Analyses of U.S. Homeowners Insurance Markets, 2018-2022: Climate-Related Risks and Other Factors

Federal Insurance Office,
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GLOSSARY

E&S Insurance	.....	Excess and surplus lines insurance
FAIR Plan	.....	Fair Access to Insurance Requirements Plan
FEMA	.....	Federal Emergency Management Agency
FIO	.....	Federal Insurance Office
HO-3 and HO-5	.....	Homeowners insurance policy forms in PCMI Data
HOI Perils	.....	Nine homeowners insurance perils—cold wave, hail, heatwave, hurricane, lightning, strong wind, tornado, wildfire, and winter storm—analyzed in this Report as covered by HO-3 and HO-5 homeowners insurance policy forms
Hurricane TLCR Categories	.....	Total expected annual losses to buildings from hurricanes, i.e., grouping of ZIP Codes into quintiles based on hurricane risk
Local Insurer	.....	In Report Section IV.C: Insurer that derives 95 percent or more of its total homeowners direct premiums written from business in one state
Midwest Region	.....	Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin
NAIC	.....	National Association of Insurance Commissioners
NFIP	.....	National Flood Insurance Program
NOAA	.....	National Oceanic and Atmospheric Administration
Northeast Region	.....	Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhoda Island, Vermont, and West Virginia
Northern Great Plains Region	.....	Montana, Nebraska, North Dakota, South Dakota, and Wyoming
Northwest Region	.....	Alaska, Idaho, Oregon, and Washington
NRI	.....	FEMA's National Risk Index
Paid Loss Ratio	.....	Measure reflecting how much insurers are paying for claims relative to what they are receiving in premium
PCMI Data	.....	Homeowners insurance data analyzed in this Report
PCMI Data Call	.....	Property and Casualty Market Intelligence Data Call by the NAIC on behalf of state insurance regulators
QUASR	.....	Florida's Quarterly and Supplemental Reporting System
Regional Insurer	.....	In Report Section IV.C: Insurer that derives 70 percent or more of its total homeowners direct premiums written from states in the region
Report	.....	FIO, *Analyses of U.S. Homeowners Insurance Markets, 2018-2022: Climate-Related Risks and Other Factors* (January 2025)

Severe convective storm	.....	Thunderstorm that may produce lightning, hail, strong winds, or tornados
Severe Convective Storm TLCR Categories	.....	Total expected annual losses to buildings from severe convective storms, i.e., grouping of ZIP Codes into quintiles for severe convective storm risk
Southeast Region	.....	Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia
Southern Great Plains Region	.....	Kansas, Oklahoma, and Texas
Southwest Region	.....	Arizona, California, Colorado, Hawaii, Nevada, New Mexico, and Utah
TLCR Categories	.....	Total expected annual losses to buildings from climate risk categories, i.e., grouping of ZIP Codes into quintiles based on risk for HOI Perils
Wildfire TLCR Categories	.....	Total expected annual losses to buildings from wildfire risk, i.e., grouping of ZIP Codes into quintiles based on wildfire risk
ZCTA	.....	ZIP Code Tabulation Areas, i.e., geographic representations of areas covered by ZIP Codes; for ease of reference, this Report refers to ZCTAs as ZIP Codes
ZIP Codes	.....	Zone Improvement Plan Codes used by the U.S. Postal Service

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I. INTRODUCTION AND EXECUTIVE SUMMARY OF KEY FINDINGS

This Report by the Federal Insurance Office (FIO) assesses the private U.S. homeowners insurance market by analyzing a new, nationwide dataset on homeowners insurance policies that includes information from more than 246 million policies from 2018 through 2022, aggregated to the ZIP Code level, or an annual average of 49.3 million policies. The dataset represents approximately 80 percent of premiums written by private homeowners insurers in the United States for the two most common forms of homeowners insurance policies. The dataset was created through a first-of-its kind collaboration among the National Association of Insurance Commissioners (NAIC), state insurance regulators, and FIO.[1]

Homeowners insurance is important to U.S. consumers, the economy, and the financial system. For many Americans, their home is their largest financial asset. The cost and availability of adequate homeowners insurance has a direct impact on housing expenses and the value of homes. The cost and availability of insurance can also have significant consequences for local governments whose tax bases rely on property values, and for real estate lenders and investors in mortgage securities that rely on insurance for loss protection. Moreover, homes are increasingly vulnerable to natural catastrophes.[2] From 2018 through 2022—the five-year time period for the data analyzed in this Report—the annual number of major disaster declarations for climate-related events was almost double the annual average over the 50-year period from 1960 to 2010.[3] In 2023, a significant number of natural catastrophes again impacted the United States, at an estimated cost of $114 billion, of which approximately $80 billion was insured.[4] In the first three quarters of 2024, natural catastrophes caused the United States to suffer an estimated $145 billion in economic losses, of which nearly $80 billion was insured.[5]

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[1] State insurance regulators are the primary regulators of the business of insurance in the United States. FIO's authorities include monitoring all aspects of the insurance sector, as well as identifying issues or gaps in the regulation of insurers that could contribute to a systemic crisis in the insurance industry or the U.S. financial system; monitoring the extent to which traditionally underserved communities and consumers, minorities, and low- and moderate-income persons have access to affordable insurance products; collecting data and information on and from the insurance industry and insurers; analyzing and disseminating data and information; and issuing reports regarding all lines of insurance that FIO monitors. 31 U.S.C. §§ 313-14.

[2] The insurance industry generally uses "natural catastrophes" for both weather-related and non-weather-related events. In this Report, "climate-related disasters" refer to weather-related events that may increase in frequency or intensity due to climate change, such as hurricanes and wildfires, as distinguished from non-weather-related natural phenomena such as earthquakes and earthquake-related tsunamis.

[3] "Major disaster declarations" are issued by the President pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. §§ 5121-5207, for any natural catastrophe that the President believes has caused damage of such severity that it is beyond the combined capabilities of state and local governments to respond. *See, e.g.*, Federal Emergency Management Agency (FEMA), Fact Sheet: Disaster Declaration Process, May 2011, https://www.fema.gov/pdf/media/factsheets/dad_disaster_declaration.pdf. *See also* FEMA, "Disasters and Other Declarations," available through https://www.fema.gov/disasters/declarations (Disaster Declarations).

[4] "Facts + Statistics: U.S. Catastrophes," Insurance Information Institute (III), https://www.iii.org/publications/insurance-handbook/insurance-and-disasters/facts-statistics-us-catastrophes (see table, "Natural Catastrophe Losses in the United States By Peril, 2023").

[5] Michael Lörinc, *et al.*, *Aon: Q3 Global Catastrophe Recap* (October 2024), 7, 13-15, https://assets.aon.com/-/media/files/aon/reports/2024/aon-q3-2024-global-catastrophe-recap.pdf.

The dataset provides consistent and comparable information from more than 330 private homeowners insurers in the United States. Using this data, the Report provides an overview of the U.S. homeowners insurance market in terms of costs to consumers and insurers, analyzes the relationship between the availability and cost of homeowners insurance and the costs of climate-related disasters, and highlights differences in such observations across regions and perils. To measure the costs of climate-related disasters, the Report uses expected annual losses to buildings from the National Risk Index (NRI) of the Federal Emergency Management Agency (FEMA) for nine climate-related perils generally covered by homeowners insurance: cold wave, hail, heatwave, hurricane, lightning, strong wind, tornado, wildfire, and winter storm. This measure does not include floods because private homeowners insurance generally excludes coverage for losses from floods.

This work complements the important efforts that states and local communities are undertaking to understand and address homeowners insurance market challenges arising from the increasing costs of climate-related disasters and other factors. This Report also responds to Executive Order 14,030 on Climate-Related Financial Risk, which directed FIO to "assess, in consultation with States, the potential for major disruptions of private insurance coverage in regions of the country particularly vulnerable to climate change impacts."[6]

The Report's key findings are summarized below. In Section II, the Report describes in greater detail the scope of the data and the metrics used in this Report. Section III analyzes insurers' losses, and the availability and cost of homeowners insurance, and includes a discussion of possible factors affecting policies and premiums. Section IV analyzes how the cost and availability of insurance may be affected by losses from climate-related risk by analyzing differences in insurance outcomes across ZIP Code quintiles based on the costs of climate-related disasters. The analyses summarize outcomes in the highest and lowest risk ZIP Codes, which are defined by the top and bottom quintiles based on expected annual losses to buildings from climate-related risks. The section also includes more detailed analyses of three regions, out of the seven regions analyzed, to highlight the varying effects of three perils—wildfires, hurricanes, and severe convective storms (i.e., thunderstorms that may produce lightning, hail, strong winds, or tornados)—on U.S. insurance markets. The detailed analyses for the other four regions are included in Appendix C. Section V concludes the Report with recommendations.

The Report's key findings include:

U.S. homeowners faced increasing costs for insurance between 2018 and 2022, with changes in these costs varying significantly across ZIP Codes. Average premiums per policy nationwide increased 8.7 percent faster than inflation during this period. Some consumers faced substantially larger premium increases than the national average. Consumers in the top 20 percent of ZIP Codes saw premiums per policy rise at least 14.7 percent faster than inflation

[6] Exec. Order No. 14,030, 86 Fed. Reg. 27,967 (May 20, 2021). Also in response to a separate tasking in this Executive Order, Treasury published: FIO, *Insurance Supervision and Regulation of Climate-Related Risks* (June 2023), https://home.treasury.gov/system/files/311/FIO-June-2023-Insurance-Supervision-and-Regulation-of-Climate-Related-Risks.pdf (responding to the Executive Order tasking to "assess climate-related issues or gaps in the supervision and regulation of insurers, including as part of the [Financial Stability Oversight Council's] analysis of financial stability").

while, for the lowest 20 percent of ZIP Codes, premiums per policy declined by at least 1.4 percent relative to inflation. In addition, nonrenewal rates rose in 2022, suggesting many consumers found it more difficult and challenging to purchase insurance.

The cost of insurance for consumers was much greater in areas with higher expected losses to buildings from climate-related perils than in areas with lower expected losses. Consumers living in the top 20 percent of ZIP Codes with the highest expected annual losses to buildings from climate-related perils paid average inflation-adjusted premiums per policy of $2,321 between 2018 and 2022—82 percent more than the average for the bottom 20 percent of ZIP Codes. The higher cost for consumers in the highest risk ZIP Codes relative to the lowest risk ZIP Codes was also reflected in higher rates of policy cancellation for nonpayment.

Insurers' costs also were higher in areas with the highest expected losses from climate-related perils. The paid loss ratio, which reflects how much insurers paid for claims relative to what they received in premiums, was 18 percent higher in the highest risk ZIP Codes—despite homeowners paying higher premiums per policy in these areas—than in the lowest risk ZIP Codes. These areas also had higher severity of claims, about $24,000 on average compared to an average of about $19,000 for the lowest risk ZIP Codes. Extended periods during which insurers have elevated paid loss ratios may cause insurers to respond by raising rates, not renewing policies, or changing coverage options.

Policy nonrenewal rates also were higher in areas with the highest expected losses from climate-related perils. Consumers in the highest risk ZIP codes faced higher policy nonrenewal rates, with an average for the five-year period of 1.61 percent, about 80 percent higher than the average in the lowest risk ZIP Codes. Moreover, average nonrenewal rates increased by substantially more in the highest risk areas than in the lowest risk areas over this period, which indicates that consumers in these highest risk areas faced decreasing availability over the five-year period.

From a regional perspective, different predominant climate-related perils resulted in diverse claims and loss patterns. The predominant peril impacted regions' claims and loss patterns in varying ways, with higher claims frequency associated with regions impacted by severe convective storms and higher claims severity corresponding to regions impacted by wildfires. Insurers' paid loss ratios were very high—above 85 percent—in the highest risk quintiles in two regions, both of which had lower premiums per policy than the national average for this quintile. Hurricanes accounted for more expected annual losses to buildings than did other perils in the United States and were associated with the highest premiums per policy and nonrenewal rates in the seven U.S. regions.

Regardless of the predominant peril, the ZIP Codes within each region with the highest expected losses generally had the highest cost of insurance for consumers, highest paid losses affecting insurers' costs, and highest nonrenewal rates. Insurers' paid loss ratios were higher in the highest risk ZIP Codes than in the lowest risk ZIP Codes within five of the seven regions; consumers paid higher premiums per policy in the highest risk ZIP Codes compared to those in the lowest risk ZIP Codes in six of the seven regions; and nonrenewal rates were higher in the highest risk ZIP Codes than in the lowest risk ZIP Codes in six of the seven regions.

The summary findings above may not fully capture the many dimensions of cost and availability of homeowners insurance. First, inflation and the rise in replacement and reconstruction costs were significant during this period, and the adjustments for inflation may not adequately reflect the total costs homeowners may have faced when repairing and rebuilding their homes, such as the extended time required to rebuild when many homeowners are rebuilding at the same time. Second, homeowners facing policy nonrenewal or cancellation may have sought insurance coverage from other insurers not captured by the data used for this Report, such as smaller insurers or residual markets (i.e., insurers of last resort that write policies for certain homeowners who cannot obtain a policy in the standard market). Third, public data from residual markets during 2018 to 2022 showed that the number of such policies written increased significantly in a few states, such as California, Florida, and Louisiana, but showed modest declines in most other residual markets. Residual markets generally cover fewer perils at a higher price in comparison to policies from private insurers. Fourth, this Report only examines the impact of climate-related perils covered by standard, multi-peril homeowners insurance policies, which do not cover damages from flooding. Finally, the data analyzed in this Report does not include 2023 or 2024, and public data suggests that premiums and nonrenewals increased significantly in some states in the past two years.

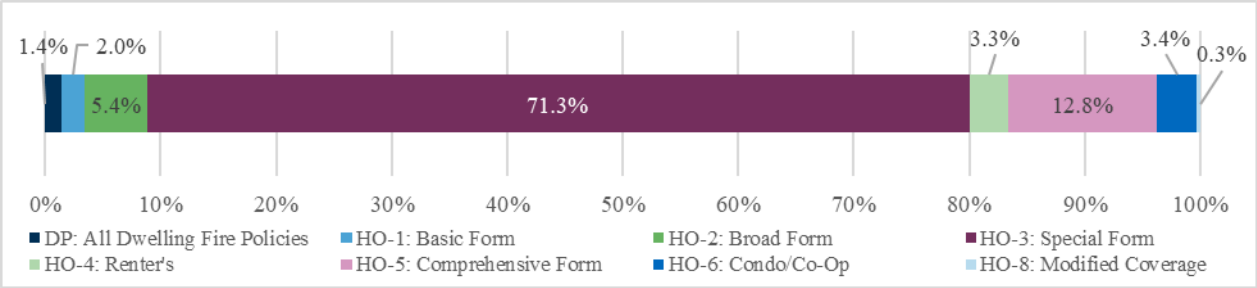
The findings in this Report are averages for large groups of ZIP Codes and should not be relied on by consumers making personal decisions about homeowners insurance. Moreover, results from specific ZIP Codes may not be comparable due to differences in the number and type of insurers and varying market shares across ZIP Codes. Section II and Appendix D discuss additional caveats concerning use of the data.

II. DATA AND METHODOLOGY

This section provides an overview of the homeowners insurance data analyzed in this Report, the metrics used in this Report, and some data limitations.[7]

Many insurers across the United States have adopted a set of standardized homeowners policy forms that allow homeowners to purchase the type of policy that best fits their needs (see Appendix A.1). This Report focuses on homeowners multi-peril insurance for owner-occupied properties on HO-3 and HO-5 policy forms, which together constitute almost 85 percent of the homeowners insurance market (see Figure 1).[8] Multi-peril policies generally cover property damage from a variety of perils, such as wind, hail, theft, and mold, but typically expressly exclude coverage for damage from floods (see Box 2), earthquakes, or sinkholes.

Figure 1: Composition of Residential Insurance Market, By Percent of Premiums, 2021



Source: NAIC, *2021 Homeowners Report*. (NAIC Homeowners Reports do not include data on HO-7 polices for mobile/manufactured homes.)

The findings in this Report are based on data from 2018 through 2022 from more than 330 homeowners insurers (PCMI Data). The PCMI Data is based on data collected through the Property and Casualty Market Intelligence Data Call (PCMI Data Call) by the NAIC on behalf of participating U.S. states, directed to both large homeowners insurers and additional homeowners insurers identified by participating states.[9] The PCMI Data encompasses an annual average of

[7] For more information on homeowners insurance generally, which is the second largest line of property & casualty (P&C) insurance, see, e.g., NAIC, *2023 Market Share Reports For Property/Casualty Groups and Companies by State and Countrywide* (August 2024), 13, 154, https://content.naic.org/sites/default/files/publication-msr-pb-property-casualty.pdf. For more information on the P&C market, see FIO, *Annual Report on the Insurance Industry* (2024), 49-71, https://home.treasury.gov/system/files/311/2024-09-30%20Clean%20FIO%20AR%20508_2.pdf.

[8] *See* NAIC, *Dwelling Fire, Homeowners Owner-Occupied, and Homeowners Tenant and Condominium/Cooperative Unit Owner's Insurance Report: Data for 2021* (2023), 28–29, 133, https://naic.soutronglobal.net/Portal/Public/en-GB/DownloadImageFile.ashx?objectId=10478&ownerType=0&ownerId=2006 (*2021 Homeowners Report*).

This Report discusses owner-occupied homes and single-family homes because HO-3 and HO-5 policies cover homes that fit both criteria. However, owner-occupied homes and single-family homes are not synonymous: owner-occupied homes include more than single-family homes (such as condos), while single-family homes are not all owner-occupied and can include homes rented out to people not related to the property owner.

[9] This Report relies upon the PCMI Data provided to FIO as of November 1, 2024, as well as other information that FIO obtained under its data collection authorities from a single insurer. *See* FIO Act 31 U.S.C. § 313. For more information on the data call by the NAIC and state insurance regulators, see "Property & Casualty Insurance Market

49.3 million policies, an estimated 80 percent of total HO-3 and HO-5 homeowners insurance direct premiums nationwide, and at least 50 percent of the HO-3 and HO-5 direct premiums in every state but Florida.[10]

The data on which the analyses for this Report is based has been aggregated to the ZIP Code level. The NAIC collected detailed data from individual insurers at a ZIP Code level and provided a subset of the data fields to FIO. Specifically, the PCMI Data is aggregated to about 33,000 populated, residential ZIP Codes. The Report's analyses primarily rely on ZIP Code Tabulation Areas (ZCTAs), which are geographic representations of the areas covered by ZIP Codes, but for ease of reference, this Report uses the common term "ZIP Codes" throughout.[11]

FIO used the PCMI Data to analyze multiple metrics relating to insurance losses, availability of insurance, and cost of insurance, as summarized in Figure 2. For a description of each data field used in this Report, see Appendix A.2. The PCMI Data Call includes additional data fields that were not shared with Treasury or analyzed in this Report. All nominal dollar value metrics were adjusted for inflation, and values are reported in real terms.[12]

Intelligence Data Call," NAIC, https://content.naic.org/industry/data-call/property-ho.htm; NAIC, "States Issue Property & Casualty Market Intelligence Data Call Covering Over 80% of U.S. Market," news release, March 8, 2024, https://content.naic.org/article/states-issue-property-casualty-market-intelligence-data-call-covering-over-80-us-market. The initial deadline for insurers to submit data to the NAIC for the PCMI Data Call was June 6, 2024. FIO received data from the PCMI Data Call from the NAIC on a periodic basis between June and October 2024. FIO frequently coordinated with NAIC on data validation concerns and other issues regarding the information from the PCMI Data Call. This Report does not include any data corrections submitted by insurers to the NAIC after November 1. After November 1, the NAIC was continuing to coordinate with insurers on submitting updated PCMI Data, including data on fields that were not provided to FIO and are not analyzed in this Report.

[10] Not all U.S. states participated in the PCMI Data Call. FIO calculated estimated state market shares based on a comparison of PCMI Data premiums with premiums shown in annual statutory filings to state insurance regulators. FIO received very limited data on the U.S. territories, which therefore are not included in the analyses in this Report.

[11] The U.S. Census Bureau created ZCTAs to allow data to be mapped, displayed, and geographically analyzed. *See, e.g.*, "ZIP Code Tabulation Areas (ZCTAs)," U.S. Census Bureau, https://www.census.gov/programs-surveys/geography/guidance/geo-areas/zctas.html.

[12] This Report used U.S. Bureau of Labor Statistics data to adjust nominal dollar values for inflation to calculate real values. Specifically, premiums values are adjusted based on a consumer-specific metric, the Consumer Price Index, Urban, and insurer losses are adjusted based on a producer-specific metric—the average of the Producer Price Index Single Family Residential Construction metric for (1) Goods and (2) Services—that reflects the cost of single-family home repairs over the five-year time period.

Figure 2: Metrics Analyzed for Report

Metric	Calculation Based on NAIC Data Fields Received	Definition and Use
Insurance Losses		
Paid Loss Ratio	Losses Paid in Reporting Year / Written Premium	The amount insurers have paid on claims to or on behalf of policyholders relative to premiums received and helps assess insurers' underwriting profitability (see Box 1). Sustained high paid loss ratios may lead insurers to request rate increases, change policy terms and conditions, decide not to renew policies, or exit a market entirely. Thus, years with high paid loss ratios may precede changes in availability and cost.
Claim Frequency	Count of Paid Claims in Reporting Year / Policies in Force at End of Reporting Year	The percentage of claims insurers have paid relative to the policies they have issued. Similar to paid loss ratio, increases in claim frequency may precede changes in availability and cost.
Claim Severity	Losses Paid in Reporting Year / Count of Paid Claims in Reporting Year	The average amount insurers have paid for each claim. Similar to paid loss ratio, increases in claim severity may precede changes in availability and cost.
Availability of Insurance		
Nonrenewal Rate	Count of Nonrenewals in Reporting Year / Policies in Force at End of Reporting Year	The percentage of policies insurers did not renew when the policy period ends due to the risk profiles of properties (e.g., the age of the roof) or areas (e.g., areas with more severe climate-related risks). In areas with high nonrenewal rates, households may have more limited options for insurers or may face increased difficulty purchasing private insurance.
Cost of Insurance		
Premiums Per Policy	Written Premium / Policies in Force at End of Reporting Year	The average cost of a policy. Premiums may be related to a number of factors, such as climate-related risk, inflation, costs of reconstruction, and reinsurance, as discussed in Section III.B.
Nonpayment Cancellation Rate	Count of Nonpayment Cancellations in Reporting Year / Policies in Force at End of Reporting Year	The percentage of policies insurers cancelled policies before the policy period ends because policyholders failed to pay their premiums on time. States sometimes suspend nonpayment cancellations for a specified period after a major disaster.

Source: FIO. *See also* NAIC Definitions for State Regulator Property & Casualty Insurance Market Intelligence Data Call (April 22, 2024), 1, https://content.naic.org/sites/default/files/industry-data-call-property-ho-definitions.pdf.

"Nonrenewals" and "cancellations" are distinct metrics, as discussed in Figure 2 and shown in Figure 3. All of the nonrenewals and cancellations analyzed in this Report were initiated by insurers (although, in some instances, they may have been prompted by policyholder actions or inactions). Nonrenewals occur when an insurer decides not to renew the policy *when* the policy period ends, while cancellations occur when an insurer decides to cancel a policy *before* the end of the policy period. The cancellations analyzed in this report are only those for when a policyholder fails to timely pay the premium owed. Insurers may exercise greater discretion when not renewing a policy than they can when cancelling a policy before the end of its policy period. For example, if climate risk is increasing in an area but a policyholder is still paying the required premiums, an insurer cannot cancel the policy for nonpayment. Because nonrenewals may be for any reason, they may provide insights into the availability of insurance, while nonpayment cancellation rates may help illuminate the costs of insurance.

While the PCMI Data is the most comprehensive and detailed data on the U.S. homeowners insurance market available to date, it does not include various components of the homeowners insurance market, all insurers, or all homeowners insurance policy forms. For example, the PCMI Data does not include information on owner-occupied homeowners insurance policies that are provided by residual market plans or excess & surplus (E&S) insurance markets (see Section III.C). Flood insurance (Box 2) and reinsurance (Section III.A.2) are also outside the scope of the PCMI Data. In addition, the PCMI Data does not include data from 2023 and 2024.

Also, while the data collected for this Report is the broadest and most granular collection to date relating to homeowners insurance, its scope varies across states and ZIP Codes within states. Generally, the collection targeted the largest insurers, but regulators in some states determined that additional smaller insurers domiciled in their states should also report. Accordingly, the data is less representative in states that have more policies underwritten by smaller insurers that were not asked to report. The PCMI Data includes 80 percent of HO-3 and HO-5 policies nationwide, as measured by direct premiums written, with market share by the same measure above 50 percent in 49 states, including almost complete coverage in a handful of states.

The PCMI Data is based on a first-of-its-kind collaborative effort by the NAIC, state insurance regulators, and FIO. Some fields were collected for the first time during this data call, and the data call was also the first time most participating insurers had reported data at a ZIP Code level. The data was also reported retrospectively for 2018 through 2022, which could lead to inconsistencies if insurers were not contemporaneously recording the data in a form readily compatible with the PCMI Data Call. Because this was a novel data collection effort, the data collected required data review and validation by the NAIC and state insurance regulators. The NAIC updated FIO periodically regarding progress by the NAIC on data validation, including some difficulties with validation and data corrections. Prior to this Report's publication, there remained certain data anomalies that may be subject to ongoing correction, which is not uncommon for a first-of-its-kind data collection.

This Report therefore has relied on the aggregation of data to support the robustness of the results presented, with more than 33,000 ZIP Codes and over 45 million policies each year for nationwide results; equal groupings of more than 6,000 ZIP Codes for national quintile results; and thousands of ZIP Codes for regional results. Using larger groupings of data allows for greater statistical confidence than would be possible regarding outcomes for highly granular areas, such as individual or small groups of ZIP Codes. Given the broad, nationwide market coverage, the data can be informative for aggregate analyses of nationwide and regional developments, as in this Report. The NAIC also used the data collected through the PCMI Data Call to conduct overall market analyses.[13] On balance, due to the sample size of the data and given that the analyses generally use averages calculated over large numbers of aggregated ZIP Codes, the data is of sufficient quality to support the analyses conducted for this Report.

[13] *See, e.g.*, NAIC, "State Insurance Regulators Monitor the Home Insurance Market to Protect Consumers," news release, December 4, 2024, https://content.naic.org/article/state-insurance-regulators-monitor-home-insurance-market-protect-consumers (describing changes in the homeowners insurance market based on analyses of information from the PCMI Data Call).

III. HOMEOWNERS INSURANCE MARKET

This section presents analyses of insurance losses, availability of insurance, and costs of insurance metrics in the homeowners insurance market nationwide. Section III.A provides average national statistics and accompanying maps at the ZIP Code level to illustrate variation in the metrics across different parts of the United States, while Section III.B describes the numerous intersecting and overlapping factors—inflation and replacement costs, reinsurance, people moving into higher climate risk areas, state insurance regulation, litigation-related costs, and increasing frequency and severity of climate-related disasters—that can impact homeowners insurance cost and availability. Section III.C provides a brief description of two residential insurance markets outside the scope of the PCMI Data: residual markets and excess & surplus lines markets.

A. National Market Analyses of PCMI Data

Using the PCMI Data, this section provides an overview of three aspects of the homeowners insurance market: (1) insurance losses, (2) availability of insurance, and (3) cost of insurance. The analyses below—summarized in Figure 3—are based on data covering all populated ZIP Codes in the 50 states and the District of Columbia (D.C.), with maps that present results distributed across five groups with equal numbers of ZIP Codes (plus a grouping for no data). Regional differences in the metrics are explored further in Section IV.C.

Figure 3: Summary of Selected Homeowners Insurance Market Analyses

Homeowners Market Analyses	2018	2019	2020	2021	2022	Average 2018 - 2022
Insurance Losses						
Paid Loss Ratio	60.7%	56.4%	57.1%	57.5%	55.9%	57.5%
Claim Frequency	5.9%	5.7%	6.2%	5.9%	5.5%	5.8%
Claim Severity	$19,409	$18,892	$18,044	$16,990	$17,696	$18,206
Availability of Insurance						
Nonrenewal Rate	1.05%	1.01%	0.90%	1.02%	1.20%	1.04%
Cost of Insurance						
Premiums per Policy	$1,598	$1,628	$1,659	$1,695	$1,737	$1,663
Nonpayment Cancellation Rate	1.53%	1.67%	1.50%	1.56%	1.62%	1.58%
PCMI Data Sample						
Number of Policies	46.2 million	47.8 million	49.5 million	51.1 million	51.9 million	49.3 million

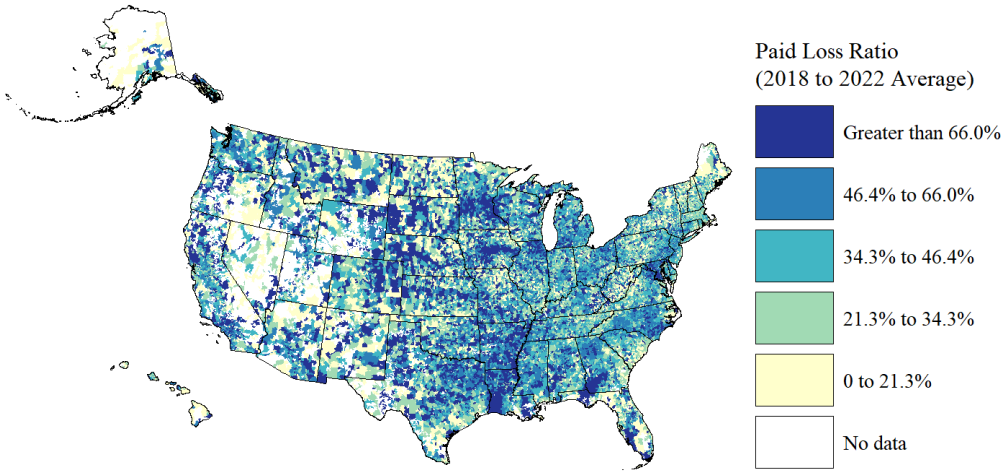
Source: PCMI Data (nominal dollar values adjusted for inflation) (annual and average values calculated using national aggregate values)

1. Insurance Losses

The metrics relevant to insurance losses—the paid loss ratio, claim frequency, and claim severity—affect both the cost and availability of insurance.

Paid loss ratios indicate the amount insurers have paid on policyholders' claims relative to what they are receiving in premiums, and this metric helps insurers assess underwriting profitability. Higher paid loss ratios could lead insurers to adjust their underwriting practices, including through rate increases, changing policy terms and conditions, deciding not to renew policies, or exiting a specific geography entirely.[14] From 2018 through 2022, the national average paid loss ratio for the PCMI Data was 57.5 percent and remained relatively constant throughout the five-year period although its distribution varied widely across ZIP Codes (see Figure 4). The top quintile of ZIP Codes with the highest average paid loss ratios (i.e., ratios greater than 66.0 percent) are dispersed across the country, but there are somewhat higher concentrations in the central and southeastern parts of the country. Note that white areas of maps are places without information from the PCMI Data, for example: public lands, large bodies of water, areas with a larger percentage of local insurers, and/or data fields that were not otherwise provided.

Figure 4: National PCMI Data Paid Loss Ratios (2018-2022 Average) by ZIP Code



Source: PCMI Data (nominal dollar values adjusted for inflation) (equal number of ZIP Codes appear in each category)

Box 1: Insurers' Financial Performance and Paid Loss Ratios

Homeowners insurers seek to earn profits in two principal ways: underwriting profit and investment earnings. First, insurers collect premiums in exchange for providing insurance coverage; if the amount of premium exceeds the amount of losses and expenses incurred in a given year, insurers have earned an underwriting profit. Second, insurers collect premiums on or before the first day of coverage, but do not pay claims until days or months later, if any claims

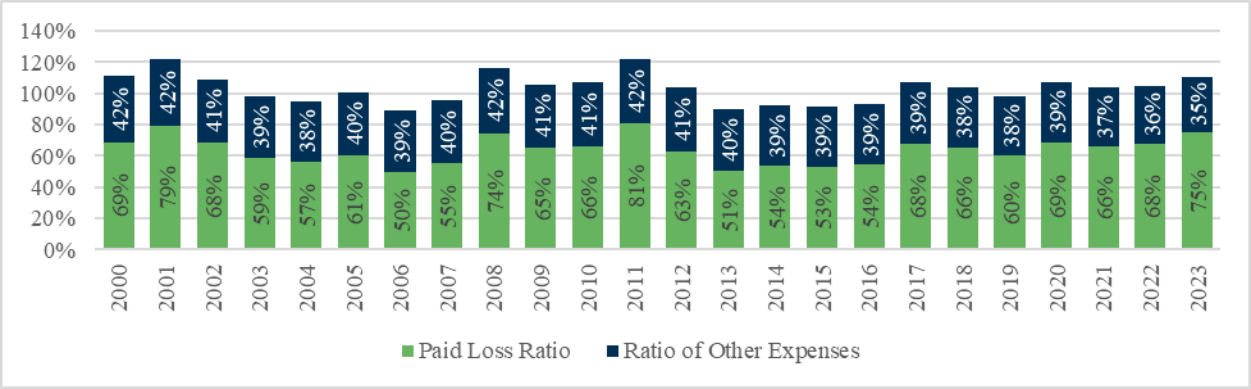
[14] A paid loss ratio above 100 percent indicates that premiums will not cover paid losses.

are submitted at all. In the time between when an insurer collects a premium and pays a claim, insurers invest the premium and collect investment earnings.[15]

Insurers and market observers can track underwriting profitability by looking at the ratio of losses and expenses paid by the insurer relative to the premiums the insurers take in. This "combined ratio" is the sum of the incurred losses (paid claims and an estimated amount to cover future claim payments) plus expenses divided by earned premiums. A combined ratio of 105 percent means an insurer expects to lose five cents for every $1.00 in premium collected (before accounting for any investment earnings the insurer may make). The paid loss ratio (paid losses divided by premiums) is a subset of the combined ratio.

In general, underwriting profits for the homeowners segment since 2000 have varied, and the segment has been unprofitable in recent years, sustaining underwriting losses in each year from 2017 to 2023, except in 2019 (see Figure 5). The paid loss ratio—which includes significant losses from climate-related events—was the primary determinant of overall underwriting profitability for insurers in this period, while the ratio of other expenses was relatively stable at about 40 percent (see Figure 5).

Figure 5: Homeowners Insurance Underwriting Ratios, 2000 to 2023



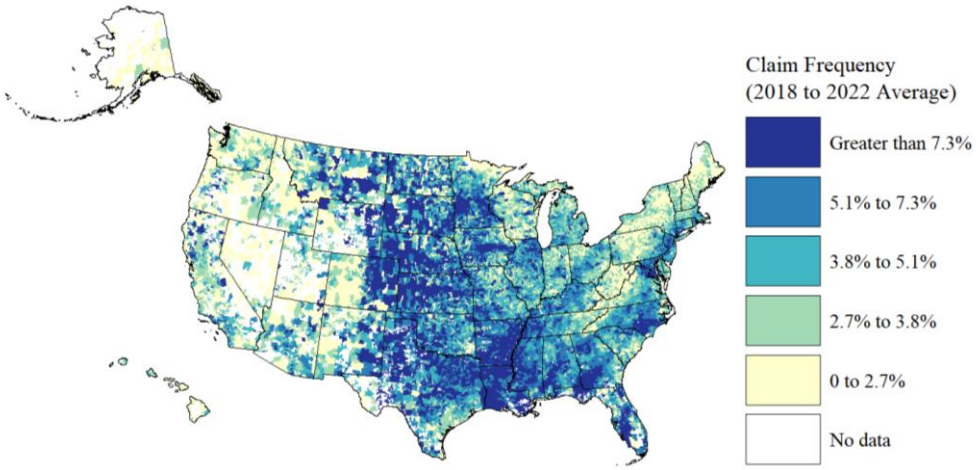
Source: S&P Global ("Ratio of Other Expenses" includes the loss adjustment expense for investigating, managing, settling, and similar costs for handling claims; the expense ratio for operating and overhead costs, not including taxes; and the dividend ratio)

From 2018 through 2022, the national average claim frequency and severity for homeowners insurers covered by the PCMI Data remained relatively constant, with an average claim frequency of 5.8 percent and average claim severity of $18,206 per claim. The maps showing the distributions of average claim frequency (Figure 6) and claim severity (Figure 7) by ZIP Code illustrate the metrics' relationship with the dominant perils in different regions. For example, in the western United States where wildfires are the predominant peril, there is typically low claim frequency but high claim severity. Claims frequency reflects the number of claims filed, not necessarily the number of people affected, since the same homeowners could be impacted by multiple disasters and file multiple claims. Higher claims severity suggests that

[15] *See, e.g.*, NAIC, *U.S. Property & Casualty and Title Insurance Industries – 2021 Full Year Results* (2022), https://content.naic.org/sites/default/files/inline-files/2021%20Annual%20Property%20%26%20Casualty%20and%20Title%20Industry%20Report.pdf.

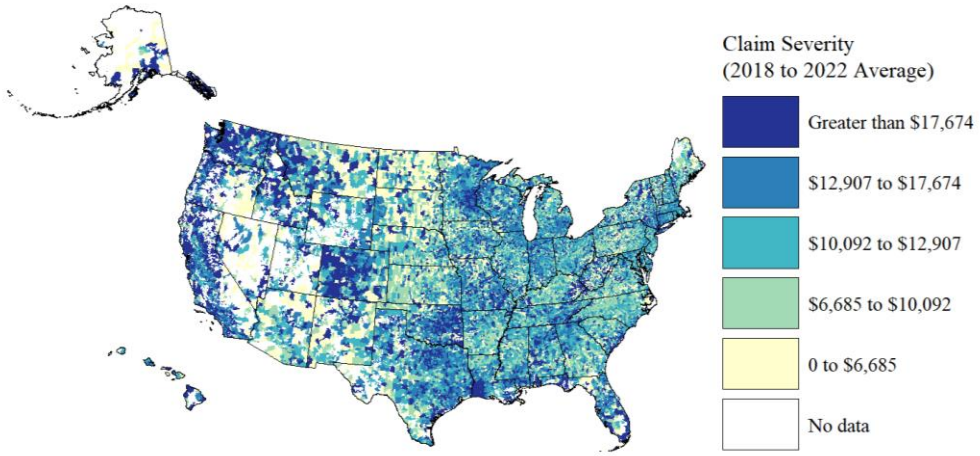
those who filed claims may have suffered costly losses. In contrast, the central United States faces severe convective storms, which typically lead to more frequent, but less costly claims than areas impacted by wildfires. Section IV.C explores the implications of these regional differences in predominant perils for the cost and availability of insurance.

Figure 6: National PCMI Data Claim Frequency (2018-2022 Average) by ZIP Code



Source: PCMI Data (equal number of ZIP Codes appear in each category)

Figure 7: National PCMI Data Claim Severity (2018-2022 Average) by ZIP Code



Source: PCMI Data (nominal dollar values adjusted for inflation) (equal number of ZIP Codes appear in each category)

2. Availability of Insurance

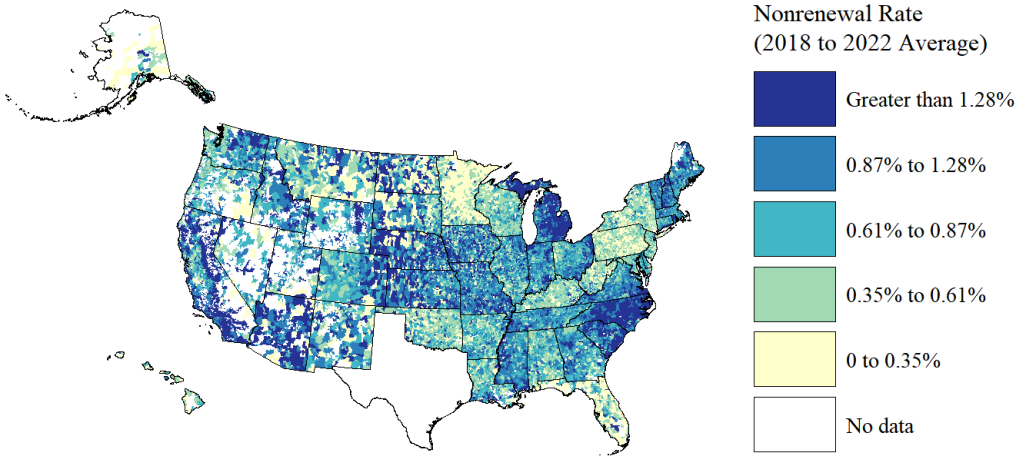
The metric used in this Report relating to the availability of insurance is the nonrenewal rate.[16] The nonrenewal rate is a measure of the percentage of policies insurers did not renew due to the risk profiles of certain insured properties (e.g., properties with older roofs that are more likely to be damaged by hurricanes or hail) or the risk profile for a specific area (e.g., ZIP Codes in a

[16] The nonpayment cancellation rate is discussed in the next section.

wildland-urban interface zone that have become more prone to wildfires). Higher nonrenewals can indicate that insurers are tightening underwriting standards, and households in areas with higher nonrenewal rates may have more limited options for insurance coverage.

Nationally, nonrenewal rates in the PCMI Data were relatively constant from 2018 through 2019, fell slightly in 2020 and 2021 in part due to moratoriums connected to the COVID-19 pandemic, then rose to 1.20 percent in 2022. Average nonrenewal rates for 2018 to 2022 differed significantly across ZIP Codes, however, with the highest nonrenewal rates concentrated in parts of the central, southern, and western regions of the United States (see Figure 8).

Figure 8: National PCMI Data Nonrenewal Rates (2018-2022 Average) by ZIP Code



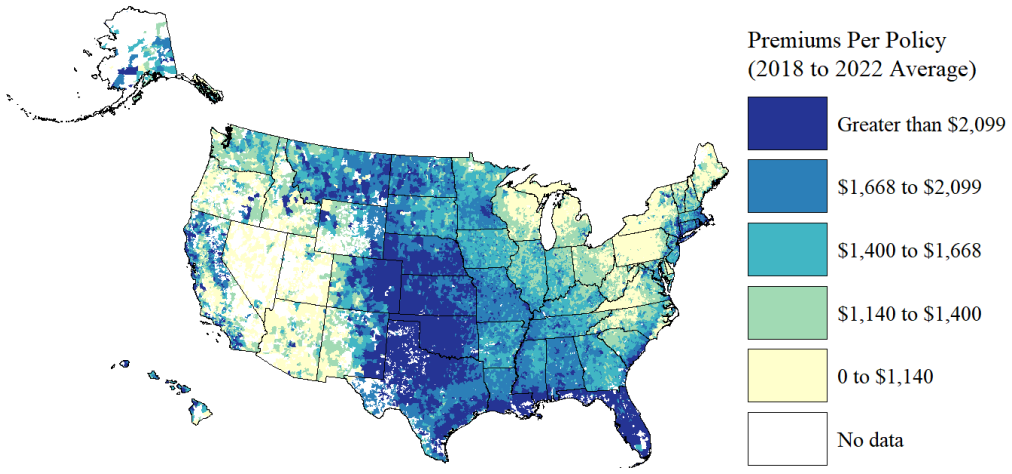
Source: PCMI Data (equal number of ZIP Codes appear in each category) (Texas insurer data did not include information on nonrenewals and therefore is excluded from the figure and the above national calculations.)

3. Cost of Insurance

Metrics relating to the cost of insurance include premiums per policy and nonpayment cancellation rates (the rates at which insurers cancel policies before the policy period ends due to the failure of policyholders to pay their premiums on time).

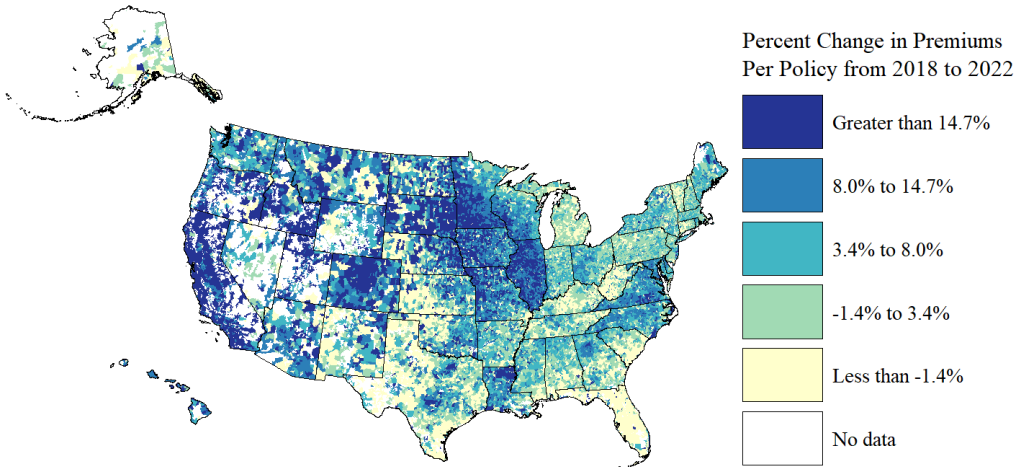
From 2018 through 2022, national premiums per policy averaged $1,663. The highest average inflation-adjusted premiums per policy were greater than $2,099 and were observed in the central and southeastern United States (see Figure 9). The increase in premiums per policy nationwide was 8.7 percent between 2018 and 2022, with inflation-adjusted premiums per policy reaching $1,737 in 2022. The largest percentage changes occurred in the central and western United States (Figure 10). When ZIP Codes are ranked from lowest to highest percent change in premiums per policy from 2018 through 2022, the lowest 20 percent of ZIP Codes did not keep pace with inflation, while the highest 20 percent of ZIP Codes saw real premiums per policy increase at least 14.7 percent, that is nominal premiums per policy rising 14.7 percent or more than inflation.

Figure 9: National PCMI Data Premiums Per Policy (2018-2022 Average) by ZIP Code



Source: PCMI Data (nominal dollar values adjusted for inflation) (equal number of ZIP Codes appear in each category)

Figure 10: National PCMI Data Percent Changes in Premiums Per Policy, from 2018 to 2022, by ZIP Code



Source: PCMI Data (nominal dollar values adjusted for inflation) (equal number of ZIP Codes appear in each category)

Nonpayment cancellations remained relatively constant during this five-year period at an average of 1.58 percent. The ZIP Codes with the highest average nonpayment cancellation rates were in the Midwest and Southeast and distributed throughout the rest of the country.

The average most common deductibles per policy also increased faster than inflation, although with significant amounts of variation among ZIP Codes.[17]

[17] The aggregated data at the national level on all perils and all other perils deductibles showed a trend of increasing deductibles. The Report does not present additional analyses of deductibles at the ZIP Code level given concerns

In sum, U.S. homeowners faced increased cost of insurance and reduced insurance availability as reflected in increased average premiums between 2018 and 2022 and an increase in policy nonrenewal rates in 2022.

B. Factors Affecting Cost and Availability of Homeowners Insurance

A range of intersecting and often overlapping factors may affect the increasing cost and decreasing availability of insurance for homeowners, including inflationary pressures reflected in rising replacement and building costs; elevated cost of reinsurance; the movement of people into riskier areas; state insurance regulation on insurance rates and nonrenewal or cancellation moratoriums; increasing litigation-related costs; and increasingly frequent and severe climate-related disasters.[18] This section discusses how each of those factors may affect insurance availability and cost, although more research is needed to isolate and quantify their independent and interdependent impacts.[19]

1. Inflation and Replacement Costs

Insurers point to rising inflation as an important factor affecting insurance prices, in particular by increasing the replacement costs required to repair and rebuild homes (i.e., cost of construction, including labor, building materials, and additional costs incurred during the rebuilding process, such as permits).[20] Between 2020 and 2023, replacement costs for property & casualty-related losses increased by an average of 45 percent.[21] The Producer Price Index for single family residential construction materials increased 36 percent between 2018 and 2022, within the longer trend increase of 46 percent between 2014 and 2023.[22] Single family residential construction workers' employment costs also rose 37 percent between 2018 and 2022, and 45 percent during the longer time period of 2014 to 2023.[23] The COVID-19 pandemic contributed to these rising costs by disrupting supply chains, causing material prices for home repair and reconstruction to increase in some areas by almost 25 percent between the second quarter of 2020 and the second

about the quality, accuracy, and consistency of the underlying data fields for deductibles which had never before been collected nationwide. For more caveats on the data, see Section II.

[18] A.M. Best, *Market Segment Outlook: US Homeowners* (2020), https://www3.ambest.com/ambv/sales/bwpurchase.aspx?record_code=335750.

[19] Many of the comments FIO received in response to its Federal Register Notice (see 88 Fed. Reg. 75,380 (November 2, 2023)) noted a range of factors affecting the cost of insurance and the difficulty of attribution.

[20] American Property Casualty Insurance Association, "Rising Inflation and Increased Building Costs Could Cause Residents to Be Underinsured After a Disaster," news release, May 6, 2022, https://www.apci.org/media/news-releases/release/71646/.

[21] III & Milliman, "Inflation, High Interest Rates, and Catastrophes Contribute to 2023 Underwriting Loss for P&C Industry, New Triple-I/Milliman Report Shows," news release, November 2, 2023, https://www.iii.org/press-release/inflation-high-interest-rates-and-catastrophes-contribute-to-2023-underwriting-loss-for-pc-industry-new-triple-i-milliman-report-shows-110223.

[22] "Producer Price Index by Commodity: Special Indexes: Construction Materials," Federal Reserve Bank of St. Louis, last updated December 12, 2024, https://fred.stlouisfed.org/series/WPUSI012011.

[23] "Employment Cost Index: Total Compensation for Private Industry Workers in Construction," Federal Reserve Bank of St. Louis, last updated October 31, 2024, https://fred.stlouisfed.org/series/CIU2012300000000I.

quarter of 2021.[24] Housing material prices then increased at a slower rate until the second quarter of 2022, when they began to decline before stabilizing, between the second quarter of 2023 and the second quarter of 2024, at prices above pre-pandemic levels.[25] The analyses in this Report show nominal dollar values adjusted for inflation in order to see whether changes exceed these substantial increases in inflation over the five-year time period.[26]

2. Reinsurance

Insurers often factor the availability and cost of reinsurance—insurance for insurers—into whether to offer insurance coverage and at what price.[27] Generally, in exchange for a premium paid by the insurer, a reinsurer agrees to reimburse a specified portion of the ceding insurer's losses under one or more of the policies of insurance it has written. Reinsurance helps diversify and spread risks so that geographically specific events, such as a hurricane, are not borne solely by insurers in that locale. Diversification occurs globally with major reinsurance hubs around the world.[28]

In recent years, the reinsurance market has been a hard market, with reinsurers tightening their terms and conditions, raising rates, and requiring ceding insurers to retain more risk.[29] Observers have remarked upon the correlation between increases in reinsurance pricing and in increased insured losses globally from natural catastrophes.[30] Other factors affecting reinsurance prices are

[24] "Home Reconstruction Cost Rollercoaster Stabilizes in 2024," CoreLogic, October 14, 2024, https://www.corelogic.com/intelligence/home-reconstruction-cost-stabilizes-in-2024/.

[25] "Home Reconstruction Cost," CoreLogic.

[26] *See* Section II for more details on the inflation adjustments used for this Report.

[27] *See, e.g.*, Natalie Ambrosio Preudhomme & Kevin Fagan, "CRE Insurance Primer: How Insurers Set P&C Premiums," *Moody's*, November 20, 2023, https://cre.moodysanalytics.com/insights/market-insights/cre-insurance-primer-how-insurers-set-pc-premiums/. For more on reinsurance, see, e.g., FIO, *The Breadth and Scope of the Global Reinsurance Market and the Critical Role Such Market Plays in Supporting Insurance in the United States* (2014), https://home.treasury.gov/system/files/311/FIO%20-Reinsurance%20Report.pdf (updated on February 11, 2015); FIO, *Report Providing an Assessment of the Current State of the Market for Natural Catastrophe Insurance in the United States* (2015), https://home.treasury.gov/system/files/311/Natural%20Catastrophe%20Report.pdf (*Nat Cat Report*).

[28] *See, e.g.*, Johannes Bender & Taoufik Gharib, *S&P Global Ratings Top 40 Global Reinsurers and Reinsurers By Country: 2023* (2023), https://www.spglobal.com/ratings/en/research/articles/230905-s-p-global-ratings-top-40-global-reinsurers-and-reinsurers-by-country-2023-12841726#ContactInfo.

[29] *See, e.g.*, A.M. Best, *Global Reinsurance: More Stable and Improved Results Following Shift from Property Catastrophe Risks* (2022), https://web.ambest.com/docs/default-source/ratings/global_re_2022_web.pdf?sfvrsn=8e9899d1_3.

