## CASUALTY ACTUARIAL SOCIETY

Organized 1914

# 2013 YEARBOOK AND 2012 PROCEEDINGS



#### Published by the

#### CASUALTY ACTUARIAL SOCIETY

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CAS Web Site: www.casact.org

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#### FOREWORD

Actuarial science originated in England in 1792 in the early days of life insurance. Because of the technical nature of the business, the first actuaries were mathematicians. Eventually, their numerical growth resulted in the formation of the Institute of Actuaries in England in 1848. Eight years later, in Scotland, the Faculty of Actuaries was formed. In the United States, the Actuarial Society of America was formed in 1889 and the American Institute of Actuaries in 1909. These two American organizations merged in 1949 to become the Society of Actuaries.

In the early years of the 20th century in the United States, problems requiring actuarial treatment were emerging in sickness, disability, and casualty insurance—particularly in workers compensation, which was introduced in 1911. The differences between the new problems and those of traditional life insurance led to the organization of the Casualty Actuarial and Statistical Society of America in 1914. Dr. I.M. Rubinow, who was responsible for the Society's formation, became its first president. At the time of its formation, the Casualty Actuarial and Statistical Society of America had 97 charter members of the grade of Fellow. The Society adopted its present name, the Casualty Actuarial Society, on May 24, 1921.

The purposes of the Society are to advance the body of knowledge of actuarial science applied to property, casualty, and similar risk exposures, to establish and maintain standards of qualification for membership, to promote and maintain high standards of conduct and competence for the members, and to increase the awareness of actuarial science. The Society's activities in support of this purpose include communicating with those affected by insurance, presenting and discussing papers, conducting seminars and workshops, collecting a library, conducting research, and other means.

Since the problems of workers compensation were the most urgent at the time of the Society's formation, many of the Society's original members played a leading part in developing the scientific basis for that line of insurance. From the beginning, however, the Society has grown constantly, not only in membership, but also in range of interest and in scientific and related contributions to all lines of insurance other than life, including automobile, liability other than automobile, fire, homeowners, commercial multiple peril, and others. These contributions are found principally in original papers prepared by members of the Society and others involved with actuarial science. These papers are published in the *Proceedings of the Casualty Actuarial Society* and currently in *Variance*, the Society's peer-reviewed journal. The presidential addresses, also published in the *Proceedings*, have called attention to the most pressing actuarial problems, some of them still unsolved, that have faced the industry over the years.

The membership of the Society includes actuaries employed by insurance companies, industry advisory organizations, national brokers, accounting firms, educational institutions, state insurance departments, and the federal government. It also includes independent consultants. The Society has three classes of members: Fellows, Associates, and Affiliates. Both Fellowship and Associateship require successful completion of education requirements (examination, Validation by Educational Experience, and the Course on Professionalism) specified in the *CAS Syllabus of Basic Education*. The CAS also has mutual recognition agreements with other actuarial organizations as described under "Join/Renew" on the CAS Web Site (www.casact.org). Affiliates are qualified actuaries who practice in the general insurance field and wish to be active in the CAS but do not meet the qualifications to become a Fellow or Associate.

The publications of the Society and their respective prices are listed in the Society's Yearbook/Proceedings. The Syllabus of Examinations outlines the course of study recommended for the examinations. Both the Yearbook/Proceedings and the Syllabus of Examinations are available online at www.casact.org.

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## 2013 YEARBOOK/2012 PROCEEDINGS EDITORIAL STAFF

Avraham Adler, Editor in Chief

**Glenn Balling** 

**Mark Florenz** 

Victoria Imperato

Sudershan Malik

Helen Neglia

**Elizabeth Sanders** 

Elizabeth Smith, CAS Manager of Publications Sonja Uyenco, CAS Desktop Publisher

## JANUARY 1, 2013

## \*EXECUTIVE COUNCIL

Gary R. Josephson		
Wayne Fisher	President-Elect	
G. Chris Nyce		
Virginia R. Prevosto		
Robert F. Conger		
Arlie Proctor		
Mary D. Miller	Vice President-Professional Education	
Alice M. Underwood	Vice President-Research & Development	
Barry A. Franklin		
Cynthia R. Ziegler		
THE BOARD OF DIR	ECTORS	
*Officers		
Gary R. Josephson	President	
Wayne Fisher		
Immediate Past President		
Patricia Teufel	2012	
†Elected Directors		
Dr. Maria de los Angeles Yanez ‡		
Michael Steel ‡		
Mark C. Vonnahme ‡		
Jeanne Crowell	2013	
C. K. "Stan" Khury		
Andrew E. Kudera	ndrew E. Kudera	
Ronald Kozlowski		
Shawna S. Ackerman	Ackerman	
Steven D. Armstrong	D. Armstrong	
Annette J. Goodreau	2014	
James R. Merz		
Charles A. Bryan		
David R. Chernick		
Ann Conway	2015	
Rick Gorvett	2015	

 $<sup>\</sup>dagger$  Term expires at the Annual Meeting of year given.

<sup>‡</sup> Appointed Directors will be elected by the Board of Directors and will serve a term of one year, renewable for up to three years.



**Gary R. Josephson\***President



**Wayne Fisher** President-Elect



**G. Chris Nyce**Vice President—
Administration



**Virginia R. Prevosto**Vice President—
Admissions



**Robert F. Conger**Vice President—
International



Arlie Proctor
Vice President—Marketing
& Communications



**Mary D. Miller**Vice President—
Professional Education



Alice M. Underwood Vice President— Research & Development



Barry A. Franklin Vice President— ERM



**Cynthia R. Ziegler**CAS Executive Director,
Secretary/Treasurer

<sup>\*</sup>Also a member of the Board of Directors



**Patricia Teufel** Immediate Past President (Chairs Board in 2013)



**Gary R. Josephson**President



**Wayne Fisher** President-Elect



Dr. Maria de los Angeles Yanez $\dagger$  2013



Michael Steel† 2013



Mark C. Vonnahme†



**Jeanne Crowell** 2013



**C. K. "Stan" Khury** 2013



Andrew E. Kudera 2013



Ronald Kozlowski 2013



Shawna S. Ackerman 2014



Steven D. Armstrong 2014



Annette J. Goodreau 2014



James R. Merz 2014



**Charles A. Bryan** 2015



**David R. Chernick** 2015



Ann Conway 2015

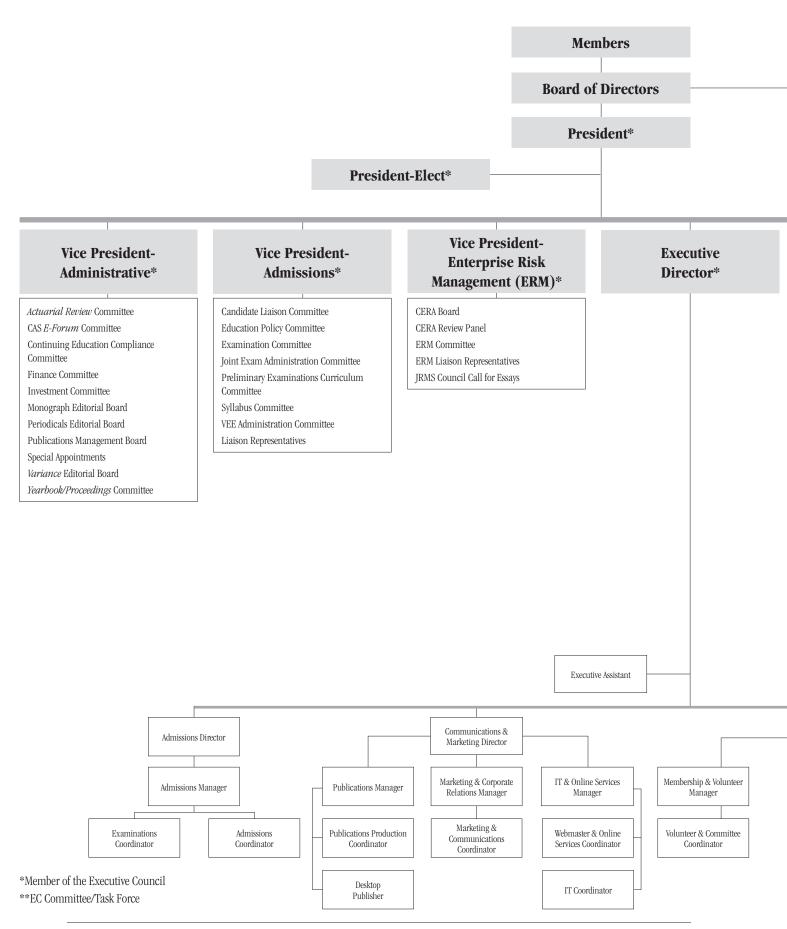


Rick Gorvett 2015

† Appointed

## ORGANIZATIONAL STRUCTURE OF

All groups are committees unless otherwise indicated.



