Draft date: 10/21/2026

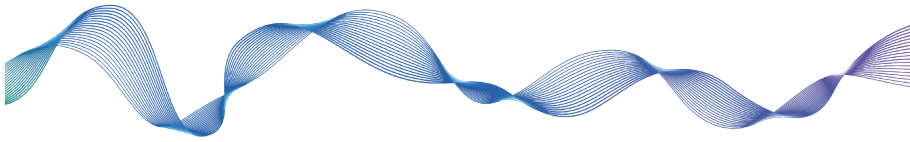
2026 Fall National Meeting
Dallas, Texas

CASUALTY ACTUARIAL AND STATISTICAL (C) TASK FORCE
Monday, November 16, 2026
9:30 – 11:00 a.m.
Convention Center—Grapevine A123—Level 3

ROLL CALL

Angela L. Nelson, Chair	Julie Lederer, Chair	Missouri
Sandra Darby, Vice Chair	Sandra Darby, Vice Chair	Maine
Mark Fowler	Charles Hale	Alabama
Heather Carpenter	Heather Carpenter	Alaska
Ricardo Lara	Tina Shaw	California
Joshua Hershman	Wanchin Chou	Connecticut
Karima M. Woods	David A. Christhilf	District of Columbia
Michael Yaworsky	Richie Frederick	Florida
Holly W. Lambert	Lawrence Steinert	Indiana
Doug Ommen	Travis Grassel	Iowa
Vicki Schmidt	Nicole Boyd	Kansas
Timothy J. Temple	Nichole Torblaa	Louisiana
Marie Grant	Aaron Levine	Maryland
Anita G. Fox	Kevin Dyke	Michigan
Julia Dreier	Phil Vigliaturo	Minnesota
Eric Dunning	Nguyen Thai	Nebraska
Ned Gaines	Gennady Stolyarov	Nevada
D.J. Bettencourt	Sean Rosene	New Hampshire
Susan Ochs	Susan Ochs	New Jersey
Remedio C. Mafnas	Maryann Borja-Arriola	N. Mariana Islands
Judith L. French	Tom Botsko	Ohio
Glen Mulready	Andy Schallhorn	Oklahoma
TK Keen	Eric Bredeson	Oregon
Michael Humphreys	Michael McKenney	Pennsylvania
Michael Wise	Will Davis	South Carolina
Amanda Crawford	Nicole Elliott	Texas
Kaj Samsom	Rosemary Raszka	Vermont
Patty Kuderer	William Wilder	Washington
Erin K. Hunter	Ellen Potter	West Virginia

NAIC Support Staff: Kris DeFrain/Roberto Perez/Sam Kloese



AGENDA

1. Consider Adoption of its Oct. 13, Sept. 2, and Summer National Meeting Minutes—*Julie Lederer (MO)*	Attachments One, Two and Three
2. Consider Adoption of the Reports of its Working Groups	
A. Actuarial Opinion (C) Working Group—*Miriam Fisk (TX)*	Attachment Four
B. Statistical Data (C) Working Group—*Brad Gerling (MO)*	Attachment Five
3. Consider Adoption of its White Paper on Homeowners Rate Regulation and Cross-State Subsidization—*Julie Lederer (MO)*	Attachment Six
4. Discuss 2027 Work Plan—*Julie Lederer (MO)*	
5. Hear Liaison Reports—*Julie Lederer (MO)*	
6. Hear Updates on Activities and Research from Professional Actuarial Associations—*Julie Lederer (MO)*	
7. Discuss Any Other Matters Brought Before the Task Force —*Julie Lederer (MO)*	
8. Adjournment	

Draft: 10/27/26

Casualty Actuarial and Statistical (C) Task Force
Virtual Meeting
October 13, 2026

The Casualty Actuarial and Statistical (C) Task Force met Oct. 13, 2026. The following Task Force members participated: Angela L. Nelson, Chair, represented by Julie Lederer (MO); Sandra Darby, Vice Chair (ME); Mark Fowler represented by Charles Hale (AL); Ricardo Lara represented by Mitra Sanandajifar and Tina Shaw (CA); Joshua Hershman represented by Wanchin Chou and Christian Citarella (CT); Michael Yaworsky represented by Peshala Disanayaka (FL); Doug Ommen represented by Caden Davenport (IA); Holly W. Lambert represented by Lawrence Steinert (IN); Vicki Schmidt represented by Nicole Boyd (KS); Timothy J. Temple represented by Nichole Torblaa (LA); Marie Grant represented by Walter Dabrowski (MD); Anita G. Fox represented by Kevin Dyke (MI); Julie Dreier represented by Phil Vigliaturo (MN); Eric Dunning represented by Nguyen Thai (NE); Ned Gaines represented by Gennady Stolyarov (NV); Judith L. French represented by Thomas Kaiser (OH); Glen Mulready represented by Andy Schallhorn (OK); TK Keen represented by Brian Fjeldheim (OR); Michael Humphreys represented by Michael McKenney (PA); Amanda Crawford represented by Nicole Elliott and Miriam Fisk (TX); Kaj Samsom represented by Rosemary Raszka (VT); and Erin K. Hunter represented by Ellen Potter (WV).

1. Adopted the Report of the Actuarial Opinion (C) Working Group

Fisk reported that the Actuarial Opinion (C) Working Group met Sept. 22, Sept. 10, and Aug. 27 and took the following action: 1) adopted the *Regulatory Guidance on Property and Casualty Statutory Statements of Actuarial Opinion, Actuarial Opinion Summaries, and Actuarial Reports for the Year 2026* (2026 Regulatory Guidance); 2) adopted proposed edits to the *Financial Analysis Handbook's* property/casualty (P/C) and title statement of actuarial opinion (SAO) sections; and 3) discussed proposed changes to the 2027 title SAO instructions.

Fisk made a motion, seconded by Dyke, to adopt the report of the Actuarial Opinion (C) Working Group. The motion passed unanimously.

2. Adopted the Report of the Statistical Data (C) Working Group

Darby reported that the Statistical Data (C) Working Group met Sept. 23 to continue discussion on updating the *Statistical Handbook of Data Available to Regulators*. The Working Group is currently working closely with the statistical agents to ensure that the collection and reporting of the updated elements are consistent for all statistical agents. The Working Group plans to meet Oct. 21 to continue the discussion. The goal is to have the personal line sections, introduction, and reporting process sections completed by the end of the year.

Darby asked for additional regulators to participate in discussions about updates to the handbook. She will send an email requesting a review of data collected and reports to ensure regulators receive the information needed for regulatory analysis and market monitoring. Feedback will help the Working Group determine how to structure the reporting provisions as it works toward completing the personal lines portions of the handbook.

Darby made a motion, seconded by McKenney, to adopt the report of the Statistical Data (C) Working Group. The motion passed unanimously.

© 2026 National Association of Insurance Commissioners

3. Heard a Presentation on Social Inflation Research

Dr. Fang Yang (Georgia State University) presented research funded by the Casualty Actuarial Society (CAS) on quantifying the costs of social inflation (Attachment __).

4. Adopted its 2027 Proposed Charges and Discussed its 2027 Work Plan

Lederer described the results of a regulator survey completed in August about committee priorities (Attachment ___). She said respondents prioritize practical regulatory tools and educational offerings that help them fulfill their regulatory responsibilities, as embodied in the Task Force's rate filing issues calls and book club calls.

Lederer said the 2027 proposed charges were edited for conciseness and to remove charges that will be completed by year-end 2026. In addition to specific charges for producing work products, Lederer said there are some topics that can help the Task Force fulfill its stated mission. She said the topics she would consider placing on the agenda are actuarial-specific, do not fit better in other Property and Casualty Insurance (C) Committee forums, and do not overlap with other groups' activities. She said, for example, that to discuss pricing of pet insurance policies, a specific pet insurance charge is not needed if the Task Force does not intend to produce a work product, such as a white paper, on that topic. She asked members to submit topics to Kris DeFrain (NAIC) over the next week, and then the Task Force will take a straw vote to aid meeting planning in 2027.

Vigliaturo made a motion, seconded by Darby, to adopt its 2027 proposed charges (Attachment XX), including the unchanged charges for its working groups. The motion passed unanimously.

5. Received an Update on the Rate Regulation White Paper and Cross-Subsidization

Citarella said that at the Summer National Meeting, the Task Force heard oral comments from the first exposure of the white paper on homeowners rate regulation and cross-state subsidization. The Oversight Drafting Group considered the comments and produced a revised draft, which was exposed on Sept. 25. Written comments are due Oct. 26, but given the short turnaround time for the national meeting and the planned adoption of a paper, participants were asked to present oral comments early.

Citarella summarized the most substantive changes made. He said there is improved wording and descriptions throughout the paper, plus five key changes. The first is that the scope of the paper was clarified in the introduction and the term "cross-state subsidization" was used in place of "cross subsidization." The second is that statements were softened from "cross subsidization is not occurring" to "we found no evidence of systemic cross-state subsidization." Citarella said it is very difficult, if not impossible, to say something like this does not exist, so the group decided to clarify by saying, "We did not find industry-wide cross-state subsidization, and we described the safeguards in place that serve to prevent cross-state subsidization from occurring." The third is that greater focus is placed on actuarial professionalism with additional references to specific Actuarial Standards of Practice (ASOPs). The fourth is that a new section was added on market-wide changes in future cost estimates, and more detail was provided around catastrophe (CAT) and reinsurance content. The fifth is that potential research ideas about homeowners regulation, CAT models, and pricing were added.

Stolyarov said that various significant wording improvements were made in this version of the paper, and the scope was clarified. He said the type of situation he had raised previously is what the paper now describes as "excess profits" rather than "cross-state subsidization," and that would be a situation where insurers may be getting at least adequate rates everywhere and pushing for above-market returns in certain states that might not rule those rates as "excessive." He will be submitting additional comments in writing.

© 2026 National Association of Insurance Commissioners

6. Received Liaison Reports

Vigliaturo reported that the Natural Catastrophe Risk and Resilience (EX) Task Force and its working groups are discussing next steps in the flood insurance blueprint activities and how regulators can communicate with influencers. The Task Force heard from Munich Re about an inland flood coverage endorsement with a low limit ranging from 5,000 to 50,000. It also discussed the National Flood Insurance Program (NFIP) data-sharing agreements and heard updates on deliverables from the disaster preparedness guide.

Having no further business, the Casualty Actuarial and Statistical (C) Task Force adjourned.

© 2026 National Association of Insurance Commissioners

Draft: 9/2/26

Casualty Actuarial and Statistical (C) Task Force
E-Vote
September 2, 2026

The Casualty Actuarial and Statistical (C) Task Force conducted an e-vote that concluded Sept. 2, 2026. The following Task Force members participated: Sandra Darby, Vice Chair (ME); Mark Fowler represented by Charles Hale (AL); Joshua Hershman represented by Wanchin Chou (CT); Michael Yaworsky represented by Richie Frederick (FL); Holly W. Lambert represented by Lawrence Steinert (IN); Vicki Schmidt represented by Nicole Boyd (KS); Timothy J. Temple represented by Nichole Torblaa (LA); Marie Grant represented by Jessica Blackmon (MD); Anita G. Fox represented by Kevin Dyke (MI); Phillip Vigliaturo (MN); Remedio C. Mafnas (MP); Eric Dunning represented by Nguyen Thai (NE); Judith L. French represented by Tom Botsko (OH); TK Keen represented by David Dahl (OR); and Michael Wise represented by Will Davis (SC).

1. Adopted the *2024 Auto Insurance Database Average Premium Supplement*

The Task Force conducted an e-vote to consider adoption of the *2024 Auto Insurance Database Average Premium Supplement*. The motion passed unanimously.

Having no further business, the Casualty Actuarial and Statistical (C) Task Force adjourned.

© 2026 National Association of Insurance Commissioners

Draft: 8/18/26

Casualty Actuarial and Statistical (C) Task Force
Columbus, Ohio
August 12, 2026

The Casualty Actuarial and Statistical (C) Task Force met in Columbus, OH, Aug. 12, 2026. The following Task Force members participated: Angela L. Nelson, Chair, represented by Julie Lederer (MO); Timothy N. Schott, Vice Chair, represented by Sandra Darby (ME); Heather Carpenter represented by Chad Bennett and Austin Childs (AK); Mark Fowler represented by Charles Hale (AL); Ricardo Lara represented by Tina Shaw (CA); Joshua Hershman represented by Wanchin Chou (CT); Michael Yaworsky represented by Richie Frederick (FL); Doug Ommen represented by Travis Grassel (IA); Holly W. Lambert represented by Lawrence Steinert (IN); Vicki Schmidt represented by Nicole Boyd (KS); Timothy J. Temple represented by Nichole Torblaa (LA); Marie Grant represented by Arthur Schwartz (MD); Anita G. Fox represented by Kevin Dyke (MI); Julia Dreier represented by Phil Vigliaturo (MN); Eric Dunning represented by Nguyen Thai (NE); D.J. Bettencourt represented by Sean Rosene (NH); Ned Gaines represented by Gennady Stolyarov (NV); Judith L. French represented by Tom Botsko (OH); Glen Mulready represented by Landon Hubbart (OK); TK Keen represented by Bet Sims (OR); Michael Humphreys represented by Michael McKenney (PA); Michael Wise represented by Will Davis (SC); Amanda Crawford represented by Matthew Tarpley (TX); Kaj Samsom represented by Zoie Y. Swaim and Rosemary Raszka (VT); Patty Kuderer represented by William Wilder (WA); and Erin K. Hunter represented by Justin Parr (WV).

1. Adopted its Aug. 7, July 14, June 26, June 10, June 9, May 12, April 14, and Spring National Meeting Minutes

Lederer said the Task Force met Aug. 7, July 14, June 26, June 10, June 9, May 12, and April 14. During these meetings, the Task Force took the following action: 1) adopted the *2024 Competition Database Report* (Competition Report); 2) adopted the 2023 *Dwelling Fire, Homeowners Owner-Occupied, and Homeowners Tenant and Condominium/Cooperative Unit Owner's Insurance Report* (Homeowners Report); 3) adopted the *Report on Profitability by Line by State* (Profitability Report); 4) adopted the report of the Actuarial Opinion (C) Working Group; 5) adopted the report of the Statistical Data (C) Working Group; 6) received an update on the state regulation white paper and cross-subsidization; 7) received liaison reports; 8) discussed Schedule P next steps; 9) received an update on its 2026 charges; and 10) discussed rate filing review training.

The Task Force also met July 21, June 16, May 19, and April 21 in regulator-to-regulator session, pursuant to paragraph 3 (specific companies, entities, or individuals) of the NAIC Policy Statement on Open Meetings, to discuss rate filing issues.

Additionally, the Task Force held Predictive Analytics Book Club meetings July 28, June 23, May 26, and April 28. The sessions included the following: 1) a presentation from Rob Lieberthal, PhD, founder and senior principal of Lieberthal & Associates, on large language model (LLM) applications in claims analysis; 2) a presentation from Dave Sandberg, Dorothy Andrews, and Paul Meixler from the American Academy of Actuaries (Academy) on measuring statistical bias in data using entropy; 3) a presentation from Mario DiCaro, vice president of Capital Modeling and Analytics at Tokio Marine HCC Insurance Holdings and Shine Wang from Wawanesa Insurance on artificial intelligence (AI); and 4) a presentation from the NAIC's Sam Kloese and Roberto Perez on the use of AI in reviewing pricing generalized linear models (GLMs).

Botsko made a motion, seconded by Darby, to adopt the Task Force's Aug. 7 (Attachment One); July 14 (Attachment Two); June 26 (Attachment Three); June 10 (Attachment Four); June 9 (Attachment Five); May 12 (Attachment Six); April 14 (Attachment Seven); and March 23 (*see NAIC Proceedings – Spring 2026, Casualty Actuarial and Statistical (C) Task Force*) minutes. The motion passed unanimously.

© 2026 National Association of Insurance Commissioners

2. Adopted the Report of the Actuarial Opinion (C) Working Group

Lederer said the Actuarial Opinion (C) Working Group met July 15 and June 24. During these meetings, the Working Group took the following action: 1) exposed the *2026 Property/Casualty (P/C) Regulatory Guidance* for a 37-day public comment period ending Aug. 21; and 2) discussed the P/C Statement of Actuarial Opinion (SAO), P/C Actuarial Opinion Summary (AOS), and Title SAO instructions for 2027.

The Working Group also met June 10 in regulator-to-regulator session, pursuant to paragraph 3 (specific companies, entities, or individuals) of the NAIC Policy Statement on Open Meetings.

Vigliaturo made a motion, seconded by Botsko, to adopt the report of the Actuarial Opinion (C) Working Group, including its July 15 (Attachment Eight) and June 24 (Attachment Nine) minutes. The motion passed unanimously.

3. Adopted the Report of the Statistical Data (C) Working Group

Darby said the Statistical Data (C) Working Group met July 29, June 17, May 20, and April 8 to continue discussion on proposed updates to the *Statistical Handbook of Data Available to Insurance Regulators* (Handbook). The Working Group has completed an initial review of all personal lines sections within the Handbook, including homeowners, dwelling fire and allied lines, private passenger automobile (PPA), and a new pet insurance section. It plans to segment the Handbook into personal and commercial lines to speed up the implementation of the changes for statistical agents and companies reporting. The Working Group will continue to meet monthly.

Darby made a motion, seconded by Dyke, to adopt the report of the Statistical Data (C) Working Group, including its July 29 (Attachment Ten), June 17 (Attachment Ten-A), May 20 (Attachment Ten-B), and April 8 (Attachment Ten-B1) minutes. The motion passed unanimously.

4. Adopted the Title Schedule P Instructions Proposal

Lederer said the Task Force's proposal to modify the P/C Schedule P Instructions was exposed at the Blanks (E) Working Group for a public comment period ending July 27. After the Task Force submitted that proposal to the Working Group, the Title Insurance (C) Working Group asked if the Task Force would propose similar changes to the Title Schedule P Instructions. Edited Title Schedule P Instructions were exposed for a 45-day public comment period ending July 24. Three comment letters were received, and Lederer drafted responses to each comment (Attachment Eleven). She said that, similar to the P/C Instruction changes, the proposed changes to the Title Instructions are meant to add clarity and do not change the filing company's requirements or modify the blanks.

Frederick made a motion, seconded by Steinert, to adopt the Title Schedule P Instructions proposal to send to the Blanks (E) Working Group for consideration (Attachment Twelve).

5. Discussed Comments Received on the Draft Homeowners Regulation White Paper

The Property and Casualty Insurance (C) Committee adopted the following charge for the Task Force at the Spring National Meeting: "Draft a white paper that explains how homeowners' insurance rates are regulated across states, with particular attention to public questions and academic claims regarding potential cross-state subsidization of catastrophic losses."

Lederer said that on June 26, only two and a half months after adoption of the charge, the Task Force exposed a white paper to seek feedback from all parties. The paper was exposed for a 40-day public comment period ending

© 2026 National Association of Insurance Commissioners

Aug. 5. She said the Task Force received four comment letters (Attachment XII). Those who submitted written comments were invited to present their comments orally.

The Task Force discussed the scope of the paper as directed by the Property and Casualty Insurance (C) Committee. Stolyarov suggested the scope is too narrow. Numerous Task Force members said the draft paper appropriately addresses the charge and that additional research could be requested to dig into specific situations that may not meet the definition of cross-subsidization in this paper.

Stolyarov said regulators have to pay attention to catastrophe models, reinsurance cost allocations to individual states, and other situations to stop attempts at cross-subsidization. He said it is probable that regulators do not catch every situation. He added that the Center for Insurance Policy and Research (CIPR) case studies cited in the paper do not meaningfully represent industry-level evidence, and it would be beneficial to conduct a recent study based on the 2025 Los Angeles wildfires. McKenney said the Task Force was not asked to prove there are never situations of cross-subsidization or identify where regulators have required insurance companies to make changes to avoid cross-subsidization potential, but the Task Force was asked to explain rate regulation with particular attention to these studies that incorrectly conclude that catastrophe losses are spread across states rather than charged to the state(s) where the catastrophe occurred. Stolyarov said the current paper is unlikely to satisfy those asking these questions or raising these observations. He said proof is not needed, but additional evidence would be beneficial. Grassel said he believes the white paper achieves the objectives. He said the CIPR could decide to do further analysis.

Katie Dzurec (Academy) said the Academy recommends a heightened emphasis in the white paper on actuary's obligations under the Actuarial Standards of Practice (ASOPs), the Casualty Actuarial Society (CAS) Statement of Principles, and the Code of Professional Conduct. She said deliberate implementation of cross-state subsidization would violate ASAPs and actuarial principles and could constitute a violation of the Code of Professional Conduct.

Erica Weyhenmeyer (NAMIC) said the draft white paper is thoughtful and balanced, and NAMIC supports its central premise that homeowners insurance rates are prospective state-based estimates for future costs. She said the paper could benefit from strengthening its technical position and further explaining the actual regulatory and market safeguards that protect consumers.

Schwartz said the net cost of reinsurance and how that is allocated among the states was not sufficiently discussed or even touched upon in the white paper. Schwartz said there needs to be regulatory attention to the subject to ensure that reinsurance costs are allocated based on state risks rather than simply on premiums or exposures. He said they should be allocated based on average annual loss or perhaps on the probable maximum loss. Steinert said that it is the regulatory actuary's responsibility to ensure the allocation is appropriate and does not rise to the level of systemic cross-state subsidization. McKenney said the reinsurance topic is addressed in several sections of the paper.

Schwartz said parametric insurance pays based on whether a natural disaster meets certain parameters. He said this topic should be included in the paper because it might be allocated to states differently compared to a standard reinsurance product. He said cross-subsidization also seems to occur when small companies go insolvent, and the costs of the insolvency are spread across states, whether they have the same catastrophe risks.

6. Heard Updates on Activities and Research from Professional Actuarial Associations

The Academy and the CAS provided reports on current activities and research.

Having no further business, the Casualty Actuarial and Statistical (C) Task Force adjourned.

© 2026 National Association of Insurance Commissioners

Draft: 11/3/26

Actuarial Opinion (C) Working Group
Virtual Meeting
October 22, 2026

The Actuarial Opinion (C) Working Group of the Casualty Actuarial and Statistical (C) Task Force met Oct. 22, 2026. The following Working Group members participated: Miriam Fisk, Chair (TX); Julie Lederer, Vice Chair (MO); Susan Gozzo Andrews (CT); David A. Christhilf (DC); Chantel Long (IL); Erica Sanderson (ME); Tom Botsko (OH); and James Di Santo (PA).

1. Discussed Comments and Adopted the 2027 Title Statement of Actuarial Opinion Instructions Document

The proposed 2027 Title Statement of Actuarial Opinion Instructions were exposed for a 32-day public comment period ending Oct. 12. Fisk said one comment letter was received during the public comment period from the American Academy of Actuaries (Academy) Committee on Property and Liability Financial Reporting (COPLFR).

Fisk said the COPLFR letter correctly noted an issue with the "not applicable" response option added to Exhibit B, Item 6, and suggested either removing the option or identifying when it might apply. Fisk said it would not apply to title and proposed limiting the response to "yes" or "no."

Botsko made a motion, seconded by Lederer, to adopt the revisions to the 2027 Title Statement of Actuarial Opinion Instructions, with the change to remove the "not applicable" response option from Exhibit B, Item 6 (Attachment XX). The motion passed unanimously.

Having no further business, the Actuarial Opinion (C) Working Group adjourned.

© 2026 National Association of Insurance Commissioners

Draft: 11/3/26

Actuarial Opinion (C) Working Group
E-Vote
September 24, 2026

The Actuarial Opinion (C) Working Group of the Casualty Actuarial and Statistical (C) Task Force conducted an e-vote that concluded Sept. 24, 2026. The following Working Group members participated: Miriam Fisk, Chair (TX); Julie Lederer, Vice Chair (MO); Susan Gozzo Andrews (CT); David A. Christhilf (DC); Chantel Long (IL); Sandra Darby (ME); Tom Botsko (OH); and Andy Schallhorn (OK).

1. Adopted the P/C and Title Statement of Actuarial Opinion Worksheet

The Working Group conducted an e-vote to consider adoption of the property/casualty (P/C) and title statement of actuarial opinion worksheet in the *Financial Analysis Handbook* and refer it to the Financial Analysis Solvency Tools (E) Working Group for consideration.

A majority of the Working Group members voted in favor of adopting the worksheet (Attachment xx). The motion passed.

© 2026 National Association of Insurance Commissioners

Draft: 11/3/26

Actuarial Opinion (C) Working Group
Virtual Meeting
September 22, 2026

The Actuarial Opinion (C) Working Group of the Casualty Actuarial and Statistical (C) Task Force met Sept. 22, 2026. The following Working Group members participated: Miriam Fisk, Chair (TX); Susan Gozzo Andrews (CT); and Chantel Long (IL).

1. Discussed Comments Received on the P/C and Title Statement of Actuarial Opinion Worksheet in the *Financial Analysis Handbook*

Fisk said the Working Group discussed the proposed edits to the property/casualty (P/C) and title statement of actuarial opinion worksheet in the *Financial Analysis Handbook* during its Aug. 27 meeting and exposed them for a 22-day public comment period ending Sept. 18. She said the worksheet applies to both P/C and title insurers and that most of the edits make the worksheet language consistent with the opinion instructions.

Fisk said one public comment was received. Fisk said Rebecca Armon (TX) commented that the abbreviations "PY" and "PHS" may not be consistent with the rest of the *Financial Analysis Handbook*. She said Julie Lederer (MO) responded by suggesting the worksheet use the names of the Insurance Regulatory Information System (IRIS) ratios as published in the *IRIS Ratios Manual*. Those names are "One-Year Reserve Development to Policyholders' Surplus," "Two-Year Reserve Development to Policyholders' Surplus," and "Estimated Current Reserve Deficiency to Policyholders' Surplus." Fisk said she supported the suggestion.

Fisk said the Working Group intends to send the worksheet to the Financial Analysis Solvency Tools (E) Working Group in time for inclusion this year. As a quorum was not present, the Working Group will consider adoption by e-vote. Members from Connecticut, Illinois, and Texas stated their votes during the meeting.

Having no further business, the Actuarial Opinion (C) Working Group adjourned.

© 2026 National Association of Insurance Commissioners

Actuarial Opinion (C) Working Group
Virtual Meeting
September 10, 2026

The Actuarial Opinion (C) Working Group of the Casualty Actuarial and Statistical (C) Task Force met Sept. 10, 2026. The following Working Group members participated: Miriam Fisk, Chair (TX); Julie Lederer, Vice Chair (MO); Charles Jansen (IL); Sandra Darby (ME); Tom Botsko (OH); Andy Schallhorn (OK); and James Di Santo (PA).

1. Exposed Proposed Changes to the 2027 Title Statement of Actuarial Opinion Instructions

Fisk said the Working Group is considering changes to the 2027 Title Statement of Actuarial Opinion Instructions to align the title instructions with changes made to the Property/Casualty (P/C) Statement of Actuarial Opinion Instructions in recent years.

Fisk reviewed proposed terminology and editorial revisions. The revisions included using the defined term "Appointed Actuary"; standardizing references to "Actuarial Opinion" and "Board of Directors"; replacing "scope paragraph" with "scope"; and changing "officer's name and title" to "individual's name and title." The proposed revisions also clarified the requirements for reconciling and mapping the data used in the Appointed Actuary's analysis to Schedule P, including identifying who performed the reconciliation when it was not produced under the Appointed Actuary's direction.

Fisk invited comments from Working Group members and interested parties. No additional substantive comments were recorded.

Lederer made a motion, seconded by Darby, to expose the proposed changes to the 2027 Title Statement of Actuarial Opinion Instructions for a 32-day public comment period ending Oct. 12. The motion passed unanimously.

Having no further business, the Actuarial Opinion (C) Working Group adjourned.

© 2026 National Association of Insurance Commissioners

Draft: 9/14/26

Actuarial Opinion (C) Working Group
Virtual Meeting
August 27, 2026

The Actuarial Opinion (C) Working Group of the Casualty Actuarial and Statistical (C) Task Force met Aug. 27, 2026. The following Working Group members participated: Miriam Fisk, Chair (TX); Julie Lederer, Vice Chair (MO); Susan Gozzo Andrews (CT); David A. Christhilf (DC); Chantel Long (IL); Sandra Darby (ME); and James Di Santo (PA). Also participating was: Arthur Schwartz (MD).

1. Adopted the 2026 Regulatory Guidance Document

Fisk said the draft *Regulatory Guidance on Property and Casualty Statutory Statements of Actuarial Opinion, Actuarial Opinion Summaries, and Actuarial Reports for the Year 2026* (2026 Regulatory Guidance) had been exposed for a 37-day public comment period ending Aug. 21, and one official comment was received. Fisk stated that the treatment of long-duration property/casualty (P/C) unearned premium reserve items had been discussed over an extended period because actuaries had interpreted the instructions differently. Fisk said that the instructions and guidance were consistent with the applicable *Statement of Statutory Accounting Principle (SSAP) No. 65—Property and Casualty Contracts* and did not support changing the guidance in response to the comment.

Norman Niami (American Property Casualty Insurance Association—APCIA) said that applying the requirement would not be simple or trivial for companies with many affected transactions. Lederer said the items must be listed and that regulators had expected the amounts to be provided regardless of materiality, while relevant comments are required for material items. Fisk said similar guidance was included in the 2025 document before the instruction changes were adopted and that the 2026 guidance now reflects requirements expressly stated in the instructions.

Schwartz asked how long-duration contracts are defined and why the requested treatment would not be adopted. Fisk discussed the definition and provided an example of an extended automobile service contract. Fisk also explained that inconsistent practice arose when amounts were non-zero but small, including uncertainty about whether listing an amount meant the actuary was opining on it. Fisk said the changes were intended to produce consistent treatment.

Andrews identified references on page 11 to Exhibit B, Item 13, that appeared to require correction to Item 12.

Lederer made a motion, seconded by Andrews, to adopt the 2026 Regulatory Guidance with the discussed changes, including correction of references from Exhibit B, Item 13, to Item 12 and review of additional affected references (Attachment XX). The motion passed unanimously.

2. Exposed Proposed Edits to the P/C and Title SAO Worksheet in the *Financial Analysis Handbook*

Fisk said the Statement of Actuarial Opinion (SAO) worksheet is used by state financial analysts and should remain consistent with instruction changes made in recent years. Lederer said the proposed edits were intended to align the worksheet objectively with the instructions. She highlighted proposed language directing analysts to verify the required information in the identification paragraph.

Fisk and Lederer discussed terminology and style changes, including the use of “company” and “insurer,” consistent italics, and placement of “P/C only” parentheticals. Lederer said she had considered separate

© 2026 National Association of Insurance Commissioners

worksheets for P/C and title but drafted one worksheet that identifies provisions applicable to only one type. Fisk supported retaining one worksheet.

Lederer highlighted a proposed requirement directing analysts to look for relevant comments when reserve-related Insurance Regulatory Information System (IRIS) ratios 11, 12, or 13 have exceptional values. She said this requirement and the identification paragraph addition were the principal places where information was added, rather than merely worded. Fisk noted that removing statutory surplus from the relevant comment items was appropriate.

Fisk and Lederer also discussed a drafting comment concerning whether the Casualty Practice Council would review someone who was not an American Academy of Actuaries (Academy) member. Lederer said the proposed worksheet language aligned with the instructions and that her comment supplied background from prior discussions.

Andrews made a motion, seconded by Long, to expose the P/C and Title Statement of Actuarial Opinion Worksheet in the *Financial Analysis Handbook* for a 22-day public comment period ending Sept. 18. The motion passed unanimously.

Having no further business, the Actuarial Opinion (C) Working Group adjourned.

© 2026 National Association of Insurance Commissioners

Draft: 10/19/26

Statistical Data (C) Working Group
Virtual Meeting
September 23, 2026

The Statistical Data (C) Working Group of the Casualty Actuarial and Statistical (C) Task Force met Sept. 23, 2026. The following Working Group members participated: Sandra Darby, Chair (ME); Brad Gerling, Vice Chair (MO); Charles Hale and Ken Williamson (AL); Lori Dreaver Munn (AZ); Christian Citarella (CT); David A. Christhilf (DC); Sean Rosene (NH); Alexander Vajda (NY); Landon Hubbart (OK); David Dahl and Spencer Peacock (OR); and Meredith Ludlow (TX).

1. Discussed Comments on Handbook Sections 1, 2, 3, 5, 7, 8, and 14

Darby thanked the statistical agents for their work in preparing sample data files for the sections of the *Statistical Handbook of Data Available to Insurance Regulators* (Handbook) assigned to them.

Nancy Clark (Insurance Services Office—ISO) said she populated each data element in the pet insurance section of the Handbook with sample data for a few states and ZIP codes. She said the age ranges for cats had not been determined and were shown as "to be determined." NAIC committee support said the pet insurance expert who presented to the Working Group had provided age ranges for dogs and was to follow up with age ranges for cats, but that information was not received. Darby asked NAIC committee support to follow up to obtain the cat age ranges.

Darby reviewed the elements in the sample file, including state, ZIP code, loss date, type of loss, coverage type (illness only, wellness only, and accident and illness), written premium, paid losses, paid allocated loss adjustment expense (ALAE), outstanding losses, outstanding ALAE, policy count, claim count, and total incurred losses. Clark said a separate tab contained a sample report. Gerling said the file looked good and appeared to include everything requested in the latest redline of the Handbook.

Gerling said the Handbook lists a transaction identifier and amount among the data items reported by statistical agents, but the sample file showed each measure in a separate column. He asked how data would be compiled if one statistical agent formatted its data differently than another. Darby said the Handbook sets the minimum data that all statistical agents must collect and that individual statistical agents may collect additional data for their own purposes. Laura Panesso (ISO) said the deliverable to state insurance regulators is usually a report, and if reports are in the same format, they can be aggregated into a consolidated view of the market even if collection methods differ slightly. Al Burton (Independent Statistical Services—ISS) said the first tab of the file shows how data would be collected, while the report would be consistent among statistical agents because each would map its internal codes to the required elements.

Darby said state insurance regulators do not currently see the detailed data collected by statistical agents; they receive reports. She said the Working Group has not yet discussed the contents of the reports for each section and that this will be the next step. NAIC committee support noted that the reports do not go through the NAIC. Clark said that while the sample file aggregated premium and loss records, statistical agents would continue to capture those transaction records separately.

Darby questioned whether a summary by ZIP code would be useful for pet insurance and said she would prefer to see cats and dogs separated. Citarella said pet insurance costs can vary by location depending on the concentration of veterinarians and price competition among them. Vajda said there is an urban-versus-rural

© 2026 National Association of Insurance Commissioners

difference in veterinary prices in New York. Darby asked Working Group members to review the sample report and consider what additional information they would want.

Burton presented the homeowners file. He said the ISS did not prepare a report but provided a sample submission in its current layout, with the fields corresponding to the Handbook requirements highlighted, along with a document mapping some of the codes. He said certain elements, such as the count of claims closed without payment, are not currently captured, so the ISS identified where those fields would be placed. He said the ISS also created a transaction type code to identify premium, paid loss, and other transaction types.

Darby said the reports state insurance regulators receive from the data collection are an important part of the Handbook update, and she wants them to be useful to regulators. Gerling said the Working Group will need to spend time reviewing each field to determine what it wants from the data. Burton asked whether regulators would move toward receiving an aggregate data file rather than a report, which would affect how a report should be designed. Darby said that may still be an option and that the Working Group needs to discuss it. She said a report with a few adjustments may be sufficient for pet insurance, while homeowners may warrant receiving data because it is a high-profile topic. Gerling said a report may be better for some lines of business if the goal is monitoring market performance, while a data file would allow more in-depth analysis. Darby said the Handbook could provide a report for all regulators and a data file available upon request. She asked Burton to bring ideas for a homeowners report, such as views of the market by Coverage A amount or policy form, to the next meeting. Burton agreed.

Becky Konkle (National Independent Statistical Service—NISS) presented the dwelling fire file. She said the NISS provided a record layout and a CSV file, which could be used in Excel or Access, with descriptions converted to codes. She said the sample used one state and included an example of every possible code. In response to questions from Gerling, Konkle said column D contains the transaction amount, column Q contains the amount of insurance, column R contains the year of construction, the exposure in column S is populated only on premium records, and the claim count in column T is populated only on loss records. Konkle said the NISS also provided its current annual dwelling fire report as an example of what is currently provided. Darby said state insurance regulators currently receive the report in PDF format, broken down by subline of business, and that the Working Group has discussed receiving reports in Excel. She said the Working Group needs to determine how to expand the report to include more of the new data. Gerling noted that the report does not include data by deductible, and Darby said the Handbook includes data elements such as construction, occupancy, type of loss, and deductible amount that are not reflected in the current report. She said some regulators will want a full data file, while others may prefer an aggregate file with a few tables.

Andy Regis and Jenny Tornquist (American Association of Insurance Services—AAIS) presented the private passenger auto (PPA) file. Regis said the file contained sample data for one state, Illinois, based solely on the updated Handbook rather than on their statistical plan, with separate tabs for premium and loss data and a reference list tab. Tornquist said the reference list shows the fields added through the redline, including new claim count fields and new types of loss for animal collision and towing and labor. She said no report was prepared.

Tornquist said the four statistical agents had provided four different variations of the assignment, and she asked what state insurance regulators want, how they will use the data, and in what format they want it combined. She said regulators would need to consider how to validate the pieces and avoid overlap in reporting companies when aggregating data. Gerling said these are good questions that warrant further discussion. He said a data file would be most useful to him, but most Working Group members may find a report more useful for monitoring the market. Darby said needs change based on market conditions, such as legislative inquiries, and that she would like the Handbook to provide for both reports and a standardized regulator data file that statistical agents could

© 2026 National Association of Insurance Commissioners

provide upon request. Tornquist agreed and said statistical agents also report data to the Automobile Insurance Plan Service Office (AIPSO), which checks for duplicate reporting companies when combining data.

Darby said that, for the next meeting, state insurance regulators should review the materials distributed by NAIC committee support and consider what they want their reports to look like. She said existing reports should not be eliminated because some regulators use them in their current format, but the data should also be presented in ways that benefit regulators using the new data elements. Gerling agreed and said he would consider reports that could be helpful. Darby asked statistical agents to consider what an aggregated Excel regulator file for their sections would look like and what reports would make sense, and she asked the ISO to expand its pet insurance report. Crews said some Handbook sections include a subsection on reports to regulators, and these could be tailored to each section. Tornquist said feedback from regulators on what they want would be helpful. Darby said she would discuss with the chair of the Casualty Actuarial and Statistical (C) Task Force and bring the topic to the Task Force to obtain input from a broader group of regulators.

Having no further business, the Statistical Data (C) Working Group adjourned.

© 2026 National Association of Insurance Commissioners

Draft: 11/8/26

Statistical Data (C) Working Group
Virtual Meeting
October 21, 2026

The Statistical Data (C) Working Group of the Casualty Actuarial and Statistical (C) Task Force met Oct. 21, 2026. The following Working Group members participated: Sandra Darby, Chair (ME); Brad Gerling, Vice Chair (MO); Charles Hale (AL); Christian Citarella (CT); David A. Christhilf (DC); Alexander Vajda (NY); Tom Botsko (OH); Andrew Schallhorn and Landon Hubbart (OK); and Meredith Ludlow (TX).

1. Discussed Comments on Handbook Sections 1, 2, 3, 5, 7, 8, and 14

Darby said the Working Group would continue its discussion from its previous meeting, at which statistical agents presented sample reports and sample data for sections of the *Statistical Handbook of Data Available to Insurance Regulators* (Handbook). She asked the Working Group to discuss how state insurance regulators want to receive reports from statistical agents and how the Handbook could outline this to ensure consistent reporting. She noted that the Working Group had previously discussed the current static reports compared with Excel or CSV data that regulators could use to create their own reports.

Gerling said he sees two categories of use for the data. He said it is most important for him to have data he can use quickly to produce actionable reports that give his director insight into the market. He said data that arrives one to three years after it could be received is less useful, and he would like to increase the speed of reporting so more recent data can be used. He said he uses the NAIC Snowflake environment daily, with his business intelligence tools connected to it, and he would like this data to be available in Snowflake. If that is not possible, he said Excel files from statistical agents that he could compile into his own database would be acceptable. He said he would like more access to underlying data rather than reports. However, he said a succinct summary report may be sufficient for some lines of business, while more granular data is important for larger lines, such as auto, homeowners, and related personal lines, so it can be compared with other data sets. Jenny Tornquist (American Association of Insurance Services—AAIS) said she agreed with this concept.

Darby said statistical agents do not provide all of their data to the NAIC, and she wanted to think through what a Snowflake table would look like. She said the reports the Working Group creates lag due to loss development, and a previous effort to speed them up led to the creation of the auto data supplement.

In response to questions from Darby, Laura Panesso (Insurance Services Office—ISO), and Tornquist said Fast Track reports are provided quarterly, while statistical agents provide annual experience reports by March 31. Darby said Fast Track data is a subset based on the top 10 companies and is intended to provide a pulse on the market. Tornquist said there are some exceptions, such as a Massachusetts homeowners report that uses more responsive data, for which complete company data for 2025 is sometimes not reconciled until later in 2026. Panesso said the Handbook reports are provided March 31 for all states, while the Massachusetts homeowners report is required by statute and used in a report to the legislature, so it differs from traditional statistical data.

Darby said she receives Fast Track data in Excel, but the March 31 reports are currently provided as static PDF files. She said she wants to ensure Gerling receives what he needs without overburdening the statistical agents. She asked whether a state could request all of its data in Excel on March 31, or whether the NAIC could load the data into a table that regulators could query and compare with homeowners market data. Gerling asked whether statistical agents could upload data to the NAIC RDC platform so the NAIC could move it into Snowflake and make it more available to regulators. Libby Crews (NAIC) said this would depend on the layout of the data and whether it would work well in RDC. Todd Sells (NAIC) said the idea could be discussed.

© 2026 National Association of Insurance Commissioners

Darby said statistical agents report data to NAIC committee support for specific NAIC reports, such as the auto report, using a set Excel file, and she noted that this reporting is technically voluntary. She said that, separately, each statistical agent collects data internally and provides states with PDF files containing high-level information, such as loss ratios. She said Gerling is asking whether statistical agents could submit the data required by the Handbook to the NAIC so it could be placed in a table, possibly in Snowflake, for regulators to query. Crews said the NAIC does not receive the data underlying the PDF reports provided to states. She said the NAIC receives Fast Track data in Excel and separately receives data for the homeowners and auto reports, which NAIC committee support are working to make available to regulators in Snowflake.

Tornquist asked whether the data would be rolled up to a high level, such as written or earned premium. She said statistical agents have different standards and statistical plans, with varying codes and fields, so the data would need to be harmonized to be useful at a granular field-code level. She said data summarized by coverage or deductible group would be simpler to provide. Darby noted that data from different statistical agents is not currently combined. Panesso said the statistical agents produce an aggregate report across all statistical agents for Washington. She said statistical agent data has historically been transmitted between the statistical agent and the state, and sending it directly to the NAIC would be a paradigm shift that should be considered. Darby said state law requires the reporting to the state. She said Gerling could still obtain data from the statistical agents in an Excel format.

Darby said statistical agents maintain their own statistical plans, which include the Handbook's minimum requirements plus additional data, and they generally provide regulators only what the Handbook requires. She said some states are satisfied with PDF reports, and these should remain an option. She said the Working Group should review each line of business to determine what regulators want to know and refine what the reports should look like. She said a state that wants the underlying data should be able to request it from the statistical agents in Excel instead of a PDF report. She cited pet insurance as an example in which determining what regulators want is more difficult because the line has received less review.

Gerling asked whether regulators have access to the statistical agents' statistical plans, which could serve as a data dictionary to convert each statistical agent's codes to a standard used across all statistical agents. Panesso said the ISO's full statistical plan reflects what it collects as an advisory organization at a ratemaking level of detail, while what it collects as a statistical agent is a subset. She said the ISO provides an explanatory memorandum with its annual submission that explains its codes. She said that if regulators provided a master coding scheme, such as a specific code for bodily injury coverage, all statistical agents should be able to submit the same codes, making data combining straightforward. Gerling said the Working Group might consider this approach.

Darby said the reporting discussion may take longer than planned, but she wants the outcome to be right and does not want the Working Group to feel pressure to make a decision. She said she is sending an email to the members of the Casualty Actuarial and Statistical (C) Task Force, asking them to review the materials shared and the changes made to the Handbook to obtain additional regulator input on the reports.

Darby said the Independent Statistical Service (ISS) had submitted a sample report for the homeowners section. Rick Bushur (ISS) said the first tab of the sample report shows initial submission data, the second tab shows a summarized version, and the remaining tabs show potential exhibits. He said the exhibits include homeowners data by territory and policy form, which reflects a main aspect of the compilation the ISS currently provides, as well as amount of insurance by ZIP code and policy form, affordability, type of loss, and cause of loss. He said a historical comparison could be shown with additional data. Darby asked Working Group members and interested state insurance regulators to review it. She said the sample shows different cuts of the data, which would allow a state that does not want to receive full data files to review metrics beyond loss ratio and premium, such as roof and policy form type.

© 2026 National Association of Insurance Commissioners

Darby said the Working Group may need to focus on the basic report requirements in Section 3, then on the specific reports for each line-specific section, such as homeowners and dwelling fire. Darby said she had not considered changes to Fast Track because she believes it is appropriate in its current form, but she did not want to assume others agreed. Gerling said he also had not considered changes to Fast Track. He asked whether the Handbook shows the fields collected for Fast Track. Panesso said the Handbook includes a reports section with sample reports for the lines of business, including Fast Track. She said it also still includes the accelerated reports, which were unofficially sunset approximately 16 years ago but never removed. Darby said removing the accelerated reports from Section 3.7 should be added to the Working Group's list of tasks.

Darby said the new pet insurance section of the Handbook creates a new reporting requirement for pet insurers, most of which write only pet insurance. Panesso said the ISO has an advisory pet insurance program in some states, and historically some pet insurance may have been reported to statistical agents under inland marine, but not at the level of detail in the new section. She said insurers writing only pet insurance likely were not reporting to any statistical agent. She said Fast Track was historically intended to provide a quick quarterly snapshot of markets in crisis, such as general liability in the mid-1980s. She suggested beginning with annual collection of pet insurance data and assessing the need for Fast Track before adding a quarterly requirement. Darby agreed. She said the new Handbook requirement will already increase the volume of pet insurance data and may meet the needs identified, while also placing a new reporting burden on pet insurers.

Darby asked whether states would need statutory changes to require reporting for a line of business newly added to the Handbook, such as pet insurance. Tornquist said she did not believe lines had been added recently but noted that the Working Group is removing glass. She said the AAIS does not collect pet insurance data and was unsure about the other statistical agents. Darby noted that the annual statement was changed to report pet insurance separately, and adding the line to the Handbook will require pet-only insurers to find a statistical agent. Tornquist asked how compliance is monitored and whether there is a premium volume threshold for reporting. Darby said there is no threshold for statistical reporting, although some data collections, such as the Market Conduct Annual Statement (MCAS) and the homeowners market data call, use a $50,000 threshold. Darby said she did not believe it was appropriate to add pet insurance to Fast Track at this time. Tornquist agreed that it should not be a high priority and said statistical reporting requirements should align with the annual statement lines of business. Panesso said that, in her experience, most statutes apply to property/casualty (P/C) insurance generally rather than to specific lines of business, except for workers' compensation. Darby said she raised the issue so NAIC committee support and the Working Group would be aware of it. She said the Working Group is comfortable with the Fast Track monitoring system for now, other than removing the accelerated reports, and would add Fast Track to its list of items to review later.

Gerling asked whether the Handbook includes a concise list of the reporting basis used for each line of business. He said that such a list in Section 3.4 would be helpful because calendar-year data can be collected more quickly than policy-year data. Tornquist said most lines are reported on a calendar-accident year basis because it aligns premium and losses; a few short-tail lines, such as glass, use calendar year; and she believed only general liability uses policy year. Panesso said the reporting basis is stated within each section's reports, but not in one place. Darby said a summary could be added to Section 3.4 while retaining the information in each section, and Crews agreed that NAIC committee support could add it. Tornquist said a summary chart could be helpful. Panesso and Tornquist noted that personal auto physical damage may use a different basis than personal auto liability, which uses calendar-accident year, resulting in two reporting bases for one line.

Gerling asked about the reporting basis for the homeowners market data call. Darby said it collects calendar-year data for policies in force as of Dec. 31, intended as a quicker way to collect the data. Gerling said Missouri also uses calendar year for its ZIP code data collection for homeowners, auto, mobile homes, farm owners, and

© 2026 National Association of Insurance Commissioners

earthquake. He asked why calendar-accident year was chosen for certain lines. Panesso said she assumed the approach had been in place for the life of the report.

Gerling asked whether changing to a calendar-year basis would be feasible to speed up reporting or would require a complete rewrite. Darby said the data is already reported by March 31. Panesso said the ISO collects data quarterly and can produce any reporting bases for any line, but statistical agents that collect data annually may be limited to the current bases by the detail they collect. Gerling said he had been referring to the recently released homeowners report, which contained 2023 data. Darby said that report is produced through a separate process in which statistical agents combine their data at the NAIC, the NAIC validates it, and regulators review it, and the Working Group has already reviewed that process for speed. She said the reporting bases in Section 3.4 apply to the statistical reports received as PDF files. Panesso said those reports have a 15-month lag, so a report received in March 2026 contains data through 2024 evaluated as of the first quarter of 2026.

Darby asked whether statistical reports are aggregated across statistical agents. Panesso said Washington is the only state that requires an aggregate report across statistical agents, which coordinate it. Tornquist said the Washington process allows statistical agents to peer review one another's data. Darby said that combining reports from multiple statistical agencies into a single line would be difficult without the raw data. Panesso said the ISO provides its annual submission in Excel to several states upon request. She said that if all statistical agents used the same codes in an Excel report, either a statistical agent or a state could easily combine the data. Darby said this should be discussed further.

Gerling said the charts in Section 3.5 on time frames are confusing and not intuitive, and he suggested updating them using more modern technology. Darby agreed and said she believes the section has not changed since 1990. Crews said NAIC committee support would work with Gerling on updated visuals.

Darby reviewed the remaining subsections of Section 3, noting that the accelerated report would be removed from the Fast Track monitoring subsection, the annual statistical report requirements still need to be determined, and the lines of coverage in the subsection on who reports need to be updated. She said the Working Group should finish reviewing Section 3 at its next meeting, then review the reporting subsection of each line-specific section. She noted that these subsections are labeled inconsistently, with commercial lines using "Specific Annual Report Features," other lines using "Standard and Customized Reports for Regulators," and dwelling fire using "Specific Report Features." She said the subsections should be relabeled consistently so each clearly identifies the report for regulators.

Darby said the email to the Casualty Actuarial and Statistical (C) Task Force members will request feedback on the reports and sample data files provided by the statistical agents, with Task Force members given until Nov. 11 to comment. She said she also wants to consider the aggregate report Washington receives, noting that if statistical agents report using the same criteria, states could aggregate the reports themselves. Darby suggested holding the next meeting Dec. 2, after the national meeting.

Having no further business, the Statistical Data (C) Working Group adjourned.

© 2026 National Association of Insurance Commissioners

3. Consider Adoption of White Paper on Homeowners Rate Regulation and Cross-State Subsidization

Attachment Six

Julie Lederer (MO)

NAIC NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

9

NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

U.S. Homeowners Insurance Rate Regulation–A Regulatory Perspective

Regulation, Consumer Protection, and Market Dynamics in the Modern Era

Casualty Actuarial and Statistical (C) Task Force

2026

Executive Summary

Insurance regulators are frequently asked if ~~Imagine a hypothetical where~~ a multi-state insurer could try ~~tries~~ to charge more premium to homeowners in a state with lower risk of natural disasters to make up for heavy losses in a state with higher risk. This paper addresses this scenario, commonly referred to as "cross-state subsidization" and concludes that, under the state-based system of insurance regulation, homeowners rates are designed and reviewed to reflect the expected future cost of risk in the state where the policy is written, not to intentionally and systemically shift costs from one state's policyholders to another's.

State insurance regulators protect consumers by requiring insurers to justify rates with state-specific data and actuarial analysis. Although the regulatory framework varies by state, insurance rates are generally subject to standards requiring that they not be excessive, inadequate, or unfairly discriminatory. Actuaries evaluate data, assumptions, and methods used to estimate future losses, including inflation, catastrophe risk, and reinsurance costs. Although not all state laws require actuaries to be involved in the development of filed rates, state insurance laws or regulations often include language mandating that proposed rates be "actuarially sound" or justified by data that is "actuarially credible". Regulators ~~use these provisions to hold those filing the rates~~assess rate filing support and its adherence to the Actuarial Standards of Practice (ASOPs) promulgated by the Actuarial Standards Board (ASB) and alignment with the Casualty Actuarial Society's (CAS) Statement of Principles Regarding Property and Casualty Insurance

Ratemaking. Regulators also oversee how insurers classify risk, ensuring that differences in price are tied to real differences in risk and are not arbitrary or unfair.

The existing regulatory frameworks in the United States are designed to constrain cross-state subsidization with the help of laws, actuarial standards, and markets.

So how would those legal, actuarial, and market challenges play out in the real world for our hypothetical multi-state insurer attempting cross-state subsidization?

First, insurers support their homeowners rates with state-specific data and actuarial analysis showing that the rates reflect the expected future cost to cover insured homes in that state.

Regulators review rate filings to identify anything unsupported or inconsistent with the state's actual risk and can challenge the rate, require revisions, or reject the filing altogether. Depending on the state, this process can happen before and/or after the rates go into effect. If an insurer inflates rates to account for losses in another state, it will show up in this review in inflated loss projections, excessive catastrophe loadings, or unsupported expenses.

Regulators look for mismatches between the risk in the state and the costs built into the rate. For example, if an insurer tried to hide cross-state subsidization by charging certain groups more without a risk-based reason, that would likely be deemed excessive or unfairly discriminatory and disallowed.

Second, oversight continues after rates take effect. Follow-up spot checks by regulators verify insurers are treating their customers fairly and help ensure insurers are actually charging the filed rates, not deviating from what was approved. Even if a rate filing is approved, companies could misapply rating factors, overcharge specific consumers, or use unfiled surcharges. Market conduct exams can catch those real-world deviations and protect consumers by, for example, requiring refunds to consumers, imposing fines or penalties, or requiring changes to rating practices. When a state takes regulatory action against an insurer as a result of a market conduct exam, it notifies regulators in other states where that insurer does business.

Third, competitive market pressures act as a backstop. Insurers that price above the risk of the market *in that state* will lose business to competitors *in that state*, making it difficult to sustain rates that are artificially high.

NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

These safeguards help explain why ~~concerns of~~any attempts at cross-state subsidization would face several structural layers of protection designed to prevent them. ~~may stem from a misunderstanding of how the regulatory system operates.~~ Premiums are forward-looking estimates of future costs, not a way to recover past losses. Differences across states reflect local risks, timing, data limitations, coverage requirements, legal or regulatory requirements, or broader economic factors like inflation and reinsurance, not cross-state cost shifting. While major disasters *can* affect costs nationwide indirectly by raising rebuilding costs due to higher costs of materials and labor, or reinsurance prices, those are market-wide effects, not insurers shifting losses from one state to another.

In short, the regulatory system exists so that if an insurer tried to make one state pay for another, multiple layers of regulatory review are designed to catch it.

Overall, this paper concludes that state-based rate regulation supported by actuarial professionalism creates a holistic core consumer protection system; it ties rates to risk, subjects them to appropriate review, and helps ensure insurance remains both available and financially sound.

NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

Table of Contents

Executive Summary 1
Introduction 5
I. What Is Homeowners Rate Regulation? 6
A. State Rating Statutes and Market Regulation 6
B. Homeowners Insurance and the Importance of Market Forces 8
II. How Homeowners Rates Are Built and Reviewed 8
A. Homeowners Insurance Rating 9
Homeowners Rating Overview 9
Homeowners Rating Influences 10
B. Catastrophe Pricing and Reinsurance Implications in Homeowners Rating 12
Catastrophe Risk and Pricing 12
Cost of Reinsurance 15
III. What is Cross-State Subsidization? 17
A. Defining Cross-State Subsidization 17
1. Market-Wide Distortion: 17
2. Not-Actuarially-Justified Rates in Both States: 17
B. Mischaracterizations of Cross-State Subsidization 18
1. Differences in Actuarial Assumptions and Methodologies from One State to Another State ..... 19~~18~~
2. Rate Filing Timing Differences and Non-Mandatory Rate Filings 19
3. Mix of Business Considerations 19
4. Regulator Disapproval of Rate Filings 20
5. Credibility and Use of Non-State Data as the Complement of Credibility 21
IV. What State-Based Ratemaking Means for Consumers and Markets—Is there Cross-state Subsidization? 23
A. Catastrophe Losses and State-Based Ratemaking 23
B. How Insurers Deploy Capital and Reinsurance 24
C. What Pooling Does (and Does Not) Mean 25
D. Indirect Effects: How Catastrophe Losses May Affect Rates Elsewhere 26
E. Could Companies Hide Cross-State Subsidization? 27
F. How Evolving Catastrophe Models Affect the Debate 29
G. Important Methodological Considerations for Researchers and Media 30
V. Conclusion: Rate Regulation as Layered Consumer Protection 33
References and Further Reading 35

NAIC NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

Introduction

Regulators have been asked by legislators, researchers, media, and consumer advocates whether homeowners insurance policyholders in relatively low-risk states are financially subsidizing policyholders in states with high catastrophe exposure. The question is whether insurers spread catastrophic losses across their entire book of business, causing premiums in less disaster-prone states to rise to offset losses sustained in states with recent natural catastrophes.

