BlackRock | CALIFORNIA RESILIENCE CHALLENGE

Uneven impact

The disproportionate effect of severe climate events on low-income counties in California

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Summary

BlackRock investment teams[1] have made a major investment over the past few years to incorporate geospatial data directly into their investment processes. The resulting set of alpha insights incorporate timely National Aeronautics and Space Administration (NASA) and Federal Emergency Management Agency (FEMA) data directly into portfolios. These alpha insights are designed to help deliver portfolios that are more resilient to the effects of climate change.

A new partnership with the Bay Area Council (BAC) California Resilience Challenge looks to utilize this geospatial investment infrastructure for a civic engagement application. Specifically, this paper uses this satellite data to analyze the interactions between extreme weather events and the local economic impact within California. The objective is to improve the public awareness of the relationship between the climate, economy and low-income communities in a state where the firm has a large and longstanding operating presence.

We investigate county level economic effects of four climatological events — heat waves, droughts, wildfires, and floods — and have found that:

- **Extreme weather events have a disproportionately large economic impact on counties with lower-than-average levels of income**
- **Extreme heat and wildfires tend to occur more frequently in lower income counties**
- **Economic impacts are exacerbated by the temperature sensitive industry mix in low-income counties**

By providing actionable, county-level findings, we hope to elevate the public discourse on climate change and to assist in targeting future adaptation grants to those communities most in need.

1 Specifically a collaboration between the BlackRock Global Tactical Asset Allocation and Systematic teams.

"As more prevalent climate-related natural disasters disrupt an increasing number of communities, there is a growing need to identify regions that require resilience and adaptation funding to confront these challenges."

Introduction

According to the August 2021 report from the U.N.'s Intergovernmental Panel on Climate Change (IPCC), average global temperatures have risen to levels that are higher today than in the last hundred thousand years.[2] The resulting climatological changes are already producing more intense heat waves, heavier rainstorms and flooding, and drier conditions that have exacerbated wildfires. Adaptation is increasingly recognized as a critical part of the policy response to a shifting climate. Targeting that response effectively requires identifying the regions and communities most exposed to disruptive weather events.

In this collaborative research between BlackRock and the California Resilience Challenge, we seek to inform the public debate on the local impacts of climate change in California. To do so, we apply a proprietary investment dataset that combines satellite data with granular economic data.[3] We analyze county-level data, but acknowledge that numerous studies have documented exposure, sensitivity and adaptive capacity to climate risk varies at even more local levels.[4] Our findings highlight a disproportionate incidence as well as a larger and sometimes discontinuous economic impact of extreme climate events on the low-income regions of California.

As more prevalent climate-related natural disasters disrupt an increasing number of communities, there is a growing need to identify regions that require resilience and adaptation funding to confront these challenges. Our findings document a discontinuous impact of certain climate events on economic output depending on whether they occur in high- and low-income counties. We also show that the economic costs of extreme heat are exacerbated by the industrial mix within temperature-exposed counties. We summarize the findings by identifying the counties across the state that are most exposed to each type of climate disaster and discuss differences across disaster type and county characteristics.

In the short run, natural disasters inflict health, well-being and economic costs on communities; over longer periods, disasters can permanently disrupt livelihoods, industries and the ability for families to save.[5] The types of natural disasters afflicting California have also changed over time. Figure 1 shows the breakdown of climate-related FEMA disaster declarations. FEMA declarations tend to accompany the most destructive weather events. The visual highlights that the number of extreme weather disasters has been rising and that more have been fire-related in recent decades.

2 Source: IPCC, 2021: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press. In Press. **3** We use NASA satellite imagery, the U.S. Drought Monitor, the National Center for Atmospheric Research, and U.S. Bureau of Economic Analysis (BEA) to analyze county-level data across California. We note that researchers and policy makers have many options on how to define extreme weather events. For example, the NOAA National Centers for Environmental Information's Billion-Dollar Weather and Climate Disaster database has tagged 39 events in the state of California from 1980-2020, with costs sourced from insurance services offices, State, and Federal agencies amongst others. This captures the largest FEMA-addressed disasters, but doesn't include the far higher frequency of smaller FEMA disaster declarations which covered more than 1,000 such California tagged disasters over the same period. Lastly, there are many other types of weather events that don't necessarily prompt FEMA assistance but nevertheless cause disruptions to communities, households, and businesses. To account for this diversity of data, we use a mix of sources to get the widest picture of the climate challenges that face Californians. **4** See publications from Pacific Institute (https://pacinst.org/publications/). **5** Dell, Melissa, Jones, Benjamin, Olken, Benjamin. Temperature Shocks and Economic Growth: Evidence from the Last Half Century. American Economic Journal: Macroeconomics 2012, 4(3): 66–95; Marshall Burke, Solomon M. Hsiang & Edward Miguel. "Global non-linear effect of temperature on economic production". Nature volume 527, pages 235–239 (12 November 2015); Wagner, Gernot; Weitzman, Martin. Climate Shock: The Economic Consequences of a Hotter Planet. Princeton University Press; 1st Edition (February 22, 2015); Nordhaus, William. The Climate Casino: Risk, Uncertainty, and Economics for a Warming World. Yale University Press; Illustrated edition (February 24, 2015). House, Trevor; Hsiang, Solomon; Kopp, Robert; Larsen, Kate. Economic Risks of Climate Change: An American Prospectus. Columbia University Press (August 18, 2015).