[30] Guy Carpenter, "U.S. Property Catastrophe Rate On Line Index, 2000-2023," February 2023 https://www.guycarp.com/insights/2023/02/chart-guy-carpenter-US-property-catastrophe-rate-on-line-index-2000-2023.html; Steve Bowen, *et al.*, *Gallagher Re*: *Natural Catastrophe and Climate Report: 2023* (2024), 71, https://www.ajg.com/gallagherre/-/media/files/gallagher/gallagherre/news-and-insights/2024/january/natural-catastrophe-and-climate-report-2023.pdf.

similar to those affecting homeowners insurance premiums, such as larger losses from movement into risky areas, increasing replacement costs, and inflation.[31]

While reinsurance is relevant to insurers of all sizes, regional and local homeowners insurers may be more affected than national homeowners insurers by changes in reinsurance cost and availability. Analysis of NAIC Annual Financial Statement data suggests that U.S. regional and local insurers use reinsurance more than do national insurers. Regional and local insurers may write more concentrated books of business and thus may be more in need of the risk diversification and capacity benefits of reinsurance, in comparison to larger, national insurers. Research has found that such regional and local insurers tend to be more impacted by changes in reinsurance availability and cost, which affects their own underwriting decisions and, in turn, insurance cost and availability.[32] Section IV.C provides data on the percent of premiums written by regional and local insurers in each region.

3. Population Movement into Areas of Higher Climate Risk

The movement of people into areas within the United States with higher climate risk can also raise the cost of insurance and reduce availability as more properties are subject to greater climate-related losses. Some research indicates that increases in homeowners insurance losses in recent years are attributable to more people building new homes in higher climate-risk areas.[33] Between 2018 and 2022, 0.9 million new homes were built in the areas with the highest risk.[34] If more people move into areas of higher climate-related risk, increasing the demand for housing in these areas, property values will also tend to rise, leading to higher potential losses to homeowners when climate-related events occur.[35]

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[31] *See, e.g.*, Mohit Pande, "The State of the Reinsurance Property Catastrophe Market," *Swiss Re*, May 16, 2023, https://www.swissre.com/risk-knowledge/mitigating-climate-risk/state-of-reinsurance-property-cat-market.html; Jeremy Waite, "Beginning of a New Era—Impact of Global Issues in (Re)insurance," *Guy Carpenter*, 2023, https://www.guycarp.com/insights/2023/11/impact-global-issues-reinsurance.html. Other factors for reinsurance include cost of capital and competing investment opportunities; as interest rates have gone up, so has the cost of reinsurance.

[32] *See, e.g.*, III, *Trends and Insights: Drivers of Homeowners' Insurance Rate Increases* (2022), https://www.iii.org/sites/default/files/docs/pdf/state_of_the_risk_homeowners_02032022.pdf (*Trends and Insights*); Parinitha Sastry *et al.*, "When Insurers Exit: Climate Losses, Fragile Insurers, and Mortgage Markets," *Harvard Business School*, December 2023, https://www.hbs.edu/faculty/Pages/item.aspx?num=65216.

[33] III, *Trends and Insights*. *See also, e.g.*, *Factors Influencing the High Cost of Insurance for Consumers*, Before the House Financial Services Committee, 118th Cong. (November 3, 2023) (statement of the American Property and Casualty Insurance Association), https://democrats-financialservices.house.gov/uploadedfiles/hhrg-118-ba04-wstate-gordonr-20231102.pdf.

[34] U.S. Census Bureau, "B25024 American Community Survey Units in Structure: 2018 ACS 1-Year Estimates Detailed Tables," and "B25024 Units in Structure: 2022 ACS 1-Year Estimates Detailed Tables," available through https://data.census.gov/table?q=B25024 (ACS Table B25024); NRI.

[35] For example, one study found that for every percentage point of growth in a location, house price growth in that location increased by 1.4 percentage points. *See* Kristine Gevorgyan, "Do Demographic Changes Affect House Prices?" *Journal of Demographic Economics*, November 7, 2019, https://www.cambridge.org/core/journals/journal-of-demographic-economics/article/abs/do-demographic-changes-affect-house-prices/EDCD6AA8D40A41F19D9D24B4AD4F053A.

4. State Insurance Regulation

State insurance regulators implement and enforce the laws and regulations governing insurers domiciled or doing business within their respective states.[36] State insurance regulation, particularly rate regulation and regulatory actions on nonrenewals or cancellations, can impact the cost and availability of insurance.

An insurance rate determines the price at which an insurance policy or contract is sold and typically reflects the risk characteristics of the policyholder and the insured property. States regulate the circumstances under which an insurer may raise the rate for a particular type of policy, with a state's rate regulation usually falling in one of the following categories: (1) open rating, (2) use-and-file, (3) file-and-use, (4) flex band, and (5) prior approval (see Appendix A.4 for further explanations of each regime and a summary of the rate regulatory regime used in each state). States that use open rating, use-and-file, and file-and-use regulation predominately rely upon market competition to keep insurance rates from being excessive. Insurers operating in states with prior approval regimes may need to take additional steps when seeking rate increases.

State laws and regulations may also affect nonrenewal and cancellation rates. At least 12 states have laws or regulations that allow the state insurance regulator to impose moratoriums on cancellations or nonrenewals, require insurers to provide grace periods, or take other measures to ensure an insurance contract is honored and stays in force if a state of emergency is declared or in the wake of weather-related disasters.[37] In addition, about 17 states imposed moratoriums on the ability of insurers to cancel or not renew policies or to provide policyholders with a 60-day or longer grace period during the COVID-19 pandemic. Such measures can maintain the availability of insurance in states and local areas in the short-term following a severe event.

5. Litigation-Related Costs

Some insurance market participants have also pointed to concerns about litigation expenses and losses as a cost driver, such as "one-way" attorneys' fees laws (i.e., requiring the insurer to pay the plaintiff's legal costs if the plaintiff wins in court but not requiring the plaintiff to pay the insurer's legal costs if the insurer wins) and assignment-of-benefits state laws, which allow a policyholder to enter into an agreement to assign their claims and rights to a third party.[38]

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[36] An insurer is "domiciled" in the state that issued its primary license. *See also* NAIC & Center for Insurance Policy and Research, *State Insurance Regulation* (2011), https://content.naic.org/sites/default/files/inline-files/topics_white_paper_hist_ins_reg.pdf.

[37] *See also, e.g.*, State of Iowa Insurance Division, Bulletin 21-04 (July 26, 2021), https://iid.iowa.gov/media/177/download?inline= (requesting that insurers waive deadlines for repair completion and cover the substantial material cost increases under their policies' replacement costs provisions after 2020 derecho); Oklahoma Department of Insurance, Bulletin 2019-EXEC-01 (Revised June 5, 2019), https://www.oid.ok.gov/wp-content/uploads/2019/10/19-0344-PRJ-RLK-Draft-Bulletin-Final-Version-Revision-6-5-19-2.pdf (after severe convective storms in 2019, issuing a moratorium on the cancellation of insurance policies and rate increases, ordering that policyholders could obtain copies of their insurance policies for free, and other actions).

[38] "How Legal System Abuse Drives Social Inflation," III (July 17, 2022), https://www.iii.org/article/social-inflation-hard-to-measure-important-to-understand.

Insurers' defense costs and containment expenses rose almost 40 percent between 2018 and 2022 (from $1.97 billion to $2.76 billion), but then declined by almost 15 percent in 2023 (to $2.35 billion).[39] The decline in these expenses between 2022 and 2023 may be due in part to legal reforms in Florida enacted between 2021 and 2023 to address high litigation costs.[40]

6. Increase in Frequency and Severity of Climate-Related Disasters

Across the country, Americans have been experiencing an increased number of severe weather events, as reflected in data from the National Oceanic and Atmospheric Administration (NOAA)'s National Centers for Environmental Information, FEMA, and the U.S. Global Change Research Program.[41] There was an over five-fold increase in the annual number of billion-dollar weather and climate disasters identified by NOAA from 2018 through 2022 as compared to the 1980s, after adjusting for inflation, and the average number of major disaster declarations issued per year for climate-related events for the five-year period from 2018 through 2022 was almost double the average for the fifty years between 1960 and 2010.[42] Section IV uses PCMI Data to aid in understanding how climate-related risk may relate to insurers' underwriting practices in ZIP Code categories and regions.

C. Other Residential Insurance Markets Outside the Scope of PCMI Data

The above factors also affect two residential insurance markets outside the scope of the PCMI Data: residual markets and excess and surplus (E&S) insurance markets. These markets, which may be used as alternative sources of insurance coverage, provide potentially useful points of comparison for the private insurance markets covered by the PCMI Data. These markets also may help alleviate, to some extent, availability and cost of insurance issues by providing

[39] S&P Global.

[40] Beginning in 2021, Florida enacted statutes that restructured the litigation rules for disputed insurance claims, limited the assignment of attorney's fees to third parties in property insurance cases, and repealed Florida's one-way attorney fee statutes, with certain exceptions. Florida Office of Insurance Regulation (FLOIR), *Property Insurance Stability Report* (2023), 3-4, https://floir.com/docs-sf/default-source/property-and-casualty/stability-unit-reports/july-2023-isu-report.pdf?sfvrsn=8566a813_2.

[41] In a few instances, agencies use different terms for the same types of weather/climate events. This Report uses the term "hurricane" (as does FEMA) to refer to tropical cyclones, tropical depressions, tropical storms, hurricanes, major hurricanes, and typhoons that NOAA terms "tropical cyclones." *See* NOAA's National Centers for Environmental Information (NCEI), "Billion-Dollar Weather and Climate Disasters: Time Series," available through https://www.ncei.noaa.gov/access/billions/ (Billion- Dollar Disasters); "Tropical Cyclone Climatology," NOAA, National Hurricane Center, and Central Pacific Hurricane Center, https://www.nhc.noaa.gov/climo/; FEMA, *National Risk Index: Technical Documentation* (2023), https://www.fema.gov/sites/default/files/documents/fema_national-risk-index_technical-documentation.pdf. This Report uses "severe convective storms" to refer to thunderstorms that produce tornadoes, hail, strong winds, and lightning, which NOAA describes as "severe storms," while the NRI provides estimated losses for tornado, hail, lightning, and strong wind separately. *See* NOAA NCEI, "Billion-Dollar Disasters"; "Severe Storms," NOAA, https://www.noaa.gov/explainers/severe-storms; FEMA, *National Risk Index: Technical Documentation*.

[42] NOAA NCEI, "Billion-Dollar Disasters"; FEMA, "OpenFEMA Dataset: Disaster Declarations Summaries – v2," https://www.fema.gov/openfema-data-page/disaster-declarations-summaries-v2.

insurance to homes that private insurers in the standard or admitted market (i.e., those insurers licensed in that state) may no longer cover.

1. Residual Markets

Residual markets are often referred to as "insurers of last resort" for individuals or businesses that are unable to obtain insurance coverage through the admitted or standard market because they may be viewed as high risk—such as homes at risk of hurricanes along the Eastern and Gulf coasts or wildfires in the Northwest or Southwest.[43]

The PCMI Data covers large, private market insurers and does not include information from residual markets, which have been growing in size in some states that have higher climate risk. Between 2018 and 2022, the total number of residential policies in residual markets increased over 50 percent to more than 2.7 million policies, with the growth primarily in three states: California, Florida, and Louisiana.[44] Relatively smaller increases occurred in two other states, while the number of residential policies in other states' residual market plans declined (see Appendix B.1 for details by state).[45] The growth of policies written by residual market insurers is consistent with the PCMI Data on insurance availability, including the growth in the nonrenewal rates for the Highest Risk categories in the Southeast and Southwest parts of the country. This suggests that the premium increases in the PCMI Data may not reflect the full changes in the cost of insurance because some policyholders subject to higher expected losses from climate-related perils may have moved to residual market insurers.

Most residual markets are "Fair Access to Insurance Requirements" (FAIR) plans, which generally provide policyholders with basic coverage for eligible properties but with differences in rules, perils covered, insurance coverage limits, and deductibles that vary by state (see Appendix B.2, which provides more details on each of the 33 residual market plans which were established through state legislation but generally are not state-funded).[46]

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[43] For more information, see, e.g., FIO, *Annual Report on the Insurance Industry* (2021), Box 3, 66-67, https://home.treasury.gov/system/files/311/FIO-2021-Annual-Report-Insurance-Industry.pdf; FIO, *Nat Cat Report*.

[44] "A Firm Foundation: How Insurance Supports the Economy – Residual Markets," III, available through https://www.iii.org/publications/a-firm-foundation-how-insurance-supports-the-economy/a-50-state-commitment/residual-markets (Residual Markets) (citing Property Insurance Plans Service Office (PIPSO) data that does not include data for the Hawaii FAIR plan). In 2024, PIPSO began reporting data for the Hawaii FAIR plans' 2023 policies and premiums data. PIPSO, *PIPSO Reports* (2024), available through https://pipso.com/publications (*PIPSO Reports 2024*).

[45] "A Firm Foundation," III; "Facts + Statistics: Homeowners and Renters Insurance," III, https://www.iii.org/table-archive/20793 (archived table of High-Risk Markets, Insurance Provided by Fair Plans by State).

[46] PIPSO, *PIPSO Reports* (2022), 4, available through pipso.com/publications/; PIPSO, *PIPSO Report 2024*, Exhibit A1, 1, Exhibit D1, available through https://pipso.com/publications/; "Residual Markets," III. In May 2023, Colorado enacted legislation to create a FAIR Plan, but is not expected to begin issuing policies until 2025. *See* "What is the FAIR Plan?," Colorado Department of Regulatory Agencies, Division of Insurance, https://doi.colorado.gov/insurance-products/homeowners/renters-insurance/fair-access-to-insurance-requirements-fair-plan. Residual markets typically are funded through premiums and reinsurance and, if those are insufficient to cover claims and expenses, through assessments on insurers operating within the state or through bond issuances.

Notably, residual market plans generally cover fewer perils at a higher price than what HO-3 and HO-5 policies in the standard market offer. As a result, homeowners who have had their HO-3 or HO-5 policies cancelled or not renewed (and if they are unable to obtain a policy from standard market insurers) may have difficulty obtaining equivalent coverage from a residual market plan.[47] While deductibles vary by plan, some plans require named peril percentage deductibles forcing policyholders to retain more of the risk of loss.[48] All residual market plans have coverage limits for a dwelling and (separately or combined) for its contents, but these limits vary greatly: dwelling-only limits range from $150,000 to $1.17 million, while combined dwelling and contents coverage limits range from $200,000 to $3 million.[49]

2. Excess & Surplus Lines Insurance

Policyholders that have difficulty obtaining homeowners insurance from standard or admitted market insurers may be able to obtain coverage from "non-admitted" insurers that operate in the E&S market.[50] However, such insurance tends to be more expensive and has fewer regulatory protections in comparison to other insurers. E&S insurers have more freedom than admitted insurers to modify underwriting standards and rates, adopt new policy provisions, or exit geographic areas, and are generally not subject to state solvency regulations.[51] Moreover, state insurance guaranty associations, which provide certain protections for consumers if their insurer becomes insolvent, do not cover claims by policyholders of failed E&S insurers.[52] The E&S market for residential property insurance as a percentage of the total homeowners insurance market, increased from 1.0 percent in 2018 to 1.3 percent in 2022.[53] From 2018 to 2022, direct premiums written for non-standard homeowners insurance placed with E&S insurers grew 67.9 percent, and the E&S market experienced significant growth in the areas at greater risk from hurricanes and wildfires.[54]

Generally, each of the insurers within the state shares in the FAIR or beach plan's profits, losses, and expenses in proportion to their share of the insurance market within the state. "Fair Access to Insurance Requirements Plans," NAIC, last updated December 13, 2024, https://content.naic.org/cipr-topics/fair-access-insurance-requirements-fair-plans#.

[47] Only eight residual market plans (in Florida, Louisiana, Illinois, Michigan, North Carolina (FAIR and beach plans), Ohio, and Rhode Island) offer HO-3 policies or ones that are roughly equivalent to such policies. No residual market offers HO-5 policies. *See* Appendix B.

[48] *See, e.g.*, PIPSO, *Compendium of Property Insurance Plans* (2022), 22, 149, 478, available through https://pipso.com/publications/.

[49] PIPSO, *Compendium of Property Insurance Plans*, 10, 22, 43, 536.

[50] *See, e.g.*, "Surplus Lines," NAIC, last updated September 22, 2023, https://content.naic.org/insurance-topics/surplus-lines.

[51] *See* FIO, *Nat Cat Report*, 13.

[52] "Surplus Lines," NAIC.

[53] FIO calculations based on data from S&P Global.

[54] Jason Woleben, "US E&S Insurance Market Report: Growth Slows for Excess and Surplus Market," *S&P Global Market Intelligence*, June 20, 2024, https://www.spglobal.com/marketintelligence/en/news-insights/research/us-e-s-insurance-market-report-growth-slows-for-excess-and-surplus-market.

IV. ANALYSES OF PCMI DATA AND CLIMATE-RELATED RISK

This section begins by explaining the calculation of the Total Expected Annual Losses to Buildings from Climate Risk (TLCR) Categories (Section IV.A) and then uses the PCMI Data to analyze changes in the availability and cost of insurance, as well as the insurance losses that may affect those changes, between 2018 and 2022, from two perspectives:

- **National Homeowners Insurance Market and Climate-Related Risk Analyses** (Section IV.B) use national TLCR Categories to examine whether ZIP Codes at higher risk of expected losses from climate-related disasters involving perils covered by HO-3 and HO-5 policies show differences in insurance losses, insurance availability, and cost of insurance as compared to ZIP Codes at lower risk.
- **Regional Homeowners Insurance Markets and Climate-Related Risk Analyses** (Section IV.C) use regional TLCR Categories to highlight how the predominant perils in each of seven regions within the United States may have different impacts on insurance losses, insurance availability, and cost of insurance. The section highlights three regions and their different predominant perils while analyses of the remaining four regions and their predominant perils are provided in Appendix C.

A. Total Expected Annual Losses from Climate Risk Categories

The analyses in this section categorize ZIP Codes nationwide using groups defined as the TLCR Categories, such that each category is one quintile (20 percent) of the total number of ZIP Codes analyzed and has been assigned a label corresponding to its relative risk of expected losses: Lowest Risk, Lower Risk, Medium Risk, Higher Risk, and Highest Risk. The TLCR Categories are used to examine the impact on the insurance market from nine perils covered by HO-3 and HO-5 policies: cold wave, hail, heatwave, hurricane, lightning, strong wind, tornado, wildfire, and winter storm (i.e., homeowners insurance (HOI) Perils).

The TLCR Categories are used to observe the potential relationship between (1) expected losses to buildings from current climate-related risk and (2) changes in metrics relating to insurance losses, availability of insurance, and cost of insurance. More specifically, a subset of the data available through FEMA's NRI as of March 2023 was used to construct a measure of the current percentage of U.S. building value at risk annually in each ZIP Code from the HOI Perils. The measure was used to sort ZIP Codes into five groups along a spectrum from lowest to highest relative risk. The ZIP Code groupings for the TLCR Categories are constant over the five-year timeframe of the Report. A constant measure of expected loss from climate risk over time recognizes that it is difficult to discern the increases in severity and frequency of climate-related disasters in any particular year or over the five-year period of this Report.

1. Calculation of Total Expected Annual Losses from Climate Risk Categories

FIO used a subset of the NRI data that most closely aligns with the perils and losses covered by the homeowners insurance line expressed as a percentage of building value at risk in each ZIP

Code.[55] FIO converted NRI census tract data to ZIP Code data in order to pair it with the PCMI Data. The value is specified for each ZIP Code as follows:

$$\text{Percentage of building value at risk from HOI Perils} = \frac{\text{Sum of expected annual losses to buildings from HOI Perils}}{\text{Sum of total building value}}$$

- *Expected annual losses to buildings* combines the value of buildings in each area with the annualized probability that the hazard will occur per year and the estimated percentage of the exposed building value that would be lost if such a hazard did occur.[56]
- *Total building value* includes information for single-family homes as well as other types of buildings (e.g., commercial, manufacturing, government).[57]
- The *HOI Perils* are the nine perils that are both included in the NRI and typically covered under a standard HO-3 or HO-5 policy: cold wave, hail, heatwave, hurricane, lightning, strong wind, tornado, wildfire, and winter weather.[58]

Using the percentage of building value at risk from HOI Perils, the TLCR Categories are constructed such that 20 percent of ZIP Codes were in each category (i.e., quintiles). The Regional TLCR Categories are constructed in the same manner using only the ZIP Codes within a given region.

2. National Distribution of Expected Losses from Climate Risk from HOI Perils

Figure 11 shows the distribution of the TLCR Categories across the country. The expected losses from HOI Perils resulting from climate risk are not distributed evenly across ZIP Codes: almost two-thirds of the national building value at risk from HOI Perils is concentrated in the top category of ZIP Codes, while the bottom category has less than two percent of the building value at risk. The coastal hurricane regions in the Southeast and Northeast, severe convective storm regions in the Great Plains and Midwest, and wildfire regions in the Northwest and Southwest have the highest levels of risk under the TLCR Categories.

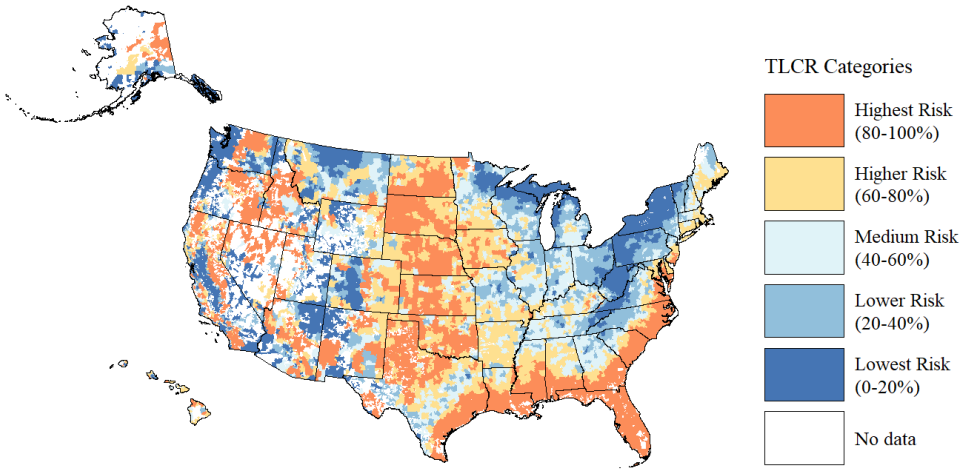
[55] The NRI is a national dataset that helps illustrate the U.S. communities most at risk from 18 natural hazards based on social vulnerability, community resilience, and expected annual losses to buildings, populations, and agriculture. The NRI expected annual loss estimates are based primarily on historical data. The dataset is available at the state, census tract, and county level. *See* FEMA, *National Risk Index: Technical Documentation*.

[56] FEMA, *National Risk Index: Technical Documentation*, Section 4.4.

[57] Future analyses of the PCMI Data could use climate risk estimates that exclusively relate to homeowners insurance policyholders, rather than the NRI which also includes manufacturing, commercial, and government buildings.

[58] Changes in the frequency, severity, or distribution of HOI perils have also been attributed to climate change by the U.S. Global Change Research Program (USGCRP). *See* USGCRP, *Fifth National Climate* Assessment (2023) 2-16, 2-39, 25-10, https://nca2023.globalchange.gov/downloads/NCA5_2023_FullReport.pdf (*NCA5*).

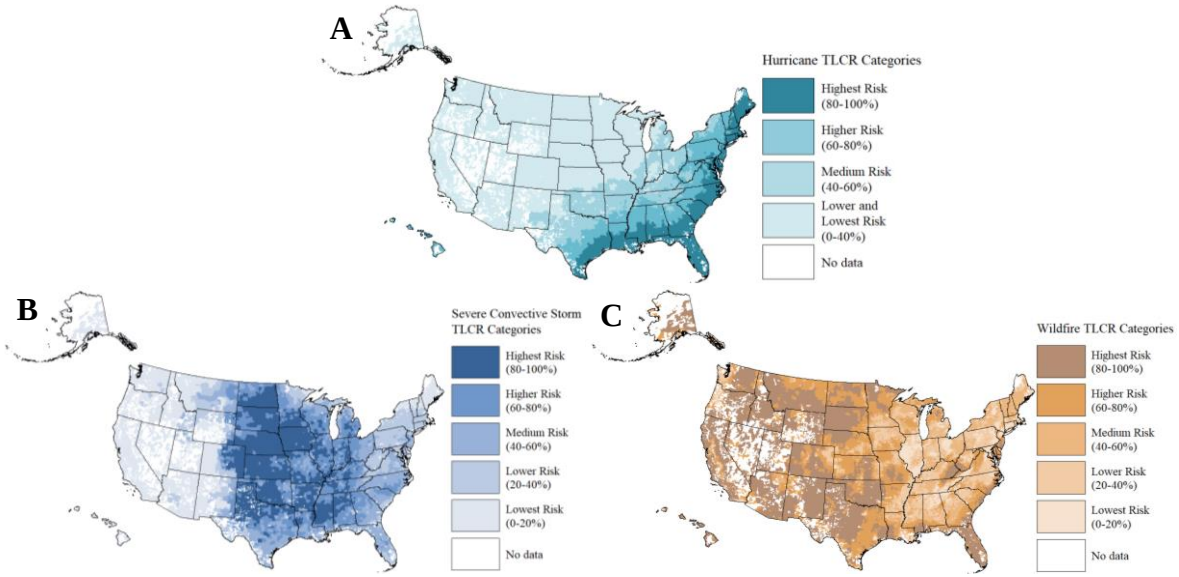
Figure 11: TLCR Categories by ZIP Code



Sources: NRI

Of the building value at risk from HOI Perils used to calculate the TLCR Categories, hurricanes account for 61.4 percent, severe convective storms account for 25.4 percent, and wildfires account for 11.7 percent (cold waves, heatwaves, and winter weather comprise the remaining 1.5 percent). Figure 12 shows the spatial distribution across ZIP Codes for three perils individually—hurricanes, severe convective storms, and wildfires—using the same methodology as the TLCR Categories for the HOI Perils, but only including expected annual losses to buildings as a percentage of total building value for the specified perils. Figure 12 illustrates the outsized impact of certain perils in specific regions.

Figure 12: (A) Hurricane TLCR Categories, (B) Severe Convective Storm TLCR Categories, and (C) Wildfire TLCR Categories by ZIP Code



Source: NRI[59]

Flooding is excluded from the TLCR Categories because it is excluded from HO-3 and HO-5 policies. However, coastal and riverine flooding cause significant economic losses in regions and communities and can create insurance market challenges (see Box 2, Figure 13).