At the 2026 Spring National Meeting, the NAIC Property and Casualty Insurance (C) Committee adopted the following charge for the Casualty Actuarial and Statistical (C) Task Force:

> ***Draft a white paper that explains how homeowners' insurance rates are regulated across states,[1] with particular attention to public questions and academic claims regarding potential cross-state subsidization of catastrophic losses.***

This white paper is intended to explain the framework of state-based homeowners insurance rate regulation in the United States and to examine how that framework addresses concerns regarding potential cross-state subsidization of catastrophe losses. The paper focuses on the legal, actuarial, regulatory, and market mechanisms that govern the development, review, and oversight of homeowners insurance rates. It discusses how rates are established, how catastrophe risk, reinsurance, credibility procedures, and other ratemaking components are evaluated, and how regulators assess whether rates comply with statutory standards. The paper is designed to provide a regulatory perspective on these issues and to describe the safeguards intended to promote rates that are risk-based, actuarially supported, and consistent with applicable state law. It is not intended to serve as an empirical study of insurer-specific conduct; it does not attempt to determine whether any particular company has engaged in cross-state subsidization; and it does not recommend or endorse any particular actuarial methodology for evaluating the actuarial soundness of rates. Such determinations are appropriately left to the professional judgment of the actuary, based on the specific facts, data, assumptions, and circumstances underlying each filing.

[1] "States" refers to all 56 NAIC member jurisdictions throughout the paper.

Accordingly, this paper should not be interpreted as concluding that insurer-specific cross-state subsidization is impossible or that empirical evidence could never support such a finding. Rather, the focus is limited to explaining how homeowners' insurance rates are regulated across states, with particular attention to safeguards that protect against cross-state subsidization of catastrophic losses.

I. What Is Homeowners Rate Regulation?

Homeowners rate regulation is the framework through which insurance regulators oversee the rates charged for homeowners insurance. It governs the filing and review of proposed rates, the actuarial support insurers must provide, the timing of rate implementation, and the regulator's assessment of whether rates are legal and not excessive, not inadequate, and not unfairly discriminatory. Although many insurers operate across multiple states, homeowners rates are regulated on a state-specific basis.

This section first describes the legal foundations of state-based insurance regulation, explains the core rate regulatory standards, and describes how market forces also impact homeowners rates.

A. State Rating Statutes and Market Regulation

Insurance regulation in the United States is conducted at the state level rather than the federal level. This decentralized structure traces its legal origin to the Supreme Court's 1944 decision in United States v. South-Eastern Underwriters Association, which held that insurance transactions crossing state lines constituted interstate commerce subject to federal regulation. Congress responded with the McCarran-Ferguson Act of 1945, which explicitly preserved the primacy of state regulation by providing that the continued regulation and taxation of the business of insurance by the several states is in the public interest, and that no act of Congress shall invalidate, impair, or supersede any law enacted by any state for the purpose of regulating the business of insurance.

Within each state, the legislature delegates primary regulatory authority over insurance to the Insurance Commissioner, Superintendent, or Director (collectively, the "commissioner"). That official, whether appointed by the governor or elected by the public, exercises broad authority over market entry and behavior, financial solvency, policy forms, and rates.

NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

The cornerstone of rate regulation in nearly every American jurisdiction is a three-part standard derived from the All-Industry Bills and later the *NAIC Model Rating Law*, which is adopted across all states with variations. Under this standard, insurance rates must be: (1) not excessive, meaning they do not result in unreasonably high profits or financial gains to the insurer; (2) not inadequate, meaning they are sufficient to cover expected losses and expenses and maintain insurer solvency; and (3) not unfairly discriminatory, meaning they do not differentiate among similarly situated risks without actuarial or otherwise justifiable basis.[2]

Each state legislature also defines the rate regulatory filing frameworks which reflect different calibrations of regulatory oversight of the rate filing process itself. These are broadly categorized as prior approval, modified prior approval, flex rating, file and use, use and file, and no file. See "Rate Filing Methods for Property/Casualty Insurance, Workers' Compensation, Title"[3] for definitions. This filing framework varies by lines of business within the state. Included in the architecture of rate regulation are the filing requirements, support of rates (actuarial justification), and review authority.

Rate regulation, as conventionally understood, involves the review of prospective rates that insurers propose to charge. Market conduct regulation addresses a different but complementary set of concerns: whether insurers are, in practice, treating consumers fairly in their claims handling, underwriting, marketing, and billing practices. Market conduct regulation ensures that consumers are being charged premiums in accordance with filed rates and, in coordination or consultation with actuaries, may assess whether rates are excessive, inadequate, or unfairly discriminatory.

Homeowners rate regulation is a customizable framework for evaluating whether the rates charged to consumers are justified, sustainable, and fair. That framework matters because homeowners insurance affects not only the private transfer of risk, but also household financial security, mortgage lending, and the stability of insurance markets. Regulatory oversight of rates, forms, underwriting practices, and market conduct provides a layered system of consumer

[2] See state laws for definitions that apply in each state. For example, some state insurance laws specifically prohibit risk classification based upon race, religion, etc.

[3] https://content.naic.org/sites/default/files/model-law-chart-pa-10-rate-filing-methods-for-property-casualty-insurance-workers-comp-title.pdf

protection that compensates for the limitations of consumer sophistication and the vulnerability of individual homeowners to market failure.

B. Homeowners Insurance and the Importance of Market Forces

Insurers consider competitive dynamics when they price homeowners insurance. Thus, the market can discipline homeowners insurance pricing. This works best when there are a large number of insurers active in the homeowners markets and consumers shop around for insurance. Competitive market dynamics are meaningful, but do not always work efficiently because homeowners insurance policies are complex, making comparison between companies difficult, and there are market disruptions such as when there is withdrawal of coverage in high-risk markets, insolvencies following catastrophic events, and persistent availability and affordability problems in coastal and wildfire-exposed regions. There may also be other issues such as areas with vacant properties and high crime rates. Thus, regulatory engagement is a complement to competitive markets in affecting rates for the consumers' benefit.

Competition remains an important discipline on prices, but homeowners insurance presents conditions in which market forces alone may not fully protect consumers, preserve availability, or ensure that rates remain adequate and fair. The next question is how that balance is implemented in practice: how insurers develop homeowners rates, how those rates are supported actuarially, and how regulators evaluate the data, assumptions, and methods underlying them.

II. How Homeowners Rates Are Built and Reviewed

This section turns to the mechanics of regulatory oversight. Homeowners rates are not arbitrary charges, nor should they be retrospective attempts to recover past losses. They are prospective estimates of the cost of providing coverage during a future policy period, supported by actuarial analysis and reviewed against applicable regulatory standards. The price paid for a homeowners policy provides the consumer with protection during the policy period, referred to as risk transfer, whether or not the policyholder has a claim. This is not a flaw of insurance pricing; it is the purpose of insurance. Rates are established before the outcome is known and are intended to fund the expected cost of coverage, the expenses of providing that coverage, the cost of capital and reinsurance needed to support the obligation, and a reasonable return for assuming the risk.

This section explains how those estimates are developed, how state-specific and broader data may be used, and how catastrophe risk and reinsurance are incorporated into the analysis.

A. Homeowners Insurance Rating

Homeowners Rating Overview

Homeowners insurance is a promise to cover uncertain future losses. The ultimate cost of an insurance policy is unknown at the time of sale, which complicates the pricing process[4]. As a result, the price consumers pay, referred to as the premium, is calculated based on the expected risk of loss to the home. The premium is an estimate of the future costs associated with transferring risk over the policy period. To support this estimation, insurers pool the risks of many policyholders, which allows losses to be financed by the premiums collected from many insureds. This results in diversification across risks and produces more stable outcomes.

A homeowners insurance premium generally includes provisions for expected losses, loss adjustment expenses, underwriting expenses, and profit and contingencies.

$$Premium = Expected\ Losses + Loss\ Adjustment\ Expenses + UW\ Expenses + Profit\ and\ Contingencies$$

For homeowners insurance, the largest component of the premium is the expected losses, also referred to as pure premium or loss cost. This is an estimate of the expected losses over a policy term. Historical loss data is typically used to estimate the expected losses of relatively high-frequency perils, such as fire or water damage. For lower-frequency but higher-severity events, such as hurricanes, wildfires, and earthquakes, insurers may rely on catastrophe models, as discussed in the catastrophe pricing in Section II. The premium is expected to cover future losses; thus, adjustments are made to the historical data to ensure it is predictive of future costs. Trending, the process of adjusting historical data to reflect expected future conditions, is one of the principal tools used in that process. Actuarial Standard of Practice 13[5] (ASOP No. 13), which is part of a comprehensive set of standards promulgated by the Actuarial Standards Board to govern ratemaking analysis, addresses trending procedures in property/casualty (P/C) insurance and states that actuaries can consider historical insurance and non-insurance data when

[4] https://www.casact.org/sites/default/files/old/studynotes_werner_modlin_ratemaking.pdf
[5] https://www.actuarialstandardsboard.org/asops/trending-procedures-propertycasualty-insurance-2/, Effective Date: Nov. 1, 2009.

estimating future expected values. In homeowners insurance, that is especially important because the cost to repair or rebuild a home may change materially between the historical experience period and the future period for which the filed rates are intended to apply. In addition to trending, actuaries adjust historical data for development (the maturation of claims over time) and on-level factors (the conversion of historical premiums to current rate levels).

Insurers also typically refine premiums based on characteristics of the home and the policyholder that are associated with differences in loss experience. These characteristics, known as rating factors, may include such things as the home's construction type, age of the home, geographical location, credit-based insurance score, , and roof type. For example, houses with clay tile roofs tend to be more fire resistant than houses with architectural shingle roofs, and thus usually receive lower premiums if all other characteristics are the same. When developing these rating factors, actuaries consider applicable actuarial standards, including ASOP No. 12[6], Risk Classification. All of the rating factors need to be supported by analyses showing differences in expected loss experience. In addition to expected losses, the premium should also cover the cost of adjusting claims and the expenses associated with issuing, servicing, and administering the policy. Additionally, the premium includes a provision for profit and contingencies, which reflects the need to support the business amid uncertainty. Actuaries consider applicable actuarial guidance, including ASOP No. 30[7], when developing such provisions. The level of that provision may be influenced by expected after-tax investment income and the return required on the capital supporting the insurer's operations.

Homeowners Rating Influences

Although the general actuarial methodology used to determine homeowners premiums is consistent across lines and jurisdictions, homeowners ratemaking is fundamentally state-based. Expected losses are usually derived from expected state experience and from the conditions affecting insured risks in that state, such as local peril exposure, geographic concentration of risk, construction characteristics, legal environment, and claims settlement patterns. However, this does not mean that every input to a homeowners filing is derived from purely local data or is

[6] https://www.actuarialstandardsboard.org/asops/risk-classification-practice-areas/, Effective Date: May 1, 2006.

[7] https://www.actuarialstandardsboard.org/asops/treatment-profit-contingency-provisions-cost-capital-propertycasualty-insurance-ratemaking/, Effective Date: Dec. 1, 1997

unaffected by broader market conditions. Some influences on the indicated rate level can extend beyond a single state, even where the filing itself remains state-specific. One example is repair-and-rebuild cost inflation. Homeowners claim severity is directly affected by the cost of labor, construction materials, transportation, and related rebuilding inputs, some of which can be affected by regional, national, and even worldwide conditions.

Another broader influence is reinsurance. Reinsurance is part of the mechanism through which insurers manage the impact of catastrophes on their enterprise solvency and, consequently, their ability to pay claims. Changes in reinsurance conditions can affect the cost structure underlying homeowners filings.

Broader inputs may also arise for other components of a homeowners rate indication. For example, underwriting expense provisions are often supported by company or countrywide analyses rather than a single state's experience alone. Likewise, where company-specific state data is limited, actuaries may supplement that experience with industry data and apply credibility-weighting[8], a technique that blends limited state data with broader experience to produce more reliable estimates of future loss and projected loss trends.

Given that insurance companies derive their profits from both underwriting and investment income, capital market conditions can also affect homeowners ratemaking. When anticipated investment income is projected to be high, companies often need lower future underwriting profits and vice versa. Higher expected after-tax investment returns can lead to the need for a lower profit provision in the ratemaking process, and ultimately lower rates.

In summary, homeowners rates are derived based on the expected future cost of losses and expenses associated with the insured risks in the state being rated, including catastrophe exposure where applicable. However, some inputs relevant to a state filing may be influenced by broader economic and insurance-market conditions, including rebuilding-cost inflation, reinsurance conditions, capital market expectations, nationwide expense analyses, and updates to catastrophe models. Regulators reviewing rate filings are expected to examine each element of the ratemaking analysis: the adequacy of the historical period; the credibility procedures used to blend the insurer's state-specific experience with other data or experience; the appropriateness

[8] ASOP No. 25 provides guidance concerning credibility procedures and relevant experience. The use of broader information does not eliminate the need for the selected data and resulting adjustments to be appropriate for the risks being rated in the state.

of the assumptions used to bridge from broader datasets to the specific risks of the state in question; the reasonableness of development factors; the appropriateness of trend selection (particularly in a period of rapidly changing loss cost environments); the justification for expense loads; the support for the profit provision; and more. A filing that relies exclusively on nationwide data without any state-specific adjustments, or that applies implausible adjustment factors, raises legitimate regulatory concerns regardless of the ultimate rate level requested. States vary in the depth and formality of this review, but the actuarial framework provides a common language for insurer submissions and for regulatory responses. Two of these influences, catastrophe risk and reinsurance, warrant closer examination because of their significance to homeowners ratemaking and their relevance regarding cost distributions across states.

B. Catastrophe Pricing and Reinsurance Implications in Homeowners Rating

Catastrophe Risk and Pricing

Catastrophe risk is one of the most important and most challenging components of homeowners insurance ratemaking. Catastrophe risk fits within that same prospective pricing framework described in the homeowners rating section but requires unique treatment because catastrophe losses are materially different from the types of losses that occur regularly and independently from house to house. A kitchen fire, theft, non-weather water loss, or isolated liability claim may affect one policyholder at a time. In contrast, a hurricane, wildfire, earthquake, tornado outbreak, hailstorm, or other event can produce concentrated losses across thousands of policyholders. That potential for concentrated losses creates pricing, capital, solvency, and reinsurance considerations that are not fully captured by traditional pricing techniques.

Catastrophe losses are not synonymous with all severe weather or other high-severity losses. Certain catastrophe perils, such as hurricanes, earthquakes, wildfires, and severe convective storms (SCS), are commonly evaluated using catastrophe models, although model availability and usage vary by peril and jurisdiction. Other weather-related or high-severity losses may instead be evaluated using historical experience, other models, scenario analysis, or a combination of methods. Accordingly, “severe weather,” “high-severity loss,” and “modeled catastrophe peril” should not be treated as interchangeable terms.

Because catastrophe losses may be relatively infrequent, severe, and spatially correlated, historical pricing techniques may be insufficient on their own for evaluating these perils. A state may not experience any major hurricane, earthquake, or wildfire losses during a five-, 10-, or even 20-year historical experience period, even though the risk of such an event remains material. Conversely, one or more unusually severe events may dominate a recent experience period and produce an estimate that is not representative of the long-run expected cost for the risk. ASOP No. 39[9]provides guidance to actuaries in evaluating catastrophe exposure and determining a provision for catastrophe losses and loss adjustment expenses in property/casualty insurance ratemaking. It defines a catastrophe as a relatively infrequent event or phenomenon that produces unusually large aggregate losses and defines catastrophe ratemaking procedures as procedures that adjust for catastrophe losses in experience data and determine a provision for catastrophe losses and loss adjustment expenses.

For these reasons, catastrophe risk is often evaluated separately from non-catastrophe homeowners losses. Non-catastrophe losses may be estimated using several years of historical claim experience, adjusted for trend, coverage changes, claim settlement practices, inflation, and other changes in conditions as described in the prior section. For catastrophe losses, historical data remain relevant but may be incomplete or insufficient because the historical period may not include the full range of possible events or may not reflect current exposures, building characteristics, property locations, and environmental conditions. For perils for which suitable models are available, catastrophe models are one commonly used method of addressing these limitations.

A natural catastrophe model is a computerized process that simulates many scientifically plausible catastrophic events and estimates their financial impact on a portfolio of insured properties. For commonly modeled perils, the catastrophe provision included in the overall indicated rate level in a homeowners rate filing may be based in whole or in part on the long-term expected annual cost generated by a catastrophe model. Other rate components, such as retained risk or reinsurance provisions, are also often based at least in part on catastrophe models.

[9] https://www.actuarialstandardsboard.org/asops/treatment-catastrophe-losses-propertycasualty-insurance-ratemaking/, Effective Date: Dec. 15, 2000.

Because catastrophe models are complex and rely on specialized scientific and engineering assumptions, their use in ratemaking requires judgment and review. Depending on the purpose and materiality of the model output, applicable actuarial standards, and jurisdiction-specific filing requirements, relevant filing support and regulatory review may address the specific model or models used, the exposure data entered into the model, the treatment of policy terms, the inclusion or exclusion of secondary perils (e.g., storm surge or wildfire smoke), demand surge, loss adjustment expenses, secondary uncertainty, the selection of model options, and any adjustments made to the model results. This list is illustrative, intending to show the importance of regulatory review of assumptions, and is not intended to suggest that every item is required in every filing by regulation or an ASOP.

Actuaries performing actuarial services involving catastrophe models should consult applicable standards, including ASOP No. 38[10], which addresses the selection, use, review, and evaluation of catastrophe models; ASOP No. 39[11], which addresses the treatment of catastrophe losses in property/casualty ratemaking; and ASOP No. 41[12], which addresses actuarial communications. As relevant under applicable filing requirements, regulators may also review the vendor model documentation, the insurer's use and validation of the model, as well as any rating factors, surcharges, or discounts that may have been informed by catastrophe model output.

The use of catastrophe modeling, when used appropriately, is consistent with the broader actuarial principle that rates should reflect expected future costs. ASOP No. 53[13] states that actuaries estimating future costs should select appropriate methods or models, use reasonable assumptions, consider adjustments for changes in conditions, and consider the treatment of catastrophes and reinsurance when those items are reflected in future cost estimates. For example, a home with materially greater wildfire, hurricane, earthquake, or SCS exposure is expected to incur greater losses than an otherwise similar home with lower exposure. Cost-based rating attempts to reflect these differences through rating variables such as territory, construction, roof characteristics, deductible, coverage, and mitigation discounts, among other factors.

[10] https://www.actuarialstandardsboard.org/asops/actuarial-standard-of-practice-no-38-revised-edition/, Effective Date: December 1, 2021.
[11] https://www.actuarialstandardsboard.org/asops/treatment-catastrophe-losses-propertycasualty-insurance-ratemaking/, Effective Date: December 15, 2007.
[12] https://www.actuarialstandardsboard.org/asops/actuarial-communications/, Effective Date: May 1, 2011
[13] https://www.actuarialstandardsboard.org/asops/estimating-future-costs-prospective-propertycasualty-risk-transfer-risk-retention/, Effective Date: August 1, 2018.

This risk differentiation is also tied to the regulatory standard that rates should not be excessive, inadequate, or unfairly discriminatory. In actuarial terms, unfair discrimination does not mean that all policyholders pay the same rate. Rather, it generally concerns whether differences in premiums bear a relationship to differences in expected losses and expenses. For catastrophe risk, rating factors such as location, roof characteristics, construction type, or mitigation are often appropriate when supported by data, catastrophe modeling, or other credible evidence showing differences in expected costs.

Cost of Reinsurance

Reinsurance is closely related to catastrophe pricing because catastrophe risk can threaten an insurer's surplus, profitability, and solvency. Reinsurance is insurance purchased by an insurer to transfer part of its risk to a reinsurer. In other words, it is often necessary for insurers to have reinsurance which allows them access to market capital in the event of a catastrophic loss. In homeowners insurance, catastrophe reinsurance often protects against losses on a per-risk basis, losses arising from an individual event or occurrence, aggregate losses over a defined period, or a blend of these structures.

The cost of reinsurance is ~~therefore~~ an actuarial ~~legitimate~~ component of the cost of providing homeowners insurance, though its inclusion in the price is subject to state insurance laws and regulations. ~~However,~~ When reinsurance is considered, reinsurance costs must be allocated carefully. Many insurers purchase reinsurance at a portfolio level rather than separately for each state. A single catastrophe reinsurance program may cover homeowners exposures in multiple states and may respond to losses from multiple perils which has the effect of diversifying the insurer's catastrophic risk. For purposes of allocating reinsurance cost to the states in the reinsurance program, it should not be interpreted that the cost should be spread evenly across all policyholders or all states. The actuarially sound approach is to allocate the cost in a manner that reflects the expected benefit and risk contribution of the business being rated. Relevant measures may include modeled catastrophe losses, expected reinsurance recoveries, contribution to reinsured layers, exposure distribution, premium, coverage, peril, and other risk characteristics.

Because the cost of reinsurance ultimately flows into homeowners rating, fluctuations in the cost of reinsurance can cause homeowners rates to change, particularly in catastrophe-exposed markets. The reinsurance market is global, with many reinsurers operating internationally to provide coverage for multiple insurers and risks. On a fundamental basis, reinsurance pricing is

risk-based, just as for primary insurers, and reinsurance protection is not unlimited. The market generally has limited capacity for taking on risk before reinsurance may become unavailable or unaffordable. Recent loss experience on a global scale can impact reinsurer profitability and short-term capacity. As such, seemingly unrelated catastrophe events can affect U.S. homeowners insurance rates. For example, if a major typhoon were to impact Japan, reinsurers would likely pay out on reinsurance contracts and potentially would have lower capacity in the following years to take on additional risk, even in the U.S. This constrained reinsurance market can drive general reinsurance costs upward, causing U.S. insurers to pay more for their reinsurance, and thus pass these higher costs on to their policyholders. While global events may impact the overall reinsurance market conditions and capacity, the reinsurance cost for an individual insurer's program remains specific to the risk characteristics of the underlying exposures.

Reinsurance also interacts with the profit and contingency provision and the cost of capital. Catastrophe-exposed homeowners insurance requires capital because actual losses can deviate substantially from expected losses. Reinsurance can provide an insurer with some relief from required capital by transferring tail risk, but it has a cost. Conversely, retaining more catastrophe risk may reduce reinsurance premium but increase required capital and earnings volatility. A rate indication should avoid double-counting by treating modeled losses, reinsurance recoveries, reinsurance premiums, retained risk, and profit or cost-of-capital provisions consistently. ASOP No. 53 specifically states that when reinsurance is reflected in future cost estimates, the actuary should select appropriate methods or models and reasonable assumptions for estimating the cost associated with expected reinsurance arrangements.

In summary, catastrophe pricing in homeowners insurance applies the same risk-based prospective ratemaking framework used for other homeowners costs, but with additional tools and considerations. Catastrophe models help estimate losses that are too infrequent, severe, and correlated to be measured reliably using only recent historical experience. Reinsurance helps insurers manage the volatility and capital strain created by those losses, and its cost is an appropriate part of homeowners premiums when it is actuarially supported and allocated in relation to risk and expected benefit. Together, catastrophe modeling, risk classification, reinsurance allocation, and capital provisions support the central ratemaking objective: premiums

should be an actuarially sound estimate of the expected future cost of the risk being transferred during the policy period.

III. What is Cross-State Subsidization?

A. Defining Cross-State Subsidization

It is important for researchers and others to define cross-subsidization. At the May 12, 2026, meeting of the Casualty Actuarial and Statistical (C) Task Force, Mike Goldman (Perr & Knight) identified three distinct claims of cross-subsidization. The first was residual markets, such as the Fair Access to Insurance Requirements (FAIR) plan and the Texas Windstorm Insurance Association, where costs are spread within the same state. The second was cross-state subsidization within national carrier portfolios. The third was a federal cross-subsidization through the National Flood Insurance Program (NFIP) and disaster aid, which can be analyzed with NFIP subsidies. This paper is only focused on the second type.

In theory, cross-state subsidization could be structural and systemic across the market or could be focused on an individual company's actions. For purposes of this white paper, the question is whether there is systemic cross-subsidization between states. Structural cross-state subsidization can be described as follows:

> Policyholders in one state systematically pay rates that are inadequate for their own expected costs while policyholders in another state pay more than their expected costs to offset it.

In order for **structural** cross-state subsidization to occur, two conditions need to be met:

1. **Market-Wide Distortion:**
   Structural cross-state subsidization is a market-wide phenomenon. If an individual company determines rates in a way that causes one state to subsidize another, and the subsidization exists only within that company's portfolio, that would likely not be considered ~~regulatory~~ structural cross-state subsidization (unless the insurer was of significant, material size). *(Note: This is still an issue regulators address; it just doesn't meet the definition of structural cross-state subsidization.)*

2. **Not-Actuarially-Justified Rates in Both States:**

> If rates in one or both states are determined to be actuarially justified, structural cross-state subsidization has not occurred. In a market that is structurally cross-state subsidized, one or more states would experience inadequate rates while other state(s) would experience excessive rates.

The above definition and Task Force charge focus on explaining how homeowners' insurance rates are regulated across states, with particular attention to questions regarding potential cross-state subsidization of catastrophic losses.

Because cross-state subsidization is central to the Task Force's charge, only scenarios involving subsidization are evaluated. Scenarios involving high rates in one or multiple states that do not involve inadequate rates in another state fall outside the definition of cross-state subsidization. If rates are excessive in one state but actuarially sound in another, the result is more appropriately characterized as excess profitability rather than cross-state subsidization. Cross-state subsidization requires a transfer effect in which policyholders in one state pay rates above their own expected costs to offset rates that are inadequate to cover expected costs in another state. Policyholders paying actuarially sound rates are not subsidized by policyholders in another state merely because an insurer earns higher profits elsewhere. Accordingly, scenarios in which policyholders are charged actuarially sound rates, even if an insurer earns higher profits in another state, are not considered cross-state subsidization under the framework contemplated by the CASTF charge.

Actuarial work inherently involves professional actuarial judgment, ranges of reasonable outcomes, evolving claims experience, and uncertainty. As discussed in Section III, Part B, Item 6 below, risk or experience in one state may, for legitimate actuarial reasons, affect the expected cost of providing insurance in another state without constituting structural cross-state subsidization. Whether such impacts are appropriate depends on their consistency with applicable actuarial standards and state law. Sometimes, actuarially justified scenarios may lead to the incorrect perception of cross-state subsidization.

B. Mischaracterizations of Cross-State Subsidization

There are numerous scenarios commonly mischaracterized as cross-state subsidization, including the following:

NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

1. Differences in Actuarial Assumptions and Methodologies from One State to Another State

Actuarially justified rates may reasonably differ state by state based on assumptions, credibility treatments, catastrophe loadings, trend selections, development methodologies, expense allocations, reinsurance strategies, or differing views of emerging risk conditions.

Rates in one state may reflect more conservative assumptions or greater provision for uncertainty than rates in another state, while both remain actuarially justified. Actuarial standards do not require uniform assumptions or outcomes across jurisdictions. Reasonable actuarial judgment may support materially different assumptions and levels of conservatism based on each state's unique risk profile, data characteristics, regulatory environment, and market conditions. Consequently, significant differences in indicated or approved rates between states do not, by themselves, imply that one state's rates are more actuarially appropriate than another's. Rather, the relevant consideration is whether the assumptions and methodologies used for each state are reasonable, adequately supported, and appropriate for that state's risks and circumstances.

2. Rate Filing Timing Differences and Non-Mandatory Rate Filings

In many jurisdictions, insurers are not required to submit a rate filing unless they are voluntarily revising rates. A company may choose to absorb year-to-year cost fluctuations rather than regularly adjusting rates. Similarly, a company may delay or sequence filings due to operational considerations, such as competing priorities and limited resources, or regulatory considerations, such as the anticipated time needed for review and approval. These timing differences may create temporary differences between indicated and implemented rate levels across states without the systematic transfer of costs from one state’s policyholders to another’s and therefore, do not constitute structural cross-state subsidization.

3. Mix of Business Considerations

Differences in rate change decisions across states may also reflect varying growth dynamics within an insurer’s portfolio, rather than structural cross-state subsidization.

When a book of business is experiencing rapid growth, insurers may elect to utilize more conservative pricing assumptions to account for uncertainty associated with changing

policyholder composition. Historical experience may also be less predictive for a rapidly growing book of business, as the risks being insured today may differ materially from those reflected in prior years' experience.

Conversely, a shrinking or more stable book of business may support less-conservative assumptions where the insurer believes the underlying risk profile is better understood or more predictable.

As new business enters or existing policyholders exit, the distribution of risks, geographic concentrations, coverage selections, or underwriting characteristics may shift in ways that reduce the predictive value of historical experience.

4. Regulator Disapproval of Rate Filings

Regulatory actuaries are tasked with reviewing a rate indication based on information provided in the rate filing to determine whether it complies with actuarial, legal, and regulatory standards.

Rate regulation is prospective in nature and evaluates whether the proposed rates are adequately supported under the applicable statutory framework and reasonably reflect the underlying risk.