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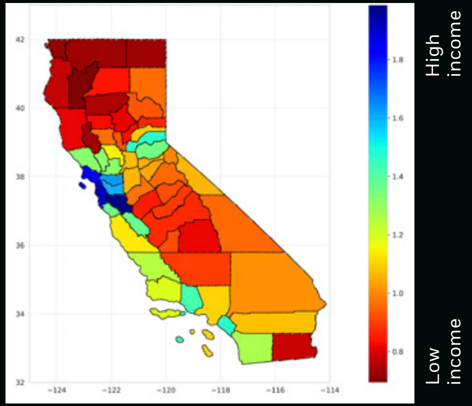
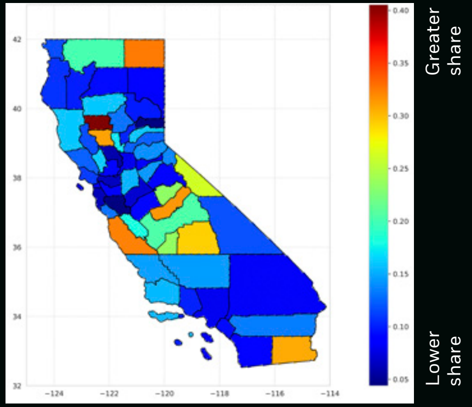
Figure 2: Central Valley counties have tended to be both lower income and have more temperature sensitive economies

Relative county income (% above median CA household income, 2003-2020)

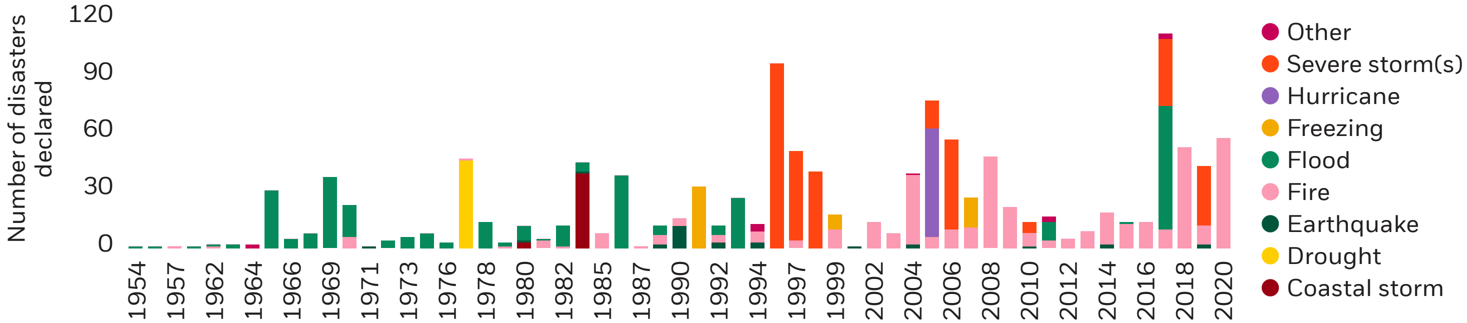


Median share of GDP in “temperature-sensitive” industries, 2003-2020



Source: BlackRock, with data from BEA, December 2020.

Figure 1: California FEMA disaster designation counts by disaster type



Source: BlackRock, with data from FEMA, October 2021. Excludes “biological disasters”, which are primarily COVID-related in 2020.

The maps in Figure 2 sort California counties by average income and by the “temperature-sensitivity” of their economic industry mixes.[6] The juxtaposed maps highlight the positive correlation across counties with higher (lower) income being reliant on less (more) temperature-sensitive industries. We observe that higher income counties tend to be concentrated along the coast, while northern and inland counties tend to have lower incomes. The industry maps show that counties with a relatively higher share of “temperature-sensitive” industries tend to be concentrated in the more agriculturally focused parts of the state.

Our analysis in the remainder of this paper focuses on the economic impacts of heat, droughts, wildfires and floods across the state of California. We document a clear income-related discontinuity in the economic effects of climate; high-income counties (i.e., those with above-median income) have been less economically sensitive to natural disasters compared with low-income counties (i.e., those with below-median income). We combine the analyses of different climate disasters to identify the countries most exposed to the growing economic toll of climate change. We document these findings to improve the public understanding about the unequal economic impact of climate change across communities and to focus public policies on adaptation projects in the most at risk areas.

