

Draft date: 8/8/23

*2023 Summer National Meeting  
Seattle, Washington*

### CASUALTY ACTUARIAL AND STATISTICAL (C) TASK FORCE

Saturday, August 12, 2023

3:30 – 5:00 p.m.

Hyatt Regency Seattle—Columbia Ballroom CD—Level 3

### ROLL CALL

D.J. Bettencourt, Chair	New Hampshire	Troy Downing	Montana
Chlora Lindley-Myers, Vice Chair	Missouri	Francisco D. Cabrera	N. Mariana Islands
Mark Fowler	Alabama	Eric Dunning	Nebraska
Lori K. Wing-Heier	Alaska	Scott Kipper	Nevada
Ricardo Lara	California	Justin Zimmerman	New Jersey
Andrew N. Mais	Connecticut	Alice T. Kane	New Mexico
Karima M. Woods	District of Columbia	Mike Causey	North Carolina
Michael Yaworsky	Florida	Judith L. French	Ohio
Dana Popish Severinghaus	Illinois	Glen Mulready	Oklahoma
Amy L. Beard	Indiana	Andrew R. Stolfi	Oregon
Doug Ommen	Iowa	Michael Humphreys	Pennsylvania
Vicki Schmidt	Kansas	Michael Wise	South Carolina
James J. Donelon	Louisiana	Cassie Brown	Texas
Timothy N. Schott	Maine	Kevin Gaffney	Vermont
Kathleen A. Birrane	Maryland	Mike Kreidler	Washington
Anita G. Fox	Michigan	Allan L. McVey	West Virginia
Grace Arnold	Minnesota		

NAIC Support Staff: Kris DeFrain

### AGENDA

1. Consider Adoption of its June 13, May 2, and Spring National Meeting Minutes—*Christian Citarella (NH)* Attachment One
2. Consider Adoption of its Working Group Reports and Minutes Attachment Two
  - A. Actuarial Opinion (C) Working Group—*Miriam Fisk (TX)*
  - B. Statistical Data (C) Working Group—*Sandra Darby (ME)*
3. Consider Comments on the Proposed Enterprise Risk Management (ERM) Actuarial Standard of Practice (ASOP)—*Julie Lederer (MO)* Attachment Three  
 ([http://www.actuarialstandardsboard.org/asops/enterprise\\_risk\\_management\\_exposu\\_re\\_draft/](http://www.actuarialstandardsboard.org/asops/enterprise_risk_management_exposu_re_draft/))



4. Discuss the Work Plan Regarding Director and Officer (D&O) and Cyber Supplements—*Christian Citarella (NH)*
5. Hear a Report about the Risk Evaluation Ad Hoc Group Formed by the Capital Adequacy (E) Task Force—*Tom Botsko (OH)*
6. Hear a Presentation Regarding the Paper “[Approaches to Identify and/or Mitigate Bias in Property and Casualty Insurance](#)”—*Mike Woods (American Academy of Actuaries [Academy] Committee on Equity and Fairness)* Attachment Four
7. Hear Activity and Research Reports from the Actuarial Standards Board (ASB), the Actuarial Board for Counseling and Discipline (ABCD), the Academy, the Casualty Actuarial Society (CAS), and the Society of Actuaries (SOA)—*Christian Citarella (NH)* Attachment Five
8. Hear a Report on SOA Exam Changes—*Stuart Klugman (SOA)* Attachment Six
9. Discuss Any Other Matters Brought Before the Task Force—*Christian Citarella (NH)*
10. Adjournment

Draft: 6/28/23

Casualty Actuarial and Statistical (C) Task Force  
Virtual Meeting  
June 13, 2023

The Casualty Actuarial and Statistical (C) Task Force met June 13, 2023. The following Task Force members participated: Chris Nicolopoulos, Chair, represented by Christian Citarella (NH); Chlora Lindley-Myers, Vice Chair, represented by Julie Lederer (MO); Lori K. Wing-Heier represented by Sian Ng-Ashcraft (AK); Mark Fowler represented by Charles Hale (AL); Ricardo Lara represented by Mitra Sanandajifar (CA); Andrew N. Mais represented by Wanchin Chou (CT); Karima M. Woods represented by David Christhilf (DC); Michael Yaworsky represented by Greg Jaynes (FL); Doug Ommen represented by Travis Grassel (IA); Amy L. Beard represented by Larry Steinert (IN); Vicki Schmidt represented by Craig VanAalst (KS); James J. Donelon represented by Nichole Torblaa (LA); Kathleen A. Birrane represented by Ron Coleman and Walter Dabrowski (MD); Timothy N. Schott represented by Sandra Darby (ME); Anita G. Fox represented by Kevin Dyke (MI); Grace Arnold represented by Phil Vigliaturo (MN); Troy Downing represented by Mari Kindberg (MT); Eric Dunning represented by Michael Muldoon (NE); Alice Kane represented by Anna Krylova (NM); Scott Kipper represented by Gennady Stolyarov (NV); Judith L. French represented by Maureen Motter (OH); Glen Mulready represented by Cuc Nguyen (OK); Andrew R. Stolfi represented by Ying Liu (OR); Michael Humphreys represented by Michael McKenney (PA); Cassie Brown represented by Miriam Fisk (TX); Kevin Gaffney represented by Rosemary Raszka (VT); Mike Kreidler represented by Eric Slavich (WA); and Allan L. McVey (WV).

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

Fisk said the Actuarial Opinion (C) Working Group met May 25 to expose a draft response to the referral from the Financial Analysis (E) Working Group asking for discussion of the use of predictive analytics in reserving and consideration of drafting guidance for a 30-day public comment period ending June 26. The Actuarial Opinion (C) Working Group will meet June 14 in regulator-to-regulator session, pursuant to paragraph 3 (specific companies, entities, or individuals) of the NAIC Policy Statement on Open Meetings, to discuss individual companies' Statements of Actuarial Opinion (SAOs). The Working Group will also meet July 12 to discuss potential changes to the *Regulatory Guidance on Property and Casualty Statutory Statements of Actuarial Opinion, Actuarial Opinion Summaries, and Actuarial Reports for the Year 2023* (2023 Regulatory Guidance) and 2024 opinion instructions.

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

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

The Statistical Data (C) Working Group reviewed data for the 2021 *Dwelling, Fire, Homeowners Owner-Occupied, and Homeowners Tenant and Condominium/Cooperative Unit Owner's Insurance Report* (Homeowners Report) and the 2021 Auto Insurance Average Premium Supplement. NAIC staff are compiling the reports for Working Group review and consideration of adoption.

The Working Group met May 25 in regulator-to-regulator session to discuss the Tableau dashboard created by NAIC staff using the *Report on Profitability by Line by State* (Profitability Report) data. NAIC staff are making suggested changes, and they will update the dashboard on StateNet soon. The Working Group will continue to meet in regulator-to-regulator session to review the development of auto and homeowners Tableau dashboards.

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

### 3. Discussed the D&O Insurance Coverage Supplement and the Cyber Insurance Supplement

Citarella said Irwin Goldfarb (American International Group [AIG]—Retired) presented at the Task Force’s May 2 meeting, proposing to improve the Director and Officer (D&O) Insurance Coverage Supplement and the Cyber Insurance Supplement to make the data more meaningful and appropriate for users. For the D&O Insurance Coverage Supplement, Goldfarb proposed that the data be changed from calendar to accident year. He proposed that Cyber become its own line in Schedule P; if that cannot be accomplished, the data should be changed from calendar to accident year in the Cyber Insurance Supplement.

The Task Force decided to continue to study the ideas. Citarella said he wants to know whether there are other supplements that require accident year reporting. The Task Force discussed a Cyber Insurance Supplement blanks proposal that is deferred at the Blanks (E) Working Group. Sara Robben (NAIC) said companies can write first-party and third-party cybersecurity insurance on one policy. Since there is not an option for reporting both first-party and third-party information on the Cyber Insurance Supplement, insurers must choose one. This means the numbers reported do not always truly reflect first-party and third-party information. Tip Tipton (Thrivent) said state insurance regulators and interested parties are discussing the blanks proposal to find a solution that works for all. Rachel Underwood (Cincinnati Insurance Companies) said cyber can be reported in the annual statement on Annual Statement Line (ASL) 17 (Other Liability), but it can also be reported in other lines. She said commercial first party is usually reported on ASL 17, but endorsements are often reported in other lines, and theft is often reported on the theft line.