Box 2. Flood Insurance and the National Flood Insurance Program

While most homeowners insurance policies do not cover damage caused by floods, homeowners can obtain separate, stand-alone flood policies either through the National Flood Insurance Program (NFIP) administered by FEMA or through private insurers.[60] Flood insurance is required for properties located in designated high-risk, flood-prone areas that have mortgages from a federally regulated or insured lender, may be mandated by some other mortgage lenders, and is available for nearly all homeowners.[61] The vast majority of people who purchase flood insurance do so through the NFIP. Overall policy count has been steadily declining since the program's highest policy count of 5.7 million in 2009.[62] At the end of fiscal year 2022, the NFIP reported that there were 4.7 million federally backed flood insurance policies in force, providing an aggregate $1.3 trillion of coverage.[63] By contrast, the private, residential flood insurance

[59] Because the Hurricane TLCR Categories shows zero risk for 25.8 percent of the United States (i.e., greater than a single quintile), the Report combines the first two quintiles of the Hurricane TLCR Categories so that the bottom 40 percent of risk is illustrated together.

[60] *See* "About Us," FEMA & NFIP, https://www.floodsmart.gov/about.

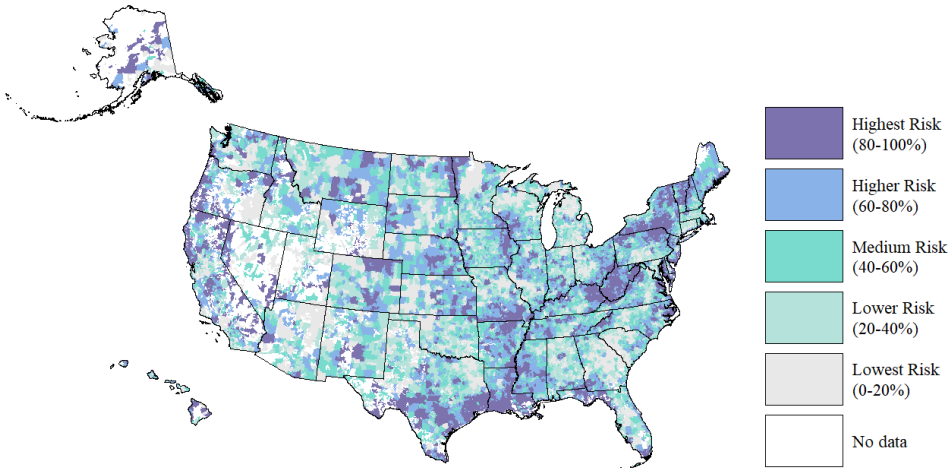
[61] Flood Disaster Protection Act of 1973, 42 U.S.C. § 4002 *et seq*.

[62] "Spotlight on: Flood Insurance," III, last updated June 27, 2024, https://www.iii.org/article/spotlight-on-flood-insurance.

[63] "The Watermark – National Flood Insurance Program Financial Statements," FEMA, last updated March 6, 2023, https://www.fema.gov/flood-insurance/work-with-nfip/watermark-financial-statements.

market grew from 293,977 policies in 2018 to 419,096 in 2023, partially offsetting the declining NFIP policy count.[64]

Figure 13: Nationwide Percentage of Building Value at Risk from Flooding



Source: NRI

B. National Homeowners Insurance and Climate-Related Risk Analyses

This section uses the TLCR Categories to analyze the relationship between climate risk and insurance losses, availability, and cost at the ZIP Code level. Figure 14 summarizes underwriting and other metrics for the Highest Risk and Lowest Risk categories, which each equal 20 percent of the ZIP Codes analyzed.

Figure 14: Summary of Homeowners Insurance and Climate-Related Risk Analyses

2018-2022 Average	TLCR Categories	
	Lowest Risk	Highest Risk
Insurance Losses		
Paid Loss Ratio	54.7%	64.7%
Claim Frequency	4.1%	7.0%
Claim Severity	$19,039	$23,952
Availability of Insurance		
Nonrenewal Rate	0.90%	1.61%
Cost of Insurance		
Premiums Per Policy	$1,277	$2,321
Nonpayment Cancellation Rate	1.32%	2.17%
PCMI Data Sample		
PCMI Policies	12.7 million	5.8 million

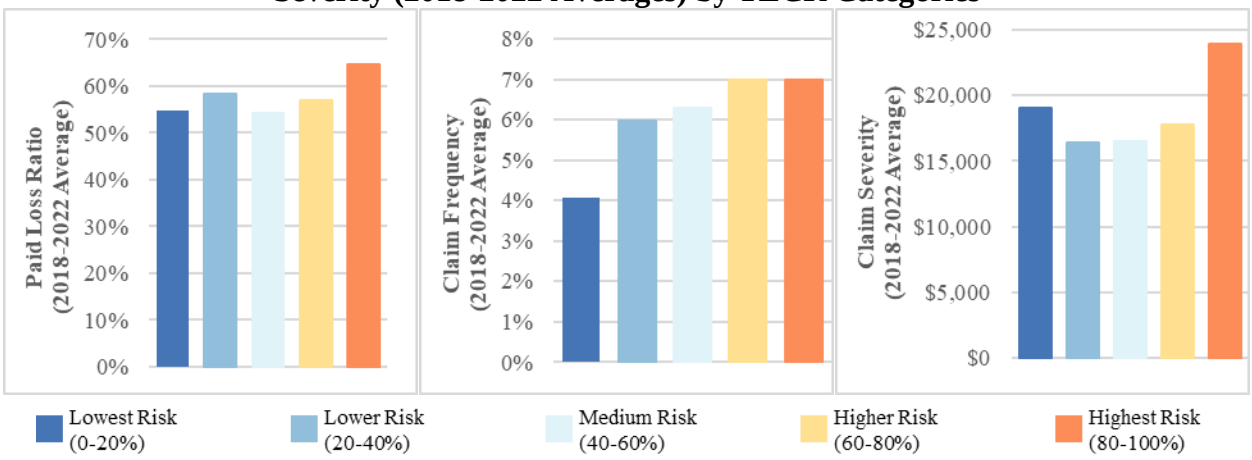
Source: PCMI Data (nominal dollar values adjusted for inflation)

[64] NAIC, "Private Flood Insurance Data," 4 (presentation, NAIC Climate and Resiliency Task Force, virtual meeting, October 12, 2023), https://content.naic.org/sites/default/files/call_materials/PrivateFlood_Oct2023_0.pdf.

1. Insurance Losses and Climate-Related Risk

This section examines the underwriting metrics relating to insurance losses (i.e., paid loss ratio, claim frequency, and claim severity) and expected losses from climate risk. The Highest Risk category had the highest paid loss ratio at 64.7 percent over the five-year period, while the lower four categories had an average paid loss ratio of 56.1 percent (see Figure 15A). This indicates that, on average, the Highest Risk category had an 8.6 percentage point higher share of paid losses relative to premiums than the lower four risk categories.

Figure 15: National PCMI Data (A) Paid Loss Ratios, (B) Claim Frequency, and (C) Claim Severity (2018-2022 Averages) by TLCR Categories



Source: PCMI Data (nominal dollar values adjusted for inflation), NRI

In addition, the Highest Risk category had higher claim frequency than the Lowest Risk category (see Figure 15B). The Highest Risk category had an average claim frequency of 7.0 percent, while the Lowest Risk category had an average claim frequency of 4.1 percent over the five-year period. The Highest Risk category, however, was not notably higher than the Higher Risk category.

Insurers on average paid more per claim for policies in the Highest Risk category than in the other four categories. The claim severity for the Highest Risk category was $6,532 more than the average claim severity for the lower four categories (see Figure 15C). The Lowest Risk category's claim severity was elevated compared to the claim severity for the other lower risk categories.

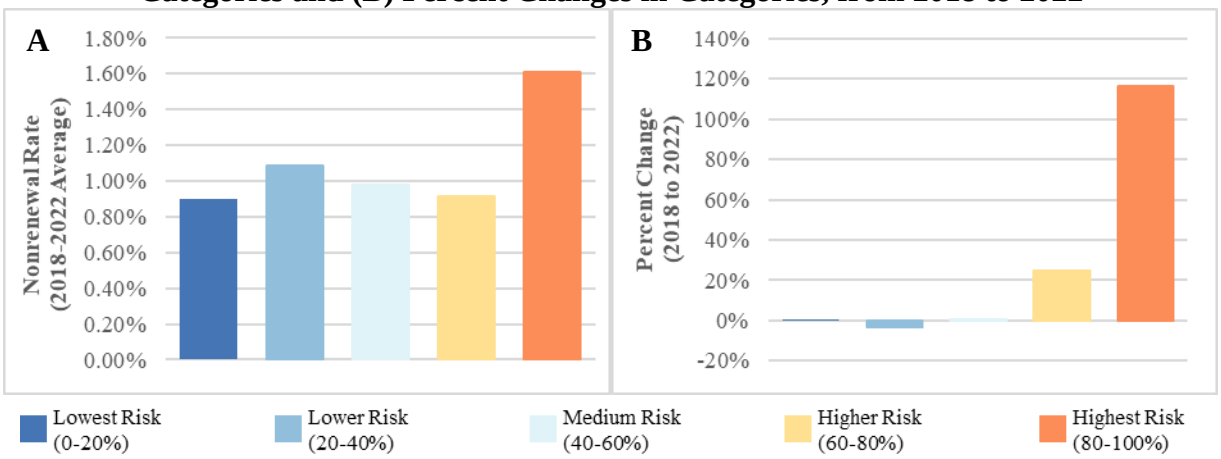
2. Availability of Insurance and Climate-Related Risk

This section examines the nonrenewal rate as an underwriting metric relating to the availability of insurance.

On average, during the five-year period, the Highest Risk category had nonrenewal rates 0.71 percentage points more than the Lowest Risk category (1.61 percent versus 0.90 percent) (see Figure 16A). In addition, the nonrenewal rate for the Highest Risk category rose substantially, more than doubling from 2018 to 2022 (1.10 percent in 2018 to 2.37 percent in 2022) (see Figure

16B). A higher nonrenewal rate in the Highest Risk ZIP Codes could indicate that more policyholders in these areas face challenges finding available insurance.

Figure 16: National PCMI Data (A) Nonrenewal Rates (2018-2022 Average) by TLCR Categories and (B) Percent Changes in Categories, from 2018 to 2022



Source: PCMI Data, NRI

3. Cost of Insurance and Climate-Related Risk

This section addresses underwriting metrics concerning the cost of insurance: premiums per policy and nonpayment cancellation rates. These metrics consistently appear to correspond with the expected losses from climate risk.

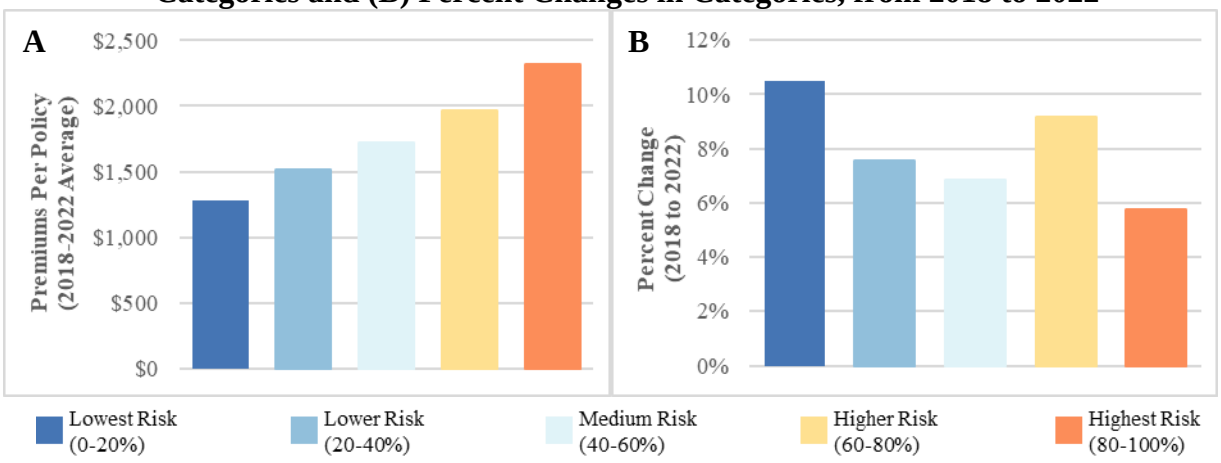
Premiums per policy appear positively correlated with the TLCR Categories (see Figure 17A).[65] During the five-year period, the average annual premiums per policy in the Highest Risk category were $2,321, which is 81.7 percent more than the $1,277 figure for the Lowest Risk category. These results could reflect the higher historical claims and perceived risk in those areas.

Premiums per policy increased in each of the TLCR Categories between 2018 and 2022, increasing the most (10.5 percent) in the Lowest Risk category and the least (5.8 percent) in the Highest Risk category (see Figure 17B). The variation in the percent change in premiums per policy across TLCR Categories could be caused by a variety of factors, including insurer decisions to limit their overall exposure to the highest risk areas through nonrenewals rather than premium increases, or consumer choices to accept more financial risk (e.g., through higher deductibles) to limit potential premium increases. Rate regulation may also be a factor since

[65] This finding is similar to that in a paper which used an estimated measure of premiums per policy based on mortgage escrow payments to show that premiums are higher in areas with higher expected climate disaster risk. *See* Benjamin Keys & Philip Mulder, "Property Insurance and Disaster Risk: New Evidence from Mortgage Escrow Data," *National Bureau of Economic Research*, June 2024, 19, https://www.nber.org/system/files/working_papers/w32579/w32579.pdf.

insurers generally are able to increase premiums at a faster pace in those states that have relatively less-restrictive rate approval processes.[66]

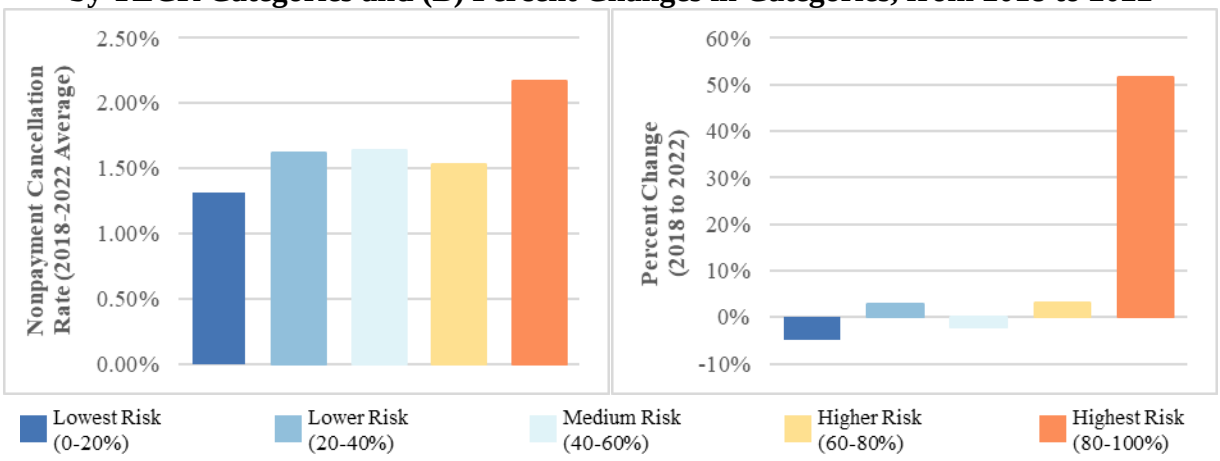
Figure 17: National PCMI Data (A) Premiums Per Policy (2018-2022 Average) by TLCR Categories and (B) Percent Changes in Categories, from 2018 to 2022



Source: PCMI Data, NRI (nominal dollar values adjusted for inflation)

The average nonpayment cancellation rate was the highest in the Highest Risk category and the lowest in the Lowest Risk category during the five-year period (see Figure 18). In addition, the rate increased by 51.6 percent from 2018 to 2022 in the Highest Risk category, compared to a 5.0 percent decline in the Lowest Risk category. By 2022, nonpayment cancellation rates in the Highest Risk category were 104.7 percent higher than those in the Lowest Risk category. This pattern is consistent with that of nonrenewal rates, which also increased substantially in the Highest Risk category during the time period.

Figure 18: National PCMI Data (A) Nonpayment Cancellation Rates (2018-2022 Average) by TLCR Categories and (B) Percent Changes in Categories, from 2018 to 2022



Source: PCMI Data, NRI

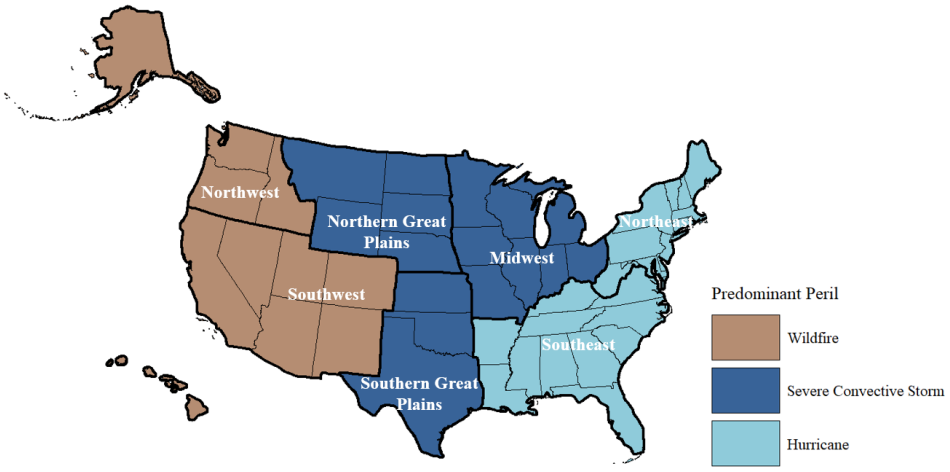
[66] Rate regulation is discussed further in Section III.B.4.

These analyses show that insurers' costs were higher in areas with the highest expected losses from climate-related perils. Similarly, consumers in highest climate-risk areas faced higher costs and decreasing availability over the five-year period.[67] Also, both nonrenewals and nonpayment cancellation rates increased the most in the Highest Risk category during this period.

C. Regional Homeowners Insurance Markets and Climate-Related Perils

While the analyses in Section IV.B highlight the relationship between climate risk and insurance market outcomes on a nationwide basis, this section evaluates whether such relationships exist within regions that face different predominant HOI Perils. Regions in the United States face risks specific to their location, from wildfires in the western United States, to severe convective storms in the middle of the country, to hurricanes along the Gulf and Atlantic coasts (Figure 19).[68]

Figure 19: Seven U.S. Regions Used in This Report, by Three Predominant HOI Perils



Source: FIO

The metrics for all seven regions are presented in Figure 20. Importantly, the individual regions do not represent equal amounts of expected annual losses from climate-related risk as this risk is not distributed evenly across the country. As a result, for these regional analyses, the ZIP Codes in each region are divided evenly into categories of expected annual losses to buildings from climate risk based only on the ZIP Codes *within the same region.*[69] Highlights include:

- The regions predominantly affected by wildfires (the Northwest and Southwest Regions) tended to have lower claim frequency but higher claim severity than other regions.

[67] These findings are also supported by a 2023 study that showed that nonrenewals and premium increases in certain states were associated with climate-related risks. *See* First Street Foundation, *The 9th National Risk Assessment: The Insurance Issue* (2023), https://assets.riskfactor.com/media/National-Risk-Assessment-The-Insurance-Issue.pdf.

[68] *See* USGCRP, *NCA5*, 21-30. The regions in this Report do not completely align with the NCA5 regions in order to avoid having a region with a single state.

[69] By comparison, the national categories in Section III.A were based on annual expected losses to buildings from climate risk for the entire country.

Regions more affected by severe convective storms (the Midwest, Northern Great Plains, and Southern Great Plains Regions) tended to have higher claim frequency. This reflects that severe convective storms are more frequent, smaller events, while wildfires are less common but can cause more extensive losses.

- The Highest Risk category in the Southeast Region, which is predominantly affected by hurricanes, had the highest premiums per policy and the highest nonrenewal rate of any of the Highest Risk categories in the seven regions.
- Regardless of the predominant peril, the ZIP Codes within each region with the highest expected losses generally had the highest cost of insurance for consumers, highest paid losses affecting insurers' costs, and highest nonrenewal rates. Insurance losses—as measured by the paid loss ratio—were higher in the Highest Risk category than the Lowest Risk category within five of the seven regions. Consumers also paid more premiums per policy in the Highest Risk category compared to the Lowest Risk category in six of the seven regions. In addition, nonrenewal rates were higher in the Highest Risk category than the Lowest Risk category in six of the seven regions.

Figure 20: Regional Comparison (2018-2022 Averages)

	Southeast	Northeast	Midwest	Northern Great Plains	Southern Great Plains	Southwest	Northwest	National
Descriptive								
Largest Peril	Hurricane	Hurricane	Storms*	Storms*	Storms*	Wildfire	Wildfire	N/A
Number of States	11	12 + DC	8	5	3	7	4	50 + DC
PCMI Policies	9.7 million	10.4 million	11.1 million	0.8 million	5.0 million	9.7 million	2.5 million	49.3 million
Lowest Risk Regional Category**								
Paid Loss Ratio	51.6%	43.1%	52.0%	65.4%	56.8%	49.8%	47.8%	54.7%
Claim Frequency	6.1%	4.2%	5.2%	6.4%	7.9%	3.4%	3.0%	4.1%
Claim Severity	$14,249	$12,113	$15,352	$19,092	$15,945	$21,060	$22,991	$19,039
Nonrenewal Rate	1.27%	0.45%	1.32%	0.65%	0.18%	0.85%	0.56%	0.90%
Premiums Per Policy	$1,514	$1,049	$1,371	$1,709	$1,985	$1,303	$1,297	$1,277
Highest Risk Regional Category**								
Paid Loss Ratio	57.6%	41.1%	77.4%	85.9%	40.4%	97.7%	51.4%	64.7%
Claim Frequency	7.9%	5.6%	7.9%	12.4%	5.3%	5.6%	2.9%	7.0%
Claim Severity	$23,244	$15,874	$19,074	$15,921	$21,791	$34,077	$25,326	$23,952
Nonrenewal Rate	2.32%	0.72%	0.78%	1.09%	0.64%	1.92%	0.86%	1.61%
Premiums Per Policy	$2,936	$1,936	$1,764	$2,091	$2,564	$1,838	$1,277	$2,321

Source: PCMI Data, NRI (nominal dollar values adjusted for inflation). *"Storms" here is shorthand for Severe Convective Storms. **TLCR Categories are calculated separately for each region and, therefore, the risk categories

may not be directly comparable across regions.

The sections below focus on three regions (out of seven), choosing one region for each of three predominant HOI Perils—the Southeast (hurricanes), Midwest (severe convective storms), and Southwest (wildfires)—to highlight the varying effects of these three perils on insurance outcomes in these regions. Understanding how insurance markets address the variation in losses caused by different perils will help federal, state, and local governments—as well as consumers—take steps to address insurance availability and costs, including through risk mitigation.

The analyses for the remaining four regions and their predominant perils—the Northeast (hurricanes), Northern Great Plains (severe convective storms), Southern Great Plains (severe convective storms), and Northwest (wildfires) Regions—are in Appendix C.

1. Southeast Region

The Southeast Region consists of 11 states: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia. About a quarter of the U.S. population lives in the Southeast Region.[70] It also experienced higher population growth (3.0 percent) from 2018 to 2022 than did the nation as a whole (1.9 percent), with the population growth, especially in coastal areas, increasing exposure in areas of higher climate risk.[71] Population movement into the region increased housing demand, leading to increases in home prices and new home construction, with the number of single-family homes growing 5.7 percent during this five-year period (from 24.6 million to 26.0 million).[72] The Southeast Region has a diverse climate. The region faces a variety of perils, including extreme heat, extreme precipitation, drought, sea level rise, and hurricanes, but hurricanes are the predominate peril in the region.[73] These risks are compounded in the region's densely populated urban areas.

Figure 21A illustrates which ZIP Codes in the Southeast Region are in each of the Regional TLCR Categories for all the HOI Perils. Figure 22B illustrates which are in each of the Regional Hurricane TLCR Categories, showing that areas bordering the Atlantic and the Gulf of Mexico are most at risk from hurricanes. On a national basis, more than a third of the Southeast

[70] U.S. Census Bureau, "DP05 American Community Survey Demographic and Housing Estimates: 2018 ACS 1-Year Estimates Data Profiles" and "2022 1-Year Estimates Data Profile," available through https://data.census.gov/table?q=DP05 (ACS Table DP05).

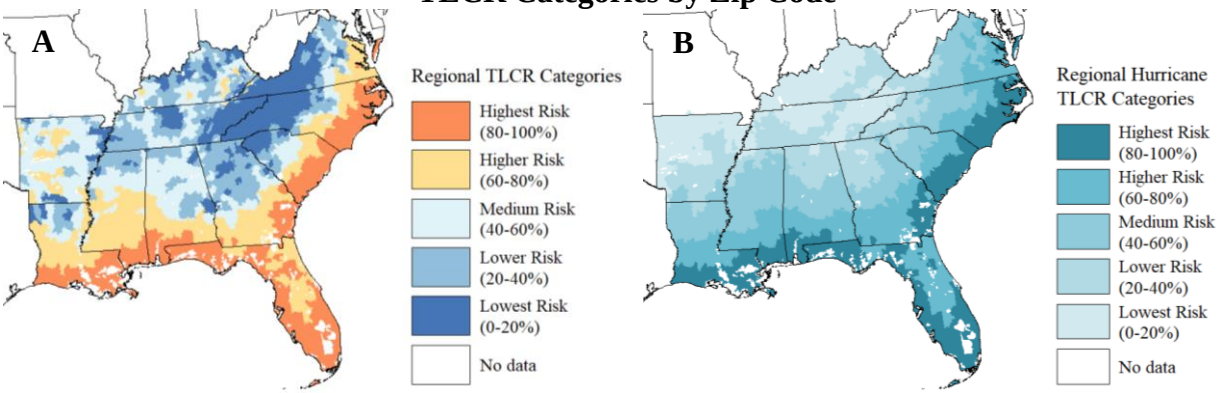
[71] U.S. Census Bureau, "ACS Table DP05" (2018 1-Year Estimates Data Profile & 2022 1-Year Estimates Data Profile); USGCRP, *NCA5*, Chapter 22; Sam Khater, *et al.*, *Freddie Mac: Migration to Environmentally Risky Areas: A Consequence of the Pandemic* (2022), https://www.freddiemac.com/research/insight/20221109-migration-environmentally-risky-areas-consequence (noting migration changes, which started before the COVID-19 pandemic, accelerated in 2020).