Importantly, regulatory disagreement does not necessarily indicate that an insurer's proposed rates represent a significant departure from accepted actuarial practice. Reasonable actuarial and regulatory differences may arise even when all parties are operating within accepted actuarial and legal frameworks. Different actuaries may reasonably select different assumptions related to trend, credibility, expense provisions, catastrophe and reinsurance provisions, profit provisions or other relevant assumptions. Additionally, regulatory actuaries are highly familiar with the statutory requirements, market considerations, public policy objectives, approved actuarial methodologies, and other constraints unique to their jurisdiction.

In many cases, a regulator's concern may relate to the sufficiency of supporting data, the reasonableness of selected assumptions, the applicability of a methodology, or compliance with a statutory or procedural requirement unique to the jurisdiction. A filing disapproval may also reflect a determination that additional actuarial support or alternative actuarial treatment is necessary before the proposed rates can be approved.

Examples of situations that could result in filing disapproval without establishing that the proposed rates are not actuarially sound include circumstances where sufficient support was not provided, deadlines for submission of additional information were not met, or statutory and procedural requirements were not satisfied.

Insurance markets perform differently across jurisdictions. A rate that is actuarially sound in one state is often not actuarially sound in another state due to differences in laws, regulations, litigation environments, catastrophe exposure, consumer profiles, risk characteristics, and other market conditions.

The existence of a regulatory disagreement or filing disapproval should not be interpreted as evidence of cross-state subsidization. Rather, actuarial review is intended to help ensure that rates remain related to risk within the applicable jurisdictional and regulatory framework.

5. Credibility and Use of Non-State Data as the Complement of Credibility

A common challenge in ratemaking is determining the extent to which an insurer should rely on its own experience as compared to broader company, industry, or other supplemental data sources. Actuaries use credibility procedures to determine the appropriate weight to assign to a particular set of insurance data when developing rates. For example, a large insurer with many years of experience in a given state may receive high credibility on its own statewide data, while a smaller insurer or more niche program may rely more heavily on countrywide data or may rely on other benchmarks that are relevant to the product.

ASOP No. 25[14], titled “Credibility Procedures”, provides definitions for terms such as credibility, credibility procedure, full credibility, and relevant experience, among other concepts important to actuarial credibility analysis.

Credibility procedures are intended to balance responsiveness to actual experience with the statistical reliability needed to support stable and predictive rate indications. These procedures help reduce volatility and lessen the likelihood that isolated or short-term fluctuations disproportionately affect indicated rates.

[14] https://www.actuarialstandardsboard.org/asops/credibility-procedures/, Effective Date: May 1, 2014.

When an insurer's statewide experience is not considered fully credible under actuarial credibility procedures, the statewide experience may be weighted together with a complement of credibility, often referred to simply as the "complement". ASOP No. 25 discusses the importance of the complement reflecting relevant experience, including risk characteristics that are reasonably similar to the product being analyzed.

The complement of credibility may include experience from a broader geographic area or from an industry data source, when the insurer's own experience is not considered sufficiently credible. However, the purpose of a credibility-weighted complement is not to transfer costs from one state to another, but rather to improve the statistical reliability and predictive value of the rate indication. The actuarial appropriateness of a complement depends on whether the underlying data is considered relevant to the risks being evaluated, consistent with the principles described in ASOP No. 25.

Actuarial literature can be consulted for additional guidance regarding credibility procedures and selection of the appropriate complement.

Because professional judgment is required in determining the appropriate credibility treatment and selection of complement, insurer practices may reasonably differ depending on the circumstances and underlying data. Overreliance on broad averages may obscure meaningful emerging trends, while overreliance on limited experience may produce indications that are less predictive of future costs. Actuaries are expected to apply credibility procedures in a manner consistent with applicable actuarial standards and guidance, including the principles in ASOP No. 25 regarding the use of relevant experience and selection of an appropriate complement. Differences among insurers in the application of credibility procedures or selection of complements do not imply that either insurer's rates are not actuarially sound, nor do such differences, by themselves, establish the existence of cross-state subsidization.

6. Market-Wide Changes in Future Cost Estimates

Changes in rates may also result from evolving assessments of future risk and expected costs rather than cross-state subsidization. Rate indications are routinely updated to reflect new information, including changes in catastrophe models, reinsurance costs, loss

trends, rebuilding costs, litigation patterns, and other factors that affect expected future losses and expenses.

These changes are prospective in nature and are intended to estimate the future cost of providing coverage. Although such updates may result in higher indicated rates in one or more states, they do not represent a transfer of costs from policyholders in one state to policyholders in another state. Rather, they reflect revised assessments of the expected costs associated with insuring risks in the applicable jurisdiction.

A common mischaracterization of cross-state subsidization arises when a significant catastrophe in one state contributes to rapidly evolving market conditions that affect insurers' assessments of future risk across multiple states. Large catastrophe events may influence catastrophe model outputs, reinsurance costs, capital requirements, rebuilding cost assumptions, and other prospective ratemaking inputs. As a result, indicated rates may increase in jurisdictions that did not experience the loss event. Such changes generally reflect updated expectations regarding future costs and risks rather than a transfer of costs from policyholders in one state to policyholders in another.

IV. What State-Based Ratemaking Means for Consumers and Markets—Is there Cross-state Subsidization?

Section II explained how homeowners rates are developed and reviewed: as prospective estimates of expected loss, expense, catastrophe exposure, reinsurance cost, and other elements associated with the risk being insured. This section applies that ratemaking framework to a recurring question in public discussion: whether catastrophe losses in one state are being shifted into rates charged to policyholders in another. The answer requires distinguishing direct loss shifting from broader market effects. State-based ratemaking does not support the direct allocation of one state's catastrophe losses to another state's policyholders, but catastrophe events may still affect broader inputs such as rebuilding costs, reinsurance pricing, capital costs, and catastrophe model assumptions.

A. Catastrophe Losses and State-Based Ratemaking

A recurring theme in academic research, media coverage, and consumer advocacy is the concern that homeowners insurance policyholders in relatively low-risk states may be financially

subsidizing policyholders in states with high catastrophe exposure. These sources suggest that insurers spread catastrophic losses across their entire book of business, causing premiums in less disaster-prone states to rise to offset losses sustained in states like California, Florida, or Louisiana.

Several academic studies have examined insurer pricing behavior and rate-change patterns across states following major catastrophe events. Media investigations—particularly following the 2017–2018 California wildfire seasons, Hurricane Ian in 2022, and repeated hurricane seasons in Florida—have amplified these concerns, with reporting suggesting that consumers in other states are bearing costs attributable to coastal or wildfire-zone losses. Consumer advocacy organizations have similarly raised concerns that insurers are insufficiently transparent about cost allocations and that policyholders lack the information necessary to evaluate whether their premiums reflect local risk or a national pooling of catastrophic exposure.

These concerns deserve serious engagement. However, several important methodological limitations and industry structural features are frequently overlooked in both academic and media treatments of this issue and understanding them is essential to evaluating the subsidization hypothesis fairly.

B. How Insurers Deploy Capital and Reinsurance

While catastrophe pricing is state-specific, as discussed in Section II, insurers deploy capital and reinsurance on an enterprise-wide basis to ensure claims-paying ability regardless of where a catastrophe occurs. A national insurer writing policies in all 50 states maintains a single pool of surplus capital that supports its obligations everywhere and for every line of business it writes. When a hurricane causes billions in losses in Florida, the same surplus that backs policies in Ohio is drawn upon—if necessary—to pay those claims.

Additionally, capital supports the entire company and not just its homeowners' line of business. Most insurers do not write only homeowners' insurance policies, and those few that do rely very heavily on reinsurance because of the extreme risk associated with a monoline portfolio. Like the way carriers manage their adopted risk from policyholders by diversifying their exposure geographically, they also mitigate their risk by writing other types of insurance. Most homeowners' carriers will also sell a wide variety of property and casualty coverages including personal auto and personal umbrella policies. Furthermore, these same carriers may sell a wide portfolio of

commercial insurance products including commercial auto and property, plus commercial liability and workers' compensation policies. A carrier's surplus built up by underwriting and investment income associated with all these products is then available to them in the unlikely event of a catastrophic loss.

This enterprise-level capital deployment, however, is not equivalent to Ohio policyholders subsidizing Florida policyholders. The surplus is the insurer's own capital, contributed by shareholders and accumulated from retained earnings. It is the mechanism by which the insurer guarantees its financial promises; it is not a transfer of premium dollars from one state's policyholders to another's.

The reinsurance program layered above the insurer's retained risk functions similarly: reinsurance is purchased at the enterprise level, but its cost is allocated back to individual states based on the catastrophe exposure each state contributes to the reinsurance need. A state with low catastrophe exposure contributes less to the reinsurance cost allocation and, therefore, should have a smaller reinsurance load in its rates.

Different layers of reinsurance protection serve different purposes. Per-risk or per-occurrence excess-of-loss treaties respond to large single-event losses. Aggregate covers respond to the accumulation of smaller losses over a policy period. Catastrophe bonds and other capital market instruments provide additional protection against tail events. The cost of each layer is reflected in state-level rates in proportion to the catastrophe exposure that creates the demand for that layer of protection.

C. What Pooling Does (and Does Not) Mean

Insurance is, by design, a pooling mechanism. A homeowners insurer pools the risks of many policyholders so that the losses of the few are spread across the premiums of the many. This within-state pooling is the core economic function of insurance and is what makes coverage affordable for individual policyholders who could not self-insure against a catastrophic loss.

Cross-state pooling within a national insurer operates on a different principle. The insurer is not pooling the catastrophe losses of State A and State B policyholders together and averaging the cost across both groups. Rather, the insurer is pooling the uncertainty about whether State A losses will be higher or lower than expected, against the uncertainty about whether State B losses will be higher or lower than expected. The insurer benefits from the fact that these two sources of

uncertainty are not perfectly correlated. The economic benefit of this diversification accrues primarily to the insurer's shareholders in the form of reduced capital requirements and to policyholders in the form of improved insurer financial stability; it does not translate into State B policyholders paying for State A losses.

D. Indirect Effects: How Catastrophe Losses May Affect Rates Elsewhere

While direct cross-state premium subsidization does not occur through normal ratemaking, there are legitimate indirect pathways through which a catastrophe in one state can affect premium levels in other states, and these indirect effects are important to acknowledge.

The most significant indirect effect operates through supply chain economics. Following a major catastrophic event, such as a hurricane, wildfire, or flood, the demand for building materials, skilled labor, and construction equipment surges in the affected region. Lumber prices, roofing material costs, drywall, and structural components all experience sharp price increases, driven by both genuine supply constraints and demand concentration in the affected area. These elevated material costs do not remain geographically confined. A homeowner in Indiana filing a non-catastrophic claim, such as a burst pipe, a fallen tree, or a kitchen fire, may find that the cost of repairs has risen meaningfully because the same lumber being used to rebuild Gulf Coast homes is now more expensive everywhere. Insurers writing homeowners policies across the country may experience increased claim severity in all states following a major catastrophe, and this elevated severity can feed into the loss experience used to support future rate changes nationwide. This is a real, quantifiable, and economically rational indirect linkage between catastrophe losses in one state and premium levels in others, and it deserves recognition in the research literature as a legitimate channel distinct from, and not confused with, direct subsidization.

Catastrophic events can also affect reinsurance pricing globally. A particularly severe hurricane season or a large wildfire loss may increase reinsurance costs for the subsequent policy year, and those increased costs are reflected in rate filings across all states that purchase catastrophe reinsurance — even states that were not directly affected by the event. This is not to compensate reinsurance carriers for losses sustained in a prior event; rather, the severe event serves as an additional data point that could cause reinsurers to adjust their predictions of future loss.

As with the rebuilding-cost effects discussed above, this is a market-driven indirect effect, not a regulatory or actuarial mechanism for cross-state subsidization.

Finally, catastrophes provide the opportunity for models to be updated for what is learned about resiliency. Insurers and third-party modelers may calibrate rating values associated with certain types of construction, roof materials, mitigation efforts, etc., and use the revised discounts and factors throughout the country.

E. Could Companies Hide Cross-State Subsidization?

A more sophisticated version of the cross-state subsidization hypothesis asserts that even if rate filings are state-specific, insurers might use the flexibility within ratemaking to shift value between states in ways that are difficult for regulators to detect. For example, an insurer might inflate the profit provision in low-catastrophe states to build a surplus that effectively offsets losses in high-catastrophe states. Or an insurer might systematically understate the catastrophe load in a high-exposure state by using older, less sensitive catastrophe models, while compensating with higher expense loads in other states.

The Center for Insurance Policy and Research (CIPR) performed a qualitative analysis of rate filings to explore the hypothesis that carriers are subsidizing catastrophic losses incurred in one state with higher rates in another state. If the hypothesis were true, the expectation is rate filings would either 1) directly include out-of-state catastrophe losses in the development of the indicated rate need or 2) indirectly increase the indication by changing methodology (e.g. using more conservatism) after catastrophic loss in another state. The analysis, while qualitative and limited in scope, did not support the hypothesis that carriers are raising rates in one state to support losses in another state.

Minnesota Hail Event: Found No Effect on Iowa Rates

For example, in 2017 there was a hail event (part of a June Derecho) in Minnesota. Iowa rate filings were examined for some companies writing insurance in both Minnesota and Iowa. No Minnesota loss data (or any other out-of-state losses) were reflected in five Iowa rate filings prior to Derecho and six after Derecho. Rate provisions and methodologies were also reviewed to test for any indirect cross-state subsidization via selection of more conservative factors or changes in methodology intended to yield a higher indication in the post event filings.

The methodologies and provisions reviewed were: 1) Indication methodology: number of years of experience, weighting of years; 2) Loss and Trend: development and selection of; 3) Catastrophe provision development including which CAT models were used; 4) Reflection of reinsurance; 5) Development of underwriting profit and contingencies provision; 6) Other expense development; 7) Indicated vs proposed rates; 8) Credibility methodology and the selected complement of credibility; 9) Premium Trend; and 10) Other factors (e.g., Large loss procedure that may be impacted by out-of-state losses). No methodology changes were observed that would indicate an indirect allocation of losses from the catastrophe events into Iowa rate indications. "Indirect effects" such as reinsurance costs, countrywide expenses or profit provision selection did not appear to be affected by the experience of out-of-state losses. When indications were higher in the post period, the driver was an increase of in-state losses or loss trends. Changes observed were due to companies having more internal experience to rely on, updates to catastrophe models, updated factors such as profit provisions, or other methodology changes that adhere to standard actuarial principles.

With changes to profit provisions, carriers maintained a consistent methodology to develop their profit provisions, but some updated inputs such as the rate of return, which resulted in small changes in the underwriting profit. In some cases, the underwriting profit provision increased from pre-to-post event filings. One carrier increased their profit provision from 6% to 7%. In some cases, the underwriting profit provision decreased: one carrier decreased its profit provision from 7.2% to 5.4% and another from 7% to 5%.

Regarding methodology changes, one company changed its credibility procedure which resulted in a small increase in the credibility attributed to its own statewide data; the complement of credibility was applied to a trended permissible loss ratio (not to loss experience from other states).

Hurricanes Harvey & Irma and 2018 California Wildfires: Found No Effect on Virginia Rates

Using the same methodology, four Virginia rate filings were studied before and four after the hurricanes Harvey & Irma in 2017 and eight filings before and eight after the 2018 California wildfires (7/23/18-8/30/18). Findings in the Virginia rate filings were consistent with the findings from the review of Iowa rate filings: There were no out-of-state losses included in any of the rate filings in Virginia. There were no methodology changes or rate provision selections that would indicate an indirect allocation of loss experience from the catastrophes to Virigina.

While these are only two limited scope case studies, CIPR has not found support for the subsidization hypothesis. Analyses of profit provisions, expense ratios, and loss ratios across states have not revealed the systematic patterns that would be expected if insurers were deliberately routing value from low-catastrophe to high-catastrophe states. This does not foreclose the possibility that individual insurers in specific circumstances might engage in such behavior. ~~, but t~~The available evidence from the CIPR study does not support~~, is not consistent with~~ cross-state subsidization as a widespread or systematic phenomenon.

F. How Evolving Catastrophe Models Affect the Debate

One final dimension that is essential to understanding the cross-state subsidization debate is the evolution of catastrophe modeling. Insurers and their actuaries rely on probabilistic catastrophe models to estimate the expected losses from hurricanes, wildfires, earthquakes, and other catastrophic perils. These models, developed and maintained by specialized vendors and insurers, translate meteorological, geophysical, and engineering science into probabilistic loss distributions for any portfolio of insured properties.

Catastrophe models have changed significantly over time, and the transitions between model generations can create large changes in rate levels. When a major vendor releases a new version of a hurricane model that substantially increases estimated loss costs for Gulf Coast exposures, insurers using that model will file for rate increases in the affected states. The timing and magnitude of those increases may differ across insurers depending on when they transition to the new model, how much credibility they give to the model versus their own historical data, and how their reinsurance programs respond to the updated loss estimates. A researcher observing this pattern without knowledge of the model transition might incorrectly attribute the rate increases to a redistribution of costs rather than to an improved scientific understanding of the underlying peril.

The practical implication for the subsidization debate is that large, sudden shifts in catastrophe-state rate levels, particularly following a major loss event or a model update, do not indicate that prior rates in those states were subsidized by other states. They indicate that the industry's understanding of the catastrophe risk has changed, and that rates are being updated to reflect that improved understanding. The absence of prior rate increases does not mean policyholders elsewhere were overpaying; it may mean that the risk was systematically underestimated by the best available models at the time.

G. Important Methodological Considerations for Researchers and Media

It is worth flagging several recurring misconceptions that appear in research and reporting on this topic, because they can significantly distort conclusions about cross-state subsidization.

1. Rate Filings Are Not "Exact Rate Needs."

A rate filing reflects an indicated rate need and the proposed rates. Actuarial rate indications involve projecting future (unknown prospective) losses and expenses from historical data using loss development factors, trend factors, and catastrophe load adjustments, and other factors—all of which carry significant uncertainty. The "indicated rate change" in a filing is meant to be a single point estimate within a range of reasonable estimates. No actuary, regulator, or researcher knows with certainty how many claims will occur in a future policy period, or what those claims will cost. After-the-fact comparisons of predicted losses to actual losses do not establish that charged rates were excessive or inadequate. The nature of catastrophes alone renders such comparisons moot; a pricing environment that would react each year to the catastrophes that did or did not occur in the year prior would lead to enormous rate swings that would be not only actuarial unsound but also harmful to consumers.

2. Claim Count Definitions Vary Across Insurers and Datasets.

Comparisons of claim frequencies across companies or states often encounter the problem that insurers define and count claims differently. Some insurers record a claim for each person injured, each site damaged, each coverage affected, etc. Zero-payment claims (opened and closed without indemnity, such as claims below the policyholder deductible or not caused by a covered peril) may or may not be included in reported counts. Researchers using industry databases or statutory filings should account for these definitional differences, as unadjusted comparisons can produce false or misleading conclusions about relative loss frequency and severity, or average claim amounts.

3. The Indicated Rate vs. Rate Received: A Critical Assumption.

Much of the academic literature on cross-state subsidization implicitly or explicitly assumes that the indicated rate need in a filing, represents the true economic cost of risk in that state, and that any gap between the indication and the filed and/or approved rate must be recovered elsewhere, including (potentially) from policyholders in other states.

This assumption does not withstand careful examination. First, as previously described, the rate indication in a filing is but one point estimate among a range of reasonable estimates, a range that is likely to include the proposed rate level when it deviates from the filed point estimate indication. Second, even very large insurers write only a small fraction of the policies in any given state. An insurer whose indicated rates are outside the range of their competitors has to consider whether their estimates are missing the mark. State insurance regulators should be skeptical as well. The impacts of going to market at rates that are too competitive or not competitive enough can be catastrophic. An insurer that charges uncompetitive rates could start an adverse selection spiral that ultimately results in the failure of the product and its withdrawal from the market. Needing to account for adverse selection risk in one state but not another does not mean one state's policyholders are subsidizing the other's.

4. Catastrophe Pricing Is a State-Level Construct.

A foundational principle of property insurance pricing, and one that is frequently misunderstood in cross-state subsidization discussions, is that catastrophe loss costs are estimated for the state where they are expected to occur. California wildfire claims experience does not enter the rating calculation for a homeowners policy in the Midwest. Each state's rate level is derived from that state's own expected loss experience, adjusted for trend and development (among other things), with catastrophe loads built from catastrophe models calibrated to the geographic exposures within that state. State insurance regulators enforce this principle by requiring that rates be filed and justified on a state-specific basis.

Confusion arises because state insurance rating laws may allow insurers to use both state-specific and other data, such as regional or nationwide data. In practice, an insurer will use state-specific data to the extent it is credible and will supplement it with other credible, relevant information where needed. To be "relevant," that data must be a reasonable estimate of expected losses and expenses for the policies to be written in the state.

This distinction is especially important for catastrophe risk. Updated catastrophe models may incorporate new scientific understanding, new claims information, changes in exposure, or changes in environmental conditions that affect more than one state. For

example, a major hurricane in Florida may reveal that certain types of structures perform more poorly than expected, or that loss amplification effects are more significant than previously understood. Though these findings came from experience in Florida, hurricane catastrophe models used across the entire Atlantic coast will be updated to reflect these new learnings, which could impact rates in all states with hurricane risk. While this may appear at the surface to be cross-state subsidization, there is a distinct difference: this is not insurers using out-of-state losses to increase rates (cross-state subsidization), but rather a best practice of using the latest science – catastrophe events in other states that may teach insurers, modelers, and regulators something new about the risk that is relevant to other states exposed to the same peril.

When it comes to certain parts of the insurer's rating plan, such as determining the rates for customers based on their individual risks, insurers are encouraged to use their most credible data, which may include nationwide or regional information on issues such as how fire damages buildings, what roofing materials perform best when neighborhoods burn, etc. When discussing state cross-subsidization, it is the overall indication by coverage or peril that is most relevant and the overall indication is a state-based number. A filing that attempted to recover California wildfire losses through Midwest premiums would be actuarially unsound and unlikely to survive regulatory scrutiny. The regulatory architecture of state-based insurance oversight, therefore, provides a structural barrier to the kind of direct cross-state subsidization that researchers and media often allege, while still allowing insurers and regulators to recognize credible, relevant scientific information that improves the assessment of catastrophe risk within each state.

5. Actuarial standards play an important role in insurance pricing.

The vast majority of property and casualty insurance companies use credentialed actuaries to determine pricing. Those actuaries are bound by professional standards and a Code of Conduct and are subject to discipline if they depart materially from those expectations of professionalism. The standards provide guidance about how actuaries should provide a rate that is the expected value of all future costs associated with an individual risk transfer. Precept 8 of the Code of Professional Conduct specifically states that an actuary "shall take reasonable steps to ensure that such services are not used to mislead other parties," which can include regulators. Deliberate implementation of cross-

state subsidization while developing rates would be in violation of the ASOPs and actuarial principles which may constitute a violation of the Code of Professional Conduct. Such violations could lead to disciplinary review and/or action by the Actuarial Board for Counseling and Discipline (ABCD).

For homeowners insurance, actuaries are not required to provide an attestation as to the appropriateness of rates. However, the actuarial standards are still used by regulators as the expected standard for ratemaking.

6. Refer to the CIPR website for considerations when using insurance data.

This section has distinguished the direct allocation of catastrophe losses from the broader market effects that may influence homeowners rates. That distinction matters because it shows why rate regulation must both recognize genuine cost pressures and require that those costs be reflected through supported, risk-based, and reviewable ratemaking. Section II places that role in the broader architecture of homeowners insurance regulation: a layered system designed to protect consumers, preserve market stability, and maintain actuarial discipline.

The longstanding statutory standard that insurance rates shall not be excessive, inadequate, or unfairly discriminatory provides a rich foundation for future research in insurance rate regulation, including more in-depth study of cross-subsidization and numerous other topics. Building from this white paper, research could examine catastrophe exposure, model updates, and proper use of the models; reinsurance practices; insurer capital allocation; market competition; company filed rate changes vs. implemented rate changes; target underwriting profit provisions vs. historical profitability, and more.

V. Conclusion: Rate Regulation as Layered Consumer Protection

Rate regulation is a calibrated system that supplements the competitive market forces that exist in most states with regulatory oversight proportionate to the degree of market imperfection and the magnitude of consumer vulnerability.

The architecture of state-based regulation described in Sections I through IV, with its uniform three-part legal standard for insurance rating, delegation of authority to state insurance commissioners, and diverse rate filing requirements, and with a complement of market conduct oversight, reflects the accumulated wisdom of more than a century of insurance regulatory experience.

Rate regulation can and should ensure that cost trends are accurately measured, that actuarial justification is genuine, that unfair discrimination is absent, and that insurers are not exploiting information asymmetries or market concentration to extract excessive profits.

Present regulatory needs include attention to using sophisticated actuarial staff (as rate filing models and support continue to get more complex) and effective market monitoring. The engagement of the actuarial profession, through its standards, its certifications, and its independent professional obligations, is indispensable to the integrity of the rate regulatory process. Actuaries who conduct rate indication analysis in rate filings occupy a position of public trust and professional obligation, and the regulatory system depends on the actuarial community's commitment to honest, rigorous analysis as a foundation for sound ratemaking.

The homeowners insurance market faces significant challenges in the years ahead, from increasing catastrophic disasters to rising replacement costs to the evolving legal environment. Rate regulation, when properly designed and effectively administered, will remain an important tool for ensuring that these challenges are met in a manner that protects consumers, maintains market stability, and preserves the availability of coverage that protects the most important financial asset most American families will ever own.

The goal of property and casualty ratemaking is to predict the rates that need to be charged on a specific cohort of insurance policies that will be written in the future. The application of appropriate actuarial practices and techniques ensures that those rates are adequate, but not excessive or unfairly discriminatory for covering the expected losses and expenses on those policies, while also allowing for a reasonable return for the risk undertaken. Ratemaking is inherently a prediction of unknown future values. To the untrained eye, a year with few severe storms and catastrophic events might make it seem as if the rates were excessive. And a year with many severe storms and catastrophic events might look like the rates were inadequate. But the ratemaking process accounts for such random fluctuation and prices to the expected frequency of, and claim values associated with, these events in any given year.

Insurers typically use their own state-specific experience to the extent possible for ratemaking purposes. But that experience often needs to be supplemented with additional information to make credible predictions about future losses and expenses on policies that haven't yet been written. This supplemental information can include catastrophe models, other insurers' experience and their rates, experience and statistics made available by advisory and rating organizations, and regional or even countrywide experience and statistics. However, it is important to understand that supplemental information must be adjusted and used only to the extent that it helps predict expected losses and expenses on a specific set of policies in a specific state that will be written in the future. An insurer that would attempt to charge excessive rates in one state to make up for inadequate rates in another would be in violation of state insurance laws and their actuaries would be in violation of actuarial standards of practice. Complaints about the insurer's actuaries (e.g., submitted by state insurance regulators) to the Actuarial Board on Counselling and Discipline could result in professional discipline, up to and including the revocation of their credentials and ability to practice. The insurer's proposed rates would be subject to regulatory scrutiny, and the insurer would likely fail to meet their business objectives.

Property and casualty insurance ratemaking is a complex endeavor undertaken by professionals with standards of practice governing their work. Those studying the actuarial soundness of insurance rates, and effectiveness of state-based rate regulation, would produce more accurate and beneficial research by meeting with state insurance regulators to discuss their methodology and findings as part of their research and in advance of publishing any reports.

Finally, the authors recognize this paper does not conclusively prove that no cross-state subsidization exists between policyholders in any states. That would require significant additional study well beyond the scope of the charge given to the Task Force which produced this paper. Instead, this paper describes the plethora of safeguards in place that ~~serve~~ are designed to prevent cross-state subsidization from occurring.

References and Further Reading

American Property Casualty Insurance Association (APCIA). The Economic Justification for Rate Regulation in Personal Lines Insurance. Washington, D.C.: APCIA Policy Research.

Cummins, J. David, and Sharon Tennyson. “Regulation, Efficiency, and Competitiveness in the U.S. Property-Liability Insurance Industry.” Journal of Insurance Issues (1994).

Harrington, Scott E. “Insurance Rate Regulation in the Twenty-First Century.” Journal of Insurance Regulation 21, no. 1 (2002).

Klein, Robert W. “Insurance Market Regulation: Catastrophe Risk, Competition and Systemic Risk.” Working Paper, Risk Management and Insurance Program, Georgia State University (2012).

McCarran-Ferguson Act of 1945, 15 U.S.C. §§ 1011–1015.

National Association of Insurance Commissioners (NAIC). Model Rate and Policy Form Regulation Act. Kansas City, MO: NAIC.

National Association of Insurance Commissioners (NAIC). Property/Casualty Insurance: An Industry Overview. Kansas City, MO: NAIC.

United States v. South-Eastern Underwriters Association, 322 U.S. 533 (1944).