### 4. Discussed the Monitoring of Other NAIC Committee Groups

Citarella asked for volunteers to help monitor other NAIC committee groups that have some connection to the Task Force. He said in the normal course of work, the requirement would be to identify any issue that might be of interest to the Task Force and notify Citarella, Lederer, and Kris DeFrain (NAIC). The next step would be for someone to present the issues of interest about the other group’s project to the Task Force. The Task Force would then decide whether to get involved. He said on rare occasions, the volunteer may be asked to speak on behalf of the Task Force to the other group.

The following are the volunteers for each committee group:

#### **EXECUTIVE (EX) COMMITTEE**

- Special (EX) Committee on Race and Insurance—Phil Vigliaturo (MN)
- Climate and Resiliency (EX) Task Force—George Bradner (CT)

#### **PROPERTY AND CASUALTY INSURANCE (C) COMMITTEE**

- Catastrophe Insurance (C) Working Group—Wanchin Chou (CT)
- Workers’ Compensation (C) Task Force—Michael McKenney (PA), primary, and Sandra Darby (ME), alternate
- Title Insurance (C) Task Force—Anna Krylova (NM)

#### **MARKET REGULATION AND CONSUMER AFFAIRS (D) COMMITTEE**

- Speed to Market (D) Working Group—Tom Botsko (OH) in consultation with Maureen Motter (OH)

#### **SERFF**

- System for Electronic Rates & Forms Filing (SERFF) Product Steering Committee's (PSC's) SERFF Modernization Project—Sandra Darby (ME)

#### **FINANCIAL CONDITION (E) COMMITTEE**

- Capital Adequacy (E) Task Force and Property and Casualty Risk-Based Capital (E) Working Group—Tom Botsko (OH)
- Catastrophe Risk (E) Subgroup—Wanchin Chou (CT)
- Blanks (E) Working Group—Michael McKenney (PA)
- Statutory Accounting Principles (E) Working Group—OPEN

#### **INNOVATION, CYBERSECURITY, AND TECHNOLOGY (H) COMMITTEE**

- Innovation, Cybersecurity, and Technology (H) Committee; Algorithmic Bias Coordination Forum; and Big Data and Artificial Intelligence (H) Working Group—Christian Citarella (NH)
- Cybersecurity (H) Working Group—Cynthia Amann (MO)

Citarella said Tom Botsko (OH) provided a written report saying there is a new ad hoc group under the Capital Adequacy (E) Task Force that will be evaluating the risk-based capital (RBC) formula holistically, as well as specific factors that should be reviewed. Additionally, it will be evaluating whether factors ought to be added/deleted and whether there should be an adjustment to covariance in the RBC formula.

Citarella said he might add the Transparency and Readability of Consumer Information (C) Working Group to the list in the future. Birny Birnbaum (Center for Economic Justice—CEJ) said the Working Group adopted a rate filing checklist, but it is not a filing checklist per se; it is a list of information needed by the state insurance regulators working in consumer service. The purpose was limited to providing the information state insurance regulators need to respond to consumer questions. Citarella will contact Joy Hatchette (MD) to discuss future communication.

#### **5. Discussed Reviews of Future Actuarial Papers**

Lederer said state insurance regulators are invited to join ad hoc discussions about new American Academy of Actuaries (Academy), Actuarial Standards Board (ASB), or other professional actuarial papers. She said if those discussions uncover any regulatory concerns, then the Task Force will be informed and can discuss whether to submit comments to the actuarial organization and what those comments should be.

Lederer said there is a new exposure draft of an Actuarial Standard of Practice (ASOP) on enterprise risk management (ERM). She said the proposal is that the new ASOP would replace existing ASOPs 46 and 47 on ERM, and it would be made consistent with the new ASOP on capital adequacy standards. She said comments are due Sept. 15. The ad hoc regulatory group will meet June 22 to discuss the new ERM ASOP and any regulatory implications. Please request a meeting invitation from DeFrain if you are interested.

#### **6. Discussed LCM Form Implementation**

Ng-Ashcraft said Alaska is implementing the new form to replace its old forms. McKenney said Pennsylvania notified insurers, allowing the new form to be used as an option.

Having no further business, the Casualty Actuarial and Statistical (C) Task Force adjourned.  
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Draft: 6/6/23

Casualty Actuarial and Statistical (C) Task Force  
Virtual Meeting  
May 2, 2023

The Casualty Actuarial and Statistical (C) Task Force met May 2, 2023. The following Task Force members participated: Chris Nicolopoulos, Chair, represented by Christian Citarella (NH); Chlora Lindley-Myers, Vice Chair, represented by Julie Lederer (MO); Lori K. Wing-Heier represented by Sian Ng-Ashcraft (AK); Mark Fowler represented by Charles Hale (AL); Ricardo Lara represented by Mitra Sanandajifar and Lynne Wehmuller (CA); Andrew N. Mais represented by Wanchin Chou (CT); Michael Yaworsky represented by Greg Jaynes (FL); Dana Popish Severinghaus represented by Anthony Bredel and Judy Mottar (IL); Doug Ommen represented by Travis Grassel (IA); Vicki Schmidt represented by Nicole Boyd (KS); James J. Donelon represented by John Sobhanian (LA); Kathleen A. Birrane represented by Ron Coleman and Walter Dabrowski (MD); Timothy N. Schott represented by Sandra Darby (ME); Grace Arnold represented by Phil Vigliaturo (MN); Troy Downing represented by Mari Kindberg (MT); Mike Causey represented by Richard Cohen (NC); Jennifer Catechis represented by Anna Krylova (NM); Scott Kipper represented by Gennady Stolyarov (NV); Glen Mulready represented by Andrew Schallhorn (OK); Michael Humphreys represented by Michael McKenney (PA); Michael Wise represented by Will Davis (SC); Cassie Brown represented by J'ne Byckovski and Miriam Fisk (TX); Kevin Gaffney represented by Rosemary Raszka (VT); and Allan L. McVey represented by Juanita Wimmer (WV).

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

Fisk said the Actuarial Opinion (C) Working Group will meet to discuss the *Regulatory Guidance on Property and Casualty Statutory Statements of Actuarial Opinion, Actuarial Opinion Summaries, and Actuarial Reports for the Year 2023* (2023 Regulatory Guidance) and a draft response to the referral from the Financial Analysis (E) Working Group on the use of predictive analytics in reserving. The Actuarial Opinion (C) Working Group will hold a regulator-to-regulator meeting, pursuant to paragraph 3 (specific companies, entities or individuals) of the NAIC Policy Statement on Open Meetings, to discuss individual companies' statements of actuarial opinion.

Fisk made a motion, seconded by Darby, 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

The Working Group is reviewing data for the 2021 *Dwelling, Fire, Homeowners Owner-Occupied, and Homeowners Tenant and Condominium/Cooperative Unit Owner's Insurance Report* (Homeowners Report) and the 2021 Auto Insurance Average Premium Supplement. NAIC staff requested data from statistical agents for the 2020/2021 *Auto Insurance Database Report* (Auto Report), which is scheduled to be released in December 2023.

The Working Group continues to consider Arthur Schwartz's (LA) proposed changes to statistical reports. These will be discussed during an open meeting at the beginning of June.

The Working Group plans to meet in regulator-to-regulator session at the end of May to discuss the Tableau dashboard created by NAIC staff using the *Report on Profitability by Line by State* (Profitability Report) data. NAIC staff are also creating similar dashboards for the Auto Report and Homeowners Report. The dashboards are available on StateNet, labeled "Stat Data Reports" under the Property and Casualty Insurance heading.

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

### 3. Heard a Report on the D&O Insurance Coverage Supplement and the Cyber Insurance Supplement

Irwin Goldfarb (AIG-Retired) presented a proposal to improve the Director and Officer (D&O) Insurance Coverage Supplement and the Cyber Insurance Supplement and make the data more meaningful and appropriate for users. He said the quarterly D&O supplement is the only source of industry D&O data. The issue is that the data is by calendar year, yet this is a longer-tailed line. While the line is claims made, a calendar year loss ratio on a long-tail line can be slightly or significantly misleading. Goldfarb explained an exhibit (Attachment [REDACTED]) showing the loss plus defense and cost containment (DCC) expense ratios. He said the by-year ratios show some volatility, but when compared, that volatility is a lot lower than volatility reported by companies for their public D&O business, where public D&O is a substantial part, 60–70%, of all D&O.

Within D&O, the largest drivers of losses in the public space have been securities class action lawsuits. An example of improper data use occurred when one publication compared the table of loss ratios to security class action cases to determine if the lawsuits were affecting losses. The problem with that is they were using calendar year loss ratios, so the impact of those lawsuits will lag and show up in later calendar years.

Goldfarb said naïve companies sometimes use the supplement's information to decide to enter the market. This can easily influence companies down the wrong path. Larger carriers have their own data, so they are likely not affected by the reporting of calendar year losses. Goldfarb said the supplement should show accident year losses.

Goldfarb said D&O may not be large enough in some companies to warrant its own actuarial analysis. Those companies may be using allocation methods, perhaps using professional liability, to allocate a portion of the incurred but not reported (IBNR) data to create the D&O supplement.

Answers to Task Force member questions included responses that Goldfarb believes: 1) insurers would be supportive of the change, and the report card would be more valid; 2) insurers' systems should already be in place to perform these calculations; 3) some companies may need allocations of IBNR data, but they are probably already doing that; 4) if someone has a small book of business, accident year data can still be volatile; and 5) if the market for the line of business is small, it might be easier to determine the experience for each company, but that is the same for Schedule P today.

Next, Goldfarb discussed the Cyber supplement. He said the cyber line of business has increased from \$2.7 billion to \$7.3 billion, and significant rate increases are being filed. With this growth and the shorter tail of cyber insurance compared to the other lines in the Other Liability Claims Made (OLCM) line of business, the OLCM Schedule P data is becoming less useful. Goldfarb recommended that Schedule P be modified so cyber is its own line of business. If that cannot be accomplished, he suggested that the Cyber supplement be changed to an accident-year basis. He said there would be added value because the supplement data can be used to take cybersecurity out of the OLCM Schedule P data before conducting reserve analyses. He said the remainder of OLCM is more homogeneous with longer tails compared to the shorter tail for cyber.

### 4. Heard a Report About the COE and NAIC Catastrophe Activities

Jeff Czajkowski (NAIC), Jennifer Gardner (NAIC), and Shaveta Gupta (NAIC) presented about the current activities at the Center for Insurance Policy and Research's (CIPR's) Center of Excellence (COE) regarding catastrophes (Attachment [REDACTED]). Citarella asked them to update the Task Force on progress in the fall.

5. Discussed the Monitoring of Other NAIC Committee Groups

Citarella asked Task Force members who are active in other NAIC groups to volunteer to keep the Task Force updated on relevant issues and activities.

6. Discussed Reviews of Future Actuarial Papers

Lederer said state insurance regulators are invited to join discussions about new American Academy of Actuaries (Academy), Actuarial Standards Board (ASB), or other professional actuarial papers. She said if those discussions uncover any regulatory concerns, then the Task Force will be informed and can discuss whether to submit comments to the actuarial organization and what those comments should be.

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

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Draft: 3/27/23

Casualty Actuarial and Statistical (C) Task Force  
Virtual Meeting (*in lieu of meeting at the 2023 Spring National Meeting*)  
March 7, 2023

The Casualty Actuarial and Statistical (C) Task Force met March 7, 2023. The following Task Force members participated: Chris Nicolopoulos, Chair, represented by Christian Citarella (NH); Chlora Lindley-Myers, Vice Chair, represented by Julie Lederer (MO); Lori K. Wing-Heier represented by Sian Ng-Ashcraft (AK); Mark Fowler represented by Charles Hale (AL); Ricardo Lara represented by Mitra Sanandajifar and Lynne Wehmueller (CA); Andrew N. Mais represented by Wanchin Chou (CT); Michael Yaworsky represented by Greg Jaynes (FL); Doug Ommen represented by Travis Grassel (IA); Dana Popish Severinghaus represented by Reid McClintock (IL); Amy L. Beard represented by Larry Steinert (IN); Vicki Schmidt represented by Nicole Boyd (KS); James J. Donelon represented by John Sobhanian (LA); Kathleen A. Birrane represented by Walter Dabrowski (MD); Timothy N. Schott represented by Sandra Darby (ME); Anita G. Fox represented by Kevin Dyke (MI); Grace Arnold represented by Phil Vigliaturo (MN); Troy Downing represented by Mari Kindberg (MT); Eric Dunning represented by Michael Muldoon (NE); Marlene Caride represented by Carl Sornson (NJ); Jennifer Catechis represented by Anna Krylova (NM); Scott Kipper represented by Gennady Stolyarov (NV); Judith L. French represented by Tom Botsko (OH); Glen Mulready represented by Kate Yang (OK); Andrew R. Stolfi represented by David Dahl, Brian Fordham, and Ying Liu (OR); Michael Humphreys represented by Michael McKenney (PA); Michael Wise represented by Will Davis (SC); Cassie Brown represented by J'ne Byckovski and Miriam Fisk (TX); Kevin Gaffney represented by Rosemary Raszka (VT); Mike Kreidler represented by Eric Slavich (WA); and Allan L. McVey represented by Juanita Wimmer (WV).

1. Adopted its Jan. 31, 2023; Jan. 27, 2023; Jan. 10, 2023; Jan. 3, 2023; Dec. 9, 2022; and 2022 Fall National Meeting Minutes

Citarella said the Task Force met Jan. 10, 2023, and conducted e-votes that concluded on Jan. 31, 2023; Jan. 27, 2023; Jan. 3, 2023; and Dec. 9, 2022. The Jan. 10 minutes include exposure of the Generalized Additive Model (GAM) Appendix for a 45-day public comment period ending Feb. 24. The e-vote minutes include adoption of the following statistical reports: 2020 *Dwelling, Fire, Homeowners Owner-Occupied, and Homeowners Tenant and Condominium/Cooperative Unit Owner's Insurance Report* (Homeowner Report); 2021 *Competition Database Report* (Competition Report); 2019/2020 *Auto Insurance Database Report* (Auto Report); and the 2021 *Report on Profitability by Line by State* (Profitability Report).

Botsko made a motion, seconded by Darby, to adopt the Task Force's Jan. 31, 2023 (Attachment One); Jan. 27, 2023 (Attachment Two); Jan. 10, 2023 (Attachment Three); Jan. 3, 2023 (Attachment Four); Dec. 9, 2022 (Attachment Five); and Nov. 8, 2022 (*see NAIC Proceedings – Fall 2022, Casualty Actuarial and Statistical (C) Task Force*) minutes. The motion passed unanimously.

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

Fisk said the Actuarial Opinion (C) Working Group met Jan. 26 to discuss draft changes to the 2023 actuarial opinion instructions and a draft response to the referral from the Financial Analysis (E) Working Group on the use of predictive analytics in reserving.

Fisk said the Actuarial Opinion (C) Working Group discussed potential changes to the qualification documentation requirement in the opinion instructions, but it ultimately decided not to propose any substantive changes to the property/casualty (P/C) and title instructions. The Working Group provided two editorial corrections to the 2023

instructions to Blanks (E) Working Group staff. The Actuarial Opinion (C) Working Group plans to meet later this year to discuss potential changes to the 2024 actuarial opinion instructions.

The Working Group discussed a draft response to the referral from the Financial Analysis (E) Working Group regarding the use of predictive analytics in reserving. The Actuarial Opinion (C) Working Group plans to continue the discussion on this topic before responding to the referral later this year.

