformation will be conducted to alter the yearly amount of nonrenewals by county into a per capita statistic, more specifically, the amount of nonrenewals in each county per 10,000 residents (California Department of Insurance, 2022). The data on nonrenewals was operationalized as a measure of the insurance crisis, as it particularly has become a problem in recent years. Additionally, further data such as insurance premiums was not updated as recently as nonrenewals, and thus the nonrenewal data provides the best outlook on the insurance market as it currently stands.

The confounding variables in this study are average annual precipitation as well as county population. For precipitation, the variable will indicate the average annual amount of precipitation from 2015 to 2021 (in inches) across each California county, to account for climatic differences that may contribute to wildfire risk and probability of insurance nonrenewal. In years of extreme drought for example, wildfire risk is often heightened. The precipitation data is sourced from the National Oceanic and Atmospheric Administration (National Centers for Environmental Information, 2024). County population, as sourced from the 2020 United States Census, provides an important statistic for calculating the per capita amount of insurance

nonrenewals, as well as itself a confounding variable (United States Census Bureau, 2021). As more concentrated and numerous populations in certain areas typically present higher risk for insurance companies, accounting for population will account for the large differences in populations across all California counties. The population variable will be measured in the number of residents per county, as calculated by the 2020 United States Census.

The unit of analysis in this study is all 58 California counties, as well as the state as a whole. The design structure involves analyzing the per capita rate of nonrenewals over the years of 2015 to 2021, utilizing the variables of wildfire risk and rurality by county as predictors, and precipitation and population as confounding variables. Therefore, the scope is 58 counties in California, plus the state as a whole, to total 59 observations over the years of 2015 to 2021. The analyses that will be conducted will involve a Pearson's R correlation to assess the strength and significance of the relationship among the continuous variables.

Research Methods

In order to analyze the data, various statistical tests and graphics will be developed that consider the numerical relationships among wildfire risk, rurality, and nonrenewals, as well as the confounding variables. The tests will be carried out utilizing the R data analyzing program, as well as Microsoft Excel to prepare and display figures. Firstly, a standard Pearson's R correlation will be conducted to consider the strength, if any, of the relationship of wildfire risk and rurality as predictor variables of per capita rates of nonrenewals in each California county from 2015 to 2021. Additionally, a more holistic correlation that includes the confounding variables of population and precipitation will be conducted to further display the significant, if any, of the relationships between nonrenewals, wildfire risk, and rurality. All correlations will include the calculation of the p-value, indicating the significance of any correlations that are

discovered. The p-value will further inform whether the results are statistically significant and accordingly whether they should be given important weight in the results assessment.

The figures and graphs will visualize the relationships among wildfire risk, rurality, and nonrenewals. Most notably, scatterplots will be created to visualize the correlations between wildfire risk and rurality as predictors of rates of nonrenewals from 2015 to 2021. Additionally, correlation heatmap tables will be curated in order to more concretely communicate the degrees of correlation in a more comprehensible way. The first correlation heatmap will display the relationships among all of the variables in the study, including the confounding variables, with a year by year breakdown. The second correlation heatmap will focus only on the relationships between wildfire risk, rurality, and rates of nonrenewals in each year.

The statistical analyses conducted will provide an overview of deducing any statistically significant relationships among the data, as well as overviewing any possible recommendations for homeowners, policymakers, and insurers to consider in tackling California's homeowners insurance crisis.

Results

The statistical analyses conducted present statistically significant findings with regard to nonrenewals, wildfire risk, and rurality. The correlations conducted indicate strong, statistically significant relationships between both proportions of wildfire risk and rurality as predictors of the per capita rate of nonrenewals in California counties from 2015 to 2021.
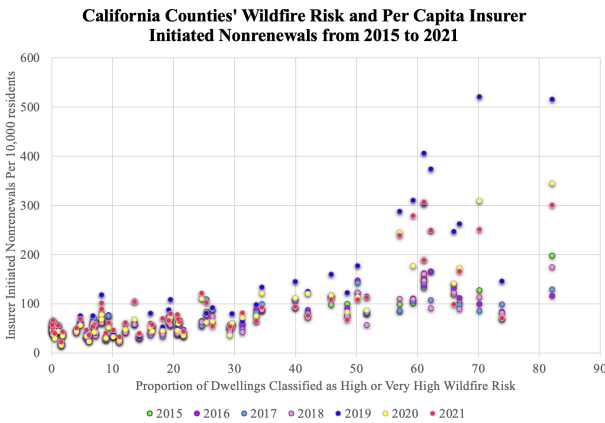
Graph 1: California Counties' Wildfire Risk and Per Capita Insurer Initiated Nonrenewals from 2015 to 2021 (Data Sources: California Department of Insurance, 2015, California Department of Insurance, 2022)

Graph 1 displays a scatterplot of data, with proportion of wildfire risk on the x-axis, and rates of nonrenewals per capita on the y-axis. It displays that as wildfire risk increases, rate of nonrenewals also increase.
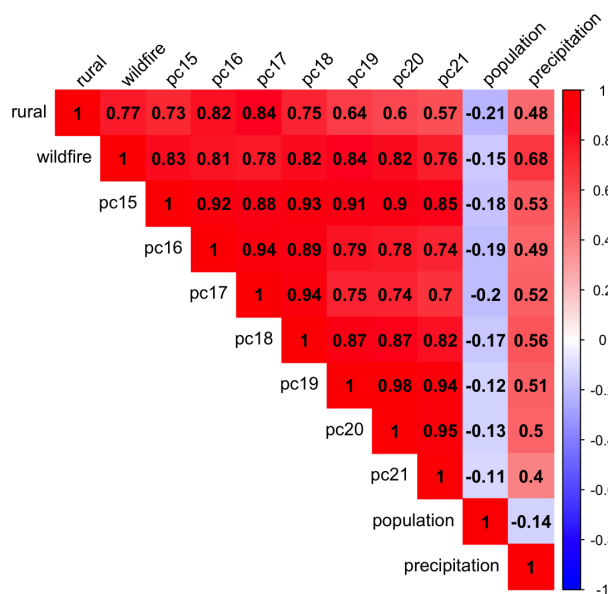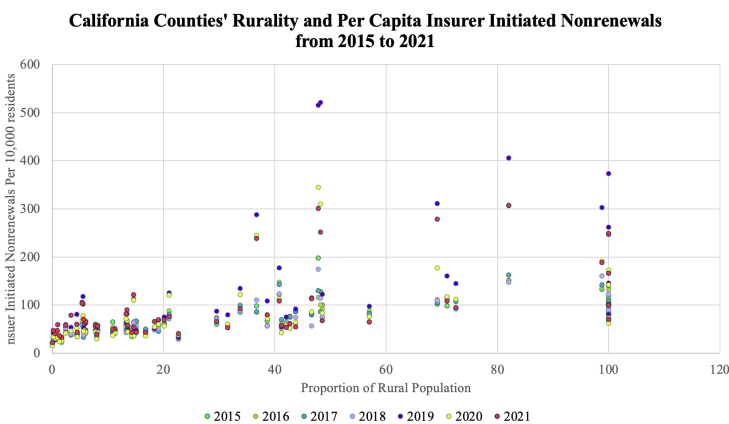

Figure 1: Correlation Heatmap Nonrenewals per Capita over 2015 to 2021 by Wildfire Risk, Rurality, Precipitation, and Population. (Data Sources: California Department of Insurance,
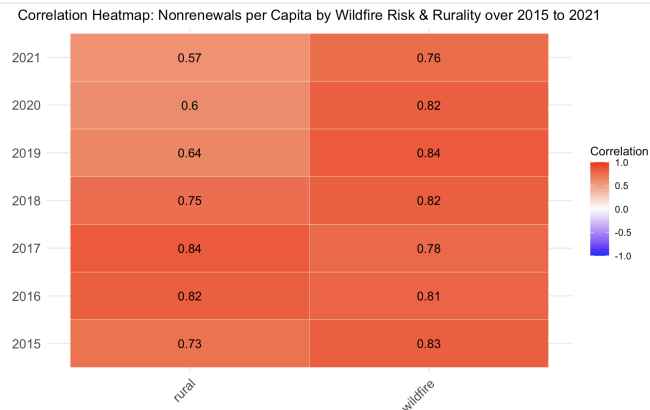
2015, California Department of Insurance, 2022, Johnson & Mejia, 2024, National Centers for

Environmental Information, 2024, United States Census Bureau, 2021)

Figure 1 above displays the correlation between all of the variables in the study. It clearly

depicts that the strength of the correlations that are observed between wildfire risk and rurality

are not equated to those between the confounding variables of population and precipitation. The

weak inverse relationship observed between population and rates of nonrenewals, along with

wildfire risk and rurality point out that as population tends to increase, all of the variables

decrease. Additionally, the somewhat weak correlative relationship with precipitation indicates

that as precipitation increases, wildfire risk, rurality, and rates of nonrenewals also increase.