## THE CASUALTY ACTUARIAL SOCIETY

Audit Committee

Board Liaison to CUSP Supporting Organizations Committee of The Actuarial Foundation

CAS Centennial Steering Committee

CAS Centennial Commemorative Subcommittee

CAS Centennial Finance Subcommittee

CAS Centennial History Subcommittee

CAS Centennial Marketing Subcommittee

CAS Centennial Music Program Subcommittee

CAS Risk Management Committee

Discipline Committee

FCAS Brand Task Force

Leadership Development Committee

Nominating Committee

Strategic Planning Committee

Task Force for the Review and Update of the Statements of Principles

The Actuarial Foundation Board of Trustees

Education Structure Task Force\*\*

General Insurance Actuaries Network Task Force\*\*

International Leadership Team\*\*

#### Vice President-International\*

Asia Regional Committee

ICA 2014 Finance and Risk Management Committee

ICA 2014 Hospitality Committee

ICA 2014 Logistics Committee

ICA 2014 Organizing Committee

ICA 2014 Public Relations and Marketing Committee

ICA 2014 Scientific Committee

ICA 2014 Scientific Committee - Life Track

ICA 2014 Special Events and Entertainment

ICA 2014 Sponsorship and Exhibits

Committee

ICA 2014 Stewardship Committee

International Actuarial Association Council Delegates

International Actuarial Association

Delegates Committee

International Actuarial Association Response

Committee

International Ambassador Program

International Coordination Committee

International Member Services Committee

Liaison Representatives

#### Vice President-Marketing and Communications\*

Joint CAS/SOA Committee on Career Encouragement and Actuarial Diversity

Media Relations Committee

Member Advisory Panel

Member Advisory Panel Committee

New Members Committee

Committee on Online Services

Committee on Sponsorships and Advertising

CAS Trust Scholarship Subcommittee

University Relations Committee

University Liaisons

Committee on Volunteer Resources

Liaison Representatives

## Vice President-Professional Education\*

Joint CAS/SOA Committee for the Enterprise Risk Management Symposium

Joint Program Committee for CLRS Seminar

In Focus Seminar Planning Committee

Online Education Task Force

Professional Education Policy Committee

Committee on Professionalism Education

Program Planning Committee

Ratemaking and Product Management

Seminar Planning Committee

Joint Program Committee for Reinsurance

Seminars

Webinar Committee

Liaison Representatives

## Vice President-Research and Development\*

Accounting Changes Committee

Climate Change Committee

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Hachemeister and Michelbacher Prizes

Committee

Committee on Health Care Issues

Committee on Management Data &

Information

Open-Source Software Committee

Committee on Ratemaking

Committee on Reinsurance Research

Research Grants Task Force

Research Oversight Committee

Committee on Reserves

Committee on Theory of Risk

Committee on Valuation, Finance, and Investments

Working Party on Bornhuetter-Ferguson-Initial Expected Losses

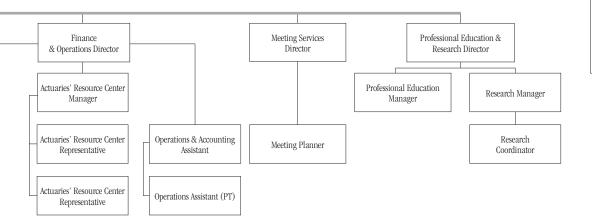
Economic Capital Model Working Party

Low Interest Rate Environment Working

Risk-Based Capital (RBC) Dependencies and Calibration Working Party

Tail Factors Working Party

Liaison Representatives



#### CAS OFFICE AND STAFF

#### CASUALTY ACTUARIAL SOCIETY

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Catherine Amsden, Volunteer and Committee Coordinator J. Michael Boa, CAE, Director of Communications and Marketing Matthew Caruso, Membership and Volunteer Manager **David Core, CAE,** Director of Professional Education and Research **Bob Craver**, Examinations Coordinator Kathleen R. Dean, CMP, Director of Meeting Services **Vincent Edwards**, Manager of Professional Education Dr. Richard Fischer, Director of Admissions Danelle Gee, Actuaries' Resource Center Manager Meaghan Hagner, Actuaries' Resource Center Representative Emily James, Actuaries' Resource Center Representative Jesse Jennings, Operations Assistant Cecily Marx, Online Services Coordinator and Webmaster Worby McNamee, Education Coordinator James Mundia, Information Technology Coordinator Megan O'Neill, Marketing and Corporate Relations Manager Todd P. Rogers, CPA, CAE, Director of Finance and Operations **David Roldan,** Accounting and Operations Assistant Donna Royston, Publications Production Coordinator Bob Searson, Marketing and Communications Coordinator Elizabeth A. Smith, Manager of Publications Karen Sonnet, Research Coordinator **Diane Tremblay, Executive Assistant** 

Sonja Uyenco, Desktop Publisher

Jennifer D. Walton, Information Technology and Online Services Manager
Cheri Widowski, Research Manager
Leanne Wieczorek, Meeting Planner
Ashley Zamperini, Admissions Coordinator

#### COMMITTEES AND TASK FORCES

The functions of all committees and task forces are subject to the policy determination and overall direction of the Board of Directors.

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Committee lists current as of April 2013.

Please visit http://www.casact.org/volunteer/
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#### BOARD COMMITTEES, TASK FORCES, LIAISONS

#### **AUDIT COMMITTEE**

The CAS Audit Committee is responsible for overseeing the internal control structure of the CAS and the annual independent audit of the financial statements and supporting accounts of the CAS by an auditing firm. The CAS Audit Committee is authorized to accept the independent audit reports and will use them as a basis for preparing its own annual report to the CAS Board of Directors. The Audit Committee is also responsible for reviewing the annual tax filings.

Jeanne E. Crowell, *Chairperson* James R. Merz, *Vice Chairperson* 

Charles A. Bryan Lisa G. Chanzit David M. Klein John P. Tierney G. Chris Nyce, Ex Officio

Todd P. Rogers, Staff Liaison

## BOARD LIAISON TO CUSP SUPPORTING ORGANIZATIONS COMMITTEE OF THE ACTUARIAL FOUNDATION

Ann M. Conway

#### CAS CENTENNIAL STEERING COMMITTEE

The CAS Centennial Steering Committee is responsible for developing all aspects of and timelines for CAS Centennial events in 2014.

Gail M. Ross, Chairperson

Carl Xavier Ashenbrenner

Charles A. Bryan

Stephen P. D'Arcy

Thomas J. DeFalco

Robert V. Deutsch

Michael Fusco

Thomas G. Myers

Cynthia R. Ziegler

#### CAS CENTENNIAL COMMEMORATIVE SUBCOMMITTEE

The CAS Centennial Commemorative Subcommittee is charged with designing the CAS Commemorative stained glass window that will be placed in the Hall of Staple Inn in London in celebration of our 100th anniversary. It will be placed among the windows already presented by other actuarial societies from around the world.

Stephen P. D'Arcy, Chairperson

Stacy J. Adams

Terry J. Alfuth

Claudette Cantin

Jeanette R. Costello

Linda A. Dembiec

Janet L. Fagan

Edward W. Ford

Margaret Wendy Germani

Gregory L. Hayward

Evelyn Toni Mulder

Jerome A. Scheibl

Margaret Tiller Sherwood

Emanuel James Stergiou

Patricia A. Teufel

John J. Winkleman

Matthew Caruso, Staff Liaison

#### CAS CENTENNIAL FINANCE SUBCOMMITTEE

The Centennial Finance Subcommittee will develop and monitor the budget for the Centennial based upon financial projections of membership/attendance, revenues from registrations, reserve fund and sponsors/exhibitors, and expenses. The subcommittee will also collaborate with the Marketing subcommittee in securing corporate exhibitors and sponsors. Finally, the subcommittee will provide financial advice to the Centennial Commemorative Steering Committee as needed.

Robert V. Deutsch, Chairperson

Bonnie C. Maxie Francois Morin Aran Jee-Yun Paik

Todd P. Rogers, Staff Liaison

#### CAS CENTENNIAL HISTORY SUBCOMMITTEE

The CAS Centennial History Subcommittee will produce a commemorative history book of the Casualty Actuarial Society in observance of the Society's centennial in 2014. The two-part book will consist of a technical history of the CAS and a more personal history of the Society, consisting of essays and anecdotes written by members on various aspects of their experiences. The committee will design the book's overall structure, recruit and assist authors, edit each contribution, search for and obtain photographs, and publish and distribute the book. Members are encouraged to contribute ideas to the committee.

Charles A. Bryan, Chairperson

Steven F. Goldberg

Elizabeth A. Smith, Staff Liaison

#### CAS CENTENNIAL MARKETING SUBCOMMITTEE

The Centennial Marketing Subcommittee will develop and execute an integrated marketing communications plan including print, electronic and web media to promote the celebration and meeting attendance, including attracting international actuarial dignitaries. The subcommittee will cooperate with the Finance subcommittee to identify and secure corporate sponsors and exhibitors.

Joanne S. Spalla, Chairperson

Scott K. Charbonneau Robert B. Downer Jennifer Lynn Weiner Dorothy A. Woodrum Xinxin Xu

J. Michael Boa, Staff Liaison

#### CAS CENTENNIAL MUSIC PROGRAM SUBCOMMITTEE

The CAS Centennial Commemorative Chorus and Orchestra will perform in New York in November 2014 as part of the CAS Centennial Celebration.

Thomas J. DeFalco, Co-Chairperson

Thomas G. Myers, Co-Chairperson Michael D. Ersevim Ronald S. Lettofsky Steve Winstead

Catherine Amsden, Staff Liaison

#### CAS RISK MANAGEMENT COMMITTEE

The Risk Management Committee assists the CAS Board in executing its risk management activities by:

- Providing ongoing identification and assessment of risks associated with existing CAS activities as well as risks stemming from opportunities for future activity;
- Examining the interactions of risks;
- Identifying environmental and societal trends that may result in emerging risk to the CAS and the profession; and
- Auditing and providing recommended enhancements to risk mitigation activities.

Aaron M. Halpert, Chairperson

Terry J. Alfuth

Regina M. Berens

Ann M. Conway

Howard M. Eagelfeld

Anders Ericson

Jonathan Palmer Evans

Wayne H. Fisher

Barry A. Franklin

Richard S. Goldfarb

Annette J. Goodreau

C.K. Stan Khury

Mary D. Miller

Todd P. Rogers

Daniel G. Roth

Michael Steel

John P. Tierney

Alice M. Underwood

Lisa Walsh

Robert F. Wolf

Cynthia R. Ziegler

Nathan Alexander Schwartz, Liaison

Todd P. Rogers, Staff Liaison

#### DISCIPLINE COMMITTEE

The CAS Discipline Committee is responsible for considering recommendations for disciplinary actions against members presented by the appropriate investigatory body, e.g., Actuarial Board for Counseling and Discipline (ABCD) or the Canadian Institute of Actuaries (CIA) and for taking actions on those recommendations as it deems appropriate in accordance with procedures described in the Bylaws and the CAS Rules of Procedure for Disciplinary Actions.

Thomas G. Myers, Chairperson

Jeffrey Alan Courchene

Richard I. Fein

Michael Fusco

Alice H. Gannon

Orin M. Linden

David J. Oakden

Sheldon Rosenberg

Richard J. Roth

Michael L. Toothman

Cynthia R. Ziegler, Staff Liaison

#### FCAS BRAND TASK FORCE

The FCAS Brand Task Force is charged with evaluating what the CAS brand should be with respect to a Fellow who has completed basic education.

Arlie J. Proctor, Chairperson

Nancy A. Braithwaite

Kris D. DeFrain

Wayne H. Fisher

Beth E. Fitzgerald

Aaron M. Halpert

Gary R. Josephson

Leslie R. Marlo

Kathryn Morgan

Joanne S. Spalla

Patricia A. Teufel

Alice M. Underwood

Cynthia R. Ziegler

J. Michael Boa, Staff Liaison

#### LEADERSHIP DEVELOPMENT COMMITTEE

The Leadership Development Committee is responsible for implementing the Leadership Development Program, through which potential leaders will be identified and development plans for their progress will be formulated and tracked.

Joanne S. Spalla, Chairperson

DuoDuo Cai

Mei Dong

Wayne H. Fisher

Beth E. Fitzgerald

Bernard H. Gilden

Larry A. Haefner

Aaron M. Halpert

Lily (Manjuan) Liang

Deborah M. Rosenberg

David M. Terne

Karen F. Terry

Robert J. Walling

Cynthia R. Ziegler

Matthew Caruso, Staff Liaison

#### NOMINATING COMMITTEE

The Nominating Committee nominates candidates for offices of the Society and for Board directors and submits its selections to the Board (for vice presidents) and to Fellows of the Society (for president-elect and Board directors) prior to the annual elections. The committee makes recommendations to the Board to fill interim vacancies in Society offices or in Board membership.

Ralph S. Blanchard, Chairperson

Amy S. Bouska

Brian Z. Brown

Jeffrey Alan Courchene

Larry A. Haefner

Joseph A. Herbers

Thomas E. Hettinger

Morton N. Lane

Joanne S. Spalla

David M. Terne

Patricia A. Teufel

Cynthia R. Ziegler

Diane Tremblay, Staff Liaison

#### STRATEGIC PLANNING COMMITTEE

The purpose of the Strategic Planning Committee is to facilitate the execution and evaluation of the CAS strategic plan. The Strategic Planning Committee will fulfill this purpose by accomplishing the following charge:

- 1. To report to the Board of Directors annually on progress towards achieving the strategic goals, and on any environmental changes that may warrant modifications to the plan;
- 2. To identify and recommend shorter term strategic actions that support the CAS long term strategic plan and objectives adopted by the Board of Directors and/or are necessary to meet environmental challenges;
- 3. To coordinate with the CAS Risk Management Committee on advising the Board on the management of risks and opportunities that may challenge the ability of the CAS to execute against the strategic plan;
- 4. To liaise with the Executive Council with respect to the interaction of strategy with tactics pursued by the various CAS Committees and Task Forces.
- 5. To maintain liaison relationships with planning groups in other actuarial organizations, both domestically and internationally.
- 6. To perform such other tasks as the Board may assign to it.

As part of fulfilling this charge, the SPC will work closely with the Risk Management Committee in developing and executing the continuous environmental scans.

Roosevelt C. Mosley, Chairperson

Steven D. Armstrong

Eugene C. Connell

Kris D. DeFrain

Wayne H. Fisher

Richard W. Gorvett

Aaron M. Halpert

Ronald T. Kozlowski

ROHAIU I. ROZIOWSI

Robert S. Miccolis

Arlie J. Proctor

Michael L. Toothman

Robert F. Wolf

Maria de los Angeles Yanez

Cynthia R. Ziegler

Diane Tremblay, Staff Liaison

## TASK FORCE ON THE REVIEW AND UPDATE OF THE STATEMENT OF PRINCIPLES

The task force is charged to review the CAS Statements of Principles with the intent to update them and to revise them where necessary to contain principles only, not standards of practice. Material in the current Statements that does not describe or explain an actuarial principle should be eliminated. Conflicts between the Statements and more current material (e.g., standards of practice) should be resolved in favor of the more current interpretation.

Christopher S. Carlson, Chairperson

Shawna S. Ackerman

Eugene C. Connell

Gregory L. Hayward

Mary D. Miller

David S. Powell

Jason L. Russ

Andrea Wynne Sherry

Patrick B. Woods

J. Michael Boa, Staff Liaison

#### TASK FORCE ON STAFF COMPENSATION POLICY

The Task Force on Staff Compensation is charged with studying the compensation policy of the CAS for staff and to report to the Board for recommendations for policy.

Mark C. Vonnahme, Chairperson

Kathryn Morgan Ollie L. Sherman

#### THE ACTUARIAL FOUNDATION BOARD OF TRUSTEES

CAS Members that have served on The Actuarial Foundation Board of Trustees

Robert F. Conger, *Trustee* Michael Fusco, *Trustee* Patricia A. Teufel, *Trustee* 

#### EXECUTIVE COUNCIL COMMITTEES, TASK FORCES, AND LIAISONS

#### **EDUCATION STRUCTURE TASK FORCE**

The Education Structure Task Force will develop specific recommendations for the CAS education that reflect the long term objectives specified in the CAS Strategic Plan.

Mary Frances Miller, Chairperson

Avraham Adler

Wayne H. Fisher

Alice H. Gannon

Anand Khare

Mary D. Miller

David J. Oakden

Virginia R. Prevosto

Elizabeth M. Riczko

Julia Causbie Stenberg

Michael G. Wacek

William B. Wilder

Maria de los Angeles Yanez

Ashley Zamperini, Staff Liaison

#### GENERAL INSURANCE ACTUARIES NETWORK TASK FORCE

The Task Force will investigate the creation of a General Insurance Actuaries Network. The purpose of the network will be to develop stronger bonds with general insurance actuaries (and their organizations) around the world.

David G. Hartman, Chairperson

Robert F. Conger Jeffrey Alan Courchene Allan M. Kaufman Ronald T. Kozlowski Rade T. Musulin Cynthia R. Ziegler

#### INTERNATIONAL LEADERSHIP TEAM

The International Leadership Committee has the following charge:

- Provide top-down direction and priorities to the International committees, including the CAS IAA committees and delegates;
- Establish CAS positions on international issues involving NAAC, other US actuarial organizations, etc.;
- Establish and monitor prioritization, plan, budget, and specific individual representatives for non-North America ambassadorial visits, meeting attendance and travel of President, President-Elect, and other senior CAS leaders;
- Establish expense parameters for international travel, including IAA meetings;
- Appoint/recommend IAA delegates as appropriate.

Robert F. Conger, Chairperson

Wayne H. Fisher Gary R. Josephson Patricia A. Teufel

#### ADMINISTRATION COMMITTEES, TASK FORCES, LIAISONS

#### **ACTUARIAL REVIEW COMMITTEE**

The Actuarial Review is the quarterly newsletter of the Casualty Actuarial Society. Articles and opinions are copyedited by the AR Committee and CAS staff. Opinions are reviewed by the PublicationsEditorial Board.

Grover M. Edie, Editor in Chief Elizabeth A. Smith, Managing Editor C.K. Stan Khury, *Editor Emeritus* Colleen Patricia Arbogast, *Editor* Xiaobin Cao, Editor Charles R. Grilliot, Editor Mark D. Komiskey, *Editor* David S. Levy, Editor Ana J. Mata, Editor

Shama S. Sabade, *Editor* Eric L. Savage, Editor

Michael B. Schenk, Editor

Robert D. Share, Editor

Sonja Uyenco, Desktop Publisher

Michael D. Ersevim, Humor Editor

Martin Adler, Nonactuarial Pursuits

John P. Robertson, Puzzle Editor

#### CAS E-FORUM COMMITTEE

The *E-Forum* Committee solicits material for publication and coordinates publishing the E-Forum.

Windrie Wong, Chairperson

Cara M. Blank

Mei-Hsuan Chao

Mark A. Florenz

Karl Goring

Dennis L. Lange

Bryant Edward Russell

Shavan Sen

Rial R. Simons

John B. Sopkowicz

Zongli Sun

Betty-Jo Walke

Qing Janet Wang

Yingjie Zhang

Elizabeth A. Smith, Staff Liaison

#### CONTINUING EDUCATION COMPLIANCE COMMITTEE

The CAS CE Compliance Committee is responsible for administering the CE Compliance Review process to verify accuracy in the attestation of compliance for continuing education for members of the Casualty Actuarial Society. Administration includes review of compliance documentation and resolution of any issues that may arise from such review.

On an annual basis, the CE Compliance Committee randomly selects a sample of 1% of the membership certifying compliance to audit. In addition, all CAS members serving on the CAS Board of Directors and CAS Executive Council will be audited annually. Members selected to be audited will be required to submit acceptable supporting CPE documentation to the CE Compliance Committee to verify compliance. As a function of the CE review process, members may be required to provide additional documentation as requested by the CE Compliance Committee to support compliance.

G. Chris Nyce, Chairperson

Manuel Almagro
Denise M. Ambrogio
Mark Crawshaw
Ginda Kaplan Fisher
Joshua S. Grunin
Jane Jasper Krumrie
Ramona C. Lee
Mary Ann McMahon
Genevieve L. O'Toole
Patricia E. Smolen
Xiao-shu Su
Cong Wang

Catherine Amsden, Staff Liaison

#### FINANCE COMMITTEE

The Finance Committee makes recommendations to the Board on all aspects of financial matters, including, but not limited to, preparation of the budget, establishment of dues and examination fees, investment of funds, fund-raising measures, administration of funds given or bequeathed to the Society, major expenditures, and risk management including the CAS insurance program.

James E. Buck, Chairperson

Todd H. Dashoff David A. Foley Joshua S. Grunin Andrew E. Kudera Bonnie C. Maxie Jeffrey B. McDonald Melissa A. Remus Kevin B. Thompson Annie On Yee Wong

Sean P. McDermott, *Ex Officio* G. Chris Nyce, *Ex Officio* Nathan Alexander Schwartz, *Ex Officio* 

Todd P. Rogers, Staff Liaison

#### INVESTMENT COMMITTEE

The Investment Committee is responsible for making recommendations to the CAS Board on the investment of CAS Operating, Short-term, and Long-term funds. The committee determines the asset allocation and selects the appropriate investment vehicles consistent with CAS investment policy. The committee consults with the CAS Office to manage the actual deposit of monies into the investments. Quarterly reports on the allocation of assets and investment performance are made to the Board.

Nathan Alexander Schwartz, *Chairperson* Stuart J. Hayes, *Vice Chairperson* 

Frank H. Chang Bradley G. Gipson Randall Allen Jacobson Timothy M. Kolojay Vinu Kuriakose David Langlois Max Zormelo

Sean P. McDermott, Ex-Officio

Todd P. Rogers, Staff Liaison

#### MONOGRAPH EDITORIAL BOARD

The Monograph Editorial Board is the governing body of the CAS Monograph Series. The Monograph Editorial Board maintains guides for submissions, solicits material for publication, evaluates submissions, coordinates with authors, and works with CAS staff on production.

Sholom Feldblum Ali Ishaq C.K. Stan Khury Leslie R. Marlo Gail P. McDaniel

Donna Royston, *Staff Liaison* Elizabeth Smith, *Staff Liaison* 

#### PERIODICALS EDITORIAL BOARD

The Periodicals Editorial Board reviews regular opinion pieces to be published in the Actuarial Review and Future Fellows newsletters and counsels the editorial staff of these periodicals on the suitability of material for publication. Additionally, the Periodicals Editorial Board solicits CAS members to generate alternative points of view, suggests professional issues to be addressed, and occasionally writes an opinion piece. The Periodicals Editorial Board will provide advice and counsel regarding letters to the editor or nonopinion content when requested by the AR and Future Fellows editorial staff.

G. Chris Nyce, *Chairperson* Grover M. Edie, *Vice Chairperson* 

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Dennis H. Lawton
Lovely G. Puthenveetil
Elizabeth A. Smith
Jeremy C. Smith
Qing Janet Wang
Gerald T. Yeung
Yeming Zhang
Yin Zhang
Dong Zheng

Sonja Uyenco, Staff Liaison

#### PUBLICATIONS MANAGEMENT BOARD

The Publications Management Board is responsible for overseeing all aspects of the CAS publication process. Included in this charge is the development of policies for the various publications, coordination of activities of the publication committees and identifying appropriate distribution channels for the various CAS publications.

The committee is made up of three at-large members, and editors and representatives of the following CAS publications: The Actuarial Review, E-Forum, Yearbook/Proceedings, Monographs, and Variance. The Vice Presidents of Administration, Marketing and Communications, and Research and Development serve as ex officio members.

Curtis Gary Dean, *Chairperson* Elizabeth A. Smith, *Co-Chairperson* 

Avraham Adler (Yearbook/Proceedings)
Grover M. Edie (Actuarial Review)
Dale R. Edlefson (At Large)
Richard Gorvett (Variance)
Emily C. Gilde (At Large)
John M. Kulik (At Large)
Lu Li (At Large)
Gail P. McDaniel (Monographs)
G. Chris Nyce, Ex Officio
Arlie J. Proctor, Ex Officio
Windrie Wong (E-Forum)
Alice M. Underwood, Ex Officio

J. Michael Boa, *Staff Liaison* Donna Royston, *Staff Liaison* 

#### SPECIAL APPOINTMENTS

Sean P. McDermott, Assistant Treasurer

#### VARIANCE EDITORIAL BOARD

The *Variance* Editorial Board is the governing body of the peer-reviewed journal published by the Casualty Actuarial Society. The *Variance* Editorial Board solicits material for publication, conducts peer reviews, and copyedits articles for style and clarity. *Variance* disseminates work that is of interest to casualty actuaries worldwide, focusing on original practical and theoretical research in casualty actuarial science.

Richard W. Gorvett, Editor in Chief

G. Chris Nyce, Ex Officio

Stephen P. D'Arcy, Associate Editor-Development Gary G. Venter, Associate Editor-Development

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Donna Royston, *Staff Liaison* Elizabeth A. Smith, *Staff Liaison* 

#### YEARBOOK/PROCEEDINGS COMMITTEE

This committee is charged with producing the CAS *Yearbook/Proceedings*. The *Yearbook* section of this online publication contains information on the CAS organization and its membership, including constitution, bylaws, and related policy; education, affiliated organizations, and other actuarial organizations; and future meetings of the Society. The *Proceedings* contains meeting minutes and addresses, administrative and financial reports, member obituaries, and listings of successful CAS examination candidates.

Avraham Adler, Editor in Chief

Glenn R. Balling Mark A. Florenz Victoria K. Imperato Sudershan Malik Helen Patricia Neglia

Elizabeth A. Smith, Staff Liaison

#### ADMISSIONS COMMITTEES, TASK FORCES, LIAISONS

#### CANDIDATE LIAISON COMMITTEE

The Candidate Liaison Committee communicates with CAS candidates, collectively and individually, who are taking CAS Examinations. The committee informs candidates as to appropriate courses of action available to them. Through periodic communication, the committee informs candidates of results of examination administrations, actions taken on complaints received regarding examination questions, and reasons for syllabus and examination changes being implemented. Communication encompasses existing policies and procedures as well as changes being considered. The committee should advise the CAS and its committees of the interests of the candidates regarding matters that come before the CAS and its committees.

Kendall P. Williams, Chairperson

Shane Eric Barnes
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Ashley Zamperini, Staff Liaison

#### **EDUCATION POLICY COMMITTEE**

The Education Policy Committee recommends educational policy and goals to the Board. The Committee conducts strategic planning for admissions, develops education policy, and establishes liaisons with other organizations.

Derek W. Freihaut, *Chairperson* Richard Fischer, *Assistant Chair* 

Guy Cloutier Sholom Feldblum Sarah K. McNair-Grove James R. Merz Mary Frances Miller Manalur S. Sandilya David A. Smith Julia Causbie Stenberg Glenn M. Walker

Kyewook Gary Kang, Consultant

Susan Roberta Curtis, *Liaison* Alana C. Farrell, *Liaison* Klayton N. Southwood, *Liaison* Amy R. Waldhauer, *Liaison* Arlene F. Woodruff, *Liaison* 

#### **EXAMINATION COMMITTEE**

The CAS Examination Committee is responsible for organizing, managing, and administering the CAS Examinations and for determining the standards to be achieved by successful candidates.

Steven D. Armstrong, *Chairperson*William B. Wilder, *Assistant Chairperson* 

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Patricia A. Hladun
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Kristen Gervais-Andrade

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Clive L. Keatinge	Christopher J. Loyd	Melissa D. Pryor
Tatyana Keller	Eric Lussier	Justin N. Pursaga
Brian Danforth Kemp	Benjamin James Lynch	Lovely G. Puthenveetil
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#### **Admissions Committees**

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Ping Wang

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Shira L. Jacobson, Liaison

Margaret Wendy Germani John M. Gilbert Richard W. Gorvett David Govonlu Ali Ishaq David C. Korb Gustave A. Krause Kevin A. Lee Jason K. Machtinger Catherine A. Neufeld Lydia Roy Jeffery J. Scott Thomas N. Stanford Kelly Aline Sullivan

#### JOINT EXAM ADMINISTRATION COMMITTEE

This CAS/SOA committee is responsible for administrative issues for jointly administered Exams/Courses 1/P, 2/FM, 3F/MFE, and 4/C. The committee reviews administrative procedures to ensure that rules are compatible with the rules of each society and that rule modifications are approved by both societies.

Steven J. Kopp, *Chairperson*Paul S. Judd
Robert J. Stokes
Thomas Struppeck
Glenn M. Walker

Brett Rogers, Staff Liaison

#### PRELIMINARY EXAMINATIONS CURRICULUM COMMITTEE

The Preliminary Education Committee coordinates education topics and syllabus material for preliminary Exams 1-4 among the Canadian Institute of Actuaries, Casualty Actuarial Society, and the Society of Actuaries.

Robert A. Alps, *Chairperson* Amy R. Waldhauer, *Vice Chairperson* 

Tak Wai Chan Toby Hall Syed A. Hossain Qi Huang Bruce L. Jones James Miles Adam Kevin Niebrugge

Stuart A. Klugman, *Consultant* 

Gary Parker, *Liaison* Jason A. Vary, *Liaison* 

Sarah Phelps, *Staff Liaison* Aleshia Zionce, *Staff Liaison* 

#### SYLLABUS COMMITTEE

The Syllabus Committee determines the scope and content of the syllabus and course of readings for the CAS Examinations. The committee also directs the preparation of educational material for the CAS Syllabus of Basic Education.

The Syllabus Committee Archives is available on a secure Web page.

Rajesh Sahasrabuddhe, *Chairperson*Ali Ishaq, *Vice Chairperson* 

#### Consultants

David Langlois Seung-Won (Sam) Lee Erika Helen Schurr Lleweilun Smith Michel Trudeau Gang Xu

#### Liaisons

Steven D. Armstrong Carolyn J. Bergh Patricia A. Hladun Dana F. Joseph Brian J. Mullen Kathleen C. Odomirok James Charles Sandor Christopher J. Styrsky Dan Omer Tevet William B. Wilder

#### Members

Sophia Cyma Banduk Brandon Lee Basken Angelo E. Bastianpillai Laura N. Cali Tak Wai Chan Wanchin W. Chou Edmund Daniel Douglas Peter F. Drogan Sholom Feldblum Robert Jerome Foskey Derek W. Freihaut Margaret Wendy Germani Patrick A. Hayden Qi Huang Kevin A. Kesby Jim Klann
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Zhe Robin Li
Stephane J. McGee
Sarah K. McNair-Grove
Christopher John Morkunas
Scott L. Negus
Marc Lawrence Nerenberg
Adam Kevin Niebrugge
Dmitry E. Papush
Michael Robert Petrarca
John D. Renze

Delia E. Roberts
Jacob D. Roe
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Manalur S. Sandilya
Frances G. Sarrel
Quan Shen
Jeremy C. Smith
Catherine Harwood Taylor
Chris S. Throckmorton
Steven L. Turner
Gary G. Venter
Amy R. Waldhauer
Joshua C. Worsham
Zhuo Yang
Li Zhang

Richard Fischer, Staff Liaison

#### VEE ADMINISTRATION COMMITTEE

The VEE Administration Committee (VEEAC) determines whether specific courses or educational experiences are appropriate to fulfill the Validation by Educational Experience (VEE) requirements.

David G. Hudak, Chairperson

Bruce L. Jones Richard C Soulsby Aaron Tenenbein Rebecca R. Williams

Stuart Klugman, *Staff Liaison* Gena Long, *Staff Liaison* 

#### LIAISON REPRESENTATIVES

#### **AAA Committee on Qualifications**

John T. Gleba

#### **CIA Accreditation Committee**

The CAS liaison is responsible for facilitating communications between the CAS and CIA regarding the work of the CIA Accreditation Committee.

Amy R. Waldhauer

#### Institute of Actuaries/Faculty of Actuaries Future Education Strategy

Steven D. Armstrong

#### **SOA Education & Examination Management Committee**

Steven D. Armstrong

#### ENTERPRISE RISK MANAGEMENT (ERM) COMMITTEES

#### CERA BOARD

The CERA Board consists of one representative appointed by each of the Award Signatories of the Global Enterprise Risk Management Designation Recognition Treaty.

John J. Kollar

#### CERA REVIEW PANEL

The CERA Review Panel consists of representatives appointed by Award Signatories of the Global Enterprise Risk Management Designation Recognition Treaty.

Stephen P. D'Arcy

#### ERM COMMITTEE

The CAS ERM Committee is responsible for ERM activities on behalf of the CAS as they relate to the broadening, enhancing, and advancing the understanding of ERM to CAS members, especially through research, education, and training. The Committee helps implement and administer the new global ERM designation for the CAS.

David M. Terne, *Chairperson*Maryellen J. Coggins, *Vice Chairperson* 

Avraham Adler Stephen A. Belden Abbe Sohne Bensimon Jeffrey Alan Courchene A. David Cummings Kevin G. Dickson Wayne H. Fisher Barry A. Franklin John J. Kollar Kenneth A. Kurtzman Stephen P. Lowe Margaret Tiller Sherwood Michael Ian Solomon Robert W. Thompson Robert F. Wolf

Christopher David Bohn, *Consultant*Eugene C. Connell, *Consultant*Stephen P. D'Arcy, *Consultant*Glenn G. Meyers, *Consultant*Parr T. Schoolman, *Consultant* 

Lawrence L. Peacock, Staff Liaison

#### ERM LIAISON REPRESENTATIVES

#### **ERM Liaison to AAA ERM Task Force**

Barry A. Franklin

#### ERM Liaison to AAA Property/Casualty Financial Soundness/Risk Management

Deborah M. Rosenberg

#### **ERM Liaison to AAA Risk Management and Solvency**

James E. Rech

#### **ERM Liaison to Canadian Institute of Actuaries (CIA)**

Pierre Guy Laurin

#### **ERM Liaison to CFA Institute**

Raju Bohra James M. Maher Joy A. Schwartzman Jeffrey S. Sirkin

#### **ERM Liaison to Conference of Consulting Actuaries (CCA)**

Alfred O. Weller

#### ERM Liaison to Global Association of Risk Professionals (GARP)

Mohammed Q. Ashab Alex Krutov

#### **ERM Liaison to Global ERM Designation**

Stephen P. D'Arcy

#### ERM Liaison to Institute of Actuaries in Australia

Chris Ian Keech

#### **ERM Liaison to National Association of Insurance Commissioners (NAIC)**

Kris D. DeFrain

#### ERM Liaison to Professional Risk Managers' International Association (PRMIA)

Kevin G. Dickson

#### ERM Liaison to Risk & Insurance Management Society Inc. (RIMS)

Christopher David Bohn Lee M. Smith

#### **ERM Liaison to Risk Management Section Council**

Kevin G. Dickson Donald F. Mango

#### **ERM Liaison to Risk Management Section Newsletter**

J. Michael Boa

#### **ERM Liaison to Risk Management Section Web Site**

J. Michael Boa

#### JRMS COUNCIL CALL FOR ESSAYS

The Joint Risk Management Section of the Society of Actuaries (SOA), the Casualty Actuarial Society (CAS), and the Canadian Institute of Actuaries (CIA) in collaboration with the International Network of Actuaries in Risk Management ("IN-ARM") propose publishing a 4th series of essays to address "Incentive Compensation- the Critical Blind Spot in ERM today." This group reviews all the submissions.

Louise A. Francis, *Co-Chairperson* Robert F. Wolf, *Co-Chairperson* 

Mike Boot Stephen P. Lowe Lloyd Milani

David Core, Staff Liaison

## INTERNATIONAL COMMITTEES, TASK FORCES, LIAISON REPRESENTATIVES

#### ASIA REGIONAL COMMITTEE

The Asia Regional Committee facilitates the development and delivery of CAS services to members and candidates in Asia, serves as liaison to local actuarial organizations and their members and coordinates CAS participation in their activities, promotes local programs and seminars, develops and facilitates two-way communications between the CAS and local actuarial organizations, and serves an ambassadorial role.

Yu Shan (Cathy) Hwang, Chairperson

Hussain Ahmad, *Ambassador* Marcus Ewe, *Ambassador* So-Yeun Kim, *Ambassador* Ronald T. Kozlowski, *Ambassador* Manalur S. Sandilya, *Ambassador* 

ZhenZhen (Jenny) Lai, Ex Officio

Sheen X. Allen Saeeda Behbahany Leonard A. Bellafiore Subhayu Bose DuoDuo Cai Hao Chai Jonathan J. Charak Xiangyu Cheng Kin Lun (Victor) Choi Edwina King-Yan Chung Robert F. Conger Herbert G. Desson Mei Dong Feng Ge Tao Tony Gu Amit K. Gupta David Scott Hamilton Carole K.L. Ho Bo Huang

Guanjun Jiang Min Jiang Patricia Kum Christie Lai Yin Lee Zhe Robin Li Yanqing Li Jing Li Lily (Manjuan) Liang Yuan-Chen Liao Reng Lin Shu C. Lin Liming Lin Leo Liu Weichen Liu Jie (Michael) Lu Xiaojiang Ma Michael Guerin Owen Ying Pan Lovely G. Puthenveetil

Junhua (Blanca) Qin Zhongmei Su Xiao-shu Su Ping Su Xiaowei Sun Wei-Chvin Tan Ping Wang HongTao (Heidi) Wang Anping Wang Yao Wang Jie Xiao Chung-Ye Scott Yen Ting Yu Qinnan Zhang Yi Zhang Dong Zheng Jun Zheng

Cynthia R. Ziegler, Staff Liaison

#### ICA 2014 FINANCE AND RISK MANAGEMENT COMMITTEE

This committee is responsible for preparing a financial plan and for developing and managing budgets for ICA 2014 income and expenses, within the overall vision and architecture articulated by the Organizing Committee. In addition, the committee is responsible for developing the Risk Management Plan for ICA 2014 for approval by the Organizing Committee, and for implementing and monitoring the Risk Management Plan, working with and through other ICA 2014 committees as appropriate.

The committee is responsible for communicating relevant budget information and expectations to other ICA 2014 committees, and for tracking progress against budgets. The committee handles day-to-day interface with the IAA regarding the bursary program for actuaries seeking financial support to attend ICA 2014. The committee is responsible for providing regular progress reports, exception reports, analyses and recommendations to the Organizing Committee. The Finance Committee reports to the Organizing Committee.

Aaron M. Halpert, Chairperson

Kathleen R. Dean Mark Freedman Stacy Lin Todd P. Rogers Max J. Rudolph Andrea M. Sweeny

Cecil D. Bykerk, *Ex Officio* Robert F. Conger, *Ex Officio* Cynthia R. Ziegler, *Ex Officio* 

Todd P. Rogers, Staff Liaison

#### ICA 2014 HOSPITALITY COMMITTEE

This committee is responsible for creating and managing a welcoming, helpful, interesting, and entertaining experience for delegates and their accompanying persons, exclusive of the meeting rooms and major events. Anticipated scope of Committee activities includes but is not necessarily limited to recruiting, organizing, training, and deploying meeters and greeters; procuring and delivering delegate gifts; organizing and staffing daily hospitality lounges for accompanying persons; organizing and operating an internet lounge; organizing and coordinating guest tours and activities including activities for children and tours before/after ICA 2014; and assuring convenient access to information about the city and activities. The Hospitality Committee reports to the Organizing Committee, and operates within the overall vision, architecture, and financial plan articulated by the Organizing Committee.

#### Maggie Conger, Chairperson

Peggy Black Nancy A. Braithwaite Lau Chan Buffin Loree Bykerk Michele Fuerst Kitty Hartman Eileen Hayne Sue Hohman Helen Kollar Judy Lehmann Barbara MacGinnitie Mary McLaughlin

Barbara Meyers Laurie Miccolis Teresa Parmenter Cindy Sandberg Karen Terry Cynthia R. Ziegler

Kathleen R. Dean, Staff Liaison

#### ICA 2014 LOGISTICS COMMITTEE

This committee is responsible for planning and operating the infrastructure of ICA 2014 in support of the other committees, including meeting space, exhibitor space, social activity space, hotel and vendor management, food and beverage, transportation, signage, language translation, registration desk, printed materials, and audio-visual equipment. The Logistics Committee reports to the Organizing Committee and operates within the overall vision, architecture, and financial plan articulated by the Organizing Committee.

Kathleen Dean, Chairperson

Rita K. DeGraaf Keith G. Stewart

#### ICA 2014 ORGANIZING COMMITTEE

Led by the Casualty Actuarial Society, the five U.S. actuarial organizations will be hosting the International Congress of Actuaries (ICA) meeting in Washington, D.C. The ICA 2014 Organizing Committee will be staffed with leadership from the American Academy of Actuaries, American Society of Pension Professionals and Actuaries, Casualty Actuarial Society, Conference of Consulting Actuaries, and Society of Actuaries.

Robert F. Conger, *Chairperson* Cecil D. Bykerk, *Vice Chairperson* Cynthia R. Ziegler, *Vice Chairperson* 

Maggie Conger Kathleen R. Dean Mary Downs Yves Guerard Aaron M. Halpert Roger M. Hayne Gregory W. Heidrich Steven G. Lehmann Christian Levac S. Michael McLaughlin Joseph Nichols Adam Reese Deborah M. Rosenberg Nicole Seguin Desmond Smith Thomas S. Terry

#### ICA 2014 PUBLIC RELATIONS AND MARKETING COMMITTEE

This Committee is responsible for public relations and marketing activities in support of ICA 2014, within the overall vision, architecture, and financial plan articulated by the Organizing Committee. The Committee's responsibility includes brand and logo design, web site design, design and dissemination of brochures and similar collateral, and presence and visibility at key actuarial meetings around the world during 2009 through 2014. This Committee's responsibility also includes creating appropriate visibility for ICA 2014 (including attracting and managing media representative attendance at ICA 2014) in the actuarial, industry, and general business and financial media — before, during, and after ICA 2014. The Committee reports to the Organizing Committee.

Deborah M. Rosenberg, Chairperson

J. Michael Boa Amy S. Bouska Leslie Cummings Anne E. Kelly Kim McKeown Megan O'Neill Bruce D. Schobel Joanne S. Spalla Mavis A. Walters Cynthia R. Ziegler

#### ICA 2014 SCIENTIFIC COMMITTEE

This committee is responsible for the overall design and content of the educational sessions of ICA 2014, working within the overall vision, architecture, and financial plan articulated by the Organizing Committee. The Scientific Committee is responsible for the planning and development of keynote speakers, plenary sessions, parallel sessions, and limited attendance sessions. These sessions will include speakers, panel discussions, paper presentations, and other similar content. The Scientific Committee conducts any calls for papers in connection with ICA 2014 (except where agreed that some other organization such as an IAA section will conduct a call for papers).

The Scientific Committee serves as the point of contact, coordination, and oversight with any of the US actuarial organizations, IAA sections, and other organizations that have been invited and have agreed to take responsibility for creating content for one or more sessions.

The Scientific Committee reports to the Organizing Committee.

Roger M. Hayne, Chairperson

Craig Baldwin
Rejean Besner
Robert L. Brown
Andrew Cairns
Thomas A Campbell
Douglas J Carey
Christopher S. Carlson
Eugene C. Connell

David Core Curtis Gary Dean Rita K. DeGraaf Louise A. Francis Craig Hanna Ellen Kleinstuber Eduardo Melinsky Stephen Harris Rosen Carol Sears Donald J. Segal Marc Slutzky Emile Stipp Eric Thorlacius Lisa Tourville

David Core, Staff Liaison

#### ICA 2014 SCIENTIFIC COMMITTEE - LIFE TRACK

Volunteers are developing the Life Track for the 2014 International Congress of Actuaries.

Robert Thomas Herget, *Co-Chairperson* Marc Slutzky, *Co-Chairperson* 

Thomas A Campbell Thomas P. Edwalds Jean-Marc Fix Dieter Gaubatz William Horbatt Allan Klein Allan Ryan Steven Siegel Henry Siegel

David Core, Staff Liaison

Ronora E. Stryker

#### ICA 2014 SPECIAL EVENTS AND ENTERTAINMENT

This committee is responsible for developing, planning and operation of the special events that are an integral part of ICA 2014, working within the overall vision, architecture, and financial plan articulated by the Organizing Committee. These events include, for example, marquis events, outings and evening events that are intended for ICA 2014 delegates, as well as entertainment and special activities during opening and closing sessions or delegate meals. These events do not include events for accompanying persons, or pre- and post-ICA 2014 tours and activities (see Hospitality Committee). The Special Events and Entertainment Committee reports to the Organizing Committee.

Adam Reese, Chairperson

Theresa W. Bourdon Maggie Conger Linda Damitz Kathleen R. Dean Mary Downs Olga Jacobs Mary Frances Miller Cynthia R. Ziegler

#### ICA 2014 SPONSORSHIP AND EXHIBITS COMMITTEE

This committee is responsible for designing and operating the sponsorship program, recruiting and obtaining sponsors of ICA 2014, handling the ongoing interface with sponsors, and working with other committees to assure the effective delivery of promised sponsor benefits, all within the overall vision, architecture, and financial plan articulated by the Organizing Committee.

The committee is responsible for designing and operating the exhibitor program, recruiting and obtaining exhibitors for ICA 2014, handling the ongoing interface with exhibitors, and working with other committees to assure the effective delivery of promised exhibitor benefits, all within the overall vision, architecture and financial plan articulated by the Organizing Committee.

The Sponsorships and Exhibits Committee reports to the Organizing Committee.

S. Michael McLaughlin, *Chairperson* Steven G. Lehmann, *Vice Chairperson* 

Robert M. Beuerlein Raji Bhagavatula J. Michael Boa Howard Bolnick Robert F. Conger Colleen Fiore Denise Fuesz Michael Fusco John J Haley W. James MacGinnitie Alice Rosenblatt Bradley M Smith Robert W. Stein Larry D. Zimpleman

#### ICA 2014 STEWARDSHIP COMMITTEE

This committee is responsible for developing, managing and operating community outreach activities in connection with ICA 2014, including charitable works and donations; and invited university and high school professors to the daily sessions. The committee interfaces with and hosts The Actuarial Foundation and other philanthropic actuarial and business organizations that seek a presence at ICA 2014. The Stewardship Committee reports to the Organizing Committee and operates within the overall vision, architecture, and financial plan articulated by the Organizing Committee.

Thomas S. Terry, Chairperson

Mary J. Bahna-Nolan Bill Falk Thomas Finnegan Gary R. Josephson Joe Kelly Tonya B. Manning Joseph Nichols John Robinson John J. Schubert Eileen Streu Dale Yamamoto

#### INTERNATIONAL ACTUARIAL ASSOCIATION COUNCIL DELEGATES

Robert F. Conger, *Delegate* Ralph S. Blanchard, *Alternate* 

#### INTERNATIONAL ACTUARIAL ASSOCIATION DELEGATES COMMITTEE

The IAA Delegates Committee consists of CAS delegates to the various IAA Committees, Subcommittees, Task Forces, Working Groups and Council (included in the term "committees" as used in the following). The delegates' responsibilities include:

- To coordinate representation and logistics related to the various IAA meetings and committees
  - o Coordination among CAS delegates
  - o Coordination with other US actuarial organizations
- To surface issues arising out of the IAA committees that may be of broader interest to the other delegates, or to the CAS leadership, or membership more broadly
- To engage CAS leadership, committees and members in order:
  - o to seek input to IAA discussions and actions.
  - o to involve CAS members in IAA projects (e.g., formulating positions, conducting research, supporting developing countries), and
  - o to inform CAS community about IAA activities

Robert F. Conger, *Chairperson*Ralph S. Blanchard, *Vice Chairperson* 

Paul Braithwaite Kris D. DeFrain Robert S. Miccolis Mary Frances Miller Peter J. Murdza Alejandra S. Nolibos Marc F. Oberholtzer Cynthia R. Ziegler

Cynthia R. Ziegler, Staff Liaison

#### INTERNATIONAL ACTUARIAL ASSOCIATION RESPONSE COMMITTEE

The International Actuarial Response Committee has the following charge:

- Formulate (in consultation with appropriate IAA representatives, CAS committees, and other US actuarial organizations) CAS responses to formal IAA votes and issues;
- Formulate CAS input and position on international issues arising out of NAIC;
- Formulate CAS responses to emerging and potential issues at the IAA;
- Provide input to CAS proactive strategy regarding IAA.

Robert F. Conger, *Chairperson*Ralph S. Blanchard, *Vice Chairperson* 

Cynthia R. Ziegler

#### INTERNATIONAL AMBASSADOR PROGRAM

The charge of the Ambassador Program is to assist the CAS in attaining the Centennial Goal, to identify needs of members who reside or work outside North America and to serve as resources to emerging actuarial organizations and academic programs.

#### **International Ambassador - Asia Regional**

Ronald T. Kozlowski, Ambassador

#### International Ambassador - India

Manalur S. Sandilya, Ambassador

#### International Ambassador - Korea

So-Yeun Kim, Ambassador

#### **International Ambassador - Latin America**

Alejandra S. Nolibos, Ambassador

#### International Ambassador - Malaysia

Marcus Ewe, Ambassador

#### International Ambassador - Singapore

Hussain Ahmad, Ambassador

#### INTERNATIONAL COORDINATION COMMITTEE

The International Coordination Committee has the following charge:

- Foster the achievement of the CAS Centennial Goal and the CAS strategy as it relates to the world beyond North America; and increase institutional memory and continuity of decision-making on international issues;
- Assist in establishing and advocating the priorities of the CAS international committees (within the context of CAS Strategic Plan, annual plans and budget) and providing input and guidance to the CAS international committees;
- Foster communication and coordination among CAS committees (including non-International committees) as regards CAS international goals and activities;
- Provide input regarding non-North America ambassadorial visits and meeting attendance;
- Prioritize invitations for senior officials from other countries to attend CAS events;
- Recommend support for actuarial organizations in other countries;
- Assist in addressing (or referring) international issues that arise;
- Excludes roles assigned to the IAA Response Committee

Robert F. Conger, Chairperson

Yu Shan (Cathy) Hwang Gabriel Matthew Ware Cynthia R. Ziegler

#### INTERNATIONAL MEMBER SERVICES COMMITTEE

The committee's purpose is to maintain and enhance the connection between the CAS and its international members. By working in conjunction with the international regional affiliates, the committee aims to better serve the CAS's international membership and increase their connection to and involvement with the CAS and other CAS members.

Examples of service include:

- assistance to the international regional affiliates in developing and implementing programs for their membership
- facilitating and encouraging informal communication and interaction via maintenance of e-mail lists
- assistance to actuaries who are relocating by putting them in touch with others who have relocated to that region
- possible newsletters and other communications
- sponsorship of webinars for education on international actuarial topics
- facilitate interactions between traveling CAS leadership and international members

Gabriel Matthew Ware, Chairperson

Roselyn M. Abbiw-Jackson Yazeed F. Abu-Sa'a Keith P. Allen Robert G. Blanco Christine Cadieux Joyce Chen Robert F. Conger Jeffrey Alan Courchene Kamil K. Jasinski Scott C. Kurban Jing Li Rade T. Musulin Alejandra S. Nolibos David J. Oakden Yvonne Naa Korkor Palm Manalur S. Sandilya Halina H. Smosna David B. Sommer Andrew Jon Staudt Dovid C. Tkatch

Cynthia R. Ziegler, Staff Liaison

#### LIAISON REPRESENTATIVES

#### Institute of Actuaries (U.K.) General Insurance Practice Executive Committee

Kathryn Morgan

#### **China Association of Actuaries**

ZhenZhen (Jenny) Lai

#### General Insurance Research Organising (GIRO) Committee

Christopher M. Smerald

#### Institute of Actuaries of Australia

Rade T. Musulin

#### **SOA Latin America Committee**

Alejandra Nolibos

# MARKETING AND COMMUNICATIONS COMMITTEES, TASK FORCES, LIAISONS

# JOINT CAS/SOA COMMITTEE ON CAREER ENCOURAGEMENT AND ACTUARIAL DIVERSITY

The Joint CAS/SOA Committee of Career Encouragement merged with the Joint CAS/SOA Committee on Actuarial Diversity to create the Joint CAS/SOA Committee on Career Encouragement and Actuarial Diversity.

David M. Terne, *Chairperson*Wesley John Griffiths, *Vice Chairperson* 

Fritzie R Archuleta

Kim Boxell

Christian J. Coleianne

Robert F. Conger

Kwame Akil Davis

Thomas J. DeFalco

Ramona C. Lee

Valerie M. Lopez

Barry J. McKeown

Erin M. Olson

Joy-Ann C. Payne

Kirk Alan Peter

Arthur R. Randolph

Peter Gerard Rossi

Kathryn Baker, *Staff Liaison* Bob Searson, *Staff Liaison* 

#### MEDIA RELATIONS COMMITTEE

The Media Relations Committee is charged with working through the national, state, and local media to enhance the external visibility of casualty actuaries and to increase the public awareness of the role actuaries play in traditional, non-traditional, and developing areas of practice. The committee works with the American Academy of Actuaries and Insurance Information Institute in support of media relations efforts on property/casualty issues.

Chester John Szczepanski, Chairperson

Stephen A. Alexander Mark S. Allaben

**Jennifer Elizabeth Clark** 

Robin A. Harbage

Pamela A. Kaplan

Alex Krutov

Michael L. Toothman

Marina Vaninsky

Navid Zarinejad

Cary Schneider, *Liaison* Susanne Sclafane, *Liaison* 

J. Michael Boa, Staff Liaison

#### MEMBER ADVISORY PANEL

The Member Advisory Panel (MAP) was formed to provide CAS leaders and committees with access to a representative collection of members who are willing to participate in surveys and research conducted by the CAS. The MAP is managed by the Member Advisory Panel Committee.

Jeffrey R. Adcock Brian C. Alvin Kevin L. Anderson Ionathan L. Ankney Deborah Herman Ardern Elizabeth A. Arsenault Megan Laurissa Astudillo Rose D. Barrett Michael Christopher Beck Saeeda Behbahany Regina M. Berens Robert G. Blanco Michael P. Blivess Neil M. Bodoff David R. Bradley Nancy A. Braithwaite Sara T. Broadrick John R. Broadrick Lisa A. Brown Elaine K. Brunner Andrea W. Cablayan Stephanie T. Carlson William M. Carpenter Michael J. Caulfield Maureen A. Cavanaugh Debra S. Charlop Wai Yip Chow Iames K. Christie Gregory J. Ciezadlo Eric R. Clark Mary L. Corbett Kevin A. Cormier I. Edward Costner Jeanne E. Crowell Kelly K. Cusick Melisa L. Darnieder Willie L. Davis Thomas J. DeFalco Michael Devine Victor G. Dos Santos Kevin M. Dvke Howard M. Eagelfeld Caroline B. Edwards Anthony D. Edwards Brian Elliott Lindsay Aaron Eng Jonathan Palmer Evans Philip A. Evensen Joseph Gerard Evleth John S. Ewert Doreen S. Faga Janet L. Fagan

Caryl Marie Fank Wendy A. Farley Alana C. Farrell Ginda Kaplan Fisher Sarah I. Fore Peter L. Forester Jonathan W. Fox Marie LeStourgeon Fredericks Kevin Jon Fried Bruce F. Friedberg Chad J. Gambone Andrea Gardner Louis Gariepy Michael Ryan Gittings Nicholas P. Giuntini Victoria A. Gomez Philippe Gosselin Amy Beth Green Francis X. Gribbon Charles R. Grilliot Charles Gruber John A. Hagglund Sandra K. Halpin Trevor C. Handley Brady L. Hermans Todd J. Hess Anthony D. Hill Aaron Nicholas Hillebrandt Patricia A. Hladun Gary Hoo Long-Fong Hsu Jeffrey R. Hughes Victoria K. Imperato Min Jiang Philippe Jodin Daniel Keith Johnson Jennifer Polson Johnson Kurt J. Johnson William Rosco Jones Laura Dembiec Jordan Jeremy M. Jump Stephen H. Kantor Pamela A. Kaplan John J. Karwath Sean M. Kennedy C.K. Stan Khury Ziv Kimmel Leon W. Koch

Kenneth A. Kurtzman

Francois Lacroix

Dean K. Lamb

David Matthew Lang

Dennis H. Lawton Todd W. Lehmann Jennifer M. Levine Kelly Carmody Lewis Lian-Ching Lim Janet G. Lindstrom Maria Mahon Kevin Christopher Mahoney Donald E. Manis Zachary I. Martin Jeffrey B. McDonald Thomas S. McIntyre Kelly S. McKeethan Mary Ann McMahon William T. Mech Stephen V. Merkey Daniel John Messner Jennifer Lynