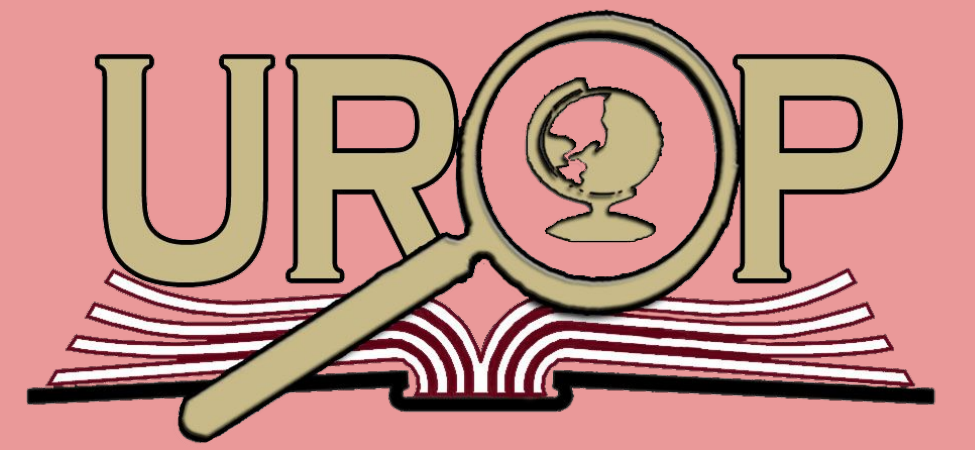




Wild(fire) West: Insurer Risk and Response in California

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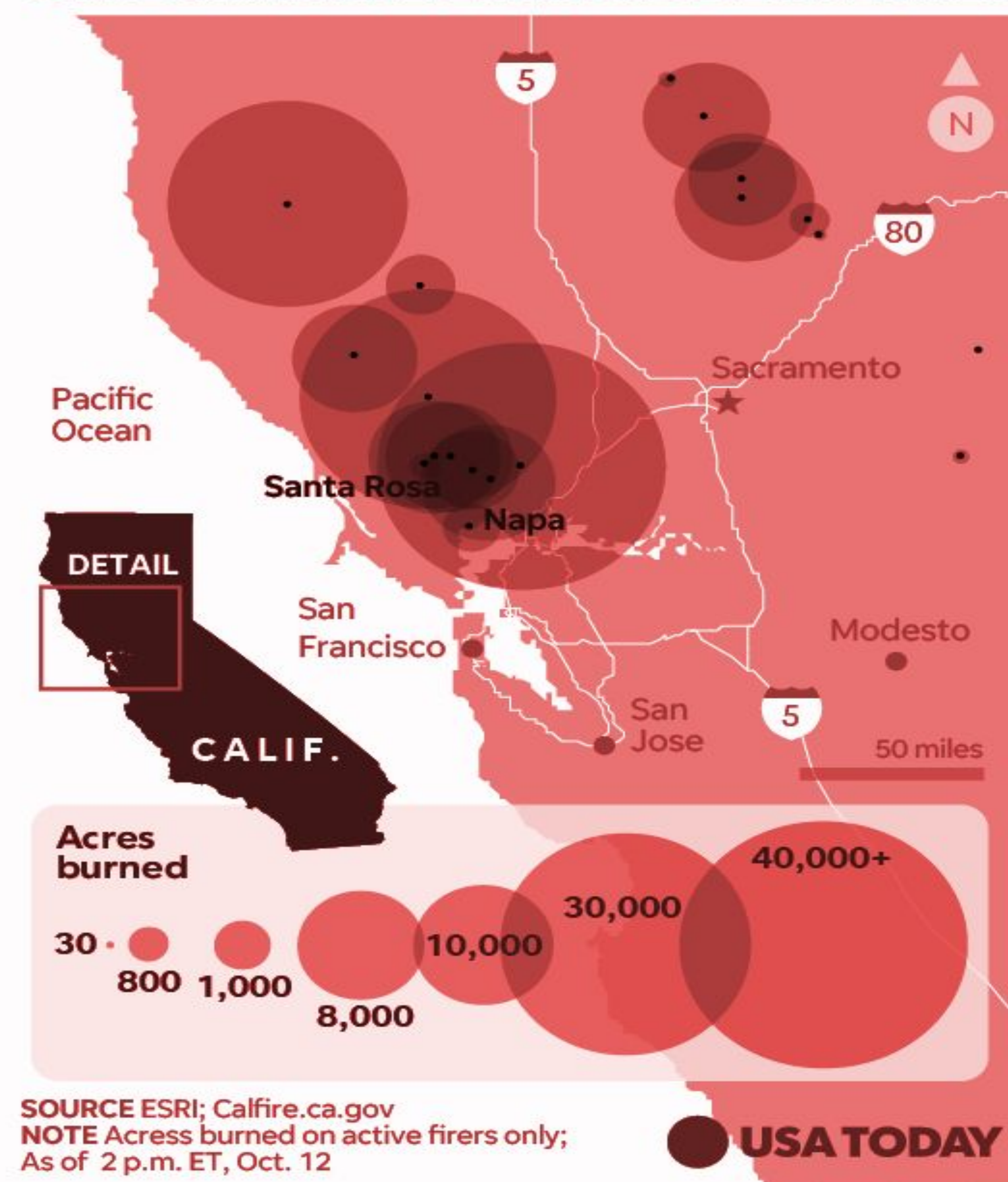
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ABSTRACT