Fisk made a motion, seconded by Lederer, to adopt the report of the Actuarial Opinion (C) Working Group, including its amended Jan. 26 minutes (Attachment Six). The motion passed unanimously.

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

Darby said the Statistical Data (C) Working Group met twice since the 2022 Fall National Meeting. The first meeting was a regulator-to-regulator session to review a Tableau dashboard created by NAIC staff based on data from the Profitability Report. Darby said NAIC staff are working to develop similar dashboards using data from the Auto Report and the Homeowners Report. She said the goal of the dashboards is to develop regulatory training on the availability and uses of statistical data by the end of 2023.

The Working Group's second meeting was held Feb. 23. During this meeting, the Working Group adopted a proposal to create an Auto Insurance Average Premium Supplement to fast-track the reporting of average premium data. Darby said the supplement will exist in addition to the full Auto Report. The Working Group also discussed proposed changes to the statistical reports. Darby said these proposed changes, under review since last fall, are prompting interesting discussions on what kinds of data are included in the reports and how that data is presented.

Darby said NAIC staff are currently checking data for the 2021 Homeowners Report and the 2021 Auto Insurance Average Premium Supplement. Both reports are scheduled to be released this spring.

Darby made a motion, seconded by Chou, to adopt the report of the Statistical Data (C) Working Group, including its Feb. 23 minutes (Attachment Seven). The motion passed unanimously.

### 4. Adopted the GAM Regulatory Guidance

Citarella said Sam Kloese (NAIC) presented at the Jan. 10 meeting about GAMs. At that meeting, the Task Force exposed the GAM Regulatory Guidance for a 45-day public comment period ending Feb. 24. Numerous comment letters were received (Attachment Eight). Kloese said he documented the revisions made to the guidance based on comments submitted (Attachment Nine).

Darby made a motion, seconded by Steinert, to adopt the GAM Regulatory Guidance (Attachment Ten). The motion passed unanimously.

### 5. Eliminated the Expense Constant Supplement

Citarella said the Task Force discussed the potential elimination of the NAIC Expense Constant Supplement for a perceived lack of need at the 2022 Fall National Meeting and exposed the idea for a 45-day public comment period ending Dec. 22, 2022. No comments were received. Steinert said the new loss cost multiplier (LCM) forms include the option to use an expense constant, so the separate Expense Constant Supplement is not needed.

Steinert made a motion, seconded by Davis, to eliminate the Expense Constant Supplement. The motion passed unanimously.

#### 6. Discussed a Communication Plan Regarding New LCM Forms

Citarella said the next steps with the LCM forms are to update the NAIC's website and begin communication to state insurance regulators. He said he would expect the Task Force to recommend that states consider implementing the new forms and/or making similar changes to their state forms. He said these types of forms are sometimes in state regulations and laws, where it would take a significant amount of time for implementation. He suggested sending a letter to states, asking for the distribution of the forms in System for Electronic Rates & Forms Filing (SERFF) announcements, and notifying affected committee groups. Wehmuller said it would be unlikely that California can implement the revised forms.

#### 7. Heard Reports from Professional Actuarial Organizations

The American Academy of Actuaries' (Academy's) Committee on Property and Liability Financial Reporting (COPLFR) and Casualty Practice Council (CPC), the Actuarial Board for Counseling and Discipline (ABCD), the Casualty Actuarial Society (CAS), and the Society of Actuaries (SOA) provided reports on current activities.

#### 8. Discussed Other Matters

Lederer will lead a regulatory discussion about the second exposure draft of the Actuarial Standard of Practice (ASOP) 29: Expense Provisions for Prospective Property/Casualty Risk Transfer and Risk Retention. Any state insurance regulator can participate in a March 30 call to evaluate the draft for any regulatory issues. If issues are identified, the Task Force will then discuss and consider sending a comment letter by the May 1 comment deadline.

Citarella asked Task Force members to request Book Club topics by sending those to Kloese.

Citarella said the NAIC is developing new training on the regulatory review of generalized linear models (GLMs). Kris DeFrain (NAIC) said the training will explain what state insurance regulators should look for, how to read the graphs and understand the content, and how to assess the model. Vigliaturo requested that the training also be developed to assist technical staff who are not actuaries.

Citarella said he will arrange an ad hoc meeting of P/C actuaries at the Spring National Meeting. He suggested that the Task Force attend the Big Data and Artificial Intelligence (H) Working Group meeting at the Spring National Meeting or watch it virtually, where modeling questions for all types of company models will be discussed. He said the Working Group's work overlaps with some of the Task Force's work, so it is important to monitor the Working Group's activities related to modeling.

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

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Draft: 8/10/23

Actuarial Opinion (C) Working Group  
Virtual Meeting  
August 2, 2023

The Actuarial Opinion (C) Working Group of the Casualty Actuarial and Statistical (C) Task Force met Aug. 2, 2023. The following Working Group members participated: Miriam Fisk, Chair (TX); Anna Krylova, Vice Chair (NM); Amy Waldhauer and Susan Andrews (CT); Chantel Long (IL); Julie Lederer (MO); Michael Muldoon (NE); Tom Botsko (OH); and Kevin Clark and James DiSanto (PA).

1. Exposed the 2023 Regulatory Guidance

The Working Group continued to discuss changes proposed at its July 12 meeting. A majority of the Working Group members want to modify the qualification documentation requirement in the 2024 instructions to: 1) only require qualification documentation on initial appointment; and 2) require Board review only at that time. With that as an expectation, the *Regulatory Guidance on Property and Casualty Statutory Statements of Actuarial Opinion, Actuarial Opinion Summaries, and Actuarial Reports for the Year 2023* (2023 Regulatory Guidance) would note the possibility of such a change for the following year.

The Working Group agreed to some changes, proposed by Lederer, to the 2023 Regulatory Guidance to better reflect the instruction language about what to do when a material error is found. State insurance regulators would also suggest that the company or Appointed Actuary contact the regulators if a less-than-material error is found because regulators might still advise the issuance of a corrected opinion. Michelle Larkowski (American Academy of Actuaries—Academy) asked whether the state insurance regulators wanted that requirement to be binding; if so, she suggested that regulators should revise the opinion instructions. She said some state insurance regulators have responded to the reissuance of the opinion because surplus numbers and materiality changed, and they instructed that the opinion should not have been reissued because the change was minimal. The Working Group decided to leave the guidance in the 2023 Regulatory Guidance and then consider adding it to the 2024 instructions.

Fisk informed the Working Group that she would expose the document, after adjusting for changes discussed, for a 30-day public comment period ending Sept. 1.

2. Discussed Actuarial Opinion Instructions

The Working Group discussed potential changes to instructions for the 2024 Property/Casualty (P/C) Statement of Actuarial Opinion (SAO). Long suggested removing the requirement for a Board review of qualification documentation because it is more of a compliance check that does not provide much additional value. She said life and health actuaries are not required to produce qualification documentation. Fisk said when the qualification documentation is done well, it is a valuable document. She said when done poorly, it is a red flag that the actuary does not appear knowledgeable about recent changes in instructions. She said it is also helpful to know how the actuary is qualified when conducting risk-focused financial exams.

Krylova said one reason the qualification documentation was created was to ensure that the actuaries passing exams through the Society of Actuary's (SOA's) general insurance track were qualified. Kris DeFrain (NAIC) said the SOA is making some changes to its examination process, which might need to be considered before making decisions to eliminate the qualification documentation completely. Ann Weber (SOA) said the SOA can present to the Working Group the changes expected to be made in fall 2025.

Long proposed a change in the instructions for the “disagreement letter” when there is a change in appointed actuary. Long noted that appointed actuaries might have disagreements with companies about reserving issues at interim periods and not solely related to the SAO at year end. Long proposed adding wording to encourage the former appointed actuary to comment on reserving disagreements more broadly. Fisk said the company’s “disagreement letter” often says there are no disagreements regarding matters of opinion, and actuaries may believe they cannot disclose any more in their response letter. Andrews said a letter is probably not going to fix the issue and noted that this portion of the instructions was originally intended to be similar to the required notifications when there is a change in external auditor.

Long also proposed removing the Appointed Actuary’s address from the SAO signature block.

Fisk proposed changes to the instructions for the 2024 Title SAO, to make the title instructions more consistent with the P/C instructions and to correct a couple of instructions. The Working Group will discuss these changes after the 2023 Summer National Meeting, and it will likely expose the proposals for comment at that time.

Fisk said there is no plan to make any changes to the 2024 Actuarial Opinion Summary instructions.

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

SharePoint/NAIC Support Staff Hub/Member Meetings/C CMTE/2023\_Summer/CASTF/AOWG/AOWG 080223 min.docx

Draft: 8/4/23

Actuarial Opinion (C) Working Group  
Virtual Meeting  
July 12, 2023

The Actuarial Opinion (C) Working Group of the Casualty Actuarial and Statistical (C) Task Force met July 12, 2023. The following Working Group members participated: Miriam Fisk, Chair (TX); Amy Waldhauer (CT); David Christhilf (DC); Chantel Long (IL); Sandra Darby (ME); Julie Lederer (MO); Michael Muldoon (NE); Tom Botsko (OH); Andrew Schallhorn (OK); and James Di Santo (PA).

1. Adopted a Financial Analysis (E) Working Group Referral on Predictive Analytics in Reserving

On May 9, 2022, the Financial Analysis (E) Working Group requested that the Actuarial Opinion (C) Working Group discuss the use of predictive analytics in reserving and consider drafting guidance. The Actuarial Opinion (C) Working Group exposed a draft response to the referral on May 25 for a 30-day public comment period ending June 26. No comments were received.

Waldhauer made a motion, seconded by Botsko, to adopt the referral response to send to the Financial Analysis (E) Working Group (Attachment \_\_). The motion passed unanimously.

2. Discussed Regulatory Guidance

The Working Group discussed 2023 Regulatory Guidance. Lederer suggested: 1) eliminating the detail about changes made in 2021 and 2022 and adding a statement that the 2023 instructions were not significantly modified; 2) removing the comment that qualification documentation might change in the 2023 instructions because it did not; 3) using wording in the instructions about material errors or making sure guidance does not contradict what is in the instructions; and 4) potentially eliminating the COVID-19 guidance. Fisk recommended adding guidance to contact the domestic regulator if unsure whether to reissue an opinion. Working Group members were asked whether any additional guidance should be offered, including whether there should be guidance about recent inflation. Clark suggested leaving the decision to include inflation as a risk factor to the Appointed Actuary.

3. Discussed Actuarial Opinion Instructions

The Working Group discussed potential changes to instructions for the 2024 Property/Casualty (P/C) Statement of Actuarial Opinion. Long suggested changing the qualification documentation requirements and removing the requirement for a Board review as she does not find it useful. Armon said the Casualty Actuarial Society (CAS) is auditing continuing education (CE) requirements for a percentage of the membership. Fisk said people who are not actuaries might believe that anyone with a credential would be qualified, but that is not the case. Michelle Larkowski (Risk & Regulatory Consulting—RRC) suggested having the requirements only at the initial appointment. Working Group members were asked to submit any proposed instruction changes.

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

SharePoint/NAIC Support Staff Hub/Member Meetings/C CMTE/2023\_Summer/CASTF/AOWG/AOWG 071223 min.docx

Draft: 6/6/23

Actuarial Opinion (C) Working Group  
Virtual Meeting  
May 25, 2023

The Actuarial Opinion (C) Working Group of the Casualty Actuarial and Statistical (C) Task Force met May 25, 2023. The following Working Group members participated: Miriam Fisk, Chair (TX); Anna Krylova, Vice Chair (NM); Susan Andrews (CT); David Christhlf (DC); Chantel Long (IL); Sandra Darby (ME); Julie Lederer (MO); Michael Muldoon (NE); Tom Botsko (OH); Andrew Schallhorn (OK); and James Di Santo (PA).

1. Discussed a Financial Analysis (E) Working Group Referral on Predictive Analytics in Reserving

The Working Group discussed a draft response to a referral from the Financial Analysis (E) Working Group asking for discussion of the use of predictive analytics in reserving and consideration of drafting guidance.

Krylova made a motion, seconded by Botsko, to expose the draft referral response for a 30-day public comment period ending June 26. The motion passed unanimously.

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

SharePoint/NAIC Support Staff Hub/Member Meetings/C CMTE/2023\_Summer/CASTF/AOWG/AOWG Sept 052523 min.docx

**Title of Exposure Draft: Proposed Actuarial Standard of Practice, Enterprise Risk Management**

**Comment Deadline: September 15, 2023**

Instructions: Please review the exposure draft, and give the ASB the benefit or your recommendations by completing this comment template. Please fill out the tables within the section below, adding rows as necessary. Sample for completing the template provided at the following link: <http://www.actuarialstandardsboard.org/email/2020/ASB-Comment-Template-Sample.docx>

Each completed comment template received by the comment deadline will receive consideration by the drafting committee and the ASB. The ASB accepts comments by email. Please send to [comments@actuary.org](mailto:comments@actuary.org) and include the phrase 'ASB COMMENTS' in the subject line. Please note: Any email not containing this exact phrase in the subject line will be deleted by our system's spam filter.

The ASB posts all signed comments received to its website to encourage transparency and dialogue. Comments received after the deadline may not be considered. Anonymous comments will not be considered by the ASB nor posted to the website. Comments will be posted in the order that they are received. The ASB disclaims any responsibility for the content of the comments, which are solely the responsibility of those who submit them.

**I. Identification:**

Name of Commentator / Company
National Association of Insurance Commissioners' Casualty Actuarial and Statistical Task Force (CASTF)

**II. ASB Questions (If Any). Responses to any transmittal memorandum questions should be entered below.**

Question No.	Commentator Response

**III. Specific Recommendations:**

Section # (e.g. 3.2.a)	Commentator Recommendation (Please provide recommended wording for any suggested changes)	Commentator Rationale (Support for the recommendation)
1.2	Add "an ORSA Report or" between "reviewing" and "all" in this sentence: "If the actuary is performing actuarial services that involve reviewing all or part of an ERM framework, the actuary should use the guidance in this ASOP to the extent practicable within the scope of the review."	The reviewing actuary subject to this ASOP will often be a regulator reviewing an ORSA report, so we believe it would be appropriate to include specific mention of the ORSA report.  In addition, the reviewing actuary may not be tasked with reviewing the ERM framework itself. Rather, the reviewer's principal (often, the state's insurance commissioner) may have asked the reviewing actuary to review the ORSA report to ensure compliance with state statutes. The proposed addition to the wording would allow for this possibility.
2.9	Recommended wording:	The Actuarial Standards Board sets standards for appropriate practice in the United States. Therefore,



	<p style="color: red;">“A report produced with the following objectives:</p> <p style="color: red;">a. To provide information on the organization’s material and relevant risks; and</p> <p style="color: red;">b. To provide a group-level perspective on risk and capital.”</p>	<p>when the ASOP refers to the ORSA report, the ASOP can (and maybe should) use a definition of the report that aligns with the NAIC’s ORSA Guidance Manual.</p> <p>We are particularly concerned about parts b. and c. in the current definition because this could suggest that the ORSA report is a regulatory exercise whose main intended user is the insurance regulator. Rather, the ORSA process is an internal exercise that should benefit all stakeholders of the organization, not just provide information to the regulator.</p> <p>The recommended definition is adapted from page 1 of the ORSA Guidance Manual (<a href="https://content.naic.org/sites/default/files/publication-orsa-guidance-manual.pdf">https://content.naic.org/sites/default/files/publication-orsa-guidance-manual.pdf</a>), which outlines the primary goals of the ORSA process.</p>
<p style="color: red;">3.3</p>	<p style="color: red;">We recommend providing a definition of “risk classification” in section 2.</p>	<p>In ASOP No. 12 (“Risk Classification (for All Practice Areas),” risk classification involves assigning risks to groups. In Section 3.3 of the proposed ERM ASOP, risk classification seems to entail prioritizing or ranking risks. Adding a definition to Section 2 would clarify the usage in this ASOP.</p>