[72] Frank Seo, "How Has the Pandemic Changed the House Price Landscape in the South?" *Southern Ag Today*, August 23, 2024, https://www.southernagtoday.org/2024/08/23/how-has-the-pandemic-changed-the-house-price-landscape-in-the-south/; U.S. Census, "ACS Table B25024" (2022 5-Year Estimates Detailed Tables).

[73] USGCRP, *NCA5*, Chapter 22.

Region's ZIP Codes (concentrated along the coast) are in the Highest Risk category (see Figures 11 and 12).

Figure 21: Southeast Region: (A) Regional TLCR Categories and (B) Regional Hurricane TLCR Categories by Zip Code



Source: NRI

From 2018 through 2022, the Southeast Region experienced 78 major disasters related to the HOI Perils, with the most significant events involving hurricanes and severe convective storms. Thirteen hurricanes resulted in disaster declarations across nine states during this five-year period, including 2022's Hurricanes Ian ($56 billion in insured losses) and 2021's Ida ($41 billion in insured losses), both of which ranked (in terms of insured losses) behind only 2005's Hurricane Katrina ($102 billion in insured losses), which is the costliest hurricane in the United States to date.[74]

In 2022, over 420 homeowners insurers operated in the Southeast Region. The top 10 insurers in the Southeast Region—excluding Citizens Property Insurance Corporation (Florida Citizens), a major residual market insurer—wrote an average of 34.3 percent of the regional premiums written between 2018 and 2022.[75] During this period, the average direct premium written by these top 10 insurers grew from $9.4 billion to $14.3 billion. Forty two percent of premiums in the Southeast are written by Regional Insurers, including 29 percent written by Local Insurers.[76] Some insurers in the Southeast Region have faced financial challenges in the homeowners insurance market and were placed in receivership. The insurance markets stabilized to some

[74] "Catastrophes: Facts + Statistics: Hurricanes," III (January 2024), https://www.iii.org/fact-statistic/facts-statistics-hurricanes. (These are inflation-adjusted numbers in 2023 dollars.)

[75] All data in this paragraph is from NAIC statutory filings obtained through S&P Global for homeowners insurers operating in the United States, excluding territories. While Florida Citizens was the seventh largest insurer during this period, it was excluded from the national top 10 because it is a residual market insurer. For more on residual markets, see Section III.C; for more on the Florida homeowners insurance market, see Box 3.

[76] For the Regional Analyses, a "Regional Insurer" derives 70 percent or more of its total homeowners direct premiums written from states in the region, while a "Local Insurer" derives 95 percent or more of its total homeowners direct premiums written from business in one state.

degree in 2023, though the Southeast Region continues to be impacted by the effects of prior hurricane seasons and other factors.[77]

Box 3. Florida Homeowners Insurance Market

Under the NRI, Florida is the state with the highest annual expected losses from climate-related events. The PCMI Data Call contains relatively limited data on the Florida insurance market. Therefore, this box provides data from other available sources on homeowners insurance, namely Florida's Quarterly and Supplemental Reporting System (QUASR) and Florida Citizens, the state's residual insurer.

Florida had an average of nearly 7 million total personal residential insurance policies in force during the 2018-2022 period.[78] Local insurers comprised 57 percent of the Florida market in 2022.[79] QUASR publishes company-level data at the state- and county-levels for both personal and commercial residential insurance policies. Starting in 2025, QUASR will include ZIP Code level data updated monthly. QUASR does not publish county-level data that insurers have identified as trade secrets and, from 2018 to 2022, the percent of Florida premiums accounted for in the QUASR data fell from 73 percent to 27 percent.[80] Using the available data, both Florida total residential policies and QUASR show premiums increasing between 2018 and 2022, although with different values (the five-year average premiums per policy were $1,985 in the state data versus $2,897 in the QUASR data).

During the same five-year period, the number of HO-3 policies in force issued by Florida Citizens increased by over 300 percent, to 585,411 in 2022.[81] Average premiums per policy in the residual market ($2,995) were higher than the state and QUASR averages.[82]

a) Insurance Losses and Climate-Related Risk

During the five-year period, the average paid loss ratio for the Southeast Region was 53.7 percent, which is slightly below the national average of 57.5 percent for the same period. Across the five risk categories, the regional paid loss ratio averaged 49.7 to 57.6 percent, with the

[77] *See, e.g.*, Tom Jacobs & Hassan Javed, "Receivership Roll Call, 2021," *S&P Global*, January 31, 2022, https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/receivership-roll-call-2021-68570528. Annual receivership roll calls are available through S&P MarketWatch.

[78] Florida Citizens, *Florida Residential Property Market Share* (2022), 11, https://www.citizensfla.com/documents/20702/93160/20221231+Market+Share+Report.pdf/3a08beac-316c-d8dc-04fd-3c763434bf2f?t=1686677960500. Data is reported by Citizens but reflects the total Florida personal residential market.

[79] S&P Global.

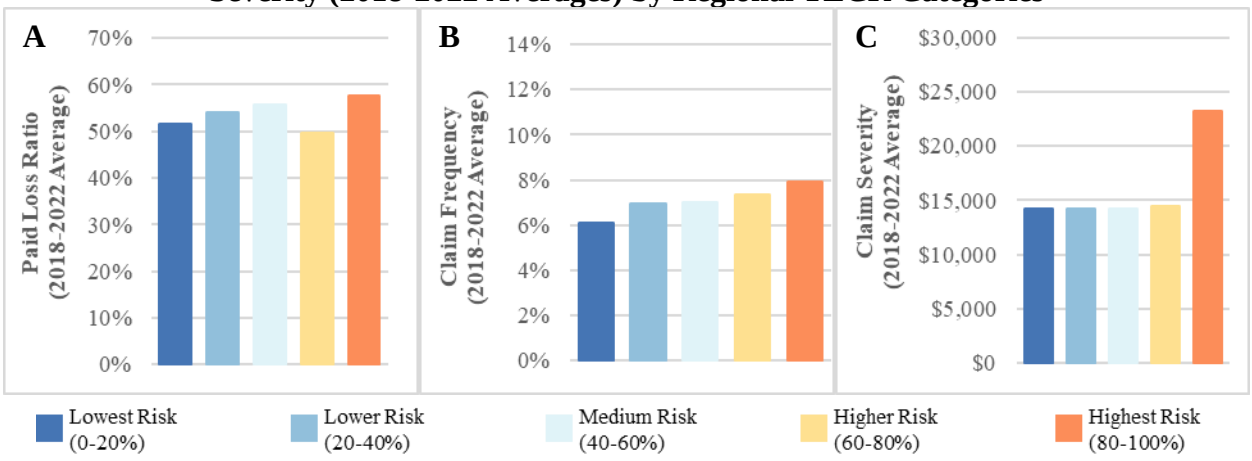
[80] *See* FLOIR, "Personal and Commercial Residential Policy Data," https://floir.com/tools-and-data/residential-market-share-reports (see Previous Residential Market Share Reports for 2024).

[81] Florida Citizens, *Corporate Analytics Business Overview* (2018), 11, https://www.citizensfla.com/documents/20702/93064/20181231+Business+Overview.pdf/50f1f66f-f186-48e4-96c6-7d7a865f6f1f?t=1550503002833; Florida Citizens, *Corporate Analytics Business Overview* (2022), 11, https://www.citizensfla.com/documents/20702/93064/20221231+Business+Overview.pdf/a566ba7c-70b7-95d9-d397-25e921966d9f?t=1686677876843 (*2022 Corporate Analytics Business Overview*).

[82] For more on residual markets, see Section III.C.

highest ratio in the Highest Risk category (see Figure 22A). The average paid loss ratio for Louisiana was the highest of the states in the region due to Hurricane Ida in 2021, the second most severe (in terms of insured losses) hurricane to strike Louisiana, behind only Hurricane Katrina.[83]

Figure 22: Southeast Region: (A) Paid Loss Ratios, (B) Claim Frequency, and (C) Claim Severity (2018-2022 Averages) by Regional TLCR Categories



Sources: PCMI Data, NRI (nominal dollar values adjusted for inflation)

The average claim frequency during the five-year period for the region was 7.0 percent, which was over 20 percent higher than the national average claim frequency of 5.8 percent for the same period. The average regional claim frequency for the Highest Risk category averaged slightly higher than the lower categories (see Figure 22B). Louisiana had the highest average claim frequency at 13.7 percent due to five hurricanes that hit Louisiana between 2018 and 2022.

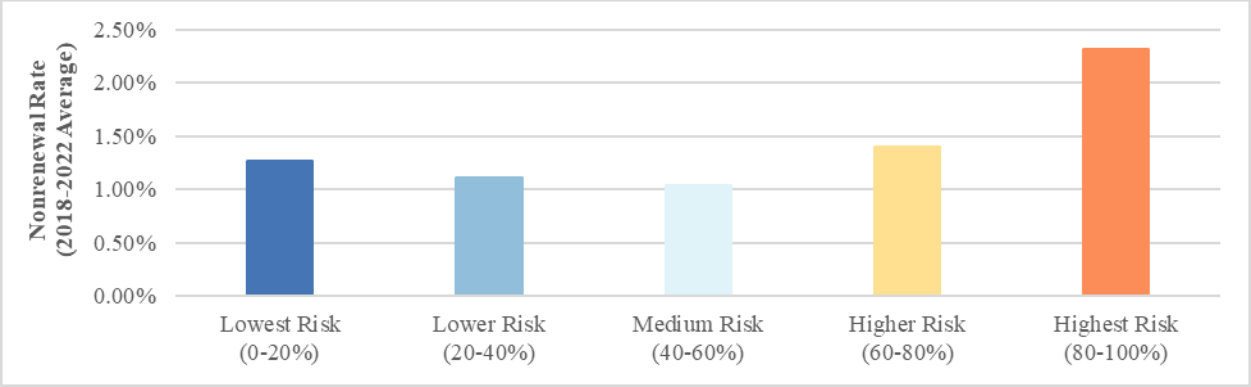
During the five-year period, the average claim severity for the region was $16,075, which was more than 10 percent below the national average claim severity of $18,206. The average regional claim severity for the Highest Risk category ($23,244) was approximately 63 percent higher than that for the Lowest Risk category ($14,249) (see Figure 22C).

b) Availability of Insurance and Climate-Related Risk

The average nonrenewal rate during the five-year period for the region was 1.43 percent, which was 38 percent higher than the national average nonrenewal rate of 1.04 percent. The average nonrenewal rate was highest for the Highest Risk category at 2.32 percent, with the four other risk categories ranging between 1.04 and 1.40 percent (see Figure 23).

[83] "Hurricane Ida 2021," NOAA, https://www.weather.gov/lch/2021Ida; "Costliest U.S. Tropical Cyclones," NOAA NCEI & National Hurricane Center (last updated November 1, 2024), https://www.ncei.noaa.gov/access/billions/dcmi.pdf.

Figure 23: Southeast Region: Nonrenewal Rates (2018-2022 Average) by Regional TLCR Categories

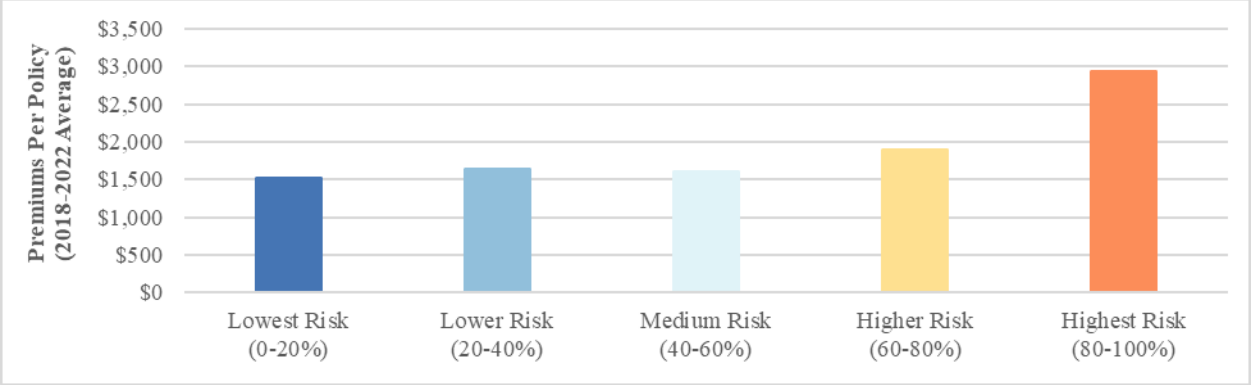


Sources: PCMI Data, NRI

c) Cost of Insurance and Climate-Related Risk

The average premiums per policy for the five-year period for the Southeast Region were $1,919, about 15 percent above the national average of $1,663 (see Figure 24). The average premiums per policy for the Highest Risk category were $2,936, which was about $1,000 more than that for the Higher Risk category, more than $1,400 higher than for the Lowest Risk category, and about $1,300 higher than for each of the other two categories' five-year averages.

Figure 24: Southeast Region: Premiums Per Policy (2018-2022 Average) by Regional TLCR Categories



Sources: PCMI Data, NRI (nominal dollar values adjusted for inflation)

2. Midwest Region

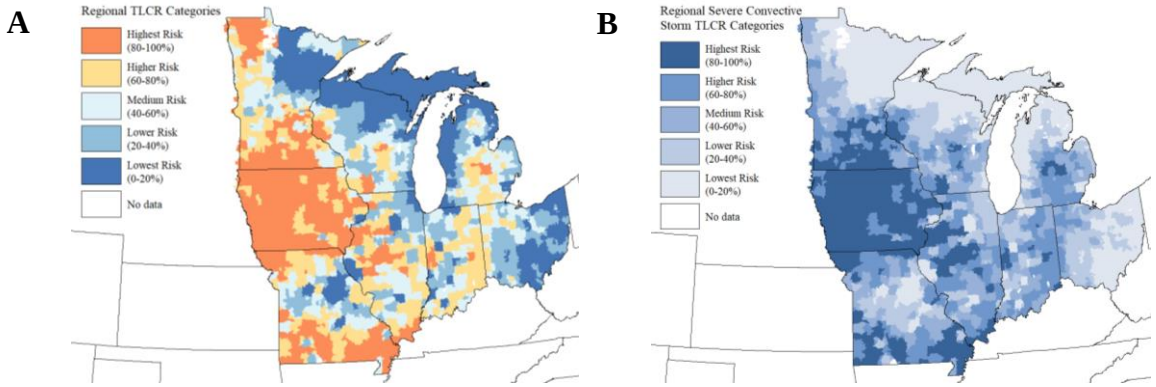
The Midwest Region consists of eight states: Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin. The region's population was 62.2 million in 2022 and grew

more slowly than did the national population from 2018 (0.6 percent vs. 1.9 percent).[84] The number of single-family homes in the region grew by 1.9 percent from during the same period.[85]

The Midwest Region is prone to a wide variety of perils, including thunderstorms, heatwaves, severe cold, blizzards, droughts, floods, and tornados.[86] The predominant climate-related peril is severe convective storms, which occur frequently when warm, humid air from the Gulf of Mexico mixes with cold, dry air from Canada.[87] Risk of tornados is particularly high in Iowa (sometimes considered part of "Tornado Alley"), Illinois, Indiana, and Missouri.[88] From 2018 through 2022, the Midwest Region experienced 13 disaster declarations for severe convective storms.[89]

Figure 25A illustrates which ZIP Codes in the Midwest Region are in each of the Regional TLCR Categories for all of the HOI Perils. Figure 25B illustrates which are in each of the Regional Severe Convective Storm TLCR Categories. On a national basis, only 3.6 percent of the Region's ZIP Codes are part of the Highest Risk category: most ZIP Coes fall into the three middle risk categories, with 12.4 percent in the Lowest Risk category (see Figures 11 and 12).

Figure 25: Midwest Region: (A) Regional TLCR Categories and (B) Regional Severe Convective Storm TLCR Categories by ZIP Code



Source: NRI

In 2022, over 350 homeowners insurers operated in the Midwest Region.[90] Between 2018 and 2022, the market share of the top 10 insurers in this region increased by about 3 percent in this

[84] U.S. Census Bureau, "ACS Table DP05" (2018 ACS 1-Year Estimates Data Profiles and 2022 1-Year Estimates Data Profile).

[85] U.S. Census, "ACS Table B25024" (2022 5-Year Estimates Detailed Tables).

[86] Jeff Andresen, *et al*., *Historical Climate and Climate Trends in the Midwestern USA* (2012), https://glisa.umich.edu/wp-content/uploads/2021/02/MTIT_Historical.pdf.

[87] "Thunderstorms," Midwestern Regional Climate Center, mrcc.geddes.rcac.purdue.edu/living_wx/thunderstorms.

[88] For more on Tornado Alley, see Appendix C.3 (Southern Great Plains Region).

[89] FEMA, "Disaster Declarations."

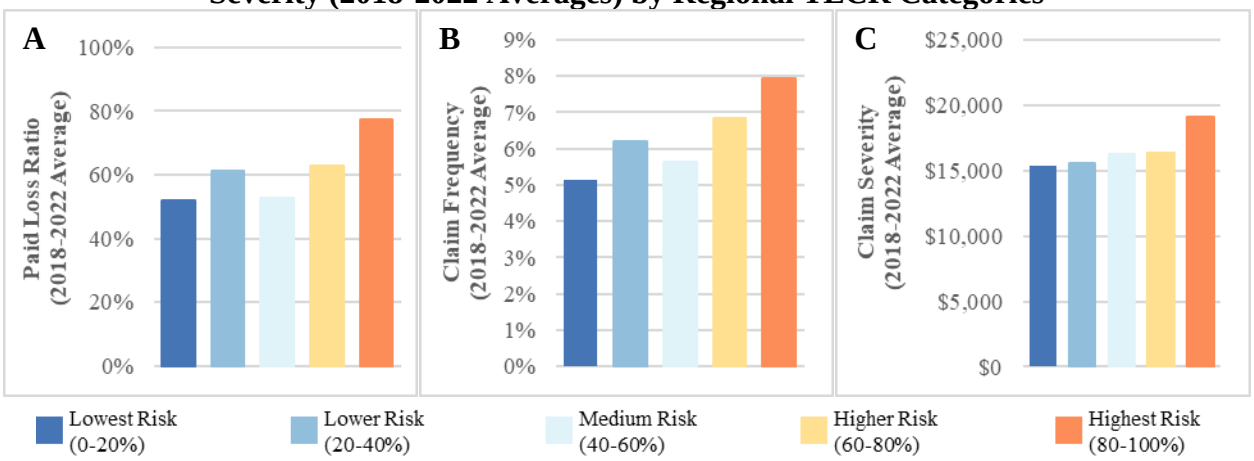
[90] All data in this paragraph is based on NAIC statutory filings available through S&P Global.

region. In 2022, 16.7 percent of premiums for homeowners insurance in the Midwest Region were written by Regional Insurers, including 7.0 percent by Local Insurers.

a) Insurance Losses and Climate-Related Risk

The average paid loss ratio for the five-year period was 61.3 percent for the Midwest Region as a whole, with variations across Regional TLCR Categories and across the states in the region. Overall, the average paid loss ratio was the highest (77.4 percent) in the Highest Risk category, likely a result of the extreme storms and tornado outbreaks, particularly in 2022 (see Figure 26A). Iowa had the highest average paid loss ratio, due in large part to a significant severe convective storm in the form of a derecho that impacted the state in 2020.

Figure 26: Midwest Region: (A) Paid Loss Ratios, (B) Claim Frequency, and (C) Claim Severity (2018-2022 Averages) by Regional TLCR Categories



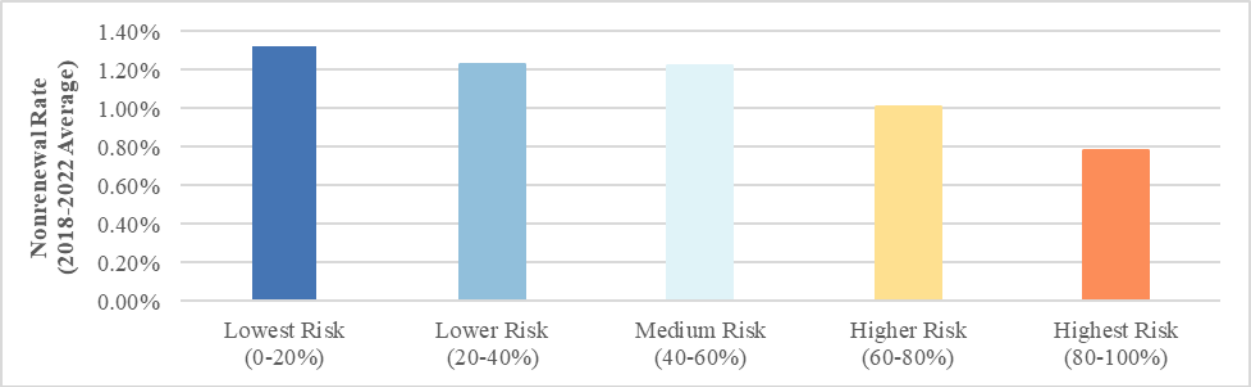
Sources: PCMI Data, NRI (nominal dollar values adjusted for inflation)

The average claim frequency for the five-year period for the region was 6.4 percent, which was slightly above the national average of 5.8 percent. The regional average claim frequency was highest in the Higher Risk and the Highest Risk categories at 6.8 percent and 7.9 percent respectively (Figure 26B). The average claim severity for the period for the region was $16,542, which was nine percent below the national average for the same period. The average regional claim severity for the period was highest in the Highest Risk category at $19,074 (Figure 26C). The averages for claim frequency and severity demonstrate how insurers in the region were affected by severe convective storms that were high-frequency and low-to-medium severity loss events.

b) Availability of Insurance and Climate-Related Risk

The average nonrenewal rate in the Midwest Region for the five-year period did not correspond with the risk categories (see Figure 27). For the five-year period, the average nonrenewal rate across all Regional TLCR Categories in the Midwest Region was 1.11 percent, which was slightly above the national average nonrenewal rate of 1.04 percent.

Figure 27: Midwest Region: Nonrenewal Rates (2018-2022 Average) by Regional TLCR Categories

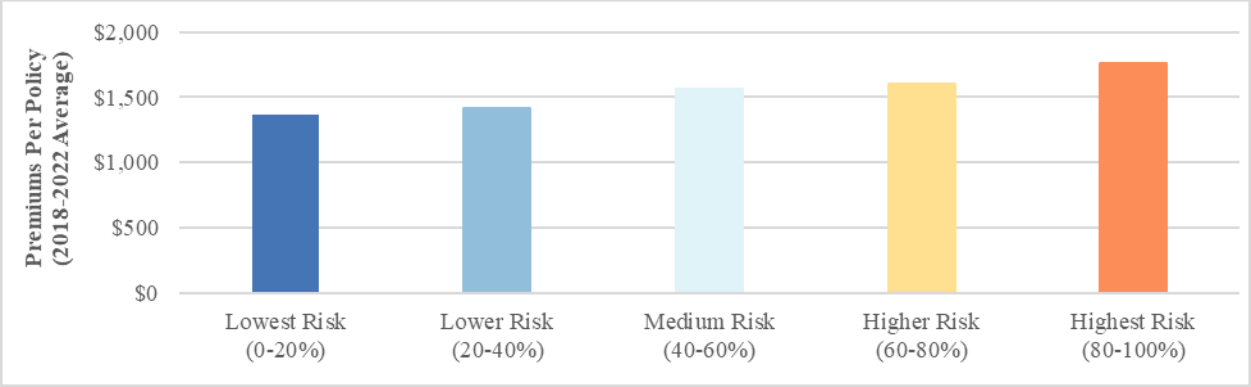


Sources: PCMI Data, NRI

c) Cost of Insurance and Climate-Related Risk

In the Midwest Region, the average premiums per policy for the five-year period were $1,545, which was seven percent lower than the national average premiums per policy of $1,663. The average premiums per policy for the period were the highest ($1,764) in the Highest Risk category (see Figure 28).

Figure 28: Midwest Region: Premiums Per Policy (2018-2022 Average) by Regional TLCR Categories



Sources: PCMI Data, NRI (nominal dollar values adjusted for inflation)

3. Southwest Region

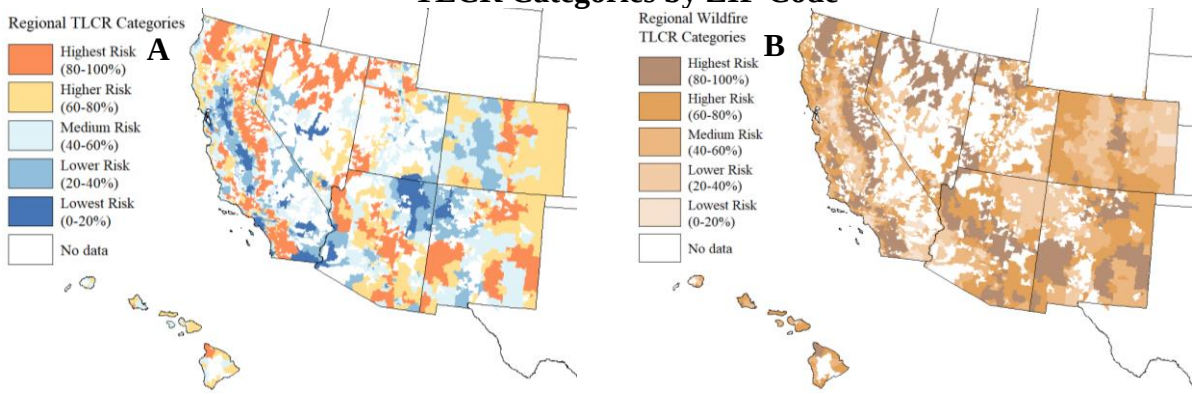
The Southwest Region has seven states: Arizona, California, Colorado, Hawaii, Nevada, New Mexico, and Utah. The region's population was 62.3 million in 2022, and grew by 0.3 percent between 2018 and 2022, which was below the national population growth rate of 1.9 percent for the same period.[91] The number of single-family homes grew from 15.6 million to 16.3 million, a

[91] U.S. Census Bureau, "ACS Table DP05" (2018–2019 and 2021–2022 ACS 1-Year Estimates Data Profiles).

4.6 percent increase, and comprised about two-thirds of the housing stock.[92] Since 2000, the Southwest has been experiencing a megadrought, which has made the region increasingly prone to wildfires.[93] Insurance losses are also increasing because more people are living in wildland-urban-interface areas.