In recent times, large catastrophic wildfires have been predominantly ravishing in the West. In order to remain profitable, insurers must find a way to adapt to these “new catastrophic events.” This study will explore insurers’ response to these disasters in the damaged State of California. Using insurer loss data and insurer regulatory filings we aim to explain the insurer’s response. Our findings indicate that insurers reduce property coverage due to catastrophic wildfires if they do not get their regulatory filings approved.

CALIFORNIA ACRES RAVAGED BY WILDFIRES



INTRODUCTION

As global warming has caused natural disasters to become more prevalent in the present day, the rate at which wildfires have been burning up the areas of California residents has significantly increased. Insurance companies are responsible for covering the damages of these raging catastrophes, so they are compelled to make changes to their rates in order to stay profitable. We examine the types of property damage that are caused by wildfires and the way in which insurance companies respond to this damage. Insurers have a variety of options they can choose from according to their motivations: diversify, purchase more reinsurance, change cover filing forms, request an increase in rates, reduce premiums, or discontinue writing coverage within the state.

DATA

All catastrophic loss data from 2007-2019 collected from SHELDUS™. All insurer rate filing data from 2008-2020 collected from S&P Global. Insurer firm specific information collected from 2008-2020 collected from the NAICS.

FINDINGS

Explanatory Variable	Reduced10 (t+1)	Reduced10 (t+2)
Homeowner Indicator	-0.485** (0.230)	-0.217 (0.233)
Percent Loss - Wildfire	0.234 (0.165)	0.984*** (0.161)
Homeowner Indicator * Percent Loss - Wildfire	0.824*** (0.287)	0.028 (0.259)
Filing Approved	0.063 (0.140)	0.087 (0.139)
Homeowner Indicator * Filing Approved	-0.620*** (0.237)	-0.135 (0.250)
Control Variables(i,l,t)	Yes	Yes
Control Variables(i,t)	Yes	Yes
Observations	3,952	3,952

METHODS

A random effects panel logit model with robust standard errors.

$$\begin{aligned}
 &Response10_{i,l,t} \\
 &= \alpha + \beta_1 HomeownerIndicator_{i,l,t} + \beta_2 PercentWildfireLoss_t \\
 &+ \beta_3 FilingApproval_{i,l,t} \\
 &+ \beta_4 HomeownerInd * PercentWildfireLoss_{i,l,t} \\
 &+ \beta_5 HomeownerInd * FilingApproved_{i,l,t} + \gamma'X_{i,t} + \delta'X_{i,l,t} + \epsilon_{i,l,t}
 \end{aligned}$$

DISCUSSION AND CONCLUSION

The findings indicate that homeowners insurers who suffer large catastrophic wildfire losses are more likely to reduce coverage within the state of California.

ACKNOWLEDGEMENTS & REFERENCES

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