**IV. General Recommendations (If Any):**

Commentator Recommendation (Identify relevant sections when possible)	Commentator Rationale (Support for the recommendation)

**V. Signature:**

Commentator Signature	Date

# Methods to Identify and/or Mitigate Bias

Mike Woods, MAAA, FCAS, CSPA  
Member, P/C Committee on Equity and Fairness

Casualty Actuarial and Statistical (C) Task Force—Summer National Meeting — August 12, 2022

# Introduction

- [Issue brief](#) discusses principles to be considered that might assist regulators in selection of suitable methodologies for identifying and/or mitigating bias.
- Structure of issue brief
  - Actuarial standards of practice
  - Definitions of unfair discrimination and disproportionate outcomes
  - Principles for approaches to identify and address unfair discrimination
  - Data collection, classification, and other considerations
  - Methods of identifying potential bias
  - Methods of preventing and addressing potential bias

# Actuarial Standards and Guidance

- ASOP No. 12, *Risk Classification*—Requires correlation between risk characteristics and losses and expenses, not the establishment of a cause-and-effect relationship
- ASOP No. 23, *Data Quality*—Provides guidance around the use of data
- ASOP No. 56, *Modeling*—Provides guidance with respect to designing, developing, selecting, modifying, using, reviewing, or evaluating models

# Principles for Identifying and/or Mitigating Bias

- Understandable to public
- Rates that continue to differentiate based on expected cost
- Adaptable to new data, innovation, and technology
- Consider intersectionality of protected classes
- Consistent application to all insurers
- Consider multivariate effects
- Assess impact to insurance marketplace
- Monitor results after initial approval
- Continually refresh data on protected classes

# Other Considerations

- Protected class data collection
  - Directly from insureds
  - Third-party databases
  - Impute using statistical methods
- Classification
  - Classes that are capable of being objectively determined
  - Practical limitations in data collection (e.g., cost, efficiency)
  - Credibility of results
  - Frequency of reviewing definitions
- Others
  - Unintended impact to insureds (affordability, availability)
  - Multiple methods could be considered
  - Small companies could face additional challenges

# Methods for Identifying Bias

- **Disproportionate Impact Analysis**—Study the impact that each rating variable has on each protected class’s premiums. How much does each rating attribute cause higher premiums for each class of insureds?
- **Fairness Metrics**—Compare model predictions to actual outcomes. Is there bias (by protected class) in the prediction error in the loss model that supports the rating plan?
- **Insurance Data Disclosure**—Require insurers to release data on protected classes (such as loss ratios, bind rates, rejection rates, etc.). Allow the public to see whether there is bias in an insurer’s practices.

# Methods for Identifying Bias

- **Loss Ratio Test**—Compare loss ratios by variable of interest to demonstrate whether they are materially different by protected class.
- **Proxy Test**—Include protected class data in the rating model and see if the variable of concern continues to have predictive power.
- **Rational Explanation**—Require carriers to describe a potentially causal relationship between the variable of concern and losses.



# Methods for Mitigating Bias

- **Allow Only Pre-Approved Variables**—States would provide a list of variables that companies are allowed to use in policy rating.
- **Prohibit Named Variables**—Each state would provide a list of variables that cannot be used in policy rating.
- **Limit Rate Spread**—Limit the spread of rating factors (e.g., no surcharge can exceed 30%) or limit the spread of premiums (e.g., the highest premium cannot be 3x greater than the lowest premium).

# Methods for Mitigating Bias

- **Rate Factor Adjustment**—Adjust rate factors (manually or algorithmically) until a test to identify bias has been passed.
- **Solidarity Tax and Rebate**—Collect a tax from all policyholders and redistribute that tax as a rebate to those that have been identified as deserving a subsidy.
- **Statistical Model**—Build an initial model using all rating variables and the protected class variables; then, algorithmically remove any proxy effects from the rating variables (and the protected class variables).

# Conclusion

- Growing discussion around unintended bias and unfair discrimination
- There are many potential methods to identify and/or mitigate bias that have been discussed
  - There are likely to be even more methods in the future as discussions continue
- The American Academy of Actuaries is ready to assist regulators in their review of the technical components of these methods as well as in identifying strengths and weaknesses, particularly in relation to the principles noted in this presentation
- We hope these observations are helpful and we welcome further discussion

For more information, contact:  
Rob Fischer, casualty policy analyst  
[fischer@actuary.org](mailto:fischer@actuary.org)

# Rich Gibson, MAAA, FCAS

## Academy Senior Casualty Fellow

Casualty Actuarial and Statistical (C) Task Force  
Summer National Meeting—August 12, 2023

# Casualty Practice Council (CPC) Update

- Comment Letters
  - [Comments to the Actuarial Standards Board on ASOP No. 29](#)
  - [Comments to the California Department of Insurance for the workshop examining catastrophe modeling and insurance](#)
- PC RBC Report on new risk factors, investment income adjustments, and catastrophe adjustments (August 2023)
- [Navigating Workers' Compensation and Medical Marijuana](#) issue brief
- National Flood Insurance Program issue brief (Q3)
- *Cyber Risk Toolkit*
  - ["Digital Assets and Their Current Roles Within Cybercrime"](#)
  - Personal lines (Q3)

# Committee on Property and Liability Financial Reporting (COPLFR) Update

- Comment Letters
  - [Comments to CASTF on Schedule P](#)
  - [Comments to the IRS on the proposed rule involving micro-captive listed transactions and micro-captive transactions of interest](#)
  - [Comments to Blanks \(E\) Working Group on Proposal 2023-04BWG](#)
  - Comments to Actuarial Standards Board on ASOP No. 36 (Q3)
- Upcoming
  - 2023 Seminar on Effective P/C Loss Reserve Opinions (December 4–5), Charlotte, N.C.
  - 2023 Practice Note on Statements of Actuarial Opinion (SAOs) on P/C Loss Reserves (December)
  - P/C Loss Reserve Law Manual (December)

For more information, contact:  
Rob Fischer, casualty policy analyst  
[fischer@actuary.org](mailto:fischer@actuary.org)



# NAIC CASTF CAS Research & Professional Education Update

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AUGUST 12, 2023





Research



CAS RESEARCH PAPER

CATASTROPHE MODELS FOR  
WILDFIRE MITIGATION:  
QUANTIFYING CREDITS AND  
BENEFITS TO HOMEOWNERS  
AND COMMUNITIES

*By Peggy Brinkmann, Nancy Watkins, Cody Webb,  
Dave Evans, Gabriele Usan, Michael Glavan,  
Lillian Zhang, and Carolyn Prescott: Milliman Inc.  
Tom Larsen and Grace Lee: CoreLogic Inc.*

*“As important as the actuarial science is, more important has been the collaborative position adopted by the profession. Before 2016 I had never professionally worked with actuaries. Since then, they have become one of my primary resources, and the knowledge from those relationships has made me a better fire chief; I hope our fire service contributions to them will have reciprocal value.”*