Figure 29A illustrates which ZIP Codes in the Southwest Region are in each of the Regional TLCR Categories for all HOI Perils. Figure 29B illustrates which are in each of the Regional Wildfire TLCR Categories. On a national basis, almost one quarter of the region's ZIP Codes are in the Highest Risk category, but the majority of the region's ZIP Codes are in the Lowest Risk category (see Figures 11 and 12).

Figure 29: Southwest Region: (A) Regional TLCR Categories and (B) Regional Wildfire TLCR Categories by ZIP Code



Source: NRI

Of the HOI Perils, wildfires have been the largest contributors to annual losses in the Southwest Region. Wildfires led to 124 disaster declarations in the region and each state in the region had at least two such declarations from 2018 through 2022. California and Arizona had 60 and 16 disaster declarations, respectively. Wildfires in this region burned an average 3.3 million acres annually from 2018 through 2022.[94] California had the largest number of average acres burned and the most residences destroyed due to wildfires of any state within the United States. In the five-year period, the region had five wildfires that caused over $100 million in damages, including three in California (2018 Camp Fire, 2021 Dixie Fire, 2021 Beckwourth Complex

[92] U.S. Census Bureau, "ACS Table B25024" (2022 ACS 5-Year Estimates Detailed Tables).

[93] NOAA, National Integrated Drought Information System, *Research Spotlight: Climate-Drive Megadrought*, https://www.drought.gov/research-spotlight-climate-driven-megadrought.

[94] National Interagency Coordination Center (NICC), *Wildland Fire Summary and Statistics Annual Report* (2018), 4, 41, 43, 48 (*2018 Wildland Fire Report*); NICC, *Wildland Fire Summary and Statistics Annual Report* (2019), 7, 9, 41, 43, 47, 49 (*2019 Wildland Fire Report*); NICC, *Wildland Fire Summary and Statistics Annual Report* (2020), 6, 35, 38, 43, 45 (*2020 Wildland Fire Report*); NICC, *Wildland Fire Summary and Statistics Annual Report* (2021), 7, 37, 39, 44, 46 (*2021 Wildland Fire Report*); NICC, *Wildland Fire Summary and Statistics Annual Report* (2022), 6, 37, 39, 44, 46 (*2022 Wildland Fire Report*). All Wildland Fire Reports available through "Intelligence: NICC Annual Reports," NICC, https://www.nifc.gov/nicc/predictive-services/intelligence.

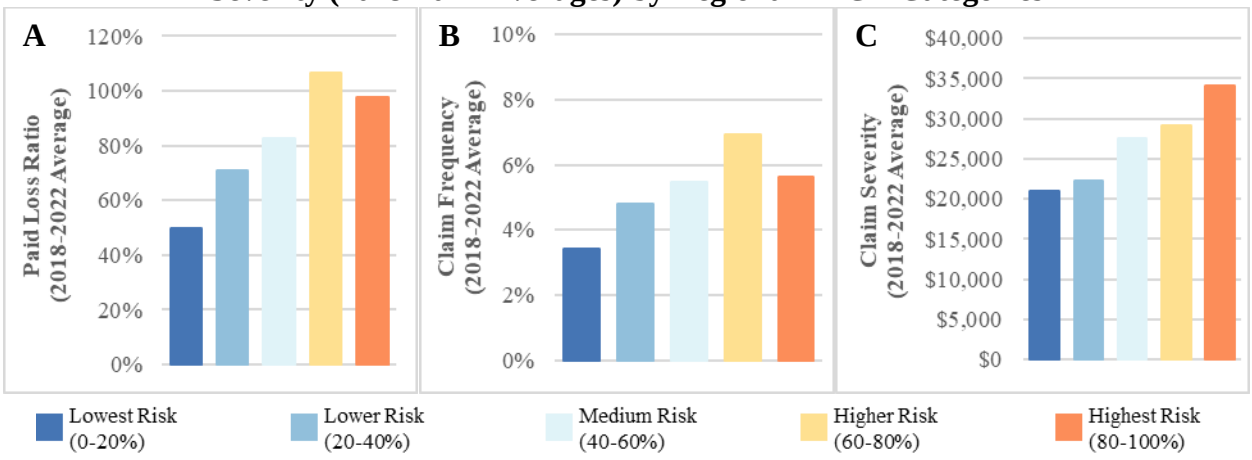
Fires), one in Colorado (2020 Marshall Fire), and one in New Mexico (2022 Hermits Peak Fire).[95]

In 2022, 289 homeowners insurers operated in the Southwest Region.[96] The combined market share of the top 10 homeowners insurers in the Southwest Region increased by 6.4 percent from 2018 to reach 47.4 percent in 2022, less than the 63 percent market share held by the top 10 homeowners insurers on a national level. In 2022, Regional Insurers wrote 35.5 percent of premiums for this region, including 24.1 percent written by Local Insurers.

a) Insurance Losses and Climate-Related Risk

During the five-year period, the average paid loss ratio in the Southwest Region was 81.6 percent, which was higher than the national average paid loss ratio for the period of 57.5 percent. The region's relatively high average paid loss ratio indicates that insurers may have been less able to cover paid losses and administrative and other expenses from their premiums. The average paid loss ratios were highest in the Higher Risk and Highest Risk categories at 106.7 percent and 97.7 percent, respectively (see Figure 30A). During this five-year period, California had the highest average paid loss ratio by state, reflecting the numerous large and destructive wildfires that California experienced during this five-year period. Over half of the average total premiums and average total paid losses for the region were in California, so insurers' experience in that state had a significant influence on the regional figures.

Figure 30: Southwest Region: (A) Paid Loss Ratios, (B) Claim Frequency, and (C) Claim Severity (2018-2022 Averages) by Regional TLCR Categories



Sources: PCMI Data, NRI (nominal dollar values adjusted for inflation)

The average claim frequency for the Southwest Region during this five-year period was 5.3 percent, which was slightly less than the national average claim frequency of 5.8 percent (see Figure 30B). The highest average claim frequency (6.9 percent) was in the Higher Risk

[95] "Data Visualization, Disaster Declarations for States and Counties," FEMA.

[96] All data in this paragraph concerns homeowners insurers operating in the United States, excluding territories, based on NAIC statutory filings obtained through S&P Global.

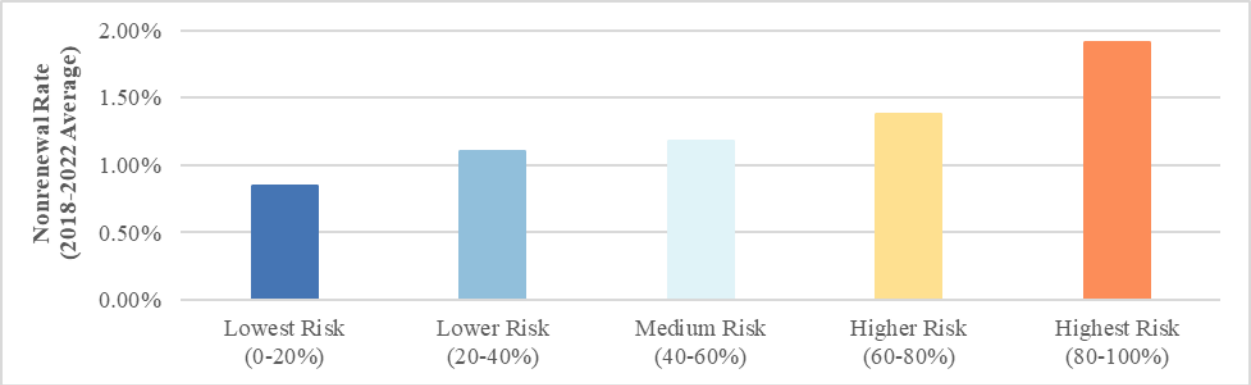
category. The states in the region with the highest average claim frequency were Colorado and New Mexico, which reflects the exposure of those states to relatively frequent severe convective storms.[97]

During the five-year period, the average claim severity in this region was over $26,845, which was about 50 percent higher than the average national claim severity of $18,206 for the same period. The average claim severity in the Highest Risk category was 61.8 percent higher than the average claim severity in the Lowest Risk category during the five-year period (see Figure 30C). In 2018 and 2019, the Higher Risk and Highest Risk categories experienced significant spikes in claim severity, a result of the large number of homes in the region (predominantly in California) that were damaged or destroyed in wildfires in 2017 and 2018 and for which claims were filed in 2018 and 2019.

b) Availability of Insurance and Climate-Related Risk

The average nonrenewal rate for the five-year period for the Southwest Region was 1.28 percent, which was 23.5 percent higher than the national average nonrenewal rate of 1.04 percent for the same period. The average nonrenewal rates during this five-year period were highest in the Higher Risk and Highest Risk categories, at 1.38 percent and 1.92 percent, respectively (see Figure 31).

Figure 31: Southwest Region: Nonrenewal Rates (2018-2022 Average) by Regional TLCR Categories



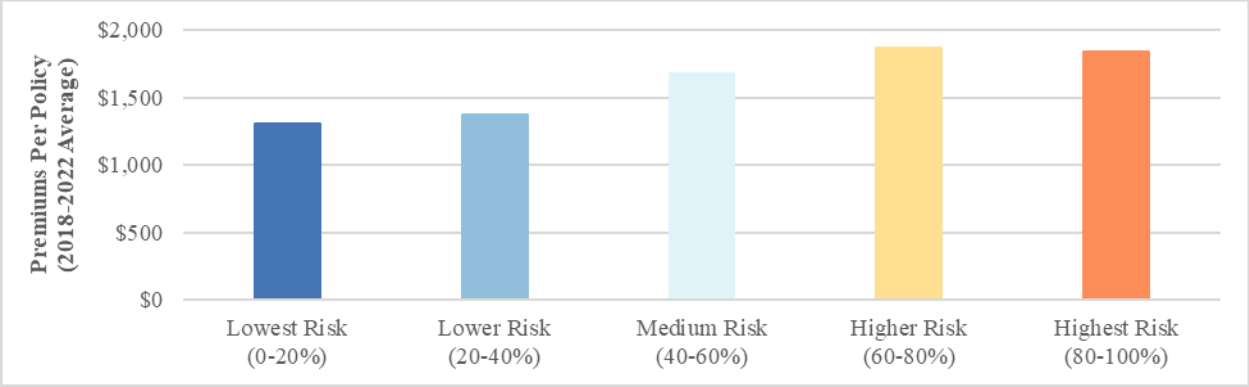
Sources: PCMI Data, NRI

c) Cost of Insurance and Climate-Related Risk

The region's average premiums per policy, adjusted for inflation, for the five-year period were $1,611, which was slightly less than the national average premiums per policy of $1,663. The average premiums per policy were highest in the Higher Risk and Highest Risk categories, which had average premiums per policy of $1,867 and $1,838, respectively (see Figure 32).

[97] *See, e.g.*, "Severe Weather Climatology for Southeast and South Central Colorado," NOAA National Weather Service, https://www.weather.gov/pub/severeWeatherClimatology; "Severe Weather Climatology for New Mexico," NOAA National Weather Service, https://www.weather.gov/abq/svrwxclimo.

Figure 32: Southwest Region: Premiums Per Policy (2018-2022 Average) by Regional TLCR Categories



Sources: PCMI Data, NRI (nominal dollar values adjusted for inflation)

V. CONCLUSION AND RECOMMENDATIONS

This Report highlights the ongoing challenges for some consumers seeking adequate and available homeowners insurance. Based on ZIP Code level data, this Report complements the important work of states and local communities. In particular, the analyses in this Report generally show that the cost of insurance for homeowners increased and the insurance availability declined from 2018 through 2022. The analyses also show that the cost of insurance was higher and the availability of insurance was lower in areas with the highest expected annual losses to buildings from climate-related perils when compared with the areas with the lowest expected annual losses. Publicly available information suggests that these market patterns have continued into 2023 and 2024. FIO will continue to collaborate with state insurance regulators, the NAIC, and other stakeholders to help inform policymakers' efforts to monitor and address challenges in the U.S. homeowners insurance market. FIO offers the following recommendations:

1. **State insurance regulators, the NAIC, and FIO should continue collaboration on the PCMI Data Call on an annual basis.** The Report highlights significant variations in the cost and availability of homeowners insurance and insurers' costs across local areas. Continued annual collection of ZIP Code level homeowners insurance data by state insurance regulators and the NAIC, in collaboration with FIO, will be an important component of efforts by local, state, and federal policymakers and insurance regulators to monitor developments in the homeowners insurance markets across the United States, including with respect to how such markets are being impacted by climate-related disasters and other factors.

2. **State insurance regulators and the NAIC should enhance future PCMI Data Calls to include large residual market insurers, additional data fields and policy forms, and other market segments such as those related to multi-family residential properties.** Obtaining ZIP Code level data from large residual market insurers will provide a more complete assessment of insurance costs and availability in the United States. In addition, the potential future collection of additional data fields and policy forms, as well as other market segments, could help policymakers and state insurance regulators assess challenges in the homeowners and multi-family residential insurance markets.

3. **The NAIC should take additional steps to make the data from their PCMI Data Call available to policymakers and researchers while protecting the confidential nature of any individual insurer data.** The PCMI Data Call is a larger collection with a broader range of information than what was made available to FIO. Making information from the PCMI Data Call available to policymakers and researchers—with appropriate confidentiality restrictions—would enable additional analyses of insurance markets. The data could be used to conduct additional analyses in coordination with other regulators and policymakers. For example, the data could help federal, state, and local governments make more informed decisions on mitigation and resilience projects and investment, helping to identify where these efforts are most needed in light of higher losses and population movement. The data could also inform efforts by federal and state policymakers to evaluate whether and how the public sector could help reduce insurance protection gaps. The data from the PCMI Data

Call, together with FEMA's data on flood insurance, could provide regulators and policymakers with a holistic view of insurance coverage for U.S. homeowners. Also, the data could be used to inform how changes in the cost and availability of homeowners insurance could affect banking and real estate values and the financial position of local economies. In addition, the NAIC and state insurance regulators should work with researchers, academics, and policymakers on data standardization methods and development of best practices for future data collection efforts and analyses.

4. **State and federal regulators and policymakers should continue their efforts to improve public awareness about the importance of adequate homeowners insurance**. State insurance regulators and state and federal policymakers should use the information from the PCMI Data Call to help improve consumer awareness, with the goal of enabling local communities and insurance consumers to better understand their insurance markets, including the benefits of programs relating to pre-disaster mitigation investments in property resilience. Public-private partnerships with the insurance industry and other stakeholder groups can help with this important educational effort.

In order to promote transparency and research, Treasury is releasing a subset of the aggregated data metrics underlying the analysis in the Report on its website.[98] Subject to appropriate confidentiality measures and legal mechanisms, Treasury also plans to share the aggregate ZIP Code level PCMI Data with researchers/academics who are under detail arrangements to FIO.

[98] *See* "Reports & Notices," FIO, https://home.treasury.gov/policy-issues/financial-markets-financial-institutions-and-fiscal-service/federal-insurance-office/reports-notices.

APPENDIX A. GENERAL INSURANCE AND PCMI DATA CALL REFERENCE MATERIALS

1. Common Homeowners Insurance Policy Forms

Policies that are the subject of this Report are shaded in blue below.
Dwelling fire policies (DPs) (single-family, owner-occupied, non-seasonal buildings):
DP-1: Generally provides coverage for the cost of the dwelling structure, plus any attached structures, against specific named perils such as fire and lightning, and may include coverage for windstorms and hail.
DP-2: Typically covers same perils as DP-1, but also offers a broader range of coverage for additional named perils such as falling objects, the weight of snow, and vandalism.
DP-3: Generally offers "all-risk" coverage for a dwelling, plus additional attached structures. It covers all perils except any that are expressly excluded from coverage by name.
Homeowners package policies (HOs) for owner-occupied dwellings with four or fewer family units:
HO-1: Typically offers the narrowest, most basic homeowners insurance coverage. It covers the structure of a policyholder's dwelling but may not cover their personal property or personal liability.
HO-2: Often provides a bit more coverage than an HO-1. It offers broad named perils coverage for a policyholder's dwelling and possessions. It can also cover liability and additional living expenses.
HO-3: Most common homeowners insurance coverage policy. It provides coverage for dwellings and personal property for any peril except those that are specifically excluded in the policy.
HO-5: Similar, yet more comprehensive, version of HO-3. It offers multi-peril coverage except for perils expressly excluded on buildings and personal property.
HO-8: Designed primarily for older homes for which the cost to repair the damaged house (e.g., due to the cost of less common building materials) exceeds the home's actual cash value. Similar to HO-1, this policy provides basic named perils coverage on personal property.
Homeowners package policies for renters, condo and co-op units, and mobile or manufactured homes:
HO-4 (Renter's Insurance): Offers basic insurance to tenants and typically provides named perils coverage for a renter's personal belongings within the dwelling. In some cases, it may also provide liability coverage.
HO-6 (Condo/Co-op Insurance): Sometimes referred to as "walls-in" coverage, it typically provides broad named perils coverage for personal property within the walls of a condominium or cooperative unit, the unit itself, and building items in which the unit owner may have an insurable interest.
HO-7 (Mobile/Manufactured homes): Similar to HO-3, typically provides coverage for mobile or manufactured homes (e.g., RVs, trailers) except for perils expressly excluded in the policy, and broad named perils coverage for personal property.

Source: NAIC[99]

[99] NAIC, *2021 Homeowners Report*, 3-4; Alani Asis, *et al.*, "Types of Homeowners Insurance Policies," *CNN*, January 18, 2024, https://www.cnn.com/cnn-underscored/money/types-of-homeowner-insurance; NAIC, Definitions for State Regulator Property & Casualty Insurance Market Intelligence Data Call (April 22, 2024), 1, https://content.naic.org/sites/default/files/industry-data-call-property-ho-definitions.pdf. (Definitions for State Regulator P&C Data Call).

2. PCMI Data Call Fields Used in this Report

Data Type	Data Fields (in Italics) and Description
Premiums	*Written Premium* measures the amount that policyholders pay for their insurance. Generally, insurers determine the premium amount for a homeowners policy based on: (1) the amount of insurance purchased (typically based on the value of the insured property); (2) the types and characteristics of property covered (e.g., dwelling or personal belongings); (3) the types of perils covered and the risk of loss due to those covered perils; and (4) the specific limits and deductibles a policyholder chooses.[100]
Number of Policies	*Policies in Force at End of Reporting Year* measures the number of policies still active at the end of each reporting year. The reporting year is the calendar year in which the policy was written which, for the PCMI Data Call, was 2018, 2019, 2020, 2021, or 2022.
Paid Claims	*Count of Paid Claims in Reporting Year* measures the number of claims that were closed with payment during each reporting year. Large numbers of claims correspond to large numbers of policyholders affected by events.
Paid Losses	*Losses Paid in Reporting Year* measures the total amount of money paid to policyholders by insurers during each reporting year. High losses might correspond either to large numbers of policyholders affected by events or to a smaller number of policyholders that experienced large losses.
Nonrenewals and Cancellations	*Count of Nonrenewals in Reporting Year* (which includes only the number of existing policies that the insurer chose not to renew the following year for the circumstances permitted under the policy's nonrenewal clause), and *Count of Nonpayment Cancellations in Reporting Year* (which occur when an insurer decides to cancel a policy before the policy period ends because the policyholder failed to pay the premiums due in a timely manner)

Source: FIO, NAIC[101]

[100] NAIC, *2021 Homeowners Report*, 2.

[101] *See* NAIC, Definitions for State Regulator P&C Data Call, 1.

3. State Insurance Rate Regulatory Regimes by Region

Region	Open Rating	Use-and-File	File-and-Use	Flex Band	Prior Approval
Southeast		Kentucky	Arkansas, Florida,[102] Georgia, Virginia		Alabama, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee
Northeast		Vermont	Connecticut, Delaware, D.C., Maine, Massachusetts, New Hampshire, Rhode Island		Maryland, New Jersey, New York, Pennsylvania, West Virginia
Midwest		Illinois, Iowa, Missouri, Wisconsin	Indiana, Michigan, Minnesota, Ohio		
Northern Great Plains	Wyoming		Montana, Nebraska, South Dakota		North Dakota
Southern Great Plains		Oklahoma	Kansas, Texas		
Southwest		Arizona, Utah	Colorado, Nevada, New Mexico		California, Hawaii
Northwest		Idaho	Oregon	Alaska	Washington

Source: NAIC[103]

Open rating: insurer establishes rates with a presumption that they comply with the state's standards and the state regulator only intervenes in limited circumstances.

Use-and-file: insurer releases a product with certain rates while also submitting a rate filing with the state regulator, who may object within a fixed number of days but otherwise the insurer may continue to use the rates.

File-and-use: insurer files a rate request with the state regulator, who has a fixed number of days to review it and object or disallow it, but if the state regulator takes no action within the required time period, then the insurer may implement the rate.

[102] Florida allows insurers to use *either* file and use *or* use-and-file, but if an insurer uses the use-and-file method and the Florida Office of Insurance Regulation disallows the rate, then the insurer must refund the excessive portions of the premiums that it has collected. *See* Fla. Stat. Ann. § 627.062.

[103] NAIC, NAIC Model Laws, Regulations, Guidelines and Other Resources, Rate Filing Methods for Property/Casualty Insurance, Workers' Compensation, Title (Fall 2022), PA-10-1 – PA-10-24; NAIC, NAIC Model Laws, Regulations, Guidelines and Other Resources, Rate Filing Methods for Property/Casualty Insurance, Workers' Compensation, Title (Summer 2021), PA-10-18; NAIC Model Laws, Regulations, Guidelines and Other Resources, Rate Filing Methods for Property/Casualty Insurance, Workers' Compensation, Title (Fall 2022), PA-10-1 – PA-10-22; NAIC, Compendium of State Laws on Insurance Topics, Rate Filing Methods for Property/Casualty Insurance, Workers' Compensation, Title (Fall 2022), II-PA-10-1 – PA-10-22. The NAIC Compendium of State Laws on Insurance Topics, which contains the chapter on Rate Filing Methods for Property/Casualty Insurance, Workers Compensation, Title, may be obtained either through NAIC Publications, https://content.naic.org/account_manager.htm, or through a subscription to Thomas Reuters Practical Compliance.

Flex band: insurer files a rate request with the state regulator and as long as the rate increase is less than a fixed amount, the rate filing generally is treated the same as under file-and-use regulations; however, if the rate increase is at or above the fixed amount, the rate filing generally is treated the same as under prior approval regulations.

Prior approval: insurer files a rate request with a state regulator and may not implement the rate until the state regulator has approved it.

APPENDIX B. RESIDUAL MARKET INFORMATION

1. Number of Residential Policies in State Residual Market Plans, 2018 to 2022

Plans	2018	2019	2020	2021	2022	% Change 2018-2022
Beach Plans						
Alabama	20,910	17,949	16,288	16,507	18,001	-13.91%
Mississippi	20,660	17,671	14,397	12,457	12,052	-41.67%
North Carolina	199,392	201,374	201,178	211,113	218,906	9.79%
South Carolina	21,055	19,509	16,498	15,153	14,715	-30.11%
Texas	202,710	189,935	187,529	194,410	223,925	10.47%
Beach Plans Total	**464,727**	**446,438**	**435,890**	**449,640**	**487,599**	**4.92%**
FAIR Plans plus Florida and Louisiana						
California	119,570	161,395	198,206	226,524	254,478	112.83%
Connecticut	1,804	1,658	1,461	1,315	1,159	-35.75%
Delaware	1,435	1,330	1,272	1,183	1,078	-24.88%
D.C.	188	162	128	106	107	-43.09%
Florida	452,526	463,757	568,051	808,431	1,214,351	168.35%
Georgia	1,709	13,726	12,508	9,307	9,217	439.32%
Hawaii	NA	NA	NA	NA	NA	NA
Illinois	4,390	3,850	2,427	2,014	2,441	-44.40%
Indiana	1,183	1,112	1,041	806	660	-44.21%
Iowa	1,288	1,194	1,120	1,057	794	-38.35%
Kansas	15,307	14,659	13,476	12,564	12,138	-20.70%
Kentucky	8,419	7,821	6,849	5,936	4,989	-40.74%
Louisiana	46,171	41,408	39,671	45,072	146,056	216.34%
Maryland	1,250	1,123	925	836	689	-44.88%
Massachusetts	230,828	221,545	209,342	202,424	197,010	-14.65%
Michigan	18,040	17,283	15,334	15,752	15,270	-15.35%
Minnesota	5,079	4,803	4,399	4,045	3,764	-25.89%
Mississippi	5,369	4,601	4,309	3,361	2,891	-46.15%
Missouri	2,488	2,335	2,088	2,000	1,954	-21.46%
New Jersey	11,911	10,658	9,418	8,423	7,593	-36.25%
New Mexico	10,897	10,498	9,168	8,020	7,409	-32.01%
New York	34,839	31,082	27,756	25,106	20,814	-40.26%
North Carolina	177,002	184,975	193,723	205,650	211,662	19.58%
Ohio	17,309	15,680	13,917	12,151	10,930	-36.85%
Oregon	1,948	1,787	1,669	1,647	1,722	-11.60%
Pennsylvania	13,484	12,543	11,483	10,646	9,462	-29.83%
Rhode Island	15,524	16,889	14,430	13,501	12,859	-17.17%
Texas	104,165	89,913	79,575	72,520	66,488	-36.17%
Virginia	28,946	27,533	25,980	23,953	22,118	-23.59%
Washington	72	82	68	96	116	61.11%
West Virginia	382	343	309	297	276	-27.75%
Wisconsin	5,481	5,254	4,513	4,465	3,822	-30.27%
FAIR Plan Total	**1,339,004**	**1,370,999**	**1,474,616**	**1,729,208**	**2,244,317**	**67.61%**
Total for All Plans	**1,803,731**	**1,817,437**	**1,910,506**	**2,178,848**	**2,731,916**	**51.46%**

Sources: "Insurance Provided by Fair Plans by State," III, https://www.iii.org/table-archive/20793 (archived tables); "Insurance Provided Beach and Windstorm Plans," III, https://www.iii.org/table-archive/21303 (archived tables). See Section III.C for more information on residual markets.