~~Actuarial Standards Board. Actuarial Standard of Practice No. 25: Credibility Procedures. Washington, D.C.: ASB.~~

Actuarial Standards of Practice: https://www.actuarialstandardsboard.org/standards-of-practice/#filter=*

American Property Casualty Insurance Association℠
INSURING AMERICA apci.org

October 21, 2026

Kris DeFrain, MAAA, FCAS, CPCU
Director of Research and Actuarial Services
National Association of Insurance Commissioners (NAIC) Central Office
(via email: kdefrain@naic.org)

RE: NAIC CASTF Second Draft White Paper (U.S. Homeowners Insurance Rate Regulation – A Regulatory Perspective)

Dear Ms. DeFrain,

On behalf of the American Property Casualty Insurance Association (APCIA)[1], thank you for the opportunity to review and provide comments on the second draft white paper, U.S. Homeowners Insurance Rate Regulation – A Regulatory Perspective.

APCIA appreciates the improvements made in the new draft which make it a valuable tool in explaining how the state-based risk-based ratemaking operates in practice. The conclusion that systemic cross-state subsidization is not occurring and commends the NAIC for developing a thoughtful, fact-based resource that helps address misconceptions regarding homeowners insurance ratemaking.

The discussion of global catastrophes and reinsurance market impacts is technically accurate, but it may overstate the practical significance of those effects to readers unfamiliar with insurance ratemaking. We recommend adding context that generally reinsurance is only a small component of the premium and that expected losses typically represent the largest share of homeowners insurance rates. This would help readers understand that, while reinsurance market changes are relevant, they are typically only one of many factors influencing rates. Non-U.S. catastrophe losses and their effects on reinsurance capacity and pricing generally do not have a substantial impact on the U.S. homeowners insurance market.

Sincerely,



Norman Niami, FCAS, MAAA, Affiliate IFoA
Vice President, Actuary, Policy, Research and International
Norman.Niami@APCI.org
Cell: 202-880-4082

[1] The American Property Casualty Insurance Association (APCIA) is the primary national trade association for home, auto, and business insurers. APCIA promotes and protects the viability of private competition for the benefit of consumers and insurers, with a legacy dating back 150 years. APCIA represents the broadest cross-section of home, auto, and business insurers of any national trade association. APCIA membership consists of over 1,200 member companies (or over 300 member groups). APCIA member companies P&C countrywide market share is 66% (total 74% commercial lines, 60% personal lines).

From: Ralph Blanchard <rsblanchardiii@gmail.com>
Sent: Tuesday, October 6, 2026 11:10 AM
To: DeFrain, Kris <kdefrain@naic.org>
Cc: Susan Kent <SKent@omig.com>
Subject: Re: Casualty Actuarial and Statistical (C) Task Force Webex Meeting

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Kris,

I noticed that the first page of the paper on Homeowners ratemaking says that "*Regulators use these provisions to hold those filing the rates to the Actuarial Standards of Practice (ASOPs) promulgated by the Actuarial Standards Board (ASB) and the Casualty Actuarial Society's (CAS) Statement of Principles Regarding Property and Casualty Insurance Ratemaking*.". Is that true? I didn't think that state laws pointed to the CAS Statement of Principles. I thought that they instead pointed to state laws on excessive, inadequate and discriminatory. In general, the CAS Statement of Principles aren't viewed as authoritative professional guidance, as the ASOPs don't point directly to those Principles statements as part of the ASOPs.

I may be wrong, but I think that the quoted statement may need to be rechecked.

Ralph

NAMIC®
NATIONAL ASSOCIATION OF MUTUAL INSURANCE COMPANIES

317.875.5250 | [F] 317.879.8408
10 W. 106th St., Suite 100 | Indianapolis, Indiana 46290
202.628.1558 | [F] 202.628.1601
20 F Street N.W., Suite 510 | Washington, D.C. 20001

October 26, 2026

Julie Lederer (MO), Chair
NAIC Casualty Actuarial and Statistical (C) Task Force
c/o Kris DeFrain, Director, Research and Actuarial Department
Via email kdefrain@naic.org

Re: NAMIC Comments on the Draft White Paper

Dear Chair Lederer and Members of the Task Force:

On behalf of our members, the National Association of Mutual Insurance Companies (NAMIC)[1], this letter offers comments on the draft white paper *U.S. Homeowners Insurance Rate Regulation- A Regulatory Perspective.* NAMIC appreciates the opportunity to comment on the revised white paper addressing homeowners insurance rate regulation and cross-state subsidization. We support the paper's direction and appreciate the Task Force's efforts to explain state-based ratemaking and distinguish cross-state subsidization from legitimate differences in risk, pricing assumptions, and financial results.

The revisions strengthen an already valuable document. In particular, we welcome the clearer use of "cross-state" terminology, increased emphasis on actuarial professionalism, distinction among catastrophe-related concepts, and discussion of empirical evidence. We also support the explanations that state-specific pricing assumptions can reasonably differ and that actuarially sound rates in one state and excessive rates in another do not, by themselves, establish cross-state subsidization.

We offer the following targeted suggestions:

1. Clarify state differences and terminology. On Page 2, expand the final sentence beginning "Differences across states" to include coverage requirements and regulatory differences, such as mandated coverage offerings and state-imposed limitations on profit provisions. In the "Market-Wide Distortion" discussion on

[1] *The National Association of Mutual Insurance Companies (NAMIC) is the foremost trade association representing the property/casualty insurance industry. Serving more than 1,300 member companies—including local and regional insurers as well as some of the nation's largest carriers—NAMIC members collectively write $467 billion in annual premiums, representing 61% of the homeowners and 53% of the automobile insurance markets. For more than 130 years, NAMIC has been the leading voice advancing public policy solutions and regulatory frameworks that promote a strong, competitive market and protect our members and their policyholders.*

NAMIC®
NATIONAL ASSOCIATION OF MUTUAL INSURANCE COMPANIES

317.875.5250 | [F] 317.879.8408
10 W. 106th St., Suite 100 | Indianapolis, Indiana 46290
202.628.1558 | [F] 202.628.1601
20 F Street N.W., Suite 510 | Washington, D.C. 20001

page 18, define "regulatory cross-state subsidization" and explain its relationship to "structural cross-state subsidization," or use the latter term consistently if no distinction is intended.

2. Refine the conclusion on page 29. We suggest replacing the final sentence with language that leads with the evidence and preserves appropriate limitations without inviting an unsupported inference about individual insurers: "The available evidence from the CIPR study does not support cross-subsidization as a widespread or systemic phenomenon. These findings should be understood within the scope of the study and should not be generalized beyond the circumstances examined."
3. Make a minor editorial correction. On page 15, insert a comma between "roof characteristics" and "deductible" in the second paragraph.

We appreciate the Task Force's thoughtful consideration of these issues and support its continued work to provide a clear, evidence-based explanation of homeowners insurance ratemaking and regulation.

Sincerely,

Erica Weyhenmeyer

Erica Weyhenmeyer, CPCU, MCM, AIE, WCP
Sr. Policy Vice President- Market Regulation & Workers' Compensation
NAMIC

From: Peter Ott <peter.james.ott@gmail.com>
Sent: Sunday, October 25, 2026 10:30 AM
To: DeFrain, Kris <kdefrain@naic.org>
Subject: Comment on NAIC US Homeowners Rate

Kris,

I wanted to provide some feedback on the paper. I'm a member of the CAS and the AAA but these comments are my own.

1. The paper in general does a lot of careful word-smithing around the definitions of cross subsidization and general reasons insurance prices go up. Said another way, the definition on page 17 of cross subsidization is doing a lot of work here. I think the paper would be stronger if there was a clearer distinction between this definition of cross subsidization and "risk in one state can affect what's paid in another state".

2. Also, condition 2 in the structural cross subsidization is a bit of a stretch. While actuarial rates are governed by the ASOPs to the reflect the expected future costs of the risk classification, the condition is sidestepping the question of rate adequacy. If the actuarial analysis says rates should increase by 10%, 15%, 20%; where do you draw the line to say the current rates are adequate?

3. It goes to my first point about where risks in one state affect what's paid in another state, but the arguments for reinsurance and cost of capital are a bit weak and rely on the paper pre-defining what cross subsidization is. Again, the paper relies on its own definition to prove its point. For example, if the cost of a catastrophe reinsurance treaty goes up by X% after the California wildfires; it's almost impossible to segregate out what portion of the increase came because of the CA specific wildfires. So depending on how you choose to allocate the reinsurance expense, the nominal dollars in Montana would increase. The paper's definition of cross subsidization would say that's fine, but I suspect the average person would be skeptical.

4. The paper could be strengthened if they took the premium definition on page 9 and explained how each component does or does not contain any sort of cross subsidization. Or acknowledge or broader risk factors feed into each element. The largest component of the premium is usually expected losses which should have little to no cross subsidization. It's the other bits that are tricky.

The paper is generally pretty good, but the weakest points in the argument rely on pre-defining cross subsidization narrowly and being a bit vague on the points around how risks in other states affect the price in other states. It would be hard to argue that if the cost of capital goes up because of CAT events, that states in lower risk areas are not nominally paying more. It might be small but it's there.

Thanks,

Peter

From: Roger Sarvate <rsarvate@taylorandmulder.com>
Sent: Thursday, October 15, 2026 3:10 AM
To: DeFrain, Kris <kdefrain@naic.org>
Subject: Comments on NAIC Homeowners Rate Regulation White Paper – Catastrophe Risk and Reinsurance Cost Allocation

Dear Ms. Defrain,

I am writing in response to the NAIC's request for comments on the exposure draft of *U.S. Homeowners Insurance Rate Regulation—A Regulatory Perspective*. My comments relate primarily to Section II.B, particularly the allocation of catastrophe reinsurance costs among states, as well as the related discussions of credibility and catastrophe modeling in Sections III.B.5 and IV.F. While the draft appropriately recognizes the importance of state-specific catastrophe exposure, the limitations of historical experience, and the use of broader data and catastrophe models, I believe it could benefit from further discussion of the practical actuarial challenges involved in combining these sources of information.

The allocation of homeowners reinsurance costs attributable to specific weather-related perils at the state level presents a significant actuarial challenge. Applying a countrywide or companywide distribution of losses by peril to individual states may produce questionable results when the underlying exposures differ substantially. However, relying exclusively on a state's historical distribution of losses by peril may be equally problematic. The absence of significant historical losses from a particular peril does not necessarily imply that the peril presents little or no prospective risk. Recent catastrophes, including the 2023 Lahaina wildfires in Hawaii, illustrate how historically infrequent events can generate substantial losses, particularly in light of changing climatic and environmental conditions. Overreliance on historical state-level experience could therefore understate certain states' catastrophe exposures, potentially shifting a disproportionate share of reinsurance costs to other states with a more established history of losses from those perils.

Ideally, the methodology for estimating state-specific catastrophe risk should balance responsiveness to changing conditions with the need for stable, credible estimates of prospective losses by peril. This could involve combining state-specific historical experience, countrywide experience as a complement of credibility, and forward-looking projections from scientifically sound catastrophe models. For states with limited historical experience, the countrywide complement would need appropriate adjustments to reflect

differences in underlying risk characteristics, while catastrophe model estimates should be rigorously validated and subject to appropriate regulatory review.

The relative credibility weights assigned to these three sources would require careful consideration, particularly where the selections involve actuarial judgment. One alternative would be to treat these weights as parameters calibrated through a formal validation process, evaluating candidate combinations based on their out-of-sample predictive performance. Such validation could consider periods containing relatively unexpected or extreme events, such as the catastrophic inland flooding in western North Carolina caused by Hurricane Helene in 2024, to assess whether the combined estimates adequately account for severe catastrophe risks in regions with limited historical experience of events of comparable magnitude. The objective would not be to fit the methodology retrospectively to these events, but rather to evaluate whether the combined estimates adequately capture the potential for severe losses in areas with relatively limited historical catastrophe experience.

Importantly, estimating state-specific catastrophe losses by peril is not equivalent to allocating the costs of a shared, multistate reinsurance program. As the draft correctly recognizes, the latter should also reflect each state's contribution to the protection being purchased, including expected recoveries and contributions to particular reinsured layers. Nevertheless, reliable state-specific catastrophe risk estimates remain an important input to that allocation. If those estimates misrepresent the relative exposures of individual states, the resulting allocation of reinsurance costs may also be distorted, even where the allocation methodology is otherwise reasonable.

I therefore suggest that the Task Force consider expanding Section II.B, or cross-referencing Section III.B.5, to acknowledge these challenges and the potential value of systematically evaluating the relative credibility and predictive performance of different information sources. The white paper need not prescribe a particular methodology, but a more explicit discussion of these considerations could help clarify how actuarially sound approaches can reduce the risk of unintended cross-state cost misallocation.

Thank you for considering these comments and for the Task Force's work on this important issue.

Best regards,

Roger Sarvate, ACAS, ASA, MAAA
Consulting Actuary
Taylor & Mulder, Inc.
(301) 944-4784
rsarvate@taylorandmulder.com

Comments on the NAIC Draft White Paper on Home Insurance Rate Regulation:
Exposure Draft of September 25, 2026

October 26, 2026

Thank you for the opportunity to provide follow-up comments on the September 25, 2026 exposure draft of the White Paper on Home Insurance Rate Regulation. I appreciate the substantial improvements made since the prior draft, including:

• Removal of categorical assertions that cross-state subsidization is not occurring;

• Clarification that insurer excess profitability and company-specific conduct fall outside the scope of this paper without being ruled out; and

• More precise distinctions between the intended functioning of regulatory safeguards and the empirical questions that remain open.

The revised draft is materially improved in tone, balance, and alignment with realistic regulatory practice. Nevertheless, several important issues remain where the paper could better reflect actual complexities of ratemaking, regulatory oversight, catastrophe modeling, and credibility procedures. The following summarizes the key remaining recommendations based on attached my in-line comments and my previous August 5, 2026 letter.

1. Avoid Statements that Presume the Efficacy of Regulatory Safeguards Without Empirical Demonstration

The paper often describes layered regulatory, actuarial, and market mechanisms and implies that these mechanisms *prevent* cross-state subsidization. A more accurate formulation is that these mechanisms are *designed* to prevent such outcomes. Regulators' authority, resources, and review depth vary widely across states, and this can materially influence the detection of cross-state cost shifting.

I recommend that the paper clarify more consistently throughout that these safeguards are *intended* to *prevent* insurer attempts at cross-state subsidization, but that further empirical research is required to determine how often they do so in practice.

2. Expand Acknowledgment of Indirect Mechanisms That Can Produce Cross-State Rate Effects

The draft appropriately distinguishes direct loss shifting from broader market impacts, but its treatment of indirect effects—credibility weighting, catastrophe modeling, reinsurance cost allocation, and post-disaster market psychology—remains incomplete.

Key areas where implicit cross-state impacts can occur include the following:

• **Credibility procedures** may import catastrophe loss trends from high-risk states when low-risk-state data are deemed by the insurer to be non-credible.

• **Catastrophe models** can inflate insurers' perception of risk in low-risk states if model settings, vendor assumptions, or model updates disproportionately reflect experience from catastrophe-prone regions.

• **Reinsurance allocations** may burden low-risk states when portfolio-wide treaties are priced primarily by exposure to perils absent from certain states.

• **Post-catastrophe model updates** and **insurer perception effects** can inadvertently raise risk projections outside affected states due to psychological overestimation or "social contagion" within industry practice.

I recommend that the paper explicitly note that the above mechanisms can, if improperly applied, result in rates in one state being influenced by losses in another—even without intentional subsidization—and that regulator scrutiny is essential to prevent this.

3. Recognize that Updated Catastrophe Models Do Not Automatically Represent "Improved Understanding"

The paper often implies that newer catastrophe-model versions inherently reflect scientific improvement. However, updates may incorporate new assumptions, altered methodological choices, or short-term reactions to recent events rather than demonstrably improved long-term accuracy.

I recommend that the paper state that newer models may or may not reflect improved accuracy, and regulators must critically evaluate model assumptions rather than defer to model newness or vendor positioning.

4. Strengthen the Discussion on Reinsurance Allocation and State-Specific Justification

The draft acknowledges that reinsurance is purchased on a portfolio basis and allocated by "expected benefit and risk contribution," but insufficiently emphasizes the risk of misallocation.

The following concerns remain to be addressed:

• A catastrophe in one region may raise global reinsurance prices, but *states with no exposure to that peril should not bear disproportionate reinsurance load increases.*

• Model misconfiguration can cause low-risk states to appear artificially risky in the allocation process.

I recommend that the paper reinforce that reinsurance loadings must be justified on a state-specific basis and that regulators should challenge allocations that appear driven by out-of-state catastrophes absent local peril relevance.

5. Clarify that Reasonable Actuarial Ranges Do Not Automatically Validate an Assumption for a Particular State

The paper emphasizes that different assumptions can be actuarially reasonable. However, a chosen point within a broad range may still be inappropriate for the state being rated, especially if consistently conservative assumptions cluster in certain jurisdictions.

I recommend that the paper affirm that regulators should evaluate whether selected assumptions are *state-appropriate*, not merely within a plausible actuarial range.

6. Address the Risk of Systematic Behaviors that Mimic Cross-State Subsidization or Excess Profitability

While the paper now appropriately notes that insurer "excess profitability" is outside its scope, it should not imply that systematic assumption selection across states—e.g., consistently conservative assumptions in states where the insurer seeks less growth—cannot produce effects that resemble subsidization.

I recommend that the paper acknowledge that patterns of filing behavior may warrant further regulatory inquiry even if they do not meet the paper's strict definition of structural cross-state subsidization. In other words, cross-state subsidization is not the only problem that can potentially justify regulatory attention.

7. Add Greater Nuance Regarding Market Competition and "Follow-the-Leader" Dynamics

The draft's discussion of competitive forces should acknowledge that:

• Insurers often follow "market leaders" in filing strategy, reducing independent competition.

• Herd behavior can cause widespread rate movement based on non-empirical perceptions of risk.

• True competition requires variation in assumptions, product designs, and filing strategies, not convergence toward a single perceived trend.

I recommend that the paper clarify that competition does not always discipline pricing and, in some periods, may be hindered in practice due to "follow-the-leader" dynamics and distorted assumptions post-catastrophe, even though a reasonable number of competitors may still exist in the market.

8. Expand the Discussion on When Accumulated Filing Patterns Warrant Regulator Concern

The draft indicates that a single filing disagreement does not demonstrate subsidization, which is true. But *repeated* disagreements arising from the *same cross-state-influenced assumptions* should be recognized as a potential indicator of systemic issues.

I recommend that the White Paper include a statement that repeated regulatory objections to the same treatment may justify further, in-depth analysis of potential cross-state impacts or excess profitability.

9. Ensure Terminology Reflects Correct and Relevant Usage

As previously noted, the term "homeowners insurance" remains grammatically incorrect. "Home insurance" avoids grammatical issues and better encompasses relevant products such as renters' insurance.

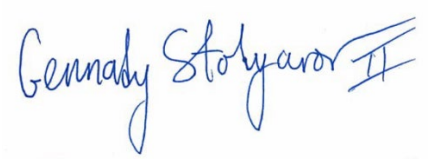
Conclusion

The revised draft represents meaningful progress toward a balanced, accurate treatment of home insurance rate regulation. Additional refinements are needed to ensure that the paper neither presumes away the possibility of cross-state cost shifting nor overstates the degree to which safeguards operate flawlessly in practice.

By incorporating the remaining clarifications above, the White Paper will more accurately reflect the complexities regulators face and will provide a stronger foundation for future empirical research.

I appreciate the Task Force's thoughtful engagement and welcome continued discussion.

Respectfully submitted,



Mr. Gennady Stolyarov II, FSA, ACAS, MAAA, CPCU, ARe, ARC, API, AIS, AIE, AIAF
Lead Actuary, Property and Casualty Insurance
Nevada Division of Insurance

9/18/2026 (Critical Review Comments)

NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

U.S. Homeowners' Insurance Rate Regulation–A Regulatory Perspective

Regulation, Consumer Protection, and Market Dynamics in the Modern Era

Casualty Actuarial and Statistical (C) Task Force

2026

Commented [GS1]: I maintain that this should be "Homeowners' Insurance", "Homeowner Insurance", or "Home Insurance". The term "Homeowners Insurance" is both grammatically incorrect (plural possessive nouns need to end with an apostrophe) and also incorrect in substance (without the apostrophe at the end, the implication is that homeowners are the peril being insured against, rather than the policyholders and beneficiaries of the insurance).

I will use "home insurance" in place of "homeowners insurance" in my markup. The reasons why I prefer this term among the three are that (i) its use could bypass the differences between the NAIC publication conventions and long-established English grammar in regard to the use of the apostrophe, and (ii) not all products to which this paper is relevant provide insurance to owners. For instance, tenants' or renters' insurance could also potentially be subject to cross-subsidization concerns in certain parts of certain states.

Executive Summary

Imagine a hypothetical where a multi-state insurer tries to charge more premium to homeowners in a state with lower risk of natural disasters to make up for heavy losses in a state with higher risk. This paper addresses this scenario, commonly referred to as "cross-state subsidization" and concludes that, under the state-based system of insurance regulation, home insurance~~owners~~ rates are designed and reviewed to reflect the expected future cost of risk in the state where the policy is written, not to intentionally and systemically shift costs from one state's policyholders to another's.

State insurance regulators protect consumers by requiring insurers to justify rates with state-specific data and actuarial analysis. Although the regulatory framework varies by state, insurance rates are generally subject to standards requiring that they not be excessive, inadequate, or unfairly discriminatory. Actuaries evaluate data, assumptions, and methods used to estimate future losses, including inflation, catastrophe risk, and reinsurance costs ~~to ensure alignment with actuarial standards~~. Although not all state laws require actuaries to be involved in the development of filed rates, state insurance laws or regulations often include language mandating that proposed rates be "actuarially sound" or justified by data that is "actuarially credible". Regulators use these provisions to hold those filing the rates to the Actuarial Standards of Practice (ASOPs) promulgated by the Actuarial Standards Board (ASB) and the Casualty Actuarial Society's (CAS) Statement of Principles Regarding Property and Casualty Insurance Ratemaking.

Regulators also oversee how insurers classify risk, ensuring that differences in price are tied to real differences in risk and are not arbitrary or unfair.

~~Under~~ The existing regulatory frameworks in the United States are designed to constrain cross-state subsidization ~~is constrained by~~ with the help of laws, actuarial standards, and markets.

So how would those legal, actuarial, and market challenges play out in the real world for our hypothetical multi-state insurer attempting cross-state subsidization?

First, insurers ~~must~~ support their home insurance~~owners~~ rates with state-specific data and actuarial analysis showing that the rates reflect the expected future cost to cover insured homes in that state.

Regulators review rate filings to identify anything unsupported or inconsistent with the state's actual risk and can challenge the rate, require revisions, or reject the filing altogether. Depending on the state, this process can happen before and/or after the rates go into effect. If an insurer inflates rates to account for losses in another state, it will show up in this review in inflated loss projections, excessive catastrophe loadings, or unsupported expenses.

Regulators look for mismatches between the risk in the state and the costs built into the rate. For example, if an insurer tried to hide cross-state subsidization by charging certain groups more without a risk-based reason, that would likely be deemed excessive or unfairly discriminatory and disallowed.

Second, oversight continues after rates take effect. Follow-up spot checks by regulators ~~to~~ verify insurers are treating their customers fairly and help ensure insurers are actually charging the filed rates, not deviating from what was approved. Even if a rate filing is approved, companies could misapply rating factors, overcharge specific consumers, or use unfiled surcharges. Market conduct exams can catch those real-world deviations and protect consumers by, for example, requiring refunds to consumers, imposing fines or penalties, or requiring changes to rating practices. When a state takes regulatory action against an insurer as a result of a market conduct exam, it notifies regulators in other states where that insurer does business.

Third, competitive market pressures act as a backstop. Insurers that price above the risk of the market *in that state* will lose business to competitors *in that state*, making it difficult to sustain rates that are artificially high.

NAIC NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

These safeguards help explain why concerns ~~claims~~ of cross-state subsidization ~~often~~ may stem from a misunderstanding of how the regulatory system operates. Premiums are forward-looking estimates of future costs, not a way to recover past losses. ~~and d~~Differences across states ~~can~~ reflect local risks, timing, data limitations, or broader economic factors like inflation and reinsurance, not cross-state cost shifting. While major disasters *can* affect costs nationwide indirectly by raising rebuilding costs due to higher costs of materials and labor, or reinsurance prices, those are market-wide effects, not insurers shifting losses from one state to another.

In short, the regulatory system exists ~~is designed~~ so that if an insurer tried to make one state pay for another, multiple layers of regulatory review are designed to ~~would~~ catch it.

Overall, this paper concludes that state-based rate regulation supported by ~~in combination with expectations of~~ actuarial professionalism creates ~~is~~ a holistic core consumer protection system; it ties rates to risk, subjects them to appropriate ~~rigorous~~ review, and helps ensure insurance remains both available and financially sound.

Commented [GS2]: I am still not comfortable with any claims about the level of understanding or misunderstanding of those who believe that cross-state subsidization may be occurring. A more factually accurate statement would be to say that "These safeguards help explain why insurer attempts at cross-state subsidization would face several structural layers of protection designed to prevent them."

Commented [GS3]: I still think that reinsurance prices can pose a concern here. Higher reinsurance prices could redistribute the impact of catastrophe losses from one state to another if the same reinsurance treaty covers both more catastrophe-prone states and less catastrophe-prone states, but the less catastrophe-prone states are charged reinsurance loads that are more than proportional to their own catastrophe risk exposure.

9/18/2026 (Critical Review Comments)

NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

Table of Contents

Executive Summary 1
Introduction 5
I. What Is Home Insurance~~owners~~ Rate Regulation? 6
A. State Rating Statutes and Market Regulation 6
B. Home~~owners~~ Insurance and the Importance of Market Forces ..... 8~~7~~
II. How Home Insurance~~owners~~ Rates Are Built and Reviewed 8
A. Home~~owners~~ Insurance Rating ..... 9~~8~~
Home Insurance~~owners~~ Rating Overview 9
Home Insurance~~owners~~ Rating Influences 10
B. Catastrophe Pricing and Reinsurance Implications in Home Insurance~~owners~~ Rating 12
Catastrophe Risk and Pricing 12
Cost of Reinsurance 15
III. What is Cross-State Subsidization? 17
A. Defining Cross-State Subsidization 17
1. Market-Wide Distortion: ..... 18~~17~~
2. Not-Actuarially-Justified Rates in Both States: 18
B. Mischaracterizations of Cross-State Subsidization 19
1. Differences in Actuarial Assumptions and Methodologies from One State to Another State 19
2. Rate Filing Timing Differences and Non-Mandatory Rate Filings ..... 20~~19~~
3. Mix of Business Considerations ..... 20~~19~~
4. Regulator Disapproval of Rate Filings 20
5. Credibility and Use of Non-State Data as the Complement of Credibility ..... 22~~21~~
IV. What State-Based Ratemaking Means for Consumers and Markets—Is there Cross-state Subsidization? ..... 24~~23~~
A. Catastrophe Losses and State-Based Ratemaking 24
B. How Insurers Deploy Capital and Reinsurance ..... 25~~24~~
C. What Pooling Does (and Does Not) Mean ..... 26~~25~~
D. Indirect Effects: How Catastrophe Losses May Affect Rates Elsewhere 26
E. Could Companies Hide Cross-State Subsidization? ..... 28~~27~~
F. How Evolving Catastrophe Models Affect the Debate ..... 30~~29~~
G. Important Methodological Considerations for Researchers and Media 30
V. Conclusion: Rate Regulation as Layered Consumer Protection ..... 35~~34~~
References and Further Reading ..... 37~~36~~

9/18/2026 (Critical Review Comments)

NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

Introduction

Regulators have been asked by legislators, researchers, media, and consumer advocates whether homeowners insurance policyholders in relatively low-risk states are financially subsidizing policyholders in states with high catastrophe exposure. The question is whether insurers spread catastrophic losses across their entire book of business, causing premiums in less disaster-prone states to rise to offset losses sustained in states with recent natural catastrophes.

At the 2026 Spring National Meeting, the NAIC Property and Casualty Insurance (C) Committee adopted the following charge for the Casualty Actuarial and Statistical (C) Task Force:

> ***Draft a white paper that explains how homeowners' insurance rates are regulated across states,[1] with particular attention to public questions and academic claims regarding potential cross-state subsidization of catastrophic losses.***

This white paper is intended to explain the framework of state-based homeowners insurance rate regulation in the United States and to examine how that framework addresses concerns regarding potential cross-state subsidization of catastrophe losses. The paper focuses on the legal, actuarial, regulatory, and market mechanisms that govern the development, review, and oversight of homeowners insurance rates. It discusses how rates are established, how catastrophe risk, reinsurance, credibility procedures, and other ratemaking components are evaluated, and how regulators assess whether rates comply with statutory standards. The paper is designed to provide a regulatory perspective on these issues and to describe the safeguards intended to promote rates that are risk-based, actuarially supported, and consistent with applicable state law. It is not intended to serve as an empirical study of insurer-specific conduct; it does not attempt to determine whether any particular company has engaged in cross-state subsidization; and it does not recommend or endorse any particular actuarial methodology for evaluating the actuarial soundness of rates. Such determinations are appropriately left to the professional judgment of the actuary, based on the specific facts, data, assumptions, and circumstances underlying each filing.