Frank Frievalt

Fire Chief

Mammoth Lakes Fire Protection District

California State Director to the Western Fire Chiefs Association




Canadian  
Institute  
of Actuaries

Institut  
canadien  
des actuaires



CASUALTY  
ACTUARIAL  
SOCIETY



## Assessing the Impact of Marijuana Decriminalization on Vehicle Accident Experience

Vyacheslav Lyubchich  
December 2022

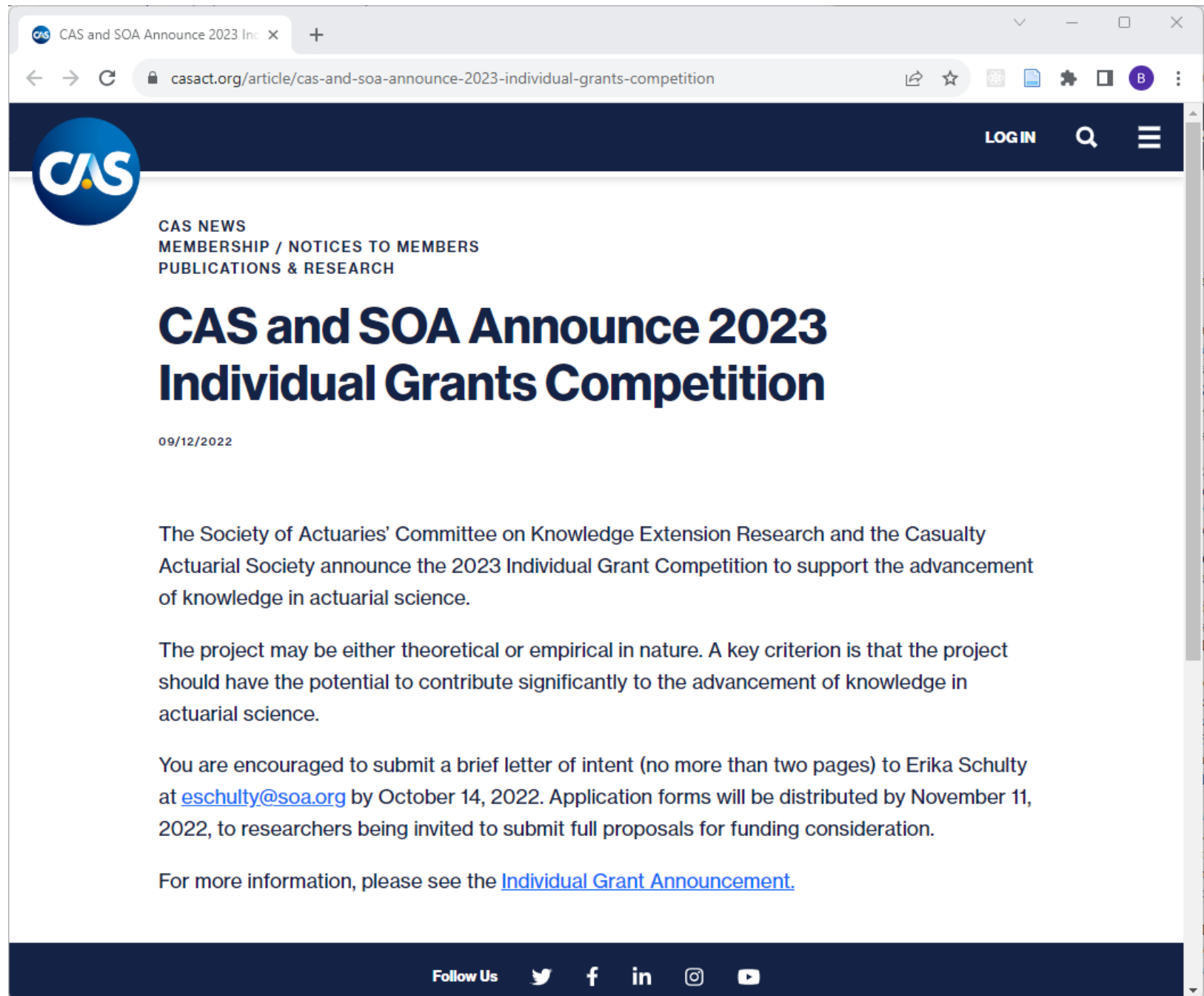
The CAS and Canadian Institute of Actuaries co-sponsored research into the impact of marijuana decriminalization.

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CAS Race and Insurance  
Pricing task force has  
three projects underway

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Individual grants  
announcement  
coming in early  
September



The screenshot shows a web browser window with the URL [casact.org/article/cas-and-soa-announce-2023-individual-grants-competition](https://casact.org/article/cas-and-soa-announce-2023-individual-grants-competition). The page features the CAS logo and navigation links for LOGIN, search, and a menu. The main content area includes the following text:

**CAS NEWS**  
MEMBERSHIP / NOTICES TO MEMBERS  
PUBLICATIONS & RESEARCH

## CAS and SOA Announce 2023 Individual Grants Competition

09/12/2022

The Society of Actuaries' Committee on Knowledge Extension Research and the Casualty Actuarial Society announce the 2023 Individual Grant Competition to support the advancement of knowledge in actuarial science.

The project may be either theoretical or empirical in nature. A key criterion is that the project should have the potential to contribute significantly to the advancement of knowledge in actuarial science.

You are encouraged to submit a brief letter of intent (no more than two pages) to Erika Schulty at [eschulty@soa.org](mailto:eschulty@soa.org) by October 14, 2022. Application forms will be distributed by November 11, 2022, to researchers being invited to submit full proposals for funding consideration.

For more information, please see the [Individual Grant Announcement](#).

At the bottom of the page, there is a "Follow Us" section with icons for Twitter, Facebook, LinkedIn, Instagram, and YouTube.

# Professional Education

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# 2023 CAS Hacktuary Challenge – The Hack is Back!

04/19/2023

Actuary /ak(t)SHə, werē/ noun

- A professional who quantifies risk, particularly [in the area of insurance](#)
- A statistical discipline which focuses on financial uncertainties

Hacktuary /hak(t)SHə, werē/ noun

- An actuary who is particularly skilled at the development of novel, technologically innovative solutions for risk engineering
- An actuary with strong programming skills who deploys them in very clever ways
- Familiar reference to a contest sponsored by the Casualty Actuarial Society (CAS) which supports the creation of risk engineering solutions of benefit to the insurance industry and the public

## Overview

The CAS is offering a prize of \$15,000 to the individual or group who develops an application which utilizes actuarial concepts to solve a pressing risk management

2023 CAS Virtual Workshop Intro x +

casact.org/event/2023-cas-virtual-workshop-introduction-r

CAS LOGIN Q ☰

# 2023 CAS Virtual Workshop Introduction to R

### Event Details

Jun. 8, 2023 - Jul. 20, 2023  
Six Thursdays, 1:30 PM – 3:00 PM, ET

Microsoft Teams

[Register](#)

## About This Event

This series of six lectures will give the attendee a broad introduction to the features of the R programming language most useful to actuaries, with the objective of preparing attendees to apply what they've learned in each lecture immediately in their work.

Attendance is limited to 35 participants, individual registrations only. Group registrations are not permitted.

### Learning Objectives

Each week will focus on a different aspect of using R in actuarial work. The lectures will include real examples that can be adapted for use immediately following each lecture to give the attendees a starting point for using R. At the end of the six lectures, attendees will have been exposed to a broad range of topics:

- Using R studio for R programming
- Reading data into the R environment from a variety of sources
- Manipulating and visualizing data using packages like *dplyr* and *ggplot2*
- Fitting, evaluating, and comparing linear models, including GLMs
- Using R for curve fitting, calculating limited expected values, etc., with help from the *actuar* package
- Writing reports using Rmarkdown

2023 CAS Virtual Workshop Intro x +

casact.org/event/2023-cas-virtual-workshop-introduction-python-0

CAS LOGIN Q ☰

# 2023 CAS Virtual Workshop Introduction to Python

### Event Details

Aug. 2, 2023 - Sep. 6, 2023  
Every Wednesday (1:00 PM – 2:30 PM, ET)

Held On Microsoft Teams

[Register](#)

## About This Event

Along with R, Python has emerged as an appealing option for actuarial work. Python is a free and open source language with a large, global community of users. Python supports general-purpose programming including automation of file system operations, data I/O, and plotting. A number of packages are available to carry out classical statistical analysis, as well as more recent statistical learning methods. There are also packages which perform specific actuarial methods like loss reserving.

This workshop will introduce Python and show how to perform data collection, data visualization, and data analysis in Python. There will be six 90-minute sessions.