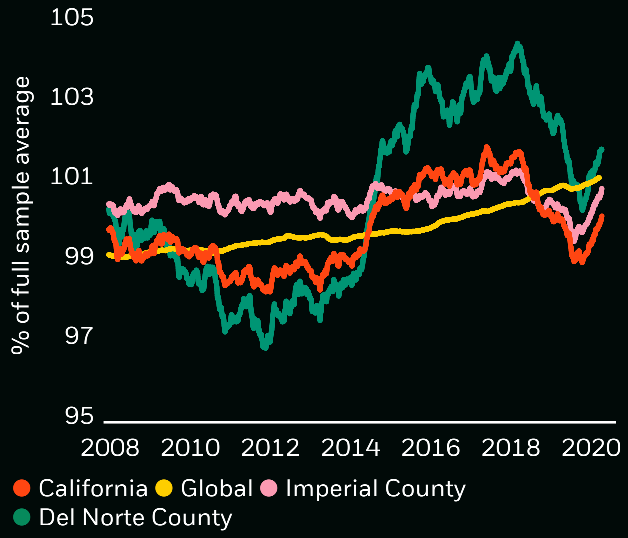
The findings that lower income regions of the state are disproportionately exposed to extreme weather events is related to the basic economic reality that more climate exposed regions of the state tend to have lower costs of living. This is consistent with California-specific research that has identified the important interlinkage between housing policy and climate risk, particularly as it pertains to heat and fire risk.[7] We view our findings as helping to inform the larger societal conversation on how to apportion the uneven health and adaptation cost burdens inflicted by climate change.

6 We define these industries as a combination of outdoor industries (Agriculture, Forestry, Fishing and Hunting and Construction, consistent with those defined by the Occupational Safety and Health Administration: www.osha.gov/heat-exposure) and in-person consumer services industries (Arts, Entertainment, and Recreation and Accommodation and Food Services). **7** C. J. Gabbe & Gregory Pierce (2020): “Extreme Heat Vulnerability of Subsidized Housing Residents in California,” Housing Policy Debate, doi.org/10.1080/10511482.2020.1768574. Philson, Conner S.; Lauren Wagner; Ria Nawathe (2021); “Mitigating California Wildfire Impact Through Zoning and Housing Policy” *Journal of Science Policy & Governance* doi.org/10.38126/JSPG180112.

Heat

Figure 3: County-level temperature variation has been greater than statewide or global averages

Rolling 5-year temperature means (% of average over the full sample, 2003-2020)



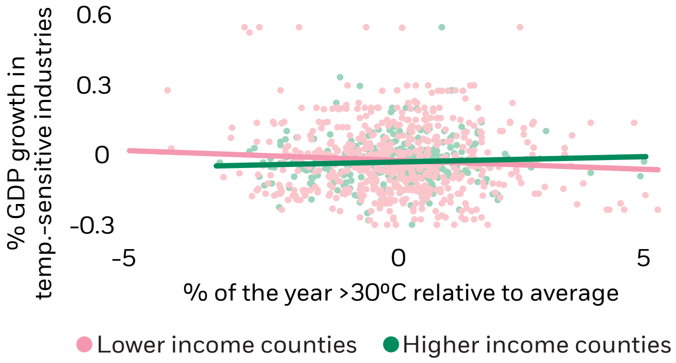
Source: BlackRock, with data from NASA, November 2021.

While temperatures have been uniformly rising globally, California's temperature trajectory has exhibited greater variability over the last twenty years. After remaining relatively stable, temperatures across the state rose in the mid-2010s, then declined in recent years, before beginning to rise again more recently. Figure 3 also shows some of the wide variation in temperature patterns across CA counties. For example, temperatures in the generally hotter southeastern Imperial County have stayed more consistent, whereas Del Norte County in the northeast, where temperatures are generally cooler, has had higher variability and increased more materially in the last two decades.

Our findings across the state of California align with the global findings from academic literature that suggest that the impact of temperature on human cognition, activity, and hence economic growth is non-linear. That is, temperatures increasing within moderate ranges are not the same as spikes in temperatures associated with extreme heat. For this reason, instead of focusing on average temperatures, we analyze the impact of more variable temperatures and the incidence of "extreme heat," which we define as being daily average temperatures above 30° Celsius (86° Fahrenheit).[8] We also expand the analysis beyond simply documenting heat exposure risk to incorporate economic sensitivity based on county industry mixes as well as adaptive capacity, proxied by high- and low-income counties.

Our key analysis focuses on the impact of extreme heat on economic growth across high- and low-income counties, specifically within "outdoor" and "temperature-sensitive" industries. In Figure 4, we present the results from two sets of regressions that split the 58 California counties into high- and low-income sub-sets and compare the economic impact of extreme heat events. The results show that within lower-income counties, a 1% increase in the incidence of extreme heat is associated with a GDP decline of 1.2% in "outdoor" industries and 0.9% in overall "temperature-sensitive" industries. In contrast, we identify no discernible impact of extreme heat events on the economies of high-income counties. These findings suggest that as the incidence of extreme heat events rises, there is a growing need to improve the resilience of agriculture, construction, and consumer services industries within low-income counties.