[1] "States" refers to all 56 NAIC member jurisdictions throughout the paper.

Accordingly, this paper should not be interpreted as concluding that insurer-specific cross-state subsidization is impossible or that empirical evidence could never support such a finding. Rather, the focus is limited to explaining how homeowners' insurance rates are regulated across states, with particular attention to safeguards that protect against cross-state subsidization of catastrophic losses.

I. What Is Home Insurance~~owners~~ Rate Regulation?

Home Insurance~~owners~~ rate regulation is the framework through which insurance regulators oversee the rates charged for home~~owners~~ insurance. It governs the filing and review of proposed rates, the actuarial support insurers must provide, the timing of rate implementation, and the regulator's assessment of whether rates are legal and not excessive, not inadequate, and not unfairly discriminatory. Although many insurers operate across multiple states, home insurance~~owners~~ rates are regulated on a state-specific basis.

This section first describes the legal foundations of state-based insurance regulation, explains the core rate regulatory standards, and describes how market forces also impact home insurance~~owners~~ rates.

A. State Rating Statutes and Market Regulation

Insurance regulation in the United States is conducted at the state level rather than the federal level. This decentralized structure traces its legal origin to the Supreme Court's 1944 decision in United States v. South-Eastern Underwriters Association, which held that insurance transactions crossing state lines constituted interstate commerce subject to federal regulation. Congress responded with the McCarran-Ferguson Act of 1945, which explicitly preserved the primacy of state regulation by providing that the continued regulation and taxation of the business of insurance by the several states is in the public interest, and that no act of Congress shall invalidate, impair, or supersede any law enacted by any state for the purpose of regulating the business of insurance.

Within each state, the legislature delegates primary regulatory authority over insurance to the Insurance Commissioner, Superintendent, or Director (collectively, the "commissioner"). That official, whether appointed by the governor or elected by the public, exercises broad authority over market entry and behavior, financial solvency, policy forms, and rates.

9/18/2026 (Critical Review Comments)

NAIC NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

The cornerstone of rate regulation in nearly every American jurisdiction is a three-part standard derived from the All-Industry Bills and later the *NAIC Model Rating Law*, which is adopted across all states with variations~~, across most states~~. Under this standard, insurance rates must be: (1) not excessive, meaning they do not result in unreasonably high profits or financial gains to the insurer; (2) not inadequate, meaning they are sufficient to cover expected losses and expenses and maintain insurer solvency; and (3) not unfairly discriminatory, meaning they do not differentiate among similarly situated risks without actuarial or otherwise justifiable basis.[2]

Each state legislature also defines the rate regulatory filing frameworks which reflect different calibrations of regulatory oversight of the rate filing process itself. These are broadly categorized as prior approval, modified prior approval, flex rating, file and use, use and file, and no file. See "Rate Filing Methods for Property/Casualty Insurance, Workers' Compensation, Title"[3] for definitions. This filing framework varies by lines of business within the state. Included in the architecture of rate regulation are the filing requirements, support of rates (actuarial justification), and review authority.

Rate regulation, as conventionally understood, involves the review of prospective rates that insurers propose to charge. Market conduct regulation addresses a different but complementary set of concerns: whether insurers are, in practice, treating consumers fairly in their claims handling, underwriting, marketing, and billing practices. Market conduct regulation ensures that consumers are being charged premiums in accordance with filed rates and, in coordination or consultation with actuaries, may assess whether rates are excessive, inadequate, or unfairly discriminatory.

Home insurance~~owners~~ rate regulation is a customizable framework for evaluating whether the rates charged to consumers are justified, sustainable, and fair. That framework matters because home~~owners~~ insurance affects not only the private transfer of risk, but also household financial security, mortgage lending, and the stability of insurance markets. Regulatory oversight of rates, forms, underwriting practices, and market conduct provides a layered system of consumer

Commented [GS4]: I still think that saying that "**some**" "state insurance laws specifically prohibit risk classification based upon race, religion, etc." is an understatement. What State insurance law does *not* prohibit such discrimination? The footnote should be stronger and state "substantially all" or "essentially all". Otherwise, there is a risk that the paper will under-emphasize the extent of existing consumer protection in this area.

[2] See state laws for definitions that apply in each state. For example, some state insurance laws specifically prohibit risk classification based upon race, religion, etc.
[3] https://content.naic.org/sites/default/files/model-law-chart-pa-10-rate-filing-methods-for-property-casualty-insurance-workers-comp-title.pdf

protection that compensates for the limitations of consumer sophistication and the vulnerability of individual homeowners to market failure.

B. Homeowners Insurance and the Importance of Market Forces

Insurers consider competitive dynamics when they price homeowners insurance. Thus, the market can discipline homeowners insurance pricing. This works best when there are a large number of insurers active in the home insuranceowners markets and consumers shop around for insurance. Competitive market dynamics are meaningful, but do not always work efficiently because homeowners insurance policies are complex, making comparison between companies difficult, and there are market disruptions such as when there is withdrawal of coverage in high-risk markets, insolvencies following catastrophic events, and persistent availability and affordability problems in coastal and wildfire-exposed regions. There may also be other issues such as areas with vacant properties and high crime rates. Thus, regulatory engagement is a complement to competitive markets in affecting rates for the consumers' benefit.

Competition remains an important discipline on prices, but homeowners insurance presents conditions in which market forces alone may not fully protect consumers, preserve availability, or ensure that rates remain adequate and fair. The next question is how that balance is implemented in practice: how insurers develop home insuranceowners rates, how those rates are supported actuarially, and how regulators evaluate the data, assumptions, and methods underlying them.

II. How Home Insuranceowners Rates Are Built and Reviewed

This section turns to the mechanics of regulatory oversight. Homeowners rates are not arbitrary charges, nor should they beare they retrospective attempts to recover past losses. They are prospective estimates of the cost of providing coverage during a future policy period, supported by actuarial analysis and reviewed against applicable regulatory standards. The price paid for a home insuranceowners policy provides the consumer with protection during the policy period, referred to as risk transfer, whether or not the policyholder has a claim. This is not a flaw of insurance pricing; it is the purpose of insurance. Rates are established before the outcome is known and are intended to fund the expected cost of coverage, the expenses of providing that coverage, the cost of capital and reinsurance needed to support the obligation, and a reasonable return for assuming the risk.

This section explains how those estimates are developed, how state-specific and broader data may be used, and how catastrophe risk and reinsurance are incorporated into the analysis.

A. Homeowners Insurance Rating

Home Insurance~~owners~~ Rating Overview

Homeowners insurance is a promise to cover uncertain future losses. The ultimate cost of an insurance policy is unknown at the time of sale, which complicates the pricing process[4]. As a result, the price consumers pay, referred to as the premium, is calculated based on the expected risk of loss to the home. The premium is an estimate of the future costs associated with transferring risk over the policy period. To support this estimation, insurers pool the risks of many policyholders, which allows losses to be financed by the premiums collected from many insureds. This results in diversification across risks and produces more stable outcomes. The premium is not a mechanism to recoup past losses. Thus, at the end of a policy period, the consumer and the insurer are "even"—the insurer having covered the risk of loss for the policy period and the consumer having paid the premium.

A homeowners insurance premium generally includes provisions for expected losses, loss adjustment expenses, underwriting expenses, and profit and contingencies.

$$Premium = Expected\ Losses + Loss\ Adjustment\ Expenses + UW\ Expenses + Profit\ and\ Contingencies$$

For homeowners insurance, the largest component of the premium is typically the expected losses, also referred to as pure premium or loss cost. This is an estimate of the expected losses over a policy term. Historical loss data is typically used to estimate the expected losses of relatively high-frequency perils, such as fire or water damage. For lower-frequency but higher-severity events, such as hurricanes, wildfires, and earthquakes, insurers may rely on catastrophe models, as discussed in the catastrophe pricing in Section II. The premium is expected to cover future losses; thus, adjustments are made to the historical data to ensure it is predictive of future costs. Trending, the process of adjusting historical data to reflect expected future conditions, is one of the principal tools used in that process. Actuarial Standard of Practice 13[5] (ASOP No. 13),

[4] https://www.casact.org/sites/default/files/old/studynotes_werner_modlin_ratemaking.pdf
[5] https://www.actuarialstandardsboard.org/asops/trending-procedures-propertycasualty-insurance-2/, Effective Date: Nov. 1, 2009.

which is part of a comprehensive set of standards promulgated by the Actuarial Standards Board to govern ratemaking analysis, addresses trending procedures in property/casualty (P/C) insurance and states that actuaries can consider historical insurance and non-insurance data when estimating future expected values. In homeowners insurance, that is especially important because the cost to repair or rebuild a home may change materially between the historical experience period and the future period for which the filed rates are intended to apply. In addition to trending, actuaries adjust historical data for development (the maturation of claims over time) and on-level factors (the conversion of historical premiums to current rate levels).

Insurers also typically refine premiums based on characteristics of the home and the policyholder that are associated with differences in loss experience. These characteristics, known as rating factors, may include such things as the home's construction type, age of the home, geographical location, credit-based insurance score, age, geographical location, and roof type. For example, houses with clay tile roofs tend to be more fire fire-resistant than houses with architectural shingle roofs, and thus usually receive lower premiums if all other characteristics are the same. When developing these rating factors, actuaries consider applicable actuarial standards, including ASOP No. 12[6], Risk Classification. All of these rating factors need to be supported by analysis showing differences in expected loss experience. In addition to expected losses, the premium should also cover the cost of adjusting claims and the expenses associated with issuing, servicing, and administering the policy. Additionally, the premium includes a provision for profit and contingencies, which reflects the need to support the business amid uncertainty. Actuaries consider applicable actuarial guidance, including ASOP No. 30[7], when developing such provisions. The level of that provision may be influenced by expected after-tax investment income and the return required on the capital supporting the insurer's operations.

Commented [GS5]: Add a hyphen in "fire-resistant".

Home Insuranceowners Rating Influences

Although the general actuarial methodology used to determine home insuranceowners premiums is consistent across lines and jurisdictions, home insuranceeeeeowners ratemaking is fundamentally state-based. Expected losses are usually derived from expected state experience

[6] https://www.actuarialstandardsboard.org/asops/risk-classification-practice-areas/, Effective Date: May 1, 2006.
[7] https://www.actuarialstandardsboard.org/asops/treatment-profit-contingency-provisions-cost-capital-propertycasualty-insurance-ratemaking/, Effective Date: Dec. 1, 1997

and from the conditions affecting insured risks in that state, such as local peril exposure, geographic concentration of risk, construction characteristics, legal environment, and claims settlement patterns. However, this does not mean that every input to a home insurance~~owners~~ filing is derived from purely local data or is unaffected by broader market conditions. Some influences on the indicated rate level can extend beyond a single state, even where the filing itself remains state--specific. One example is repair-and-rebuild cost inflation. Home insurance~~owners~~ claim severity is directly affected by the cost of labor, construction materials, transportation, and related rebuilding inputs, some of which can be affected by regional, national, and even worldwide conditions.

Another broader influence is reinsurance. Reinsurance is part of the mechanism through which insurers manage the impact of catastrophes on their enterprise solvency and, consequently, their ability to pay claims. Changes in reinsurance conditions can affect the cost structure underlying home insurance~~owners~~ filings.

Broader inputs may also arise for other components of a home insurance~~owners~~ rate indication. For example, underwriting expense provisions are often supported by company or countrywide analyses rather than a single state's experience alone. Likewise, where company-specific state data is limited, actuaries may supplement that experience with industry data and apply credibility-weighting[8], a technique that blends limited state data with broader experience to produce more reliable estimates of future loss and projected loss trends.

Given that insurance companies derive their profits from both underwriting and investment income, capital market conditions can also affect home insurance~~owners~~ ratemaking. ~~Capital market conditions can also affect homeowners ratemaking, as companies target total return, including both underwriting and investment income.~~ When anticipated investment income is projected to be high, companies often need lower future underwriting profits and vice versa. Higher expected after-tax investment returns can lead to the need for a lower profit provision in the ratemaking process, and ultimately lower rates.

In summary, home insurance~~owners~~ rates are derived based on the expected future cost of losses and expenses associated with the insured risks in the state being rated, including catastrophe

Commented [GS6]: I still maintain that these are areas where potential cross-subsidization can be achieved implicitly, through assumptions that effectively base rates on one state on costs in another state.

[8] ASOP No. 25 provides guidance concerning credibility procedures and relevant experience. The use of broader information does not eliminate the need for the selected data and resulting adjustments to be appropriate for the risks being rated in the state.

exposure where applicable. However, some inputs relevant to a state filing may be influenced by broader economic and insurance-market conditions, including rebuilding-cost inflation, reinsurance conditions, capital market expectations, nationwide expense analyses, and updates to catastrophe models. Regulators reviewing rate filings are expected to examine each element of the ratemaking analysis: the adequacy of the historical period; the credibility procedures used to blend the insurer's state-specific experience with other data or experience; the appropriateness of the assumptions used to bridge from broader datasets to the specific risks of the state in question; the reasonableness of development factors; the appropriateness of trend selection (particularly in a period of rapidly changing loss cost environments); the justification for expense loads; the support for the profit provision; and more. A filing that relies exclusively on nationwide data without any state-specific adjustments, or that applies implausible adjustment factors, raises legitimate regulatory concerns regardless of the ultimate rate level requested. States vary in the depth and formality of this review, but the actuarial framework provides a common language for insurer submissions and for regulatory responses. Two of these influences, catastrophe risk and reinsurance, warrant closer examination because of their significance to home insurance~~owners~~ ratemaking and their relevance regarding cost distributions across states.

Commented [GS7]: Again, these "broader" conditions, if care is not taken to determine how they apply on a state-by-state basis, create a risk of home insurance rates in one state being adversely affected by events in different states that are not likely to occur in that particular state.

B. Catastrophe Pricing and Reinsurance Implications in Home Insurance~~owners~~ Rating

Catastrophe Risk and Pricing

Catastrophe risk is one of the most important and most challenging components of home~~owners~~ insurance ratemaking. Catastrophe risk fits within that same prospective pricing framework described in the home insurance~~owners~~ rating section but requires unique treatment because catastrophe losses are materially different from the types of losses that occur regularly and independently from house to house. A kitchen fire, theft, non-weather water loss, or isolated liability claim may affect one policyholder at a time. In contrast, a hurricane, wildfire, earthquake, tornado outbreak, hailstorm, or other ~~severe weather~~ event can ~~affect~~produce concentrated losses across thousands of policyholders ~~at once~~. That potential for concentrated losses creates pricing, capital, solvency, and reinsurance considerations that are not fully captured by traditional pricing techniques.

Catastrophe losses are not synonymous with all severe weather or other high-severity losses. Certain catastrophe perils, such as hurricanes, earthquakes, wildfires, and severe convective

storms (SCS), are commonly evaluated using catastrophe models, although model availability and usage vary by peril and jurisdiction. Other weather-related or high-severity losses may instead be evaluated using historical experience, other models, scenario analysis, or a combination of methods. Accordingly, "severe weather," "high-severity loss," and "modeled catastrophe peril" should not be treated as interchangeable terms.

Because catastrophe losses ~~are~~ may be relatively infrequent, ~~low-frequency, high-severity,~~ severe, and spatially correlated, ~~traditional~~ historical pricing techniques ~~are generally not appropriate~~may be insufficient on their own for evaluating ~~for~~ these perils. A state may not experience any major hurricane, earthquake, or wildfire losses during a five-, 10-, or even 20-year historical experience period, even though the risk of such an event remains material. Conversely, ~~a state may experience~~ one or more unusually severe events~~, which could~~ may dominate a recent experience period and ~~drive rates up, even to the point of being excessive compared to~~ produce an estimate that is not representative of the long-run expected cost for the~~is~~ risk. ASOP No. 39[9] ~~recognizes that catastrophe losses can cause extreme volatility in historical insurance data and generally require separate treatment in ratemaking~~provides guidance to actuaries in evaluating catastrophe exposure and determining a provision for catastrophe losses and loss adjustment expenses in property/casualty insurance ratemaking. ~~This ASOP~~It defines a catastrophe as a relatively infrequent event or phenomenon that produces unusually large aggregate losses~~,~~ and defines catastrophe ratemaking procedures as procedures that adjust for catastrophe losses in experience data and determine a provision for catastrophe losses and loss adjustment expenses.

For ~~this~~ these reasons, catastrophe risk is often evaluated separately from non-catastrophe home insurance~~owners~~ losses. Non-catastrophe losses may be estimated using several years of historical claim experience, adjusted for trend, coverage changes, claim settlement practices, inflation, and other changes in conditions as described in the prior section. For catastrophe losses, ~~while~~ historical data remain relevant but~~, they~~ may be incomplete or insufficient because the historical period may not include the full range of possible events or may not reflect ~~nor the~~ current exposures~~, based on~~ building characteristics, property locations ~~of the properties~~, and

[9] https://www.actuarialstandardsboard.org/asops/treatment-catastrophe-losses-propertycasualty-insurance-ratemaking/, Effective Date: Dec. 15, 2000.

environmental conditions. For perils for which suitable models are available, ~~C~~catastrophe models are one commonly used method of~~to~~ addressing ~~this~~ these ~~problem~~limitations.

A natural catastrophe model is a computerized process that simulates many scientifically plausible catastrophic events and estimates their financial impact on a portfolio of insured properties. For commonly modeled perils, ~~T~~the catastrophe provision included in the overall indicated rate level in a home insurance~~owners~~ rate filing may be ~~is typically~~ based in whole or in part on the long-term expected annual cost generated by a catastrophe model. Other rate components, such as retained risk or reinsurance provisions, are also often based at least in part on catastrophe models.

Because catastrophe models are complex and rely on specialized scientific and engineering assumptions, their use in ratemaking requires judgment and review. Depending on the purpose and materiality of the model output, applicable actuarial standards, and jurisdiction-specific filing requirements, relevant filing support and regulatory review may address the specific model or models used, the exposure data entered into the model, the treatment of policy terms, the inclusion or exclusion of secondary perils (e.g., storm surge or wildfire smoke), demand surge, loss adjustment expenses, secondary uncertainty, the selection of model options, and any adjustments made to the model results. This list is illustrative and is not intended to suggest that every item is required in every filing by regulation or an ASOP. Other supporting documentation or justifications may also be required, depending on the jurisdiction and the type of catastrophe model being reviewed. ~~A filing that is based at least in part on catastrophe model output should explain which model or models were used, what exposure data were input, how policy terms were reflected, whether secondary perils (e.g., storm surge, wildfire smoke), demand surge, loss adjustment expense, or secondary uncertainty were included, how any model alternative features were selected, or how the model results were adjusted.~~

Commented [GS8]: I recommend inserting this sentence to emphasize that the list of items in this paragraph is also not exhaustive of what regulators *might* request for catastrophe-model explanations or justifications.

Actuaries performing actuarial services involving ~~When using~~ catastrophe models ~~in ratemaking, actuaries~~ should consult applicable standards, including ~~also refer to~~ ASOP No. 38[10], which ~~applies to actuaries~~addresses the selection, use, review, and evaluation of ~~selecting, using, reviewing, or evaluating~~ catastrophe models; ASOP No. 39[11], which addresses the treatment of

[10] https://www.actuarialstandardsboard.org/asops/actuarial-standard-of-practice-no-38-revised-edition/, Effective Date: December 1, 2021.
[11] https://www.actuarialstandardsboard.org/asops/treatment-catastrophe-losses-propertycasualty-insurance-ratemaking/, Effective Date: December 15, 2007.

catastrophe losses in property/casualty ratemaking; and ASOP No. 41[12], which addresses actuarial communications., ~~including models for perils such as hurricanes, earthquakes, severe convective storms (SCS), terrorist acts, and pandemics.~~ As relevant under applicable filing requirements, ~~R~~regulators may also review the vendor model documentation, the insurer's use and validation of the model ~~by the insurer~~, as well as any rating factors, surcharges, ~~and~~or discounts that may have been informed by~~or priced using~~ catastrophe model output.

The use of catastrophe modeling, when used appropriately, is consistent with the broader actuarial principle that rates should reflect expected future costs. ASOP No. 53[13] states that actuaries estimating future costs should select appropriate methods or models, use reasonable assumptions, consider adjustments for changes in conditions, and consider the treatment of catastrophes and reinsurance when those items are reflected in future cost estimates. For example, a home with materially greater wildfire, hurricane, earthquake, or SCS exposure is expected to incur greater losses than an otherwise similar home with lower exposure. Cost-based rating attempts to reflect these differences through rating variables such as territory, construction, roof characteristics deductible, coverage, and mitigation discounts, among other factors.

This risk differentiation is also tied to the regulatory standard that rates should not be excessive, inadequate, or unfairly discriminatory. In actuarial terms, unfair discrimination does not mean that all policyholders pay the same rate. Rather, it generally concerns whether differences in premiums bear a relationship to differences in expected losses and expenses. For catastrophe risk, rating factors such as location, roof characteristics, construction type, or mitigation are often appropriate when supported by data, catastrophe modeling, or other credible evidence showing differences in expected costs.

Cost of Reinsurance

Reinsurance is closely related to catastrophe pricing because catastrophe risk can threaten an insurer's surplus, profitability, and solvency. Reinsurance is insurance purchased by an insurer to transfer part of its risk to a reinsurer. In other words, it is often necessary for insurers to have reinsurance which allows them access to market capital in the event of a catastrophic loss. In home~~owners~~ insurance, catastrophe reinsurance often protects against ~~severe aggregate losses~~

[12] https://www.actuarialstandardsboard.org/asops/actuarial-communications/, Effective Date: May 1, 2011
[13] https://www.actuarialstandardsboard.org/asops/estimating-future-costs-prospective-propertycasualty-risk-transfer-risk-retention/, Effective Date: August 1, 2018.

~~from hurricanes, wildfires, earthquakes, severe convective storms, or other large events.~~ losses on a per-risk basis, losses arising from an individual event or occurrence, aggregate losses over a defined period, or a blend of these structures.

The cost of reinsurance is therefore a legitimate component of the cost of providing home~~owners~~ insurance.[14] However, reinsurance costs must be allocated carefully. Many insurers purchase reinsurance at a portfolio level rather than separately for each state. A single catastrophe reinsurance program may cover home insurance~~owners~~ exposures in multiple states and may respond to losses from multiple perils which has the effect of diversifying the insurer's catastrophic risk. For purposes of allocating reinsurance cost to the states in the reinsurance program, it should not be interpreted that ~~That does not mean~~ the cost should be spread evenly across all policyholders or all states. The actuarially sound approach is to allocate the cost in a manner that reflects the expected benefit and risk contribution of the business being rated. Relevant measures may include modeled catastrophe losses (if the catastrophe model is properly configured to a given state and book of business and does not inflate the risk of loss for a less catastrophe-prone state), expected reinsurance recoveries, contribution to reinsured layers, exposure distribution, premium, coverage, peril, and other risk characteristics.

Commented [GS9]: I recommend adding this caveat to ensure that misapplications of catastrophe models or inflated model estimates in a particular state do not contribute to inflated reinsurance costs for an insurer in that state.

Because the cost of reinsurance ultimately flows into home insurance~~owners~~ rating, fluctuations in the cost of reinsurance can cause home~~owners~~ insurance rates to change, particularly in catastrophe-exposed markets. The reinsurance market is global, with many reinsurers operating internationally to provide coverage for multiple insurers and risks. On a fundamental basis, reinsurance pricing is risk-based, just as for primary insurers, and r~~R~~einsurance protection is not unlimited. ~~;~~ ~~t~~The market generally has limited capacity for taking on risk before reinsurance may become unavailable or unaffordable. Recent loss experience on a global scale can impact reinsurer profitability and short-term capacity. As such, seemingly unrelated catastrophe events can affect U.S. homeowners insurance rates. For example, if a major typhoon were to impact Japan, reinsurers would likely pay out on reinsurance contracts and potentially would have lower capacity in the following years to take on additional risk, even in the U.S. This constrained reinsurance market can drive general reinsurance costs upward, causing U.S. insurers to pay more for their reinsurance, and thus pass these higher costs on to their policyholders. While global events may impact the overall reinsurance market conditions and capacity, the reinsurance cost

[14] A few states do not allow the cost of reinsurance to be considered a component of ratemaking.

for an individual insurer's program remains specific to the risk characteristics of the underlying exposures.

Reinsurance also interacts with the profit and contingency provision and the cost of capital. Catastrophe-exposed homeowners insurance requires capital because actual losses can deviate substantially from expected losses. Reinsurance can provide an insurer with some relief from required capital by transferring tail risk, but it has a cost. Conversely, retaining more catastrophe risk may reduce reinsurance premium but increase required capital and earnings volatility. A rate indication should avoid double-counting by treating modeled losses, reinsurance recoveries, reinsurance premiums, retained risk, and profit or cost-of-capital provisions consistently. ASOP No. 53 specifically states that when reinsurance is reflected in future cost estimates, the actuary should select appropriate methods or models and reasonable assumptions for estimating the cost associated with expected reinsurance arrangements.

In summary, catastrophe pricing in home~~owners~~ insurance should apply~~applies~~ the same risk-based prospective ratemaking framework used for other home insurance~~owners~~ costs, but with additional tools and considerations. Catastrophe models help estimate losses that are too infrequent, severe, and correlated to be measured reliably using only recent historical experience. Reinsurance helps insurers manage the volatility and capital strain created by those losses, and its cost is an appropriate part of home insurance~~owners~~ premiums when it is actuarially supported and allocated in relation to risk and expected benefit. Together, catastrophe modeling, risk classification, reinsurance allocation, and capital provisions support the central ratemaking objective: premiums should be an actuarially sound estimate of ~~reasonably reflect~~ the expected future cost of the risk being transferred during the policy period.

III. What is Cross-State Subsidization?

A. Defining Cross-State Subsidization

It is important for researchers and others to define cross-subsidization. At the May 12, 2026, meeting of the Casualty Actuarial and Statistical (C) Task Force, Mike Goldman (Perr & Knight) identified three distinct claims of cross-subsidization. The first was residual markets, such as the Fair Access to Insurance Requirements (FAIR) plan and the Texas Windstorm Insurance Association, where costs are spread within the same state. The second was cross-state subsidization within national carrier portfolios. The third was a federal cross-subsidization through

Commented [GS10]: If a catastrophe event happens in another country or another state, but that type of catastrophe event does not have a material probability of occurring in the state in question, what recourse do regulators have to push back against an insurer that attempts to raise its rates in the state that is not prone to that type of catastrophe, solely because of the possibly higher costs of reinsurance? I would recommend that this paragraph be expanded to address this question.

Commented [GS11]: Again, I do not think that the paper should conclude that catastrophe pricing by insurers always *does* apply that desired prospective ratemaking framework. A defensible statement can be made that this is what catastrophe pricing *should* do, but in my experience this is the area where home insurance pricing most often falls quite short of being truly risk-based in regard to the risk profile of a specific state.

Commented [GS12]: Together, these provisions are the most likely source of phenomena whereby catastrophe losses in some states lead to rate increases in other states. I still think that the last sentence of this paragraph is overly deferential to the *a priori* assumption that these provisions are always valid and correct.

the National Flood Insurance Program (NFIP) and disaster aid, which can be analyzed with NFIP subsidies. This paper is only focused on the second type.

In theory, cross-state subsidization could be structural and systemic across the market or could be focused on an individual company's actions. For purposes of this white paper, the question is whether there is systemic cross-subsidization between states. Structural cross-state subsidization ~~between states~~ can be described as follows:

> Policyholders in one state systematically pay rates that are inadequate for their own expected costs while policyholders in another state pay more than their expected costs to offset it.

In order for **structural** cross-state subsidization ~~between states~~ to occur, two conditions need to be met:

1. **Market-Wide Distortion:**
   Structural cross-state subsidization is a market-wide phenomenon. If an individual company determines rates in a way that causes one state to subsidize another, and the subsidization exists only within that company's portfolio, that would likely not be considered regulatory cross-state subsidization ~~between states~~ (unless the insurer was of significant, material size). *(Note: This is still an issue regulators address; it just doesn't meet the definition of structural cross-state subsidization.)*

2. **Not-Actuarially-Justified Rates in Both States:**
   If rates in one or both states are determined to be actuarially justified, structural cross-state subsidization ~~between states~~ has not occurred. In a market that is structurally cross-state subsidized, one or more states would experience inadequate rates while other state(s) would experience excessive rates.

The above definition and Task Force charge focus on explaining how homeowners' insurance rates are regulated across states, with particular attention to questions regarding potential cross-state subsidization of catastrophic losses.