# Virtual continuing education offerings

The screenshot shows a web browser displaying the CAS website's calendar page. The URL is [casact.org/calendar?format%5B131%5D=131&f...](https://casact.org/calendar?format%5B131%5D=131&f...). The page features a dark blue header with the CAS logo on the left, a 'LOGIN' button, a search icon, and a menu icon on the right. Below the header, a list of seven webinar offerings is displayed, each with a date in a light blue circle, the word 'WEBINAR', the title, time, and a 'View Details' button. The offerings are:

- AUG 9** [Webinar] Workers Compensation: Results, Research, and Recent Trends (12:00 - 1:30 PM (ET))
- SEP 19** [Webinar] Latent Dirichlet Allocation (LDA) Topic Modeling in Python (12:00-1:15 PM (ET))
- SEP 28** [Webinar] Ratemaking Using Auction Theory (12:00 - 1:30 PM (ET), Web)
- OCT 17** [Webinar] Improving Agency Analytics (12:00 - 1:30 PM (ET), Web)
- OCT 19** 2023 Recent Technology Advances and New Market Reality Virtual Seminar
- JAN 4** [Webinar] Exploring Recent Trends in Health Care (12:00 - 1:30 PM (ET), Web)



100 Years of Expertise,  
Insight & Solutions

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#### Highlights of Recent Research

- [Catastrophe Models for Wildfire Mitigation: Quantifying Credits and Benefits to Homeowners and Communities](#)
  - Joint project with the CAS, Milliman, and CoreLogic
  - Unprecedented costs from wildfires in the American West have spurred a need for wildfire risk reduction in at-risk areas. Communities and homeowners need tools to understand the costs and benefits of various means of wildfire risk mitigation, and insurance rates must be updated to reflect resulting aggregate and relative reductions in risk for properties and communities.
- [Assessing the Impact of Marijuana Decriminalization on Vehicle Accident Experience](#)
  - Joint project with the Canadian Institute of Actuaries
  - This report addresses .... the impact of marijuana decriminalization on vehicle accident experience. The literature review shows that while marijuana impairment affects driving behaviour, the behaviour is not always riskier; for example, slower speeds and longer following distances of impaired drivers have been reported. The observational studies of road accidents report mixed results, most often not detecting significant effects, particularly in the long term.
- [Research Paper Series on Race and Insurance Pricing](#)
  - Three new projects in development for 2024.
- [CAS and SOA Announce 2023 Individual Grants Competition](#)

#### Other Events

- [2023 CAS Hacktuary Challenge – The Hack is Back!](#)
- [R and Python Workshops](#)
- [Upcoming PE Events](#)



# The Evolution of the FSA Pathway

NAIC presentations

Stuart Klugman, FSA, CERA, PhD

SOA Senior Staff Fellow

August 2023



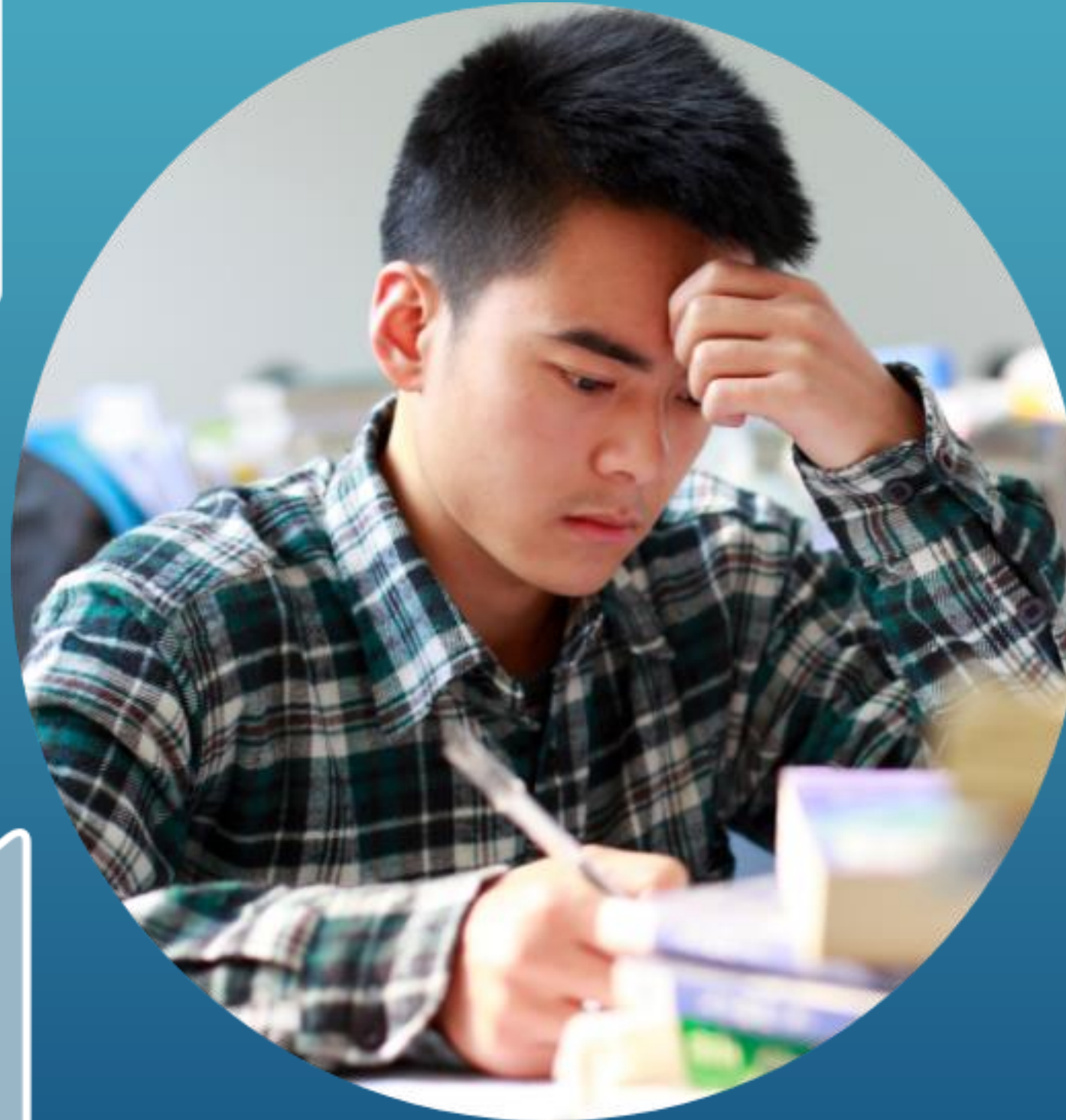
# We've heard your feedback

FSA candidates encounter significant challenges along the pathway

Lack of flexibility or customization

Less relevant to global markets

Little guidance on what to study



Slow grading process

No exam feedback

Difficult source materials that lack focus

# Introducing a range of improvements for a better candidate experience



**Flexible pathway**



**Exams offered up to 3 times per year**



**Increased global relevancy**



**Faster grading**



**Local regulatory material moved outside of FSA**



**Exam feedback**



**Enhanced syllabus and better guidance**



**Improved source materials**





# Regulatory Material Shift

## Current Challenge

- In-depth U.S. and Canadian regulatory material lacks relevance to global markets



## SOA Shift

- Detailed local regulatory material moved outside of the current FSA requirements
- Fundamental regulatory principles and frameworks will still be covered in the FSA pathway
- FSA will qualify actuaries to sign General Statements of Actuarial Opinion

### CERTIFICATES:

- Stand-alone, optional regulatory certificates will be offered. Certificates can be taken when needed.
- The SOA is collaborating with regulatory bodies to develop the certificates







# Flexible Pathway

## Current Challenge

- **Forced track structure lacks flexibility and customization**
- **Highly specialized tracks are less relevant for developing markets**



## SOA Shift

- **Shifting from “tracks” to a flexible pathway**
- **Flexibility to focus on a single practice area or create a combination of courses relevant to you**
- **5 courses required:**
  - 4** **Technical courses (one must build on another)**
  - 1** **Decision Making and Communications (DMAC) Course**
  - +** **Fellowship Admissions Course (FAC)**

# Choose from About 20 Courses

Life/Annuities

Retirement Benefits

Health

General Insurance

Finance/Investments/  
ERM



Focus on a single practice area



Choose a combination relevant to you



# Questions?

[FSA2025@soa.org](mailto:FSA2025@soa.org)



SOCIETY OF  
ACTUARIES®