Figure 4: Extreme temperature incidence has resulted in a negative economic growth effect across low income counties



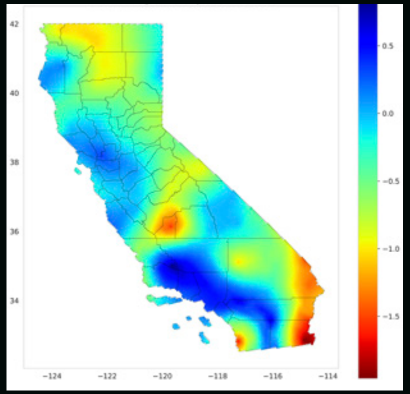
Source: BlackRock, with data from BEA, NASA, November 2021. GDP growth calculated as the year-over-year % change in total GDP from the relevant industry set, Winsorized at the (10%, 90%) range in every year to remove the effect of outliers, controlling for county-level and time fixed effects.

8 This is consistent with much academic and practitioner literature. For example, the following provide the relevant "extreme" thresholds identified across academic papers: Addoum, Ng and Ortiz-Bobea (2019): >30°C, Baylis (2015): >80-90°F, Pankratz, Bauer and Derwall (2019): >30°C, Deryugina and Hsiang (2014): >30°C, Zivin, Hsiang and Neidell (2015): 30-32°C for decline in time for outdoor labor.

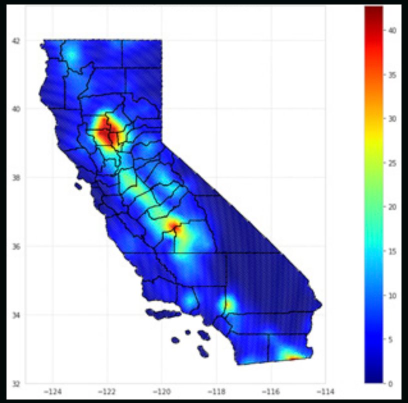
Drought and fires

Figure 7: Drought and wildfire risk have been concentrated in lower income and inland regions of California

Median drought index in June, 2013-2020



Wildfire severity, 2000-2020

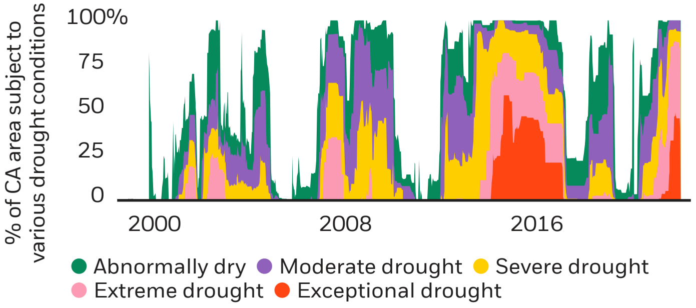


Source: BlackRock, with data from NASA, October 2021. Drought severity is measured using the Global Precipitation Climatology Centre Drought Index. Values range from -3 (indicating extremely dry conditions) to +3 (extremely wet conditions). Fire severity is reported through NASA satellite measures of pixel brightness, designed to pick up alternate levels of exposure to fire.

California has been one of the most drought-prone regions in the United States. A Mediterranean climate that has made it attractive to decades of emigration and population growth also makes it inclined to experience drought, desertification and wildfires.[9] The human toll of the interplay of drought and wildfire have been highlighted by the calamitous wildfire seasons in the past few years, as Figure 5 shows, recent years have a sustained period of extreme drought.

The causal link between drought and fires is well established as dryer conditions exacerbate the risks for larger fires. A more recent compounding phenomenon exacerbating fire severity is shifts in wind patterns, particularly in Northern California, that have elevated fire risk close to populated areas and contributed to making fires more deadly and destructive.[10] Figure 6 shows that California has experienced materially above-average fire risk compared with the rest of the United States. Fire risk across the state has recently climbed to historic highs. We note that a majority of the 20 most destructive wildfires in state history have occurred in the past three years.[11]

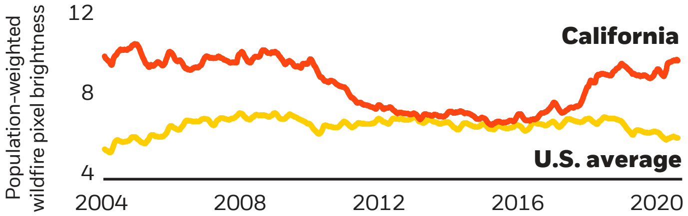
Figure 5: Exceptional and extreme drought conditions have impacted larger portions of the state



Source: U.S. Drought Monitor, April 2021.

Consistent with our earlier findings on the correlation between heat-exposed counties and levels of income, we find that droughts and wildfires disproportionately impact the lower-income regions of California. The maps in Figure 7 show that the lower income inland regions of the state have greater drought exposure. These inland regions also tend to be areas where agriculture comprises a higher share of economic output, thereby exacerbating the economic sensitivity to water shortages.[12] The maps show a more concentrated set of fire risks running north-south along the centerline of the state while more affluent population centers on the coast are notably less prone to drought and fire.

Figure 6: California wildfire severity has been rising and greater than the rest of the United States



Source: BlackRock, with data from NASA, November 2021. Fire severity is reported through NASA satellite measures of pixel brightness, designed to pick up alternate levels of exposure to fire.