Graph 2: California Counties' Rurality and Per Capita Insurer Initiated Nonrenewals from 2015

to 2021 (Data Sources: Johnson & Mejia, 2024, California Department of Insurance, 2022)

Graph 2 displays a scatterplot of data, with proportion of rural population on the x-axis,

and rates of nonrenewals per capita on the y-axis. It displays that as rurality increases, the rate of

nonrenewals also increases.

Correlation Heatmap: Nonrenewals per Capita by Wildfire Risk & Rurality over 2015 to 2021

Figure 2: Correlation Heatmap of Nonrenewals per Capita over 2015 to 2021 by Wildfire Risk and Rurality (Data Sources: California Department of Insurance, 2015, California Department of Insurance, 2022, Johnson & Mejia, 2024)

Figure 2 displays a more concrete image of the relationships between rurality, wildfire risk, and rates of nonrenewals from 2015 to 2021. It indicates that wildfire risk in particular is a very strong predictor of rates of nonrenewals, with every year's correlation coefficient being greater than 0.75. Rurality on the other hand, has a strong relationship with nonrenewals from 2015 to 2018, with all correlation coefficients greater than 0.70. Yet, the relationship observed between rurality and nonrenewals is less strong in the more recent years of 2019 to 2021, with correlation coefficients ranging between 0.57 and 0.64.

The correlation coefficients between rurality, wildfire risk, and rates of nonrenewals indicate strong associations. Additionally, all p-values were below 0.05, indicating that the results are statistically significant. The confounding variable correlations present no significant associations. The overall correlation statistics imply a very strong, statistically significant relationship between wildfire risk and rates of nonrenewals, and a moderately strong, statistically significant relationship between rurality and rates of nonrenewals.

Discussion and Research Implications

The results imply various considerations as California works to neutralize its insurance market, particularly for rural and wildfire-prone populations in the state. The original research objective presents an important lens through which the analyses can be assessed. The objective was: broadly, how have wildfire risk and rurality contributed to nonrenewals in the homeowners insurance market across all counties in California over the years of 2015 to 2021? Specifically, from 2015 to 2021, have higher rates of homeowners insurance nonrenewals per capita disproportionately affected California counties with higher proportions of dwellings in high or very high wildfire risks classifications and those with higher proportions of rural populations?

The results, as discussed above, depict a clear picture of the strength of the relationships between nonrenewals, wildfire risk, and rurality. The strong correlations between both wildfire risk and rurality as predictors of rates of nonrenewals ratify the original theory that insurers' are pulling out of the market at higher rates in high wildfire risk and rural areas. The results overall strongly support the original hypothesis that higher rates of homeowners insurance nonrenewals per capita disproportionately affect California counties with higher proportions of dwellings in high or very high wildfire risk, along with those with higher proportions of rural populations. The statistical significance of the correlations further imply that wildfire risk and rurality contribute to rates of nonrenewals.

The greater than 0.70 correlation coefficient from 2015 to 2021 between wildfire risk and rates of nonrenewals depicts a clear picture of a very strong association, indicating that as wildfire risk increases, rates of nonrenewals also increase. However, the somewhat less strong correlation between rurality and rates of nonrenewals differs from year to year. From 2015 to 2018, rurality displayed a similarly strong correlation as wildfire risk, above 0.70. Yet from 2019

on, the correlation tapered to between 0.57 and 0.64, indicating that in more recent years rurality is less of a predictor of rates of nonrenewals.