2. Types of Policies and Perils Covered by State Residual Market Plans

Plans	Types of Homeowners Policies, including Extending Coverage Endorsements (E.C. End't)	HOI Perils Covered by Residual Market Plan
Beach or Windstorm Plans		
Alabama	Offered wind/hail/hurricane only policy for condominiums, homes, mobile homes, and commercial businesses located in the Gulf Front, Beach and Seacoast areas of select counties. As of 2017, Alabama's plan is no longer writing new fire, E.C., and theft policies but existing policies were not affected. Every Alabama plan policy is written with a package policy issued by an insurance company that underwrites other coverages, which may include fire.	Wind, hail, and hurricane only
Mississippi	Offered a windstorm and hail policy for 1-4 family residential properties along the coast in select counties.	Windstorm and hail only
North Carolina	Beach Territories (i.e., south and east of the inland waterway, including Outer Banks) can obtain DP-1 and DP-2. Beach and Coastal Territories (i.e., 18 eligible coastal counties) can obtain WH D2 01 (Dwelling Windstorm and Hail only), Homeowner Windstorm and Hail Special Forms HW-3 and HW-6 with HW3234 Endorsement, and Homeowner Special Forms HO-3 and HO-6 with HO3234 Endorsement.	DP forms cover fire, lightning, windstorm, and hail; WH D2 01 covers only windstorm and hail; special forms cover named and multi-perils similar to HO-3 and HO-6 forms.
South Carolina	WHP1 (Dwelling Wind and Hail only policy), WHP10 (Replacement Cost for Principal Single-Family Dwelling Endorsement – requires a separate flood insurance policy), WHM1 (Manufactured Home Wind and Hail only policy), and WHA1 (Condominium Unit Owners Wind and Hail only policy). Coverage is only available in two defined zones in coastal areas.	Wind and hail only
Texas	Dwelling Windstorm policy (requires evidence of flood insurance if in flood plain), TWIA 280 (Condominium Property Form), and endorsements for TWIA 802 (Replacement Cost Coverage A Dwelling) and TWIA 804 (Replacement Cost Coverage A Dwelling – Actual Cash Value Roofs). Only available in the 14 counties along the Gulf Coast.	Wind and hail only
FAIR Plans plus Florida and Louisiana		
California	CFP-1 (equivalent to DP-1)	Fire, lightning, windstorm, and hail
Connecticut	DP-1	Fire, lightning, wind, and hail
Delaware	DP-1	Fire, lightning, windstorm, and hail
D.C.	DP-1, HO-2, HO-4, HO-6, and HO-8	Policies cover named perils
Florida	DP-1, DP-3, HO-3, HO-4, HO-6, MHO-3 (mobile home policy), MHO-4 (mobile home renters policy), DW-2 (dwelling wind only), HW-2 (homeowners wind only), HW-4 (renters wind only), HW-6 (condominium wind only), and MW-2 (mobile home wind only). Personal Lines Account offers multi-peril residential policies throughout the state while the Coastal Account offers wind only and multi-peril residential policies in 35 coastal counties.	Policies cover named perils or multi-perils
Georgia	DP-1, HO-8, and DWH (Dwelling wind and hail only). Wind and hail only policies are available only in the six counties along the coast.	Fire, lightning, wind, and hail
Hawaii	DP-2, HO-2, HO-4, and HO-6	Policies cover named perils or multi-perils
Illinois	DP-1, HO-2, HO-3, HO-4, HO-6, and HO-8	Policies cover named perils or multi-perils.
Indiana	DP-1, DP-2, HO-2, and HO-8	Policies cover named perils or multi-perils.

Plans	Types of Homeowners Policies, including Extending Coverage Endorsements (E.C. End't)	HOI Perils Covered by Residual Market Plan
Iowa	Dwelling Fire policy and HO-8	Fire, lightning, and named perils for HO-8 policies.
Kansas	Did not offer a dwelling policy that covered HOI Perils other than those listed in the Fire, E.C., and VMM column	Fire and lightning only
Kentucky	DP-2, HO-4, HO-6, and HO-8	Policies cover named perils or multi-perils.
Louisiana	DWG-1, DWG-2, DWG-3, HO-2, HO-3, HO-4, HO-6, and HO-8	The DWG-1 to DWG-3 only cover windstorm and hail; other policies cover named perils or multi-perils.
Maryland	DP-1, HO-2, HO-4, HO-6, and HO-8	Policies cover named perils or multi-perils.
Massachusetts	DP-2, DP-3, HO-2, HO-4, HO-6, and HO-8 as well as DP-1 for mobile homes at a fixed location	Policies cover named perils or multi-perils.
Michigan	DP-1, HO-2, HO-3, HO-4, and HO-6	Policies cover named perils or multi-perils.
Minnesota	DP-1 including for mobile homes, HO-4, HO-6, and HO-8	Policies cover named perils or multi-perils.
Mississippi	Dwelling Fire policies, Dwelling Fire policies with E.C. for windstorm and hail permitted except for properties or mobile homes located in three coastal counties	Fire and lightning and with E.C. End't windstorm and hail
Missouri	DP-1	Fire, lightning, windstorm, and hail
New Jersey	DP-1 and DP-2	Fire, lightning, windstorm, and hail
New Mexico	DP-1	Fire, lightning, windstorm, and hail
New York	DP-1 and DP-2; mobile homes can only obtain DP-1	Fire, lightning, windstorm, and hail; DP-2 also covers damage from freezing and weight of ice, snow, or sleet
North Carolina	DP-1, DP-2, DP-2 with DP475 endorsement form, HO-2, HO-3, HO-4, HO-6, and HO-8. Available statewide except for Coastal and Beach Territories covered by the NC beach plan (NC Coastal Property Insurance Pool).	Policies cover named perils or multi-perils.
Ohio	DP-1, HO-2, HO-3, HO-4, HO-6, and HO-8	Policies cover named perils or multi-perils.
Oregon	DP-1	Fire and lightning and, with E.C. End't, wind, and hail
Pennsylvania	DP-1 and DP-2	Fire and lightning, and with E.C. End't, wind, and hail
Rhode Island	DP-1, HO-2, HO-3, HO-4, HO-5, HO-6, and HO-8	Policies cover named perils or multi-perils.
Texas	Offers a Dwelling Policy, a Homeowners Policy, a Tenant Policy, and a Condominium Policy	The policies cover fire, lightning, wind, and hail. However, wind and hail perils are excluded from coverage when the risk is located in the designated catastrophe area eligible for coverage with Texas beach plan (Texas Windstorm Insurance Association).

Plans	Types of Homeowners Policies, including Extending Coverage Endorsements (E.C. End't)	HOI Perils Covered by Residual Market Plan
Virginia	FP-1 (similar to DP-1) and FP-2 (similar to DP-2)	Fire, lightning, wind and hail
Washington	WFP-1 (similar to DP-1	Fire and lightning and, with E.C. End't, wind and hail
West Virginia	DP-1	Fire, lightning, wind, and hail
Wisconsin	HO-8	Policies cover named perils or multi-perils.

Sources: III, Residual Markets; PIPSO, *Compendium of Property Insurance Plans* (2022); Alabama Insurance Underwriting Association (AIUA), Consumer Information, Basic Coverage, https://www.aiua.org/consumer-information/basic-coverages; California FAIR Plan Property Insurance, Dwelling Property Policy Specimen CFP 00 01, July 2017, https://www.cfpnet.com/wp-content/uploads/2020/05/DP0001.pdf; Connecticut FAIR Plan, Policy Forms, Liability Forms, Endorsements and Questionnaires, https://www.ctfairplan.com/policy-forms.html; Delaware FAIR Plan, DP-00-01, Dwelling Property Basic Form, https://www.defairplan.com/documents/DP0001FPDE.pdf; DC Property Insurance Facility (DCPIF), Policies, https://www.dcpif.org/policies; Florida Citizens, Personal Policies, https://www.citizensfla.com/personal-policies; Georgia Underwriting Association (GUA), Comparison of Coverages, https://georgiaunderwriting.com/wp-content/uploads/2018/02/comparison2.pdf; Hawaii Property Insurance Association (HPIA), Forms for Download, https://www.hpiainfo.com/forms-for-download/; Illinois FAIR Plan Association, Coverage Comparison, https://www.illinoisfairplan.com/assets/pdfs/ComparisonCoverage.pdf; Indiana FAIR Plan, Consumers, https://www.indianafairplan.com/consumers.html; Maryland Joint Insurance Association, Policies, https://www.mdjia.org/policies; Michigan Basic Property Insurance Association, About Us, https://www.mbpia.com/about-us; Minnesota FAIR Plan, General Rules, https://www.mnfairplan.org/assets/pdfs/policy-forms/other-docs/WRules.pdf; Mississippi Residential Property Insurance Underwriting Association, Basic Rating Rules and Rates for Use in Insuring One and Two Family Dwellings, Effective December 1, 2014, https://msplans.com/sites/default/files/MRPIUA/Rate%20Manual%2012-1-2014.pdf; Missouri FAIR Plan, Coverages, Policy Forms, and Producer Forms, https://missourifairplan.com/coverages.html; New Jersey Insurance Underwriting Association (NJIUA), Producer Guidelines, June 2013, https://portal.njiua.org/Documents/ProducersGuide.pdf; New York Property Insurance Underwriting Association (NYPIUA), Dwelling Insurance Application Information & Instructions, https://www.nypiua.com/assets/insurance/DWELLING_APPLICATION-Instructions.pdf; North Carolina Joint Underwriting Association (NCJUA) – FAIR Plan - North Carolina Insurance Underwriting Association (NCIUA) – Coastal Property Insurance Pool (NCCPIP), Services and Coverages, https://www.ncjua-nciua.org/html/svcs_cov.htm; NCJUA-NCCPIP, Operational Documents, Producing Agents and Brokers Manual of Rules and Procedures, NCIUA-NCCPIP, Manual of Rules and Procedures, June 1, 2024, https://www.ncjua-nciua.org/html/operationaldocs.htm; Ohio FAIR Plan (OFP), Coverages Available from OFP, https://www.ohiofairplan.com/Public/Coverages.aspx; Oregon FAIR Plan, Insurance Coverages, https://orfairplan.com/agents/insurance-coverages/; Insurance Placement Facility of Pennsylvania, Coverages provided, https://www.pafairplan.com/Page?pageid=coverage; South Carolina Wind and Hail Underwriting Association (SCWHUA), Forms, https://www.scwind.com/forms.html; SCWHUA, Q&A, https://www.scwind.com/qanda.html; Texas FAIR Plan Association, Sample Policy Forms and Endorsements, https://www.texasfairplan.org/about-us/sample-policy-forms-and-endorsements/; Texas Wind Insurance Association (TWIA), About Us Hub, https://www.twia.org/about-us/; TWIA, Forms, Sample Policies, Endorsements, Certificates, https://www.twia.org/forms-sample-policies-endorsements-certificates/; Virginia Property Insurance Association, Policy Forms, https://www.vpia.com/producers/policy-forms/; Washington FAIR Plan Association (WFP), Customers, https://www.wafairplan.com/customers/; WFP, Applications, https://www.wafairplan.com/applications/; West Virginia Essential Property Association, Coverages Provided, https://www.wvfairplan.com/Page?pageid=coverage.

APPENDIX C. ADDITIONAL REGIONAL ANALYSES

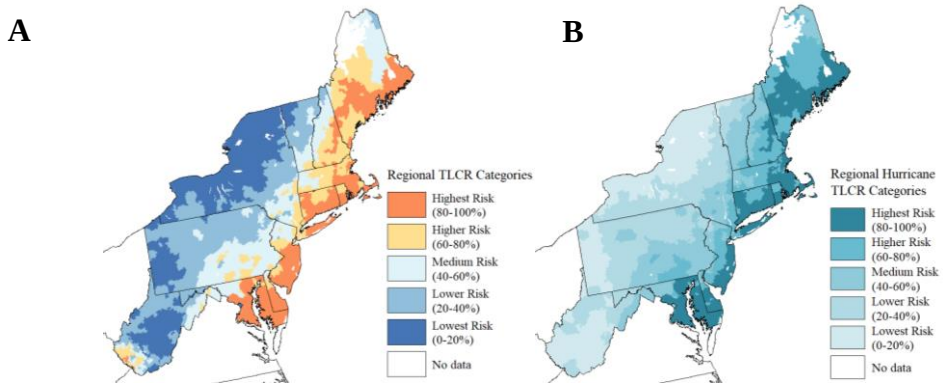
1. Northeast Region

The Northeast Region consists of twelve states: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and West Virginia, as well as the District of Columbia. The Northeast is the second most populous region in the country (66.7 million in 2022), with a population that grew by 1.6 percent between 2018 and 2022, slightly less than the national rate of 1.9 percent.[104] The number of single-family homes grew by 2.6 percent from 2018 to 2022 and comprise about 61.4 percent of the housing stock.[105] T

Hurricane risk is the largest contributor to the Northeast Region's TLCR Categories, though it is affected less by hurricanes than the Gulf and southern coasts. Hurricane Ida in 2021 caused the most damage between 2018 and 2022.

Figure 33A illustrates which ZIP Codes in the Northeast Region are in each of the Regional TLCR Categories for all the HOI Perils. Figure 33B illustrates which are in each of the Regional Hurricane TLCR Categories, which also shows the region's highest hurricane risk is along the coast. For comparison, if ZIP Codes were split according to the *national* hurricane risk categories, only 181 ZIP Codes would be labeled as Highest Risk for hurricanes (as compared to the 1,476 ZIP Codes shown in Figure 33B). More generally, on a national basis, approximately one-third of the ZIP Codes in the Northeast Region are in the Lowest Risk category (see Figures 11 and 12).

Figure 33: Northeast Region: (A) Regional TLCR Categories and (B) Regional Hurricane TLCR Categories by ZIP Code



Source: NRI

[104] U.S. Census Bureau, "ACS Table DP05" (2018-2019 and 2021-2022 ACS 1-Year Estimates Data Profiles); U.S. Census Bureau, "P1 Decennial Census Total Population: 2020 DEC 118th Congressional District Summary File," available through https://data.census.gov/table/DECENNIALDHC2020.P1 (Decennial Table P1).

[105] U.S. Census Bureau, "ACS Table B25024" (2022 ACS 5-Year Estimates Detailed Tables).

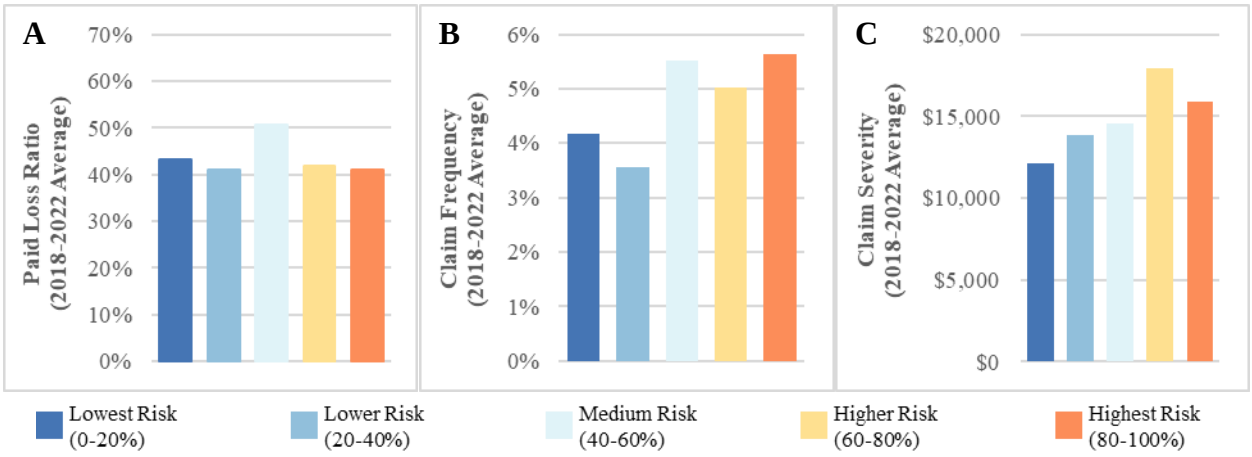
[106] USGCRP, *NCA5*, Chapter 21. Remainder of paragraph also sourced from NCA5.

Over 460 homeowners insurers operated in the region in 2022.[107] In 2022, the top 10 homeowners insurers in the region wrote 31.9 percent of premiums, a slight increase from 2018. Regional Insurers wrote about a third of premiums, including 13.5 percent by Local Insurers.

a) Insurance Losses and Climate-Related Risk

Insurers in the Northeast Region during the five-year period had a paid loss ratio which averaged 43.6 percent, below the national average paid loss ratio of 57.5 percent. The highest average paid loss ratios for the five-year period (see Figure 34A) were in the Medium Risk category (50.5 percent) and the Lowest Risk category (43.1 percent). The Highest Risk category and the Higher Risk category had average paid loss ratios for the period of 41.1 percent and 42.0 percent.

Figure 34: Northeast Region: (A) Paid Loss Ratios, (B) Claim Frequency, and (C) Claim Severity (2018-2022 Averages) by Regional TLCR Categories



Sources: PCMI Data, NRI (nominal dollar values adjusted for inflation)

Over the five-year period the average claim frequency was 4.8 percent, which is lower than the national average claim frequency of 5.8 percent. Average claim frequency ranged from 3.6 percent in the Lower Risk category to 5.6 percent in the Highest Risk category (see Figure 34B). Average claim severity was higher in the Higher Risk and Highest Risk categories than in the other categories (see Figure 34C). In the two highest categories, the average claim frequency was 5.3 percent and the average claim amount was $16,911 per claim. In the two lowest risk categories, the average claim frequency was 3.9 percent, and the average claim size was $12,994 per claim.

b) Availability of Insurance and Climate-Related Risk

The Northeast Region had an average nonrenewal rate for the five-year period of 0.57 percent, which is lower than the national average of 1.04 percent, which indicates the relative availability of insurance in the region. However, differences in availability existed across the region and

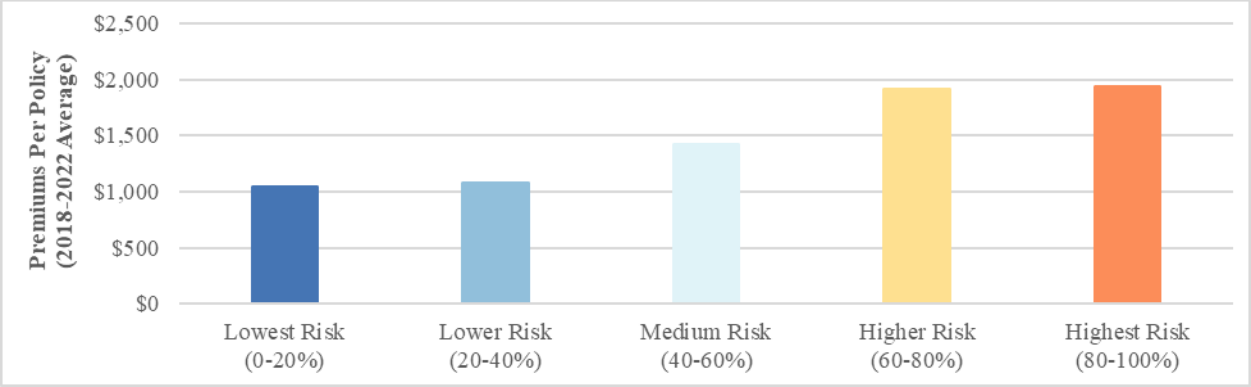
[107] Data in this paragraph is from NAIC statutory filings obtained through S&P Global Market Intelligence (S&P Global), presented on a statutory accounting basis. National totals exclude U.S. territories.

average nonrenewal rates generally were higher in the Highest Risk and Higher Risk categories (0.72 percent and 0.69 percent, respectively), compared to an average rate of 0.49 percent for the three lower risk categories.

c) Cost of Insurance and Climate-Related Risk

In the Northeast Region, the average premiums per policy for the five-year period were $1,480, about 10 percent lower than the national average of $1,663. The average premiums per policy for the five-year period in the Highest Risk category ($1,936) were nearly twice as high as in the Lowest Risk category ($1,049) (see Figure 35).

Figure 35: Northeast Region: Premiums Per Policy (2018-2022 Average) by Regional TLCR Categories



Sources: PCMI Data, NRI (nominal dollar values adjusted for inflation)

2. Northern Great Plains Region

The Northern Great Plains Region consists of five states: Montana, Nebraska, North Dakota, South Dakota, and Wyoming. The region's population was 5.4 million in 2022 and has been growing faster than the national rate since 2018 (2.9 percent vs. 1.9 percent).[108] The number of single-family homes grew 2.4 percent from 2018 to 2022 and comprised about 72 percent of the housing stock.[109] The Northern Great Plains Region experiences several major climate perils, including severe convective storms, winter storms, wildfire, droughts, and floods. Between 2018 and 2022, the Northern Great Plains was most impacted by wildfires, severe convective storms, and winter storms, including a "Bomb Cyclone" in March 2019 that caused $1 billion in damages in Nebraska alone and a May 2022 derecho that affected most of the region.[110] Severe

[108] U.S. Census Bureau, "ACS Table B25024" (ACS 1-Year Estimate Detailed Tables for 2018, 2019, 2021, and 2022; Table Notes; 2020 ACS 5-Year Estimates Detailed Tables).

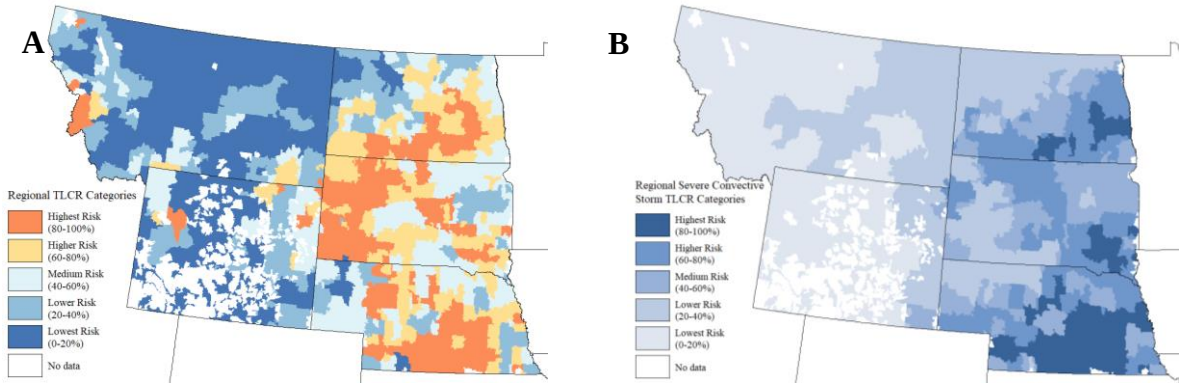
[109] U.S. Census Bureau, "ACS Table B25024" (2022 ACS 5-Year Estimates Detailed Tables).

[110] FEMA, "Disasters Declarations"; "2019 Bomb Cyclone," NOAA National Weather Service, March 13, 2019, https://www.weather.gov/bou/BombCycloneMarch13th2019#; Makenzie Huber, "Spring 2022 Derecho Cost $2.8 Billion, NOAA Says. Some Damage Won't Be Fixed Until 2024," *South Dakota Searchlight*, January 17, 2023, https://southdakotasearchlight.com/2023/01/17/may-2022-derecho-cost-billion-dollars-noaa-damage-fixed-2024/.

convective storms are the region's predominant peril in terms of expected losses, particularly in North Dakota, South Dakota, and Nebraska.

Figure 36A illustrates which ZIP Codes in the Northern Great Plains Region are in each of the Regional TLCR Categories for all HOI Perils. Figure 36B illustrates which are in each of the Regional Severe Convective Storm TLCR Categories. On a national basis, over 40.9 percent of the region's ZIP Codes are in the Highest Risk category, and another 34.4 percent are in the Higher Risk category (see Figures 11 and 12).

Figure 36: Northern Great Plains Region: (A) Regional TLCR Categories and (B) Regional Severe Convective Storm TLCR Categories by ZIP Code



Source: NRI

In 2022, over 160 homeowners insurers operated in the Northern Great Plains.[111] Between 2018 and 2022 the region's homeowners insurance market became less concentrated, with the top 10 homeowners insurers' market share declining from 54.8 percent in 2018 to 53.6 percent in 2022. In 2022, Regional Insurers wrote 12.4 percent of premiums in the region, including 4.0 percent written by Local Insurers.

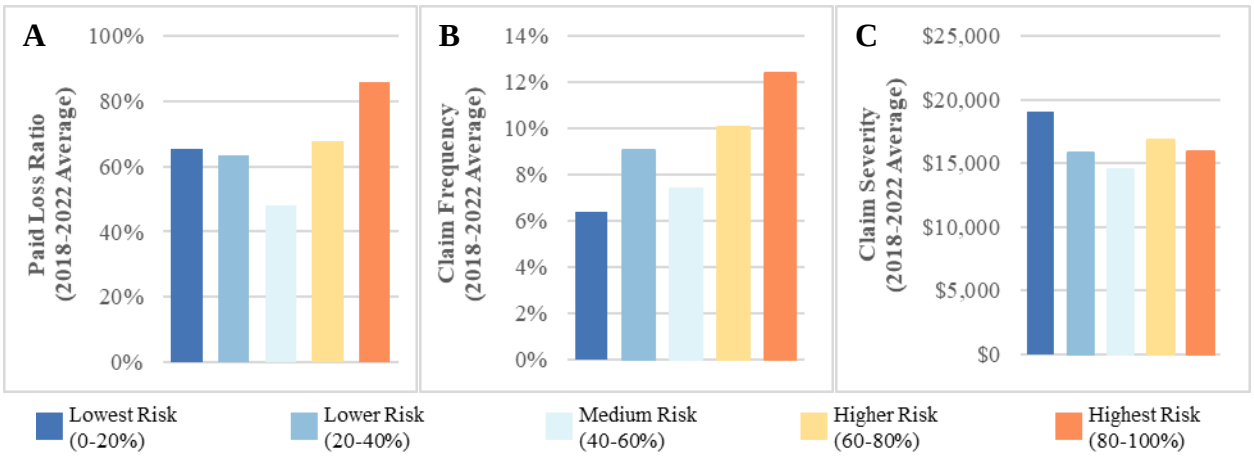
a) Insurance Losses and Climate-Related Risk

The average paid loss ratio for the five-year period varied across risk categories and states within the region (see Figure 37C). The average paid loss ratio for the five-year period was the highest in the Highest Risk category (85.9 percent), which was likely due in part to a spring derecho that impacted the region in 2022.[112]

[111] All data in this paragraph concerns homeowners insurers operating in the United States, excluding territories, based on NAIC statutory filings obtained through S&P Global.

[112] Huber, "Spring 2022 Derecho Cost $2.8 Billion."

Figure 37: Northern Great Plains Region: (A) Paid Loss Ratios, (B) Claim Frequency, and (C) Claim Severity (2018-2022 Averages) by Regional TLCR Categories

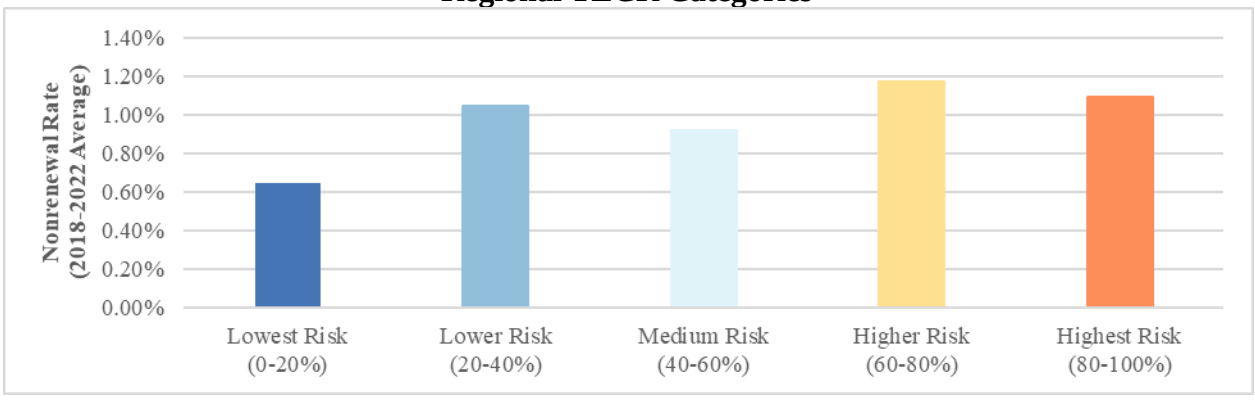


Sources: PCMI Data, NRI (nominal dollar values adjusted for inflation)

b) Availability of Insurance and Climate-Related Risk

The average nonrenewal rate for the five-year period for the region was 0.98 percent, similar to the national average nonrenewal rate of 1.04 percent. The average nonrenewal rates were similar across the top four risk categories at around 1.00 percent (see Figure 38).

Figure 38: Northern Great Plains Region: Nonrenewal Rates (2018-2022 Average) by Regional TLCR Categories

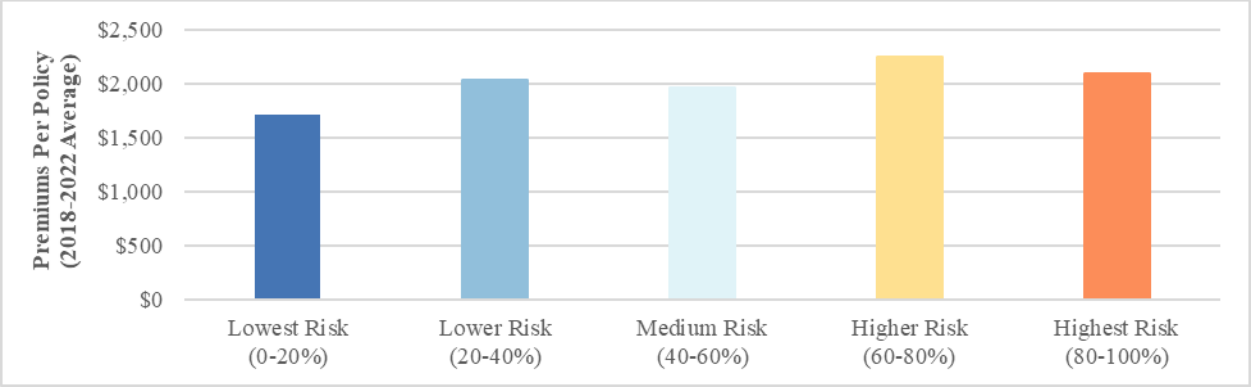


Sources: PCMI Data, NRI

c) Cost of Insurance and Climate-Related Risk

In the Northern Great Plains Region, the average premiums per policy for the five-year period were $2,009, over 20 percent above the national average of $1,663. The average premiums per policy for the five-year period for the region ranged from $1,709 in the Lowest Risk category to $2,252 in the Higher Risk category (see Figure 39).

Figure 39: Northern Great Plains Region: Premiums Per Policy (2018-2022 Average) by Regional TLCR Categories



Sources: PCMI Data, NRI (nominal dollar values adjusted for inflation)

3. Southern Great Plains Region

The Southern Great Plains Region consists of three states: Kansas, Oklahoma, and Texas. The region's population was about 37.0 million in 2022, an increase of 4.0 percent from 2018, more than twice as fast as the nation's growth rate.[113] The number of single-family homes grew 7.3 percent between 2018 and 2022 and comprise 69 percent of the housing stock.[114] The Southern Great Plains Region faces significant risks from a variety of major perils, including severe convective storms, wildfires, droughts, and flooding. Tornado Alley cuts through Oklahoma and Texas, and it creates optimal conditions for severe convective storms.[115] Although severe convective storms are the predominant peril in the Southern Great Plains Region in terms of expected losses, there are areas along the Texas coast at moderate to high risk for hurricanes.

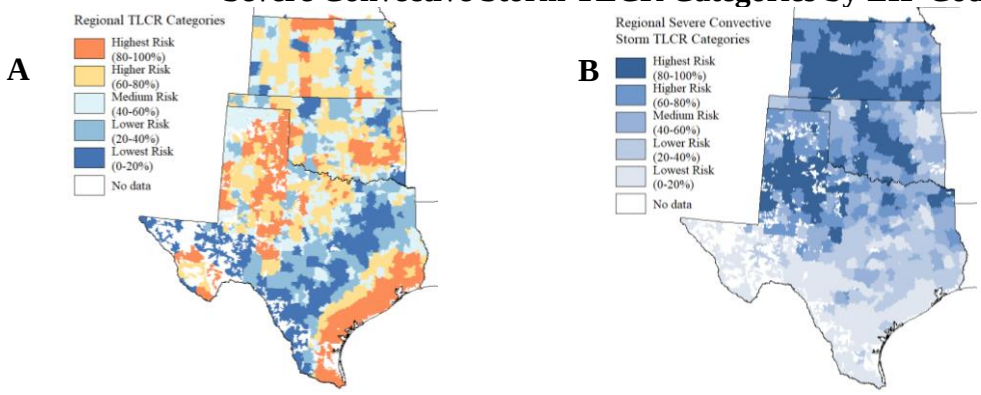
Figure 40A illustrates which ZIP Codes in the Southern Great Plains Region are in each of the Regional TLCR Categories for all the HOI Perils. Figure 40B illustrates which are in each of the Regional Severe Convective Storm TLCR Categories. On a national basis, over 44.7 percent of the region's ZIP Codes fall in the Highest Risk category, and another 31.8 percent are in the Higher Risk category (see Figures 11 and 12).

[113] U.S. Census Bureau, "ACS Table DP05" (2018-2019 and 2021-2022 ACS 1-Year Estimates Data Profiles).

[114] U.S. Census Bureau, "ACS Table B25024" (2022 ACS 5-Year Estimates Detailed Tables).

[115] USGCRP, *NCA5*, Chapter 26. *See, also* "Air Masses," NOAA, last updated June 5, 2023.

Figure 40: Southern Great Plains Region: (A) Regional TLCR Categories and (B) Regional Severe Convective Storm TLCR Categories by ZIP Code



Source: NRI

In 2022, over 260 homeowners insurers operated in the Southern Great Plains Region.[116] The market share of the top 10 homeowners insurers increased from 43.5 percent in 2018 to 51.4 percent in 2022. The Southern Great Plains has the second highest presence of Regional Insurers after the Southeast. In 2022, Regional Insurers wrote 37.5 percent of premiums in the region, including 31.3 percent written by Local Insurers.

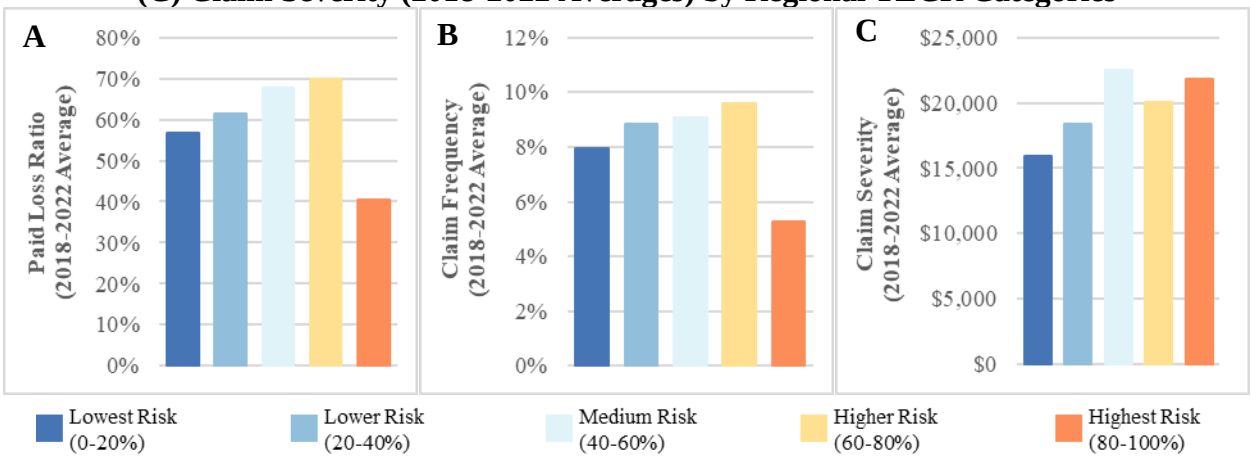
a) Insurance Losses and Climate-Related Risk

During the five-year period, the average paid loss ratio varied across risk categories and states in the Southern Great Plains Region. The region's average paid loss ratio was 59.2 percent, which was similar to the national average of 57.5 percent. The highest paid loss ratio on average over the five-year period was in the Higher Risk category (69.9 percent), and the lowest paid loss ratio was in the Highest Risk category (40.4 percent) (see Figure 41A). During this five-year period, Texas was hit by a significant number of severe convective storms and four hurricanes/tropical storms as well as Winter Storm Uri.[117] These disasters contributed to Texas having a higher paid loss ratio in each year during this five-year period than Kansas and Oklahoma.

[116] All data in this paragraph concerns homeowners insurers operating in the United States, excluding territories, based on NAIC statutory filings obtained through S&P Global.

[117] "Major South Texas Storm Events," NOAA National Weather Service, https://www.weather.gov/crp/stormhistory; "Insurance Companies Sue Texas Power Grid Operator Over 2021 Winter Storm Losses," *Insurance Journal*, January 7, 2022, https://www.insurancejournal.com/news/southcentral/2022/01/07/648413.htm (Winter Storm Uri in 2021 resulted in about 500,000 claims and over $10 billion in estimated losses).

Figure 41: Southern Great Plains Region: (A) Paid Loss Ratios, (B) Claim Frequency, and (C) Claim Severity (2018-2022 Averages) by Regional TLCR Categories



Sources: PCMI Data, NRI (nominal dollar values adjusted for inflation)

The average claim frequency for the five-year period for the region was 8.2 percent, which was over 40 percent higher than the national average of 5.8 percent, reflecting the prevalence of severe convective storms. The three middle risk categories had roughly the same average claim frequency of about 9.2 percent (see Figure 41B). Claim frequency appears to have driven underwriting results, as demonstrated by the average paid loss ratio (see Figure 41A), with the highest average claim frequency in the Higher Risk category of 9.6 percent. The region's average claim severity was $19,739, which was over 8 percent higher than the national average of $18,206 (see Figure 41C). Average claim severity for the period ranged from $15,945 in the Lowest Risk category to $22,502 for the Medium Risk category.

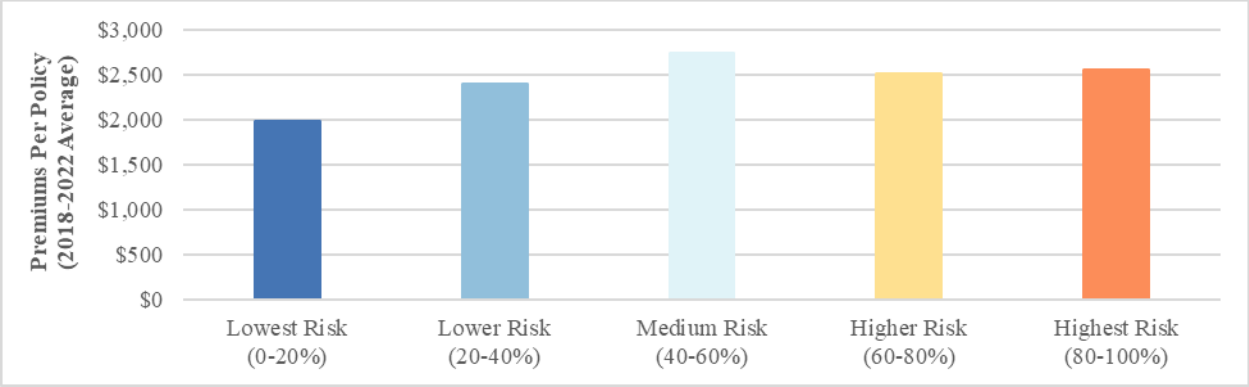
b) Availability of Insurance and Climate-Related Risk

Texas insurer data did not include information on renewals and cancellations. The average nonrenewal rate for the five-year period in Kansas and Oklahoma was 0.71 percent. Low levels of nonrenewals suggest that insurance remained largely available in those two states.

c) Cost of Insurance and Climate-Related Risk

In the Southern Great Plains Region, the average premiums per policy for the five-year period were $2,441, which was over 45 percent higher than the national average of $1,663 (see Figure 42). The premiums per policy were relatively similar on average across the four higher risk categories with the Lowest Risk category paying on average $500 less per year.

Figure 42: Southern Great Plains: Premiums Per Policy (2018-2022 Average) by Regional TLCR Categories



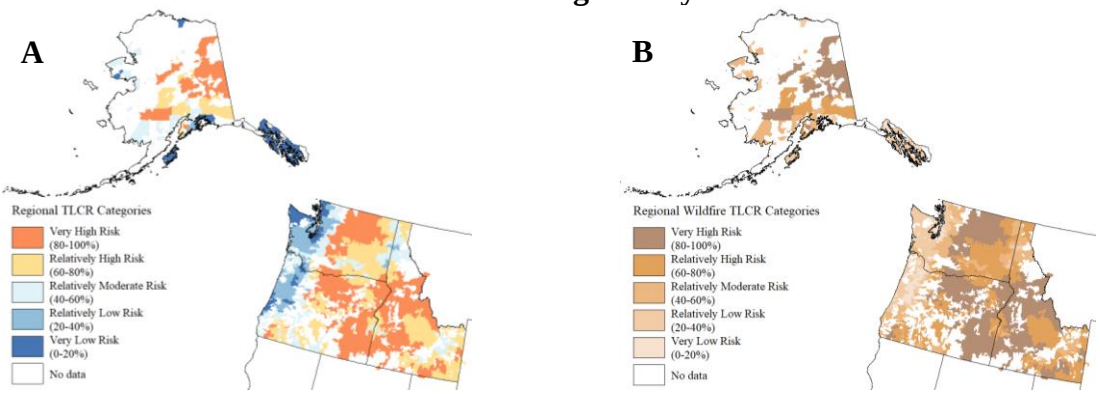
Sources: PCMI Data, NRI (nominal dollar values adjusted for inflation)

4. Northwest Region

The Northwest Region consists of four states: Alaska, Idaho, Oregon, and Washington. The Northwest Region's population grew 3.4 percent from 2018 to reach 14.7 million in 2022, higher than the nation's 1.9 percent growth rate.[118] The number of single-family homes grew 5.5 percent from 2018 to 2022 and comprised 68.5 percent of the housing stock. The Northwest Region has experienced increasingly frequent and destructive wildfires.

Figure 43A illustrates which ZIP Codes in the Northwest Region are in each of the Regional TLCR Categories for all HOI Perils. Figure 43B illustrates which are in each of the Regional Wildfire TLCR Categories. On a national basis, about two-thirds of the region's ZIP Codes are in the Lowest Risk category, while about one third are in the Lower Risk to Highest Risk categories (see Figures 11 and 12).

Figure 43: Northwest Region: (A) Regional TLCR Categories and (B) Regional Wildfire TLCR Categories by ZIP Code



Source: NRI

[118] U.S. Census Bureau, "ACS Table DP05" (2018-2019 and 2021-2022 ACS 1-Year Estimates Data Profiles). Remainder of data in this paragraph from same source.

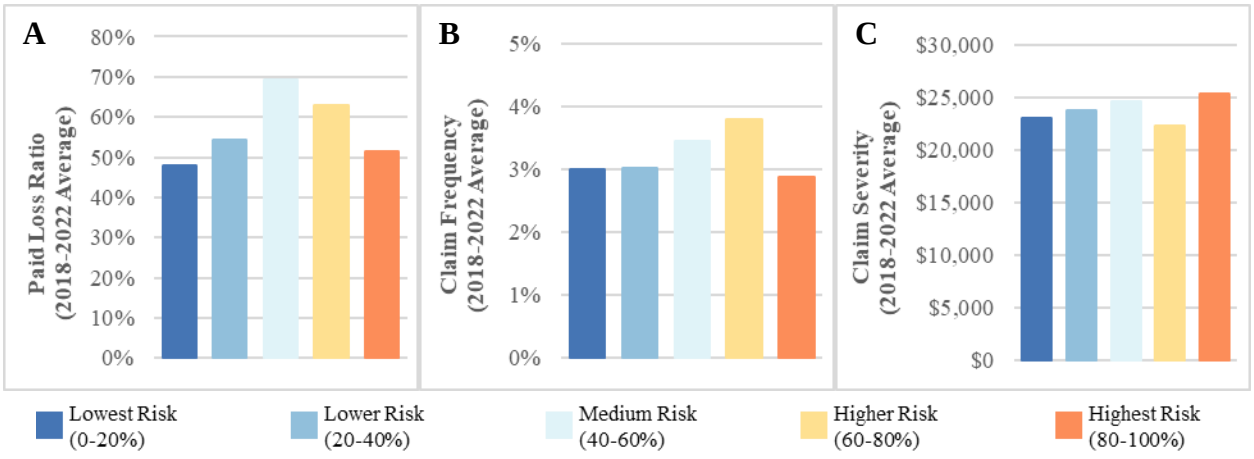
Wildfires have been the most impactful events in the region between 2018 and 2022.[119] Seventy wildfires led to disaster declarations, the vast majority coming from Oregon and Washington. Wildfires in the Northwest Region burned an average of 2.8 million acres annually during this five-year period.[120] The most destruction to homes occurred in 2020, when over 2,270 residences in Oregon were destroyed by wildfires. The largest fires in terms of economic losses were in Oregon: the 2018 Klondike Fire ($105 million in damages), the 2021 Bootleg Fire ($101 million in damages), and the 2022 Cedar Creek Fire ($134 million in damages).[121]

In 2022, over 180 homeowners insurers operated in the Northwest Region.[122] The top 10 homeowners insurers held a combined market share of 49.5 percent in 2022, increasing from 48.5 percent in 2018. Regional Insurers wrote 9.9 percent of premiums in the Northwest Region, including 3.7 percent written by Local Insurers.

a) Insurance Losses and Climate Related-Risk

Insurers in the Northwest Region have generally been able to cover paid losses from their premiums as measured by the average paid loss ratio for the five-year period of 57.1 percent (see Figure 44A). The average paid loss ratio for all risk categories during this period ranged from 47.8 percent for the Lowest Risk category to 69.3 percent for the Medium Risk category.

Figure 44: Northwest Region: (A) Paid Loss Ratios, (B) Claim Frequency, and (C) Claim Severity (2018-2022 Averages) by Regional TLCR Categories



Sources: PCMI Data, NRI (nominal dollar values adjusted for inflation)

[119] *See* FEMA, "Disaster Declarations."

[120] NICC, *2018 Wildland Fire Report*, 4, 41, 43, 48; NICC, *2019 Wildland Fire Report*, 7, 9, 41, 43, 47, 49; NICC, *2020 Wildland Fire Report*, 6, 35, 38, 43, 45; NICC, *2021 Wildland Fire Report*, 7, 37, 39, 44, 46; NICC, *2022 Wildland Fire Report*, 6, 37, 39, 44, 46.

[121] "Data Visualization, Disaster Declarations for States and Counties," FEMA, https://www.fema.gov/data-visualization/disaster-declarations-states-and-counties.

[122] All data in this paragraph concerns homeowners insurers operating in the United States, excluding territories, based on NAIC statutory filings obtained through S&P Global.

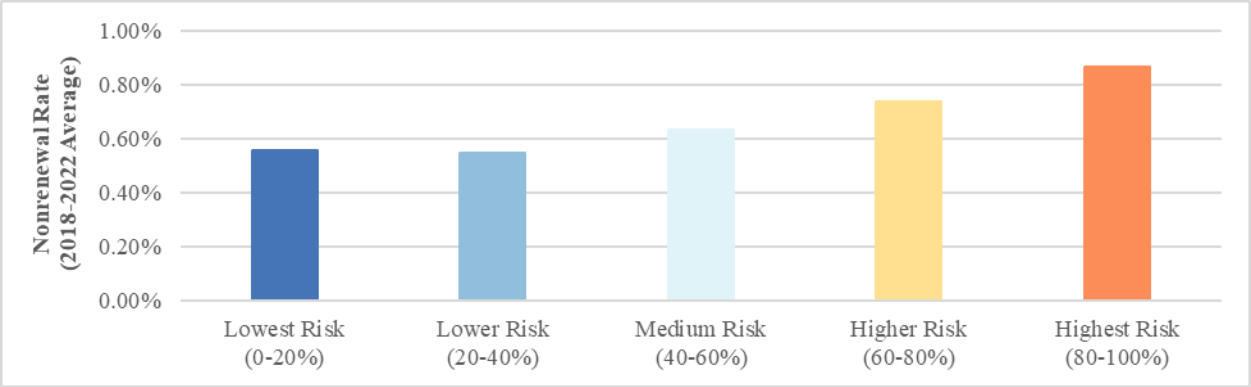
Average claim frequency for the five-year period for the region was 3.2 percent, or about 45 percent below the national average of 5.8 percent. The highest average claim frequency was in the Higher Risk category at 3.8 percent (see Figure 44B).

Wildfires are relatively infrequent events that may cause severe damages. The average claim severity for the five-year period for the region was $23,789, or over 30 percent above the national average of $18,206. The Highest Risk category and the Medium Risk category had the highest average claim severity at $25,326 and $24,574, respectively (see Figure 44C). Average claim severity varied by state, with Alaska having the highest and Idaho the lowest. In 2019, wildfires burned almost 2.5 million acres in Alaska, over half of the total acres burned by wildfires in the entire United States that year.[123]

b) Availability of Insurance and Climate-Related Risk

For the Northwest Region, the average nonrenewal rate for the five-year period was 0.67 percent, over 35 percent below the national average nonrenewal rate of 1.04 percent. The highest average nonrenewal rates for the period were in the Higher Risk and Highest Risk categories, which were 0.74 percent and 0.86 percent, respectively (See Figure 45).

Figure 45: Northwest Region: Nonrenewal Rates (2018-2022 Average) by Regional TLCR Categories



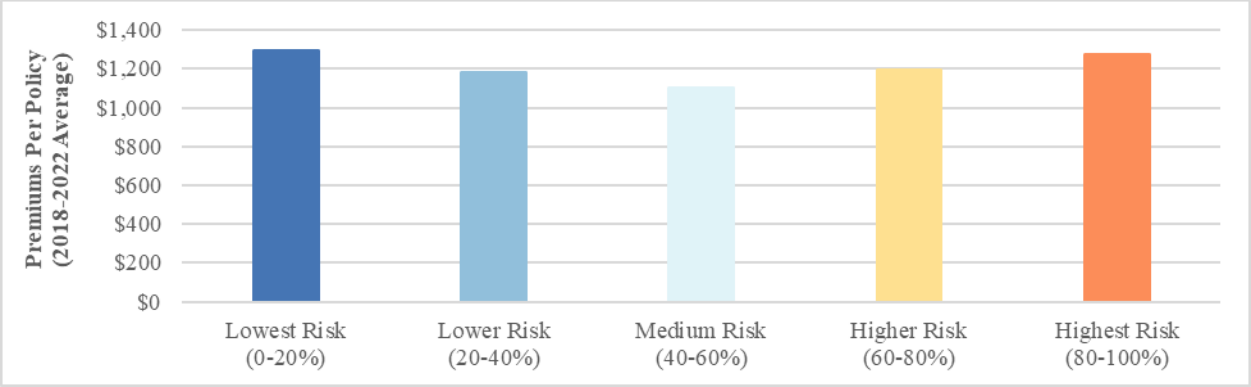
Sources: PCMI Data, NRI

c) Cost of Insurance and Climate-Related Risk

The average premiums per policy for the period were $1,210, which was about 30 percent below the national premiums per policy for the five-year period (see Figure 46). The average premiums per policy for the five-year period were highest in the Lowest Risk and Highest Risk categories, which had average premiums per policy of $1,297 and $1,277, respectively.

[123] NICC, *2019 Wildland Fire Report*, 9.

Figure 46: Northwest Region: Premiums Per Policy (2018-2022 Average) by Regional TLCR Categories



Sources: PCMI Data, NRI (nominal dollar values adjusted for inflation)

APPENDIX D. SUPPORTING UNDERLYING METRICS

To promote transparency and research, Treasury is releasing a large subset of the aggregated ZIP code level data metrics supporting the analyses in the Report ("Supporting Underlying Metrics") which, together with this Report, is available here: https://home.treasury.gov/policy-issues/financial-markets-financial-institutions-and-fiscal-service/federal-insurance-office/reports-notices. Treasury expects that this new, granular, nationwide dataset will provide useful information to stakeholders.

The Supporting Underlying Metrics are presented at the ZIP Code level, by year. To protect the privacy of insurers and homeowners, the Supporting Underlying Metrics include only ZIP Codes with information from at least 10 insurers or at least 50 policies in each ZIP Code. These limits reduce the total number of policies by 0.6 percent and ZIP Codes by 22 percent from the sample underlying the Report.

For more details regarding collection, review, validation, and limitations of the PCMI Data, see Section II. Using larger groupings of data allows for greater statistical confidence than would outcomes for highly granular areas, such as individual or small groups of ZIP Codes. Accordingly, due to the sample size of the data and given that the analyses use averages calculated over large numbers of aggregated ZIP Codes, Treasury deems the data of sufficient quality to support the aggregate-level analyses conducted for this Report. For more details regarding the Supporting Underlying Metrics, see link above.