9 See Reisner (1986) Cadillac Desert: The American West and Its Disappearing Water for a discussion of how population growth has fueled the depletion of water resources throughout the American West. **10** This Washington Post article discusses how stronger winds – known in the San Francisco Bay area as "Diablo winds" and as Santa Ana winds in Southern California – have elevated fire risk in coastal areas like Sonoma, Napa, and Orange counties: https://www.washingtonpost.com/weather/2019/10/28/whats-driving-historic-california-high-wind-events-worsening-wildfires/. **11** Source: CalFire (2022). **12** Source: California Agricultural Statistics Review (2020), https://www.cdfa.ca.gov/Statistics/PDFs/2020_Ag_Stats_Review.pdf.

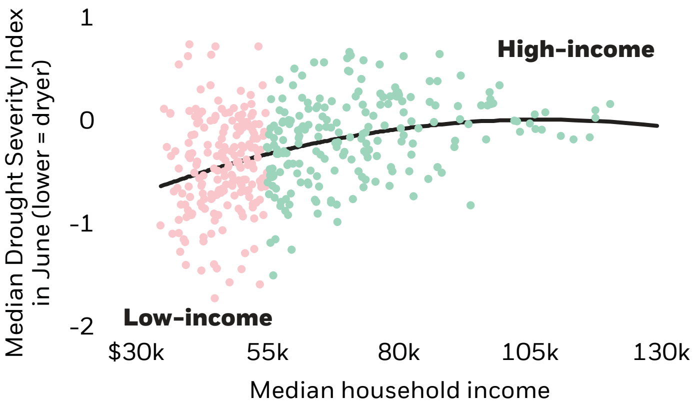
> **"Low-income counties have experienced increasingly more severe drought and wildfire conditions, whereas there is virtually no relationship between income levels and wildfire or drought severity across high-income counties. There are also long-term economic risks for regions with growing exposure to droughts and fires."**

Pooling the data on droughts and wildfires across recent years, we find a clear discontinuity in their severity across higher- and lower-income counties. Figure 8 plots the relationship between drought and wildfire severity against county-level income. The results show that drought severity has almost no relationship with income within the set of high income counties but worsens as a function of income within low income counties. Wildfire risk is also on average higher within the set of low income counties, but is most severe within a group of middle income counties spanning the median cutoff.

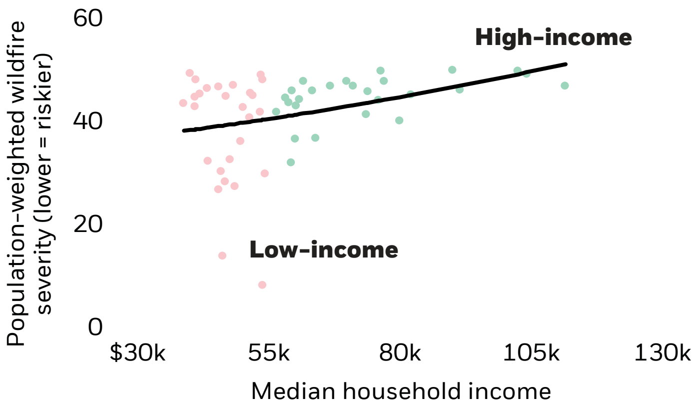
There are also long-term economic risks for regions with growing exposure to droughts and fires. Prolonged water shortages raise the risk that households in poorer parts of the state own impaired assets.[13] The resale value of farms and private property in these regions could decline if water shortages reduce the economically viability of agriculture. Similarly, elevated wildfire risk can reduce the availability of fire insurance and raise its cost.[14] Assets risk being stranded as sellers are unable to find buyers that cannot insure their properties against these elevated climate risks. These types of long-term impacts of natural disasters have been documented in development economics literature to be disproportionately borne by children and associated with subsequently worse health outcomes, lower educational attainment, lower lifetime incomes and less wealth accumulation.[15]

Figure 8: Low-income counties have been more drought and wildfire sensitive

Drought severity vs. household income by county, 2013-2019



Wildfire severity vs. household income by county, 2000-2020



Source: BlackRock, with data from NASA, October 2021. Drought severity is measured using the Global Precipitation Climatology Centre Drought Index. Values range from -3 (indicating extremely dry conditions) to +3 (extremely wet conditions). Fire severity is reported through NASA satellite measures of pixel brightness, designed to pick up alternate levels of exposure to fire.

13 See (2021) Bank of International Settlements "Climate-related risk drivers and their transmission channels" for a thorough discussion of the types of transmission channels for climate into the banking sector. **14** The California insurance commissioner has placed moratoriums on insurance non-renewals in fire adjacent regions in 2019, 2020, and 2021 as the private sector has reevaluated the insurability of regions throughout the state: https://www.insurance.ca.gov/01-consumers/140-catastrophes/MandatoryOneYearMoratoriumNonRenewals.cfm. **15** Caruso, Germán Daniel. "The legacy of natural disasters: The intergenerational impact of 100 years of disasters in Latin America." *Journal of Development Economics* 127 (2017): 209-233.