With the knowledge of the role of wildfire risk and rurality, policymakers, insurers, and homeowners are better able to asses the insurance market and provide adequate solutions. Especially considering the very strong relationship between wildfire risk and rate of nonrenewals, mitigating wildfire risk across the state may be essential to neutralizing the market and providing relief across the board. Reducing wildfire risk could involve actions taken by homeowners to reduce their own dwellings risk, such as cutting down trees, removing dry brush. Rurality on the other hand, although having a somewhat strong correlation with rates of nonrenewals, is a more difficult solution to potentially implement. Mitigating proportions of rurality would involve a tedious process of incentivizing or encouraging rural residents to relocate to other, more populous areas of the state, a much more difficult and unfeasible mission. Therefore, the paramount consideration as homeowners, insurers, and policymakers work together to ameliorate the insurance crisis is reducing wildfire risk on both an individual and large-scale level.

Research Limitations and Extensions

As scholars work to further analyze the insurance market in California, along with considering important factors such as wildfire risk and rurality, the continued improvement of research objectives is essential to providing useful outcomes. There are numerous ways in which further research ought to accurately and wholly assess this issue.

An important consideration that was not ultimately conducted in the research at hand is the relationship between wildfire risk and rurality. While separately assessing these variables provided a concrete measurement of the strength of each factor's impact on insurance

nonrenewals, the confounding nature of wildfire risk and rurality was not included. It is inherent that rural areas across the state of California are notably more wildfire prone than urban areas. A thorough analysis of wildfire risk and rurality would lend a more complete view of how these factors coalesce to affect the insurance market as a whole.

Additionally, the economic aspect, more notably the cost of insurance premiums is a significant and pressing aspect of research on the insurance market in California. Unfortunately, data on insurance premiums that is currently accessible through the California Department of Insurance only provides a per zip code assessment of premium increases. A county level study, as opposed to thousands of zip codes in the state, was much more feasible, and therefore insurance premiums were not included. Including insurance premiums in further research would most certainly provide a more holistic picture of the nature of the insurance market in California, specifically cost wise.

Furthermore, due to the evolving and recently volatile nature of the insurance market, studies focused on the present time period may yield more significant results. Specifically with regard to insurance premiums and nonrenewals, which have skyrocketed since 2020, assessing the latest trends is crucial to understanding the issue and providing effective solutions. Yet, little holistic data from these years is currently available, and therefore it may take much longer for researchers to be able to adequately assess the more recent developments in the insurance market. However, staying up to date with the changes in premiums and nonrenewals is essential for policymakers to be able to quickly adapt regulations and provide relief to struggling populations.

As more and more research to inform important policy decisions is conducted on the instability of the insurance market in California, it is essential for further research to consider confounding relationships, economic consequences, and up-to-date analyses.

Conclusion

The California insurance market crisis is making it increasingly difficult for homeowners across the state. Homeowners are facing thousands of dollars in premium increases or having their policies outright cancelled. Insurance companies are facing insolvency as they work to recoup the billions of dollars in losses from destructive wildfires. Policymakers are in search of ways to remedy the decades old regulations to provide fair and effective relief to both parties.

The contextual factors of wildfire risk and rurality provide crucial insights into the unpredictable nature of homeowners insurance. Costly premium increases and disastrous policy cancellations in recent years are major concerns. The resulting analysis indicated that strong, statistically significant correlative relationships exist between both wildfire risk and rurality as predictors of rate of nonrenewals from 2015 to 2021.

The strength of such relationships demonstrates that as policies are being enacted to neutralize the market, mitigating, as well as especially prioritizing rural and wildfire prone populations is a vital action. Focusing on high wildfire risk and deserted areas of the state will allow policymakers to zoom in on individual markets and provide adequate options for these struggling homeowners.

As climate change continues to worsen and more and more wildfires ravage the state, homeowners insurance is becoming more important than ever before. Its scarcity, and high cost, however, is inciting a dire situation for California homeowners and even potential home buyers. The consideration and prioritizing of rural and wildfire prone populations with regard to

insurance policy throughout the state is of the utmost importance in neutralizing the market. Reducing wildfire risk, as well as providing essential services and options to rural residents is essential in creating a more equitable and enduring homeowners insurance throughout the state.

Policymakers, most notably the state legislature and the California Department of Insurance should consider rural and wildfire prone populations the ultimate benefactors and priority of any new insurance regulations.

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