Because cross-state subsidization is central to the Task Force's charge, only scenarios involving subsidization are evaluated. Scenarios involving high rates in one or multiple states that do not involve inadequate rates in another state fall outside the definition of cross-state subsidization. If

rates are excessive in one state but actuarially sound in another, the result is more appropriately characterized as excess profitability rather than cross-state subsidization. Cross-state subsidization requires a transfer effect in which policyholders in one state pay rates above their own expected costs to offset rates that are inadequate to cover expected costs in another state. Policyholders paying actuarially sound rates are not subsidized by policyholders in another state merely because an insurer earns higher profits elsewhere. Accordingly, scenarios in which policyholders are charged actuarially sound rates, even if an insurer earns higher profits in another state, are not considered cross-state subsidization under the framework contemplated by the CASTF charge.

Actuarial work inherently involves professional actuarial judgment, ranges of reasonable outcomes, evolving claims experience, and uncertainty. Sometimes, actuarially justified scenarios may lead to the incorrect perception of cross-state subsidization.

Commented [GS13]: Again, this statement appears to automatically take the side of insurers who choose to systematically charge higher rates in certain states, even if the situation falls under the description of "excess profitability".

See my prior example:

"For instance, if in State X an insurer wishes to maintain a large market share and always prices using the low ends of the reasonable ranges of assumptions, but in State Y (where the insurer might not be as concerned about retaining market share) the insurer always prices using the high ends of the reasonable ranges of assumptions, this means that on a systematic basis over time, rates in State Y will be significantly higher than in State X relative to the risk of loss."

B. Mischaracterizations of Cross-State Subsidization

There are numerous scenarios commonly mischaracterized as cross-state subsidization, including the following:

1. Differences in Actuarial Assumptions and Methodologies from One State to Another State

Actuarially justified rates may reasonably differ state by state based on assumptions, credibility treatments, catastrophe loadings, trend selections, development methodologies, expense allocations, reinsurance strategies, or differing views of emerging risk conditions.

Rates in one state may reflect more conservative assumptions or greater provision for uncertainty than rates in another state, while both remain actuarially justified. Actuarial standards do not require uniform assumptions or outcomes across jurisdictions. Reasonable actuarial judgment may support materially different assumptions and levels of conservatism based on each state's unique risk profile, data characteristics, regulatory environment, and market conditions. Consequently, significant differences in indicated or approved rates between states do not, by themselves, imply that one state's rates are more actuarially appropriate than another's. Rather, the relevant consideration is whether

the assumptions and methodologies used for each state are reasonable, adequately supported, and appropriate for that state's risks and circumstances.

Commented [GS14]: The concern is that often the greater conservatism of certain assumptions in one state versus others may be due to the insurer (a) intentionally trying to redistribute premium from one state to another; (b) thinking that the policyholders in the latter state will tolerate higher premiums relative to their risk of loss; or (c) not caring about losing business in a less catastrophe-prone state with more favorable loss experience, due to a companywide directive or reinsurance capacity constraints.

2. Rate Filing Timing Differences and Non-Mandatory Rate Filings

In many jurisdictions, insurers are not required to submit a rate filing unless they are voluntarily revising rates. A company may choose to absorb year-to-year cost fluctuations rather than regularly adjusting rates. Similarly, a company may delay or sequence filings due to operational considerations, such as competing priorities and limited resources, or regulatory considerations, such as the anticipated time needed for review and approval. These timing differences may create temporary differences between indicated and implemented rate levels across states without the systematic transfer of costs from one state's policyholders to another's and therefore, do not constitute~~ting~~ structural cross-state subsidization.

3. Mix of Business Considerations

Differences in rate change decisions across states may also reflect varying growth dynamics within an insurer's portfolio, rather than structural cross-state subsidization ~~between states~~.

When a book of business is experiencing rapid growth, insurers may elect to utilize more conservative pricing assumptions to account for uncertainty associated with changing policyholder composition. Historical experience may also be less predictive for a rapidly growing book of business, as the risks being insured today may differ materially from those reflected in prior years' experience.

Conversely, a shrinking or more stable book of business may support less-conservative assumptions where the insurer believes the underlying risk profile is better understood or more predictable.

As new business enters or existing policyholders exit, the distribution of risks, geographic concentrations, coverage selections, or underwriting characteristics may shift in ways that reduce the predictive value of historical experience.

4. Regulator Disapproval of Rate Filings

NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

Regulatory actuaries are tasked with reviewing a rate indication based on information provided in the rate filing to determine whether it complies with actuarial, legal, and regulatory standards.

Rate regulation is prospective in nature and evaluates whether the proposed rates are adequately supported under the applicable statutory framework and reasonably reflect the underlying risk.

Importantly, regulatory disagreement does not necessarily indicate that an insurer's proposed rates represent a significant departure from accepted actuarial practice. Reasonable actuarial and regulatory differences may arise even when all parties are operating within accepted actuarial and legal frameworks. Different actuaries may reasonably select different assumptions related to trend, credibility, expense provisions, catastrophe and reinsurance provisions, profit provisions or other relevant assumptions. Additionally, regulatory actuaries are highly familiar with the statutory requirements, market considerations, public policy objectives, approved actuarial methodologies, and other constraints unique to their jurisdiction.

In many cases, a regulator's concern may relate to the sufficiency of supporting data, the reasonableness of selected assumptions, the applicability of a methodology, or compliance with a statutory or procedural requirement unique to the jurisdiction. A filing disapproval may also reflect a determination that additional actuarial support or alternative actuarial treatment is necessary before the proposed rates can be approved.

Examples of situations that could result in filing disapproval without establishing that the proposed rates are not actuarially sound include circumstances where sufficient support was not provided, deadlines for submission of additional information were not met, or statutory and procedural requirements were not satisfied.

Insurance markets perform differently across jurisdictions. A rate that is actuarially sound in one state is often not actuarially sound in another state due to differences in laws, regulations, litigation environments, catastrophe exposure, consumer profiles, risk characteristics, and other market conditions.

The existence of a regulatory disagreement or filing disapproval should not be interpreted as evidence of cross-state subsidization ~~between states~~. Rather, actuarial

Commented [GS15]: As I previously stated, even if assumptions with a rate filing are within some broadly reasonable actuarial range, this does not mean that those assumptions are appropriate for the state in question, and it is ultimately the regulator's responsibility to evaluate this and arrive at a decision consistent with applicable laws.

Commented [GS16]: I still raise the question of what would constitute a sufficient accumulation of disagreements or disapprovals to result in either cross-state subsidization or excess profitability at least being possibilities. If an insurer always proposes treatment X, and the regulator always objects to treatment X on the grounds that treatment X leads to Nevada insureds being rated based on out-of-state considerations, then how many times does that need to happen in order for cross-state subsidization to be seen as a realistic possibility (or at least to not assume that it is *not* happening)?

review is intended to help ensure that rates remain related to risk within the applicable jurisdictional and regulatory framework.

5. Credibility and Use of Non-State Data as the Complement of Credibility

A common challenge in ratemaking is determining the extent to which an insurer should rely on its own experience as compared to broader ~~external~~company, industry, or other supplemental data sources. Actuaries use credibility procedures to determine the appropriate weight to assign to a particular set of insurance data when developing rates. For example, a large insurer with many years of experience in a given state may receive high credibility on its own statewide data, while a smaller insurer or more niche program may rely more heavily on countrywide data or may rely on other benchmarks that are relevant to the product.

ASOP No. 25[15], titled "Credibility Procedures", provides definitions for terms such as credibility, credibility procedure, full credibility, and relevant experience, among other concepts important to actuarial credibility analysis.

Credibility procedures are intended to balance responsiveness to actual experience with the statistical reliability needed to support stable and predictive rate indications. These procedures help reduce volatility and lessen the likelihood that isolated or short-term fluctuations disproportionately affect indicated rates.

When an insurer's statewide experience is not considered fully credible under actuarial credibility procedures, the statewide experience may be weighted together with a complement of credibility, often referred to simply as the "complement". ASOP No. 25 discusses the importance of the complement reflecting relevant experience, including risk characteristics that are reasonably similar to the product being analyzed.

The complement of credibility may include experience from a broader geographic area or from an industry data source, when the insurer's own experience is not considered sufficiently credible. However, the purpose of a credibility-weighted complement is not to transfer costs from one state to another, but rather to improve the statistical reliability and predictive value of the rate indication. The actuarial appropriateness of a complement

[15] https://www.actuarialstandardsboard.org/asops/credibility-procedures/, Effective Date: May 1, 2014.

depends on whether the underlying data is considered relevant to the risks being evaluated, consistent with the principles described in ASOP No. 25.

Commented [GS17]: The paper should note that using catastrophe losses or trends from other states would *not* constitute an appropriate or "relevant" complement of credibility for a state with a very different catastrophe risk profile.

Actuarial literature can be consulted for additional guidance regarding credibility procedures and selection of the appropriate complement.

Because professional judgment is required in determining the appropriate credibility treatment and selection of complement, insurer practices may reasonably differ depending on the circumstances and underlying data. Overreliance on broad averages may obscure meaningful emerging trends, while overreliance on limited experience may produce indications that are less predictive of future costs. Actuaries are expected to apply credibility procedures in a manner consistent with applicable actuarial standards and guidance, including the principles in ASOP No. 25 regarding the use of relevant experience and selection of an appropriate complement. Differences among insurers in the application of credibility procedures or selection of complements do not imply that either insurer's rates are not actuarially sound, nor do such differences, by themselves, establish the existence of cross-state subsidization.

6. Market-Wide Changes in Future Cost Estimates

Changes in rates may also result from evolving assessments of future risk and expected costs rather than cross-state subsidization. Rate indications are routinely updated to reflect new information, including changes in catastrophe models, reinsurance costs, loss trends, rebuilding costs, litigation patterns, and other factors that affect expected future losses and expenses.

These changes are prospective in nature and are intended to estimate the future cost of providing coverage. Although such updates may result in higher indicated rates in one or more states, they do not represent a transfer of costs from policyholders in one state to policyholders in another state. Rather, they reflect revised assessments of the expected costs associated with insuring risks in the applicable jurisdiction.

A common mischaracterization of cross-state subsidization arises when a significant catastrophe in one state contributes to rapidly evolving market conditions that affect

insurers' assessments of future risk across multiple states. Large catastrophe events may influence catastrophe model outputs, reinsurance costs, capital requirements, rebuilding cost assumptions, and other prospective ratemaking inputs. As a result, indicated rates may increase in jurisdictions that did not experience the loss event. Such changes generally reflect updated expectations regarding future costs and risks rather than a transfer of costs from policyholders in one state to policyholders in another.

Commented [GS18]: However, the "updated expectations" may often be exaggerated, mistaken, or metaphorically painting with a broad brush. It is a well-known psychological phenomenon that the occurrence of an adverse event tends to lead to exaggerated perceptions of that event's likelihood of recurrence. Thus, it is entirely possible that after a major disaster, various insurers (and even the public and the media) may develop erroneously high perceptions regarding the risk of that disaster occurring in other jurisdictions.

IV. What State-Based Ratemaking Means for Consumers and Markets—Is there Cross-state Ssubsidization?

Section II explained how home insurance~~owners~~ rates are developed and reviewed: as prospective estimates of expected loss, expense, catastrophe exposure, reinsurance cost, and other elements associated with the risk being insured. This section applies that ratemaking framework to a recurring question in public discussion: whether catastrophe losses in one state are being shifted into rates charged to policyholders in another. The answer requires distinguishing direct loss shifting from broader market effects. State-based ratemaking does not support the direct allocation of one state's catastrophe losses to another state's policyholders, but catastrophe events may still affect broader inputs such as rebuilding costs, reinsurance pricing, capital costs, and catastrophe model assumptions.

Commented [GS19]: It is through these "broader inputs" that there remains a risk of the rates in one state being based on catastrophe events in other states, and more should be said about the desirability of regulators seeking to prevent this.

A. Catastrophe Losses and State-Based Ratemaking

A recurring theme in academic research, media coverage, and consumer advocacy is the concern that home~~owners~~ insurance policyholders in relatively low-risk states may be financially subsidizing policyholders in states with high catastrophe exposure. These sources suggest that insurers spread catastrophic losses across their entire book of business, causing premiums in less disaster-prone states to rise to offset losses sustained in states like California, Florida, or Louisiana.

Several academic studies have examined insurer pricing behavior and rate-change patterns across states following major catastrophe events. Media investigations—particularly following the 2017–2018 California wildfire seasons, Hurricane Ian in 2022, and repeated hurricane seasons in Florida—have amplified these concerns, with reporting suggesting that consumers in other states are bearing costs attributable to coastal or wildfire-zone losses. Consumer advocacy organizations have similarly raised concerns that insurers are insufficiently transparent about cost

allocations and that policyholders lack the information necessary to evaluate whether their premiums reflect local risk or a national pooling of catastrophic exposure.

These concerns deserve serious engagement. However, several important methodological limitations and industry structural features are frequently overlooked in both academic and media treatments of this issue and understanding them is essential to evaluating the subsidization hypothesis fairly.

B. How Insurers Deploy Capital and Reinsurance

While catastrophe pricing is state-specific, as discussed in Section II, insurers deploy capital and reinsurance on an enterprise-wide basis to ensure claims-paying ability regardless of where a catastrophe occurs. A national insurer writing policies in all 50 states maintains a single pool of surplus capital that supports its obligations everywhere and for every line of business it writes. When a hurricane causes billions in losses in Florida, the same surplus that backs policies in Ohio is drawn upon—if necessary—to pay those claims.

Additionally, capital supports the entire company and not just its homeowners' line of business. Most insurers do not write only homeowners' insurance policies, and those few that do rely very heavily on reinsurance because of the extreme risk associated with a monoline portfolio. Like the way carriers manage their adopted risk from policyholders by diversifying their exposure geographically, they also mitigate their risk by writing other types of insurance. Most homeowners' carriers will also sell a wide variety of property and casualty coverages including personal auto and personal umbrella policies. Furthermore, these same carriers may sell a wide portfolio of commercial insurance products including commercial auto and property, plus commercial liability and workers' compensation policies. A carrier's surplus built up by underwriting and investment income associated with all these products is then available to them in the unlikely event of a catastrophic loss.

This enterprise-level capital deployment, however, is not equivalent to Ohio policyholders subsidizing Florida policyholders. The surplus is the insurer's own capital, contributed by shareholders and accumulated from retained earnings. It is the mechanism by which the insurer guarantees its financial promises; it is not a transfer of premium dollars from one state's policyholders to another's.

The reinsurance program layered above the insurer's retained risk functions similarly: reinsurance is purchased at the enterprise level, but its cost is allocated back to individual states based on the catastrophe exposure each state contributes to the reinsurance need. A state with low catastrophe exposure contributes less to the reinsurance cost allocation and, therefore, should have ~~pays~~ a smaller reinsurance load in its rates.

Different layers of reinsurance protection serve different purposes. Per-risk or per-occurrence excess-of-loss treaties respond to large single-event losses. Aggregate covers respond to the accumulation of smaller losses over a policy period. Catastrophe bonds and other capital market instruments provide additional protection against tail events. The cost of each layer is reflected in state-level rates in proportion to the catastrophe exposure that creates the demand for that layer of protection. ~~A consumer in a low-catastrophe state is not paying for a reinsurance program designed to protect against losses in a high-catastrophe stae; they are paying for the portion of the reinsurance program that protects against losses in their own state.~~

C. What Pooling Does (and Does Not) Mean

Insurance is, by design, a pooling mechanism. A home~~owners~~ insurer pools the risks of many policyholders so that the losses of the few are spread across the premiums of the many. This within-state pooling is the core economic function of insurance and is what makes coverage affordable for individual policyholders who could not self-insure against a catastrophic loss.

Cross-state pooling within a national insurer operates on a different principle. The insurer is not pooling the catastrophe losses of State A and State B policyholders together and averaging the cost across both groups. Rather, the insurer is pooling the uncertainty about whether State A losses will be higher or lower than expected, against the uncertainty about whether State B losses will be higher or lower than expected. The insurer benefits from the fact that these two sources of uncertainty are not perfectly correlated. The economic benefit of this diversification accrues primarily to the insurer's shareholders in the form of reduced capital requirements and to policyholders in the form of improved insurer financial stability; it does not translate into State B policyholders paying for State A losses.

D. Indirect Effects: How Catastrophe Losses May Affect Rates Elsewhere

While direct cross-state premium subsidization does not occur through normal ratemaking, there are legitimate indirect pathways through which a catastrophe in one state can affect premium levels in other states, and these indirect effects are important to acknowledge.

The most significant indirect effect operates through ~~supply~~ supply-chain economics. Following a major catastrophic event, such as a hurricane, wildfire, or flood, the demand for building materials, skilled labor, and construction equipment surges in the affected region. Lumber prices, roofing material costs, drywall, and structural components all experience sharp price increases, driven by both genuine supply constraints and demand concentration in the affected area. These elevated material costs do not remain geographically confined. A homeowner in Indiana filing a non-catastrophic claim, such as a burst pipe, a fallen tree, or a kitchen fire, may find that the cost of repairs has risen meaningfully because the same lumber being used to rebuild Gulf Coast homes is now more expensive everywhere. Insurers writing home insurance~~owners~~ policies across the country may experience increased claim severity in all states following a major catastrophe, and this elevated severity can feed into the loss experience used to support future rate changes nationwide. This is a real, quantifiable, and economically rational indirect linkage between catastrophe losses in one state and premium levels in others, and it deserves recognition in the research literature as a legitimate channel distinct from, and not confused with, direct subsidization.

Catastrophic events can also affect reinsurance pricing globally. A particularly severe hurricane season or a large wildfire loss may increase reinsurance costs for the subsequent policy year, and those increased costs are reflected in rate filings across all states that purchase catastrophe reinsurance — even states that were not directly affected by the event. This is not to compensate reinsurance carriers for losses sustained in a prior event; rather, the severe event serves as an additional data point that could cause reinsurers to adjust their predictions of future loss.

Commented [GS20]: My previous concern remains: if global reinsurance costs rise because of natural disasters, it would still be unreasonable to allocate any increase in those costs to states that have not had and are unlikely to have those disasters. Rather, states that did or are likely to experience those particular types of disasters should be bearing the increase within the insurer's allocation methodology.

As with the rebuilding-cost effects discussed above, this is a market-driven indirect effect, not a regulatory or actuarial mechanism for cross-state subsidization.

Finally, catastrophes provide the opportunity for models to be updated for what is learned about resiliency. Insurers and third-party modelers may calibrate rating values associated with certain types of construction, roof materials, mitigation efforts, etc., and use the revised discounts and factors throughout the country.

NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

E. Could Companies Hide Cross-State Subsidization?

A more sophisticated version of the cross-state subsidization hypothesis asserts that even if rate filings are state-specific, insurers might use the flexibility within ratemaking to shift value between states in ways that are difficult for regulators to detect. For example, an insurer might inflate the profit provision in low-catastrophe states to build a surplus that effectively offsets losses in high-catastrophe states. Or an insurer might systematically understate the catastrophe load in a high-exposure state by using older, less sensitive catastrophe models, while compensating with higher expense loads in other states.

The Center for Insurance Policy and Research (CIPR) performed a qualitative analysis of rate filings to explore the hypothesis that carriers are subsidizing catastrophic losses incurred in one state with higher rates in another state. If the hypothesis were true, the expectation is rate filings would either 1) directly include out-of-state catastrophe losses in the development of the indicated rate need or 2) indirectly increase the indication by changing methodology (e.g. using more conservatism) after catastrophic loss in another state. The analysis, while qualitative and limited in scope, did not support the hypothesis that carriers are raising rates in one state to support losses in another state.

Minnesota Hail Event: Found No Effect on Iowa Rates

For example, in 2017 there was a hail event (part of a June Derecho) in Minnesota. Iowa rate filings were examined for some companies writing insurance in both Minnesota and Iowa. No Minnesota loss data (or any other out-of-state losses) were reflected in five Iowa rate filings prior to Derecho and six after Derecho. Rate provisions and methodologies were also reviewed to test for any indirect 'cross-state subsidization' via selection of more conservative factors or changes in methodology intended to yield a higher indication in the post event filings.

The methodologies and provisions reviewed were: 1) Indication methodology: number of years of experience, weighting of years; 2) Loss and Trend: development and selection of; 3) Catastrophe provision development including which CAT models were used; 4) Reflection of reinsurance; 5) Development of underwriting profit and contingencies provision; 6) Other expense development; 7) Indicated vs proposed rates; 8) Credibility methodology and the selected complement of credibility; 9) Premium Trend; and 10) Other factors (e.g., Large loss procedure that may be impacted by out-of-state losses). No methodology changes were observed that would

indicate an indirect allocation of losses from the catastrophe events into Iowa rate indications. "Indirect effects" such as reinsurance costs, countrywide expenses or profit provision selection did not appear to be affected by the experience of out-of-state losses. When indications were higher in the post period, the driver was an increase of in-state losses or loss trends. Changes observed were due to companies having more internal experience to rely on, updates to catastrophe models, updated factors such as profit provisions, or other methodology changes that adhere to standard actuarial principles.

With changes to profit provisions, carriers maintained a consistent methodology to develop their profit provisions, but some updated inputs such as the rate of return, which resulted in small changes in the underwriting profit. In some cases, the underwriting profit provision increased from pre-to-post event filings. One carrier increased their profit provision from 6% to 7%. In some cases, the underwriting profit provision decreased: one carrier decreased ~~their~~its profit provision from 7.2% to 5.4% and another from 7% to 5%.

Regarding methodology changes, one company changed its credibility procedure which resulted in a small increase in the credibility attributed to its own statewide data; the complement of credibility was applied to a trended permissible loss ratio (not to loss experience from other states).

Hurricanes Harvey & Irma and 2018 California Wildfires: Found No Effect on Virginia Rates

Using the same methodology, four Virginia rate filings were studied before and four after the hurricanes Harvey & Irma in 2017 and eight filings before and eight after the 2018 California wildfires (7/23/18-8/30/18). Findings in the Virginia rate filings were consistent with the findings from the review of Iowa rate filings: There were no out-of-state losses included in any of the rate filings in Virginia. There were no methodology changes or rate provision selections that would indicate an indirect allocation of loss experience from the catastrophes to Virigina.

While these are only two limited scope case studies, ~~they support this paper's assertion that cross-subsidization is not occurring.~~ CIPR has not found support for the subsidization hypothesis. Analyses of profit provisions, expense ratios, and loss ratios across states have not revealed the systematic patterns that would be expected if insurers were deliberately routing value from low-catastrophe to high-catastrophe states. This does not foreclose the possibility that individual insurers in specific circumstances might engage in such behavior, but the available evidence ~~at~~

~~the industry level~~from the CIPR study, is not consistent with cross-state subsidization as a widespread or systematic phenomenon.

F. How Evolving Catastrophe Models Affect the Debate

One final dimension that is essential to understanding the cross-state subsidization debate is the evolution of catastrophe modeling. Insurers and their actuaries rely on probabilistic catastrophe models to estimate the expected losses from hurricanes, wildfires, earthquakes, and other catastrophic perils. These models, developed and maintained by specialized vendors and insurers, translate meteorological, geophysical, and engineering science into probabilistic loss distributions for any portfolio of insured properties.

Catastrophe models have changed significantly over time, and the transitions between model generations can create ~~apparent discontinuities~~large changes in rate levels~~ that are sometimes misinterpreted as evidence of subsidization or cross-market cost shifting.~~ When a major vendor releases a new version of a hurricane model that substantially increases estimated loss costs for Gulf Coast exposures, insurers using that model will file for rate increases in the affected states. The timing and magnitude of those increases may differ across insurers depending on when they transition to the new model, how much credibility they give to the model versus their own historical data, and how their reinsurance programs respond to the updated loss estimates. A researcher observing this pattern without knowledge of the model transition might incorrectly attribute the rate increases to a redistribution of costs rather than to an improved scientific understanding of the underlying peril.

The practical implication for the subsidization debate is that large, sudden shifts in catastrophe-state rate levels, particularly following a major loss event or a model update, do not indicate that prior rates in those states were subsidized by other states. They indicate that the industry's understanding of the catastrophe risk has changed, and that rates are being updated to reflect that improved understanding. The absence of prior rate increases does not mean policyholders elsewhere were overpaying; it may mean that the risk was systematically underestimated by the best available models at the time.

G. Important Methodological Considerations for Researchers and Media

It is worth flagging several recurring misconceptions that appear in research and reporting on this topic, because they can significantly distort conclusions about cross-state subsidization.

Commented [GS21]: My previous concern remains: What justifies the a prior assumption that a later model necessarily reflects an “improved scientific understanding”, rather than just a different set of assumptions that could be better or worse than those of the preceding model? It is the job of regulators to evaluate the merits of those assumptions, not simply to take for granted that a later model will be more accurate.

Commented [GS22]: Again, I take issue with the assumption that this would necessarily be an “improved understanding”. My previous concern remains: Is it the “understanding of the catastrophe risk” or, rather, the *fear* of the catastrophe risk? Studies of sociological responses in relation to natural and manmade disasters have indicated that humans are systematically prone to exaggerate and over-respond to the risk of disasters that happened recently and to neglect or disregard the risk of disasters that happened in the more distant past. “Social contagion” effects - including signaling within industry peer groups - can amplify those distortions relative to what would be an objective risk perception.

Commented [GS23]: My previous concern remains that this paper assumes that the prior models necessarily underestimated the risk and the new models estimate it correctly - but there is no empirical corroboration of this. It could be that the prior models were more accurate in estimating the risk, and the new models exaggerate it, either inadvertently or due to motivated reasoning and assumptions. Regulatory scrutiny exists to help understand which of these scenarios is likely to be the case.

NAIC NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

1. **Rate Filings Are Not "Exact Rate Needs."**

A rate filing reflects an indicated rate need and the proposed rates. ~~As discussed, a~~Actuarial rate indications involve projecting future (unknown prospective) losses and expenses from historical data using loss development factors, trend factors, and catastrophe load adjustments, and other factors—all of which carry significant uncertainty ~~and some of which can vary depending on the degree of conservatism in estimates~~. The "indicated rate change" in a filing is a single point estimate within a ~~plausible~~ range of reasonable estimates. No actuary, regulator, or researcher knows with certainty how many claims will occur in a future policy period, or what those claims will cost~~, or how the catastrophe environment will evolve. What appears to be an over- or under-indication when examined with a fixed historical dataset may look quite different when evaluated across multiple years or under different model assumptions. Research conclusions based on a single point-in-time snapshot of rate indications should be interpreted cautiously and evaluated against longer time horizons.~~ After-the-fact comparisons of predicted losses to actual losses do not establish that charged rates were excessive or inadequate. The nature of catastrophes alone renders such comparisons moot; a pricing environment that would react each year to the catastrophes that did or did not occur in the year prior would lead to enormous rate swings that would be not only actuarial unsound but also harmful to consumers.

2. **Claim Count Definitions Vary Across Insurers and Datasets.**

Comparisons of claim frequencies~~y~~ across companies or states often~~frequently~~ encounter the problem that insurers define and count claims differently. Some insurers record a claim for each person injured, each site damaged, each coverage affected, etc. Zero-payment claims (opened and closed without indemnity, such as claims below the policyholder deductible or not caused by a covered peril) may or may not be included in reported counts. Researchers using industry databases or statutory filings should account for these definitional differences, as unadjusted comparisons can produce false or misleading conclusions about relative loss frequency and severity, or average claim amounts.

3. **The Indicated Rate vs. Rate Received: A Critical Assumption.**

Commented [GS24]: But to what extent can an *accumulation* of after-the-fact comparisons that all show significant excesses of premiums collected over losses incurred, demonstrate excessive profitability? The paper should not assume that all after-the-fact comparisons are invalid; otherwise, a given rate proposal's claims to be actuarially justified would become non-falsifiable by any amount of empirical data.

Commented [GS25]: I do not think anyone advocates setting rates based on the swings in catastrophe losses from year to year. However, long-term empirical catastrophe loss experience in a particular state should be taken into account. If the future is expected to differ from the past (over a sufficiently long term), specific reasons for such difference should be provided, and still the difference would need to be realistic in magnitude. For instance, it would be unreasonable to project that any state's catastrophe annual average loss experience would increase tenfold overnight. Therefore, long-term empirical loss experience in a state at least sets a benchmark for and constraints on reasonableness of forward-looking estimates for catastrophe losses.

Much of the academic literature on cross-state subsidization implicitly or explicitly assumes that the ~~rate a company files, or the actuarially~~ indicated rate need in a filing, represents the true economic cost of risk in that state, and that any gap between the indication and the filed and/or approved rate must be recovered elsewhere, including (potentially) from policyholders in other states. This assumption does not withstand careful examination. ~~Rate indications are inputs to a regulatory analysis, not binding financial obligations. Insurers regularly file for rate changes that are less than their full indication, particularly in competitive markets. The gap between indicated and implemented rates is not uniformly under-charging—it may reflect competitive pricing, regulatory compliance, or the fact there is a range of reasonable actuarial estimates. Research that uses this gap as direct evidence of cross-state subsidization without accounting for these dynamics is fundamentally flawed.~~First, as previously described, the rate indication in a filing is but one point estimate among a range of reasonable estimates, a range that is likely to include the proposed rate level when it deviates from the filed point estimate indication. Second, even very large insurers write only a small fraction of the policies in any given state. An insurer whose indicated rates are outside the range of their competitors has to consider whether their estimates are missing the mark. State insurance regulators should be skeptical as well. The impacts of going to market at rates that are too competitive or not competitive enough can be catastrophic. An insurer that charges uncompetitive rates could start an adverse selection spiral that ultimately results in the failure of the product and its withdrawal from the market. Needing to account for adverse selection risk in one state but not another does not mean one state's policyholders are subsidizing the other's.

Commented [GS26]: I am not sure that this always applies. The "follow the leader" dynamic is common in the property and casualty insurance industry. If one insurer decides to charge rates that are different from its competitors, that does not mean that this insurer is somehow failing to see what the others are seeing. It may be that this insurer is just deciding not to follow a "market leader" that is mistaken or that has made a presently fashionable decision that will be reversed in a few years' time.

True competition does not mean that all insurers will charge similar rates. Quite the contrary, in a truly competitive market, there will be many rate levels, many options for consumers, and widely varying risk perceptions among insurers. If all insurers start behaving in the same manner and radically change course without a clear empirical signal, so as to raise rates or restrict capacity on profitable business, this is a sign of "social contagion", not beneficial or prudent competition.

4. Catastrophe Pricing Is a State-Level Construct.

A foundational principle of property insurance pricing, and one that is frequently misunderstood in cross-state subsidization discussions, is that catastrophe loss costs are estimated for the state where they are expected to occur. California wildfire claims experience does not enter the rating calculation for a homeowners policy in the Midwest. Each state's rate level is derived from that state's own expected loss experience, adjusted for trend and development (among other things), with catastrophe loads built from catastrophe models calibrated to the geographic exposures within that state. State insurance regulators enforce this principle by requiring that rates be filed and justified on a state-specific basis.

Confusion arises because state insurance rating laws may allow insurers to use both state-specific and other data, such as regional or nationwide data. In practice, an insurer will use state-specific data to the extent it is credible and will supplement it with other credible, relevant information where needed. To be "relevant," that data must be a reasonable estimate of expected losses and expenses for the policies to be written in the state.

This distinction is especially important for catastrophe risk. Updated catastrophe models may incorporate new scientific understanding, new claims information, changes in exposure, or changes in environmental conditions that affect more than one state. For example, a major hurricane in Florida may reveal that certain types of structures perform more poorly than expected, or that loss amplification effects are more significant than previously understood. Though these findings came from experience in Florida, hurricane catastrophe models used across the entire Atlantic coast will be updated to reflect these new learnings, which could ~~increase~~ impact rates in all states with hurricane risk~~states~~. While this may appear at the surface to be cross-state subsidization, there is a distinct difference: this is not insurers using out-of-state losses to increase rates (cross-state subsidization), but rather a best practice of using the latest science – catastrophe events in other states that may teach insurers, modelers, and regulators something new about the risk that is relevant to other states exposed to the same peril.

Commented [GS27]: My previous concern remains: it is a significant and unproven assumption to assert that these changes that affect more than one state are necessarily in the direction of improvement. The burden of proof here is on the insurer and the modeler; we do not know *a priori* that a newer model will be better or especially that it will be reflective of the risk of catastrophe loss in states where the recent disaster(s) did not occur.

When it comes to ~~some~~ certain parts of the insurer's rating plan, such as determining the rates for customers based on their individual risks, insurers are encouraged to use their most credible data, which may include nationwide or regional information on issues such as how fire damages buildings, what roofing materials perform best when neighborhoods burn, etc. When discussing state cross-subsidization, it is the overall indication by coverage or peril that is most ~~important~~relevant and the overall indication is a state-based number. A filing that attempted to recover California wildfire losses through Midwest premiums would be actuarially unsound and unlikely to~~would not~~ survive regulatory scrutiny~~, whether through front-end rate regulation or back-end market regulation~~. The regulatory architecture of state-based insurance oversight, therefore, provides a structural barrier to the kind of direct cross-state subsidization that researchers and media often

allege, while still allowing insurers and regulators to recognize credible, relevant scientific information that improves the assessment of catastrophe risk within each state.

5. **Actuarial standards play an important role in insurance pricing.**

   The vast majority of property and casualty insurance companies use credentialed actuaries to determine pricing. Those actuaries are bound by professional standards and a Code of Conduct and are subject to discipline if they depart materially from those expectations of professionalism. The standards provide guidance about how actuaries should provide a rate that is the expected value of all future costs associated with an individual risk transfer. Precept 8 of the Code of Professional Conduct specifically states that an actuary "shall take reasonable steps to ensure that such services are not used to mislead other parties," which can include regulators. Deliberate implementation of cross-state subsidization while developing rates would be in violation of the ASOPs and actuarial principles which may constitute a violation of the Code of Professional Conduct. Such violations could lead to disciplinary review and/or action by the Actuarial Board for Counseling and Discipline (ABCD).

   For homeowners insurance, actuaries are not required to provide an attestation as to the appropriateness of rates. However, the actuarial standards are still used by regulators as the expected standard for ratemaking.

6. **Refer to the CIPR website for considerations when using insurance data.**

This section has distinguished the direct allocation of catastrophe losses from the broader market effects that may influence home insuranceowners rates. That distinction matters because it shows why rate regulation must both recognize genuine cost pressures and require that those costs be reflected through supported, risk-based, and reviewable ratemaking. Section IIV places that role in the broader architecture of homeowners insurance regulation: a layered system designed to protect consumers, preserve market stability, and maintain actuarial discipline.

The longstanding statutory standard that insurance rates shall not be excessive, inadequate, or unfairly discriminatory provides a rich foundation for future research in insurance rate regulation, including more in-depth study of cross-subsidization and numerous other topics. Building from

this white paper, research could examine catastrophe exposure, model updates, and proper use of the models; reinsurance practices; insurer capital allocation; market competition; company filed rate changes vs. implemented rate changes; target underwriting profit provisions vs. historical profitability, and more.

V. Conclusion: Rate Regulation as Layered Consumer Protection

Rate regulation is a calibrated system that supplements the competitive market forces that exist in most states with regulatory oversight proportionate to the degree of market imperfection and the magnitude of consumer vulnerability.

The architecture of state-based regulation described in Sections I through IV, with its uniform three-part legal standard for insurance rating, delegation of authority to state insurance commissioners, and diverse rate filing requirements, and with a complement of market conduct oversight, reflects the accumulated wisdom of more than a century of insurance regulatory experience.

Rate regulation can and should ensure that cost trends are accurately measured, that actuarial justification is genuine, that unfair discrimination is absent, and that insurers are not exploiting information asymmetries or market concentration to extract excessive profits.

Present regulatory needs include attention to using sophisticated actuarial staff (as rate filing models and support continue to get more complex) and effective market monitoring. The engagement of the actuarial profession, through its standards, its certifications, and its independent professional obligations, is indispensable to the integrity of the rate regulatory process. Actuaries who conduct rate indication analysis in rate filings occupy a position of public trust and professional obligation, and the regulatory system depends on the actuarial community's commitment to honest, rigorous analysis as a foundation for sound ratemaking.

The homeowners insurance market faces significant challenges in the years ahead, from increasing catastrophic disasters to rising replacement costs to the evolving legal environment. Rate regulation, when properly designed and effectively administered, will remain an important tool for ensuring that these challenges are met in a manner that protects consumers, maintains

market stability, and preserves the availability of coverage that protects the most important financial asset most American families will ever own.

~~In summary,~~ T~~t~~he goal of property and casualty ratemaking is to predict the rates that need to be charged on a specific cohort of insurance policies that will be written in the future. The application of appropriate actuarial practices and techniques ensures that those rates are adequate, but not excessive or unfairly discriminatory for covering the expected losses and expenses on those policies, while also allowing for a reasonable return for the risk undertaken. Ratemaking is inherently a prediction of unknown future values. To the untrained eye, a year with few severe storms and catastrophic events might make it seem as if the rates were excessive. And a year with many severe storms and catastrophic events might look like the rates were inadequate. But the ratemaking process accounts for such random fluctuation and prices to the expected frequency of, and claim values associated with, these events in any given year.

Insurers typically use their own state-specific experience to the extent possible for ratemaking purposes. But that experience often needs to be supplemented with additional information to make credible predictions about future losses and expenses on policies that haven't yet been written. This supplemental information can include catastrophe models, other insurers' experience and their rates, experience and statistics made available by advisory and rating organizations, and regional or even countrywide experience and statistics. However, it is important to understand that supplemental information ~~is~~must be adjusted and used only to the extent that it helps predict expected losses and expenses on a specific set of policies in a specific state that will be written in the future. An insurer that would attempt to charge excessive rates in one state to make up for inadequate rates in another would be in violation of state insurance laws and their actuaries would be in violation of actuarial standards of practice. Complaints about the insurer's actuaries (e.g., submitted by state insurance regulators) to the Actuarial Board on Counselling and Discipline could result in professional discipline, up to and including the revocation of their credentials and ability to practice. The insurer's proposed rates would be subject to regulatory scrutiny, and the insurer would likely fail to meet their business objectives.

Property and casualty insurance ratemaking is a complex endeavor undertaken by professionals with standards of practice governing their work. Those studying the actuarial soundness of insurance rates, and effectiveness of state-based rate regulation, would produce more accurate

and beneficial research by meeting with state insurance regulators to discuss their methodology and findings as part of their research and in advance of publishing any reports.

Finally, the authors recognize this paper does not conclusively prove that no cross-state subsidization exists between policyholders in any states. That would require significant additional study well beyond the scope of the charge given to the Task Force which produced this paper. Instead, this paper describes the plethora of safeguards in place that serve to prevent cross-state subsidization from occurring.

References and Further Reading

American Property Casualty Insurance Association (APCIA). The Economic Justification for Rate Regulation in Personal Lines Insurance. Washington, D.C.: APCIA Policy Research.

Cummins, J. David, and Sharon Tennyson. “Regulation, Efficiency, and Competitiveness in the U.S. Property-Liability Insurance Industry.” Journal of Insurance Issues (1994).

Harrington, Scott E. “Insurance Rate Regulation in the Twenty-First Century.” Journal of Insurance Regulation 21, no. 1 (2002).

Klein, Robert W. “Insurance Market Regulation: Catastrophe Risk, Competition and Systemic Risk.” Working Paper, Risk Management and Insurance Program, Georgia State University (2012).

McCarran-Ferguson Act of 1945, 15 U.S.C. §§ 1011–1015.

National Association of Insurance Commissioners (NAIC). Model Rate and Policy Form Regulation Act. Kansas City, MO: NAIC.

National Association of Insurance Commissioners (NAIC). Property/Casualty Insurance: An Industry Overview. Kansas City, MO: NAIC.

United States v. South-Eastern Underwriters Association, 322 U.S. 533 (1944).

Actuarial Standards Board. Actuarial Standard of Practice No. 25: Credibility Procedures. Washington, D.C.: ASB.

9/18/2026 (Critical Review Comments)

NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

Actuarial Standards of Practice: https://www.actuarialstandardsboard.org/standards-of-practice/#filter=*

6. Hear Updates on Activities and Research from Professional Actuarial Associations

Julie Lederer (MO)

NAIC NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

12

Academy Professionalism Update

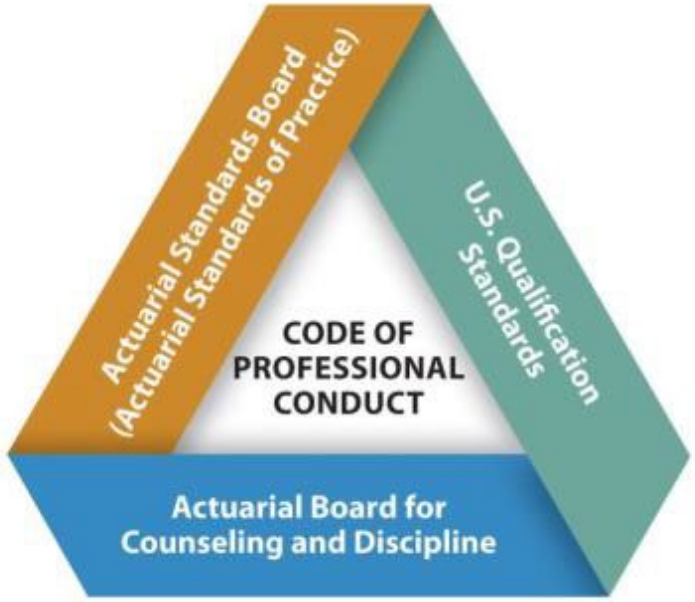
NAIC Fall National Meeting

November 2026

© 2026 American Academy of Actuaries. All rights reserved.
May not be reproduced without express permission.

American Academy of Actuaries

Housed in the Academy: The Professionalism Framework



- **U.S. Code of Professional Conduct**
  - Joint Committee on the Code of Professional Conduct
- **U.S. Qualification Standards (USQS)**
  - Committee on Qualifications
- **Actuarial Standards of Practice (ASOPs)**
  - Actuarial Standards Board (ASB)
- **Counseling and Discipline**
  - Actuarial Board for Counseling and Discipline (ABCD)

actuary.org/professionalism

© 2026 American Academy of Actuaries. All rights reserved.
May not be reproduced without express permission.

Committee on Qualifications (COQ)

- Recommends to the Academy's Board of Directors the minimum qualification standards, including continuing education requirements, necessary to qualify credentialed actuaries to issue statements of actuarial opinion in the United States.
- Answers questions relating to qualifications.
  - As of early October, the COQ received 20 questions in 2026, covering qualifications for non-US actuaries to issue SAOs, specific qualifications, CE, and documentation requirements.

The most recent U.S. Qualification Standards took effect Jan. 1, 2022.

© 2026 American Academy of Actuaries. All rights reserved.
May not be reproduced without express permission.

Actuarial Standards Board (ASB)

General ASOPs—Recently Approved

- ASOP No. 41, *Actuarial Communications*

General ASOPs—Under Revision

- ASOP No. 1, *Introductory Standard of Practice*
- ASOP No. 12, *Risk Classification (for All Practice Areas)*

Learn more at: www.actuarialstandardsboard.org

© 2026 American Academy of Actuaries. All rights reserved.
May not be reproduced without express permission.

Actuarial Standards Board (ASB)

Property/Casualty ASOPs under revision

- ASOP No. 30, *Profit Provisions, Contingency Provisions, and the Cost of Capital in Property/Casualty Risk Transfer and Risk Retention*
- ASOP No. 39, *Treatment of Catastrophe Losses in Property/Casualty Insurance Ratemaking*
- ASOP No. 43, *Property/Casualty Unpaid Claim Estimates*

© 2026 American Academy of Actuaries. All rights reserved.
May not be reproduced without express permission.

Actuarial Board for Counseling and Discipline (ABCD)

Recent ABCD activities

- During the first three quarters of 2026, the ABCD handled a total of 116 cases, consisting of 85 requests for guidance (RFGs) and 31 inquiry cases.
- The ABCD conducted ten outreach presentations, via the Academy's Speakers Bureau, for actuarial organizations, regulators, clubs and firms across the United States.

Up to Code in *Contingencies* magazine

- Perspectives from the ABCD—Moral Turpitude (September/October 2026)
- Don't Be 'That Actuary' (July/August 2026)
- Are You Offside? (May/June 2026)



Learn more at: *www.abcdboard.org*

© 2026 American Academy of Actuaries. All rights reserved.
May not be reproduced without express permission.

Upcoming Professionalism Webinar

Tales from the Dark Side

Presented by members of the ABCD

December 18, 2026

12:00-1:30 pm eastern

Register here

© 2026 American Academy of Actuaries. All rights reserved.
May not be reproduced without express permission.

Questions?

For more information, or to send suggestions/comments on the U.S. Qualification Standards, please contact

Virginia Hulme, Assistant Director, Professionalism

professionalism@actuary.org

© 2026 American Academy of Actuaries. All rights reserved.
May not be reproduced without express permission.

Academy Update—Casualty Practice Council

Casualty Actuarial and Statistical (C) Task Force (CASTF)

Nov. 16, 2026

© 2026 American Academy of Actuaries. All rights reserved.
May not be reproduced without express permission.

About the Academy



Mission:
To serve the public and the U.S. actuarial profession



Community:
Serving over 20K MAAAs & public stakeholders for 60 years



Standards:
Setting qualification, practice, and professionalism standards



Impact:
Delivering over 300 insight-driven publications & resources annually

Visit www.actuary.org to learn more.

© 2026 American Academy of Actuaries. All rights reserved.
May not be reproduced without express permission.

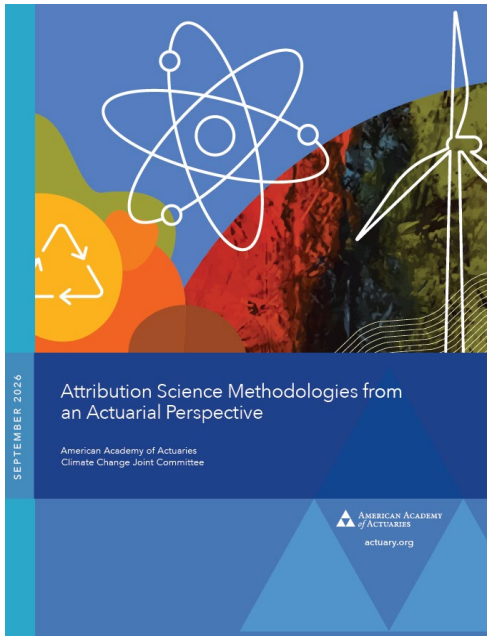
Casualty Practice Council Priorities

Recent Activities

- Webinar: Cost Drivers and Affordability in Automobile and Homeowners Insurance
- Webinar: Cyber Risk in the Age of AI: Market Trends and Emerging Challenges
- Updates to the Cyber Risk Toolkit: Intro Paper and Cyber Risk Accumulation

Cross Practice Areas of Interest

- Attribution Science Methodologies from an Actuarial Perspective
- Climate Change Impact on Insurance Affordability, Availability, and Accessibility
- Artificial Intelligence Governance: What Counts as AI?



© 2026 American Academy of Actuaries. All rights reserved.
May not be reproduced without express permission.

Casualty & Risk Management Preview

- Anatomy of Bias in a Commercial Multi-Peril policy paper
- Portability of Telematics Data brief
- Survey of the Commercial Liability Market
- Update to the 2022 Wildfire Monograph
- Annual P/C practice note, law manual, and Opinion Seminar
- Auditing Algorithms for Bias-Performing an Audit paper
- The Climate Impact of AI Data Centers brief
- Climate Risk and Insurance Innovation—An Actuarial Perspective on Current and Emerging Products paper

© 2026 American Academy of Actuaries. All rights reserved.
May not be reproduced without express permission.

Cost Drivers and Affordability in Personal Automobile and Insurance

- Insurance affordability is influenced by the relationship among premiums, underlying risk, claim costs, coverage, and household income.
- Affordability concerns are not uniform and can vary substantially by geography, peril, population, and type of coverage.
- Rising premiums may reflect increases in expected losses and expenses, rather than pricing decisions alone.
- Availability and affordability are interconnected, as reduced insurer participation can limit consumer options and increase coverage costs.
- Broad affordability measures may mask significant differences among individual consumers and communities.

© 2026 American Academy of Actuaries. All rights reserved.
May not be reproduced without express permission.

Cost Drivers and Affordability in Personal Automobile and Homeowners Insurance (contd.)

Auto Insurance	Homeowners Insurance	Tariffs
• Rising vehicle repair costs • More complex technology • Higher medical costs • Increased claim severity	• Increasing catastrophe exposure • Higher construction and labor costs • Growing reinsurance expenses	• Vehicles • Auto parts • Building materials • Other imported goods

- These pressures may develop differently across markets, but all contribute to a widening gap between insurance costs and household income.
- Because many of these cost drivers originate outside the insurance system, improving affordability will require attention to broader economic conditions and the underlying cost of insured losses.

© 2026 American Academy of Actuaries. All rights reserved.
May not be reproduced without express permission.

Cyber Risk in the Age of AI: Market Trends and Emerging Challenges

AI can strengthen cyber defense but expands the attack surface

Threat actors are using AI

Emerging cyber exposures

AI-related cyber losses may extend beyond traditional data breaches

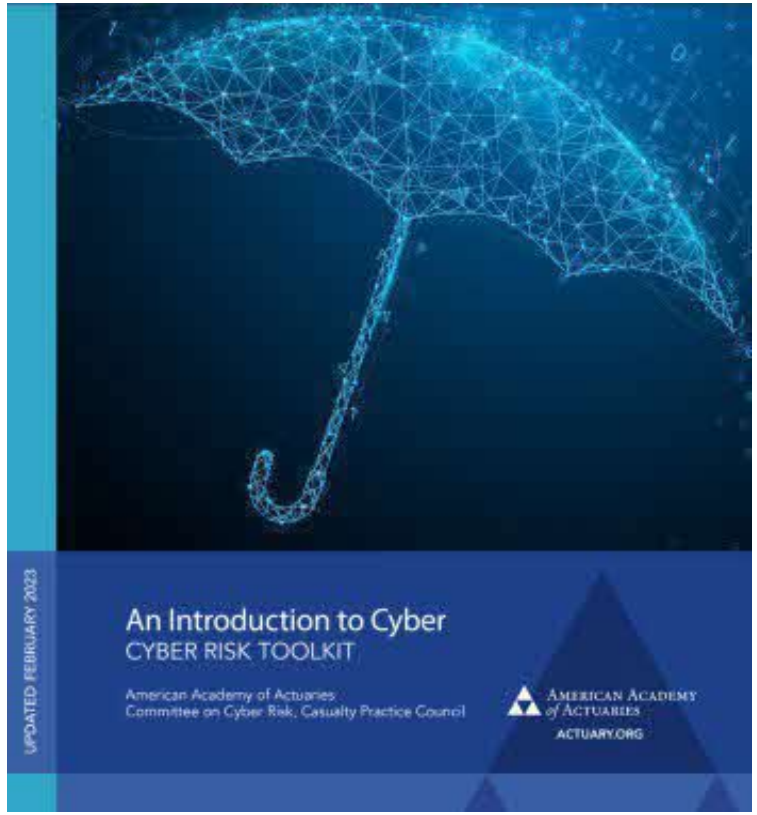
- Cyber models are beginning to incorporate AI-driven threats and systemic exposures, reflecting the potential for correlated losses across organizations and multiple insurance lines.
- These evolving risks increase the importance of underwriting controls, continuous monitoring, incident-response capabilities, and clear policy language addressing AI-related coverage.

© 2026 American Academy of Actuaries. All rights reserved.
May not be reproduced without express permission.

Cyber Risk Toolkit

Access at: actuary.org/cybertoolkit

- Developed by the Academy's Committee on Cyber Risk
- Papers in the toolkit address issues pertinent to cyber risk and exposure which are now impacting most lines of business
- Intended to be a resource for the general public, public policymakers, the actuarial profession, the insurance sector, and other stakeholders



© 2026 American Academy of Actuaries. All rights reserved.
May not be reproduced without express permission.

Questions?

For policy information, please contact

Rob Fischer
Policy Project Manager, Casualty
fischer@actuary.org

© 2026 American Academy of Actuaries. All rights reserved.
May not be reproduced without express permission.

Upcoming Events & Webinars

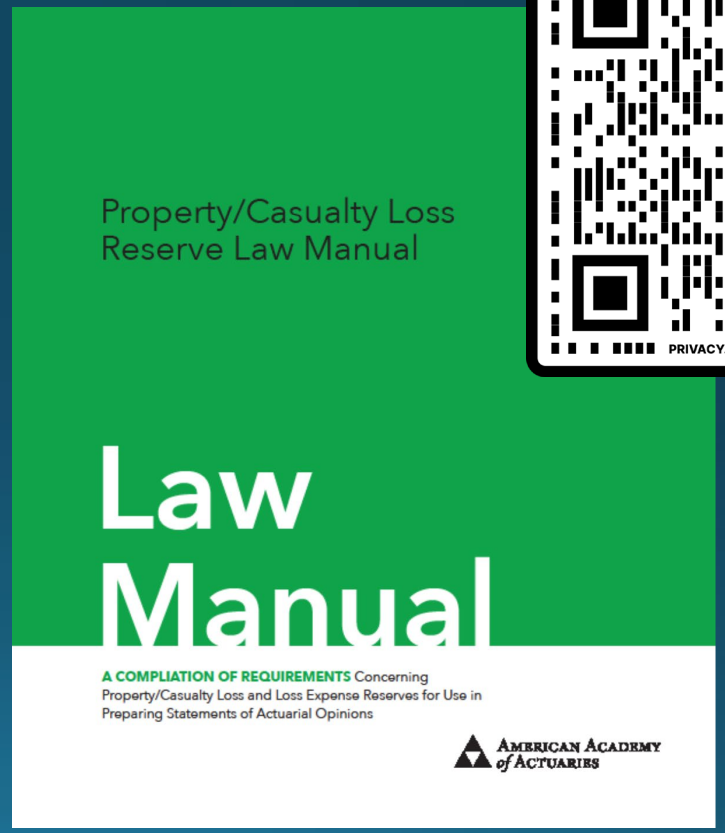
- **Webinar on New Opinion Writer's Guide to the SAO,** Nov. 17, 2026
- **Seminar on Effective P/C Loss Reserve Opinions, Nashville,** Dec. 7-8, 2026
- **Leadership Summit & Governance Transition,** Dec. 10, 2026
- **Professionalism Webinar: Tales from the Dark Side,** Dec. 18, 2026
- **Policy Summit & Hill Visits,** March 8-9, 2027

© 2026 American Academy of Actuaries. All rights reserved.
May not be reproduced without express permission.

Property/Casualty Loss Reserve Law Manual

What's Inside?

- SAO requirements and the laws and regulations establishing those requirements;
- Annual statement instructions for the SAO for property/casualty, title loss, and loss expense reserves; and
- Other pertinent annual statement instructions.



PRIVACY.FLOWCODE.COM

American Academy of Actuaries

actuary.org/PC-manual

Explore more resources from the Academy



MAGAZINE

Contingencies

Stories and commentary from the actuarial world

Visit ›



RESOURCE

Policy Forum

Policy priorities and actuarial insights

Visit ›



BLOG

Actuarially Sound

Insights from Academy staff

Visit ›



PODCAST

Actuary Voices

Conversations on actuarial work and public policy

Visit ›



NEWSLETTER

Academy Insights

Highlights of Academy activities in your inbox

Visit ›

Stay connected: Follow the Academy on LinkedIn ›

© 2026 American Academy of Actuaries. All rights reserved.
May not be reproduced without express permission.

Casualty Actuarial Society Update

NAIC CASTF Fall Meeting
November 16, 2026
Dallas, TX

- Over 1,400 in-person attendees and 200 virtual attendees
- Celebrated 275 new Fellows and 166 new Associates
- Featured Speaker and General Sessions
  - Dare to Dance
  - When Insurance Becomes the Problem: Navigating Hawaiʻi's Property Market Crisis
  - Regulation, Fairness, and Trust: What Society Is Asking Actuaries to Be Now
- Over 40 concurrent sessions and 16 roundtables
  - Current and Future Public Policy Considerations

Opportunities for Regulators

CAS welcomes session and research proposals from the regulatory community.

Calls for Presentations:

- CAS 2027 Reinsurance Seminar
  - Deadline: January 2, 2027
- CAS Webinars – Submissions accepted on a rolling basis.



Calls for Research:

- Alternative Capital and Reinsurance Markets Monograph
- Survival Modeling for P&C Insurance Monograph
  - Deadline for both: November 18th, 2026

Upcoming Marquee Events

Regulators receive a 50% discount on registration fees.

- Ratemaking, Product, and Modeling Seminar
  - Indianapolis, IN, March 15-17, 2027

- Spring Meeting
  - Chicago, IL, May 16-19, 2027





Upcoming Online Events

50% regulatory discount for live webinars

- Finding Patterns in Your Residuals
  - Nov. 17, 2026
- State of the CAS: Strategic Priorities and the Road Ahead
  - Nov. 18, 2026 – Free
- AI in Action: Practical Innovations Transforming Actuarial Practice
  - Dec. 1, 2026 - All day Seminar
- Hazard, Premiums, and Solidarity: Measuring Fairness in Canadian Territorial Rating
  - Dec. 8, 2026
- What's in a Peer Review
  - Dec. 17, 2026



Recent Variance Articles

- Catastrophe Insurance Pricing: An Adaptive Robust Optimization Approach
  Zeng & Bertsimas, September 2026
- Sensitivity of Complex Reinsurance Pricing Metrics to Model Assumptions
  Khare, Farhan & Roy, August 2026
- Corrigendum: An Application of Image Processing Techniques in the Calibration of Catastrophe Models
  Rotich, Hambardzumyan, Koech, Poghosyan & Mungatu, August 2026

Recent and Upcoming Monographs

- **#17 Foundations of Actuarial Professionalism**
  Taub
- **Machine Learning Regression Models for Ratemaking**
  Lupton, De Virgilis, Tumuluru, Jain, Clickner & Baznik
- **Game Theory**
  Chatterjee, Martinelli & Zhu
- **Extreme Value Theory**
  Fadina, Tze & Wang