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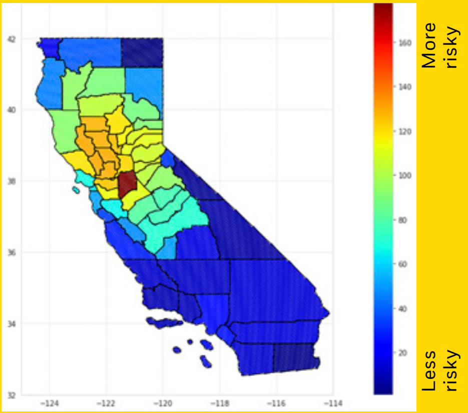
Figure 9: Flood risk has been concentrated in the Delta

County-level flood risk, 1985-2020



Source: BlackRock, with data from DFO Flood Observatory, University of Colorado, INSTAAR, November 2021.

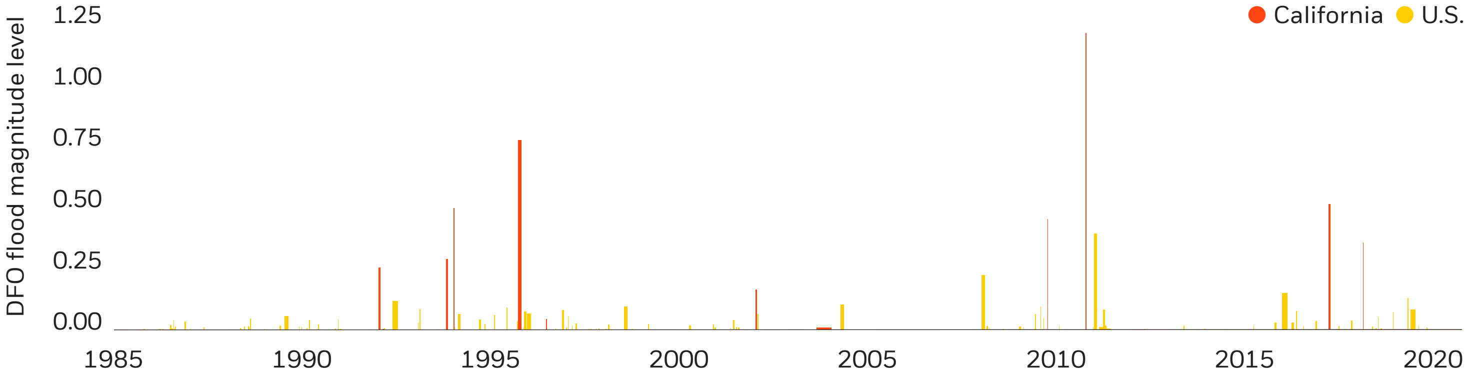
> **"In contrast to our earlier findings on heat, drought and fire, we find that county-level economic activity across California has, to date, been relatively resilient to floods."**

Flooding

While sea level rise is likely to increase the risk of coastal flooding, flood risk in California has, to date, been concentrated within the Delta.[16] At the confluence of the Sacramento and San Joaquin rivers, the Delta area has land that can be as much as 25 feet below sea level in the basin that flows out through the Golden Gate. This makes flood risk acutely concentrated within California counties adjoining the Delta, as can be seen in the map in Figure 9.

Figure 10 shows that flood severity, though episodic, has been high and increasing in California compared with the rest of the United States. A combination of more intense weather patterns with more arid land being less able to absorb rainfall and runoff has caused a number of particularly severe flood events. The susceptibility of the Delta in California means that rising sea levels can exacerbate flood risk between the Bay Area and Sacramento. However, in contrast to our earlier findings on heat, drought and fire, we find that county-level economic activity across California has, to date, been relatively resilient to floods. It will be important to monitor this relative resilience as the federal flood insurance system changes in 2021 and 2022.[17]

Figure 10: California has been episodically prone to extreme flood events



Source: BlackRock, with data from DFO Flood Observatory, University of Colorado, INSTAAR, November 2021.

16 The August 2021 IPCC report stated, "Coastal areas will see continued sea level rise throughout the 21st century, contributing to more frequent and severe coastal flooding in low-lying areas and coastal erosion. Extreme sea level events that previously occurred once in 100 years could happen every year by the end of this century". Also see the Northern California simulation maps to visualize the impact to the Bay Area and Delta under various sea level rise scenarios. **17** FEMA began to roll out a wide reaching change to flood insurance on October 1, 2021 that will impact all National Flood Insurance Program policyholders by April 1, 2022. The change – known as Risk-Rating 2.0 – to begin to differentially price insurance premiums based on inputs such as "flood frequency, multiple flood types – river overflow, storm surge, coastal erosion and heavy rainfall – and distance to a water source along with property characteristics such as elevation and the cost to rebuild."

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Takeaways

We summarize a number of our findings in Figure 11. The table breaks down all 58 California counties into two income groups and identifies the top ten counties most impacted by each of the four researched climate events. A couple of high-level findings are evident through this representation of the regional data:

- The most impacted counties have tended to be below median income and more of these counties are at higher risk for multiple types of natural disasters. Colusa, Glenn, San Joaquin, and Sutter counties stand out as being amongst the highest risk areas across three of the researched climate disasters.
- Below median income counties have disproportionately borne the excessive heat and fire risk across California. Flood risk has been more evenly distributed across high- and low-income counties and drought risk is notably higher amongst wealthier counties. Some of these patterns likely tie back to housing and water policy choices as well as insurance availability.

These results also demonstrate that different communities across California are exposed to different types of climate risks. The diversity of exposures to extreme weather events across the state reinforces the need for locally-focused adaptation and mitigation efforts. This type of bottom-up approach is reflected in the variety of adaptation projects supported thus far by the Bay Area Council's annual California Resilience Challenge.[18]

Both BlackRock and the California Resilience Challenge believe that data-driven policy decisions play a crucial role in addressing the impacts of climate change. Local solutions that address local challenges can help to more equitably allocate the aggregate societal costs of extreme weather events across regions and income groups. BlackRock believes that climate risk is an investment risk and we are proud to share our investment research capabilities with the Bay Area Council to help to inform the public discourse on this topic.

Figure 11: Heat and fire risk have been concentrated in lower income counties whereas drought risk has been more common in higher income counties

Low (below median) income

County	Heat risk	Drought risk	Fire risk	Flood risk
Alpine				
Butte			●	
Colusa	●		●	●
Del Norte				
Fresno			●	
Glenn	●		●	●
Humboldt				
Imperial	●	●		
Inyo				
Kern	●			
Kings	●	●		
Lake				●
Lassen				
Madera				
Mariposa				
Mendocino				
Merced				
Modoc				
Plumas				
Shasta				
Sierra				
Siskiyou				
Stanislaus	●		●	
Sutter	●		●	●
Tehama				
Trinity				
Tulare	●		●	
Tuolumne				
Yuba	●		●	

High (above median) income

County	Heat risk	Drought risk	Fire risk	Flood risk
Alameda				
Amador				
Calaveras				
Contra Costa				●
El Dorado				
Los Angeles		●		
Marin				
Mono				
Monterey				
Napa				●
Nevada				
Orange		●		
Placer				
Riverside	●	●		
Sacramento				●
San Benito		●		
San Bernardino		●		
San Diego		●		
San Francisco				
San Joaquin			●	●
San Luis Obispo		●		
San Mateo				
Santa Barbara				
Santa Clara		●		
Santa Cruz				
Solano				●
Sonoma				
Ventura				
Yolo			●	●

● Heat risk ● Drought risk ● Fire risk ● Flood risk

Source: BlackRock, with data from BEA, October 2021. Dots indicate top ten counties for each natural disaster type. Heat risk is computed as an average across county ranks for median days of extreme heat (2003-2020), interdecile range of extreme heat day counts (2003-2020), and share of heat sensitive industries (2020). See Figure 13 in Appendix for further detail.

18 Some examples of grants awarded by the California Resilience Challenge thus far include reducing the heat island effects with enhanced tree canopies; reducing wildfire risk by improving carbon sequestration in California forests; helping California Native American Tribes improve water quality monitoring at ancestral lakes; and helping shoreline communities along San Francisco Bay understand the impacts of sea level rise on groundwater tables and inland flooding. Source: https://resilientcal.org/.

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Appendix

Heat

These exhibits provide additional detail on the county-level analysis with respect to heat incidences. We provide additional detail on temperature-related weather events as excess heat tends to be a relatively underreported and underappreciated climate disruption to health and economic activity.

Figure 12, to the right, illustrates how exposure to extreme heat,[19] differs meaningfully across counties. The boxes and whiskers for each county represent the 25-75th and 10-90th percentile ranges, respectively. Counties with greater average temperatures tend to have greater variability in temperatures. However, regions of the state with previously more stable temperature ranges have more recently begun to experience greater fluctuations in extreme heat events. These differing weather patterns can cause greater economic disruption to areas not adapted to these types of temperature swings.

Figure 13 provides additional detail on the different types of heat-related risks within low-income counties. We quantify each county's economic exposure to heat sensitive industries; each county's median incidence of extreme heat events; as well as a measure of heat variability. We can see that counties with temperature-sensitive industry mixes often differ from those with greater temperature variability. We view these differences as highlighting the importance of accounting for both the economic and health costs associated with greater temperature variability.

Figure 12: Many counties with low average temperatures have experienced high year on year variation of extreme heat events

% of the year with extreme heat temperatures, 2003-2020

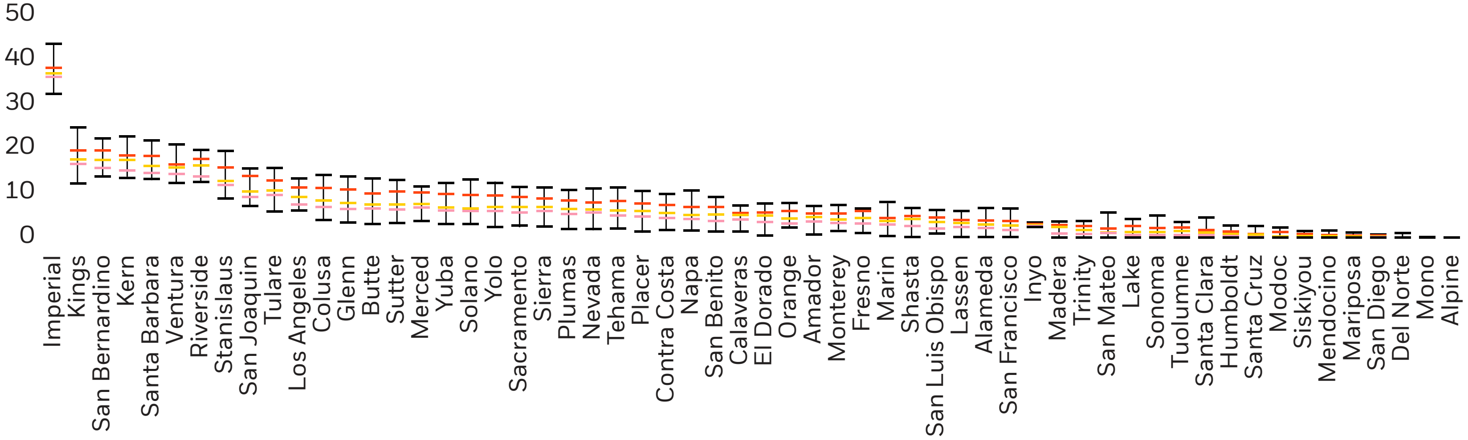
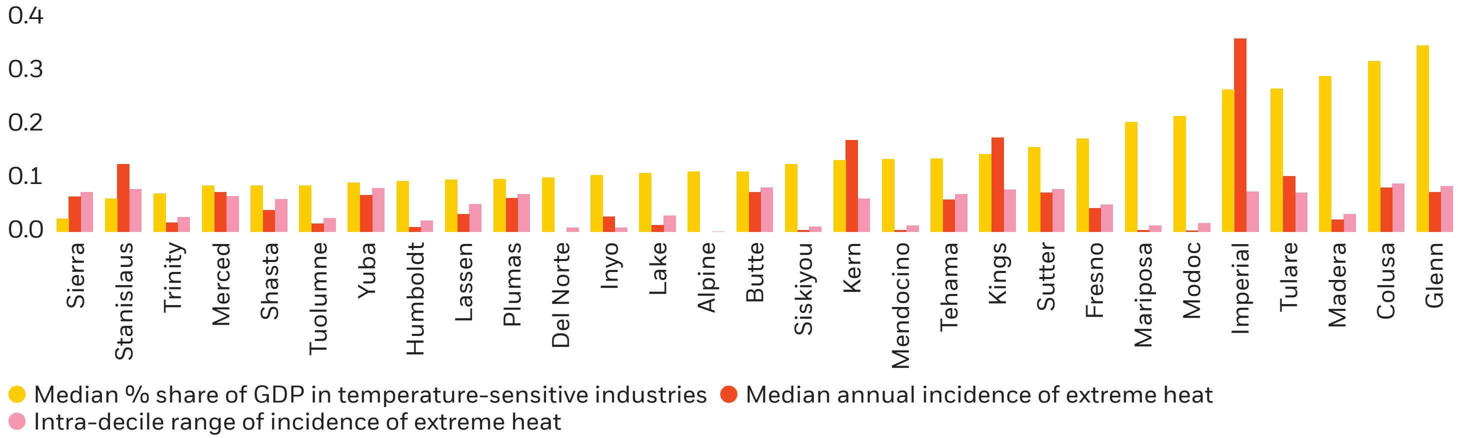


Figure 13: Heat events are relatively harder to define and using multiple measures of heat risk and sensitivity can be helpful

Heat sensitivity of below median income counties, 2003-2020



19 As in the body of the paper, we define "extreme heat" as average daytime temperatures over 30 degrees Celsius.

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About California Resilience Challenge

The Bay Area Council Foundation launched the California Resilience Challenge in 2019 to help under-resourced communities across California strengthen their resilience to the climate risks that threaten them most, and to use California's geographic diversity as a laboratory for testing adaptation strategies to help communities elsewhere in the U.S. and around the world. The California Resilience Challenge is made possible by the leadership and support of businesses, utilities, and a diverse array of community and sustainability partners. Last year the Challenge raised $2.5 million from a diverse coalition of businesses, utilities, and environmental non-profits. With the help of an expert panel and the California Governor's Office of Planning & Research, the Challenge used these funds to award climate change adaptation planning grants to 12 communities whose proposals were chosen for their innovation, replicability, and social equity. Building off the success of the 2020 Challenge, the Challenge's 2021 grant program will make an even greater focus on social justice and improving the climate resilience of disadvantaged communities. Learn more at ResilientCal.org.

About BlackRock

BlackRock is the world's largest asset manager (Source: BlackRock, based on $8.59 trillion in AUM as of December 31, 2022). It has operated in California since 1971 and currently has over 1,500 employees throughout the state.

Lit No. UN-IMPACT-0322 218214T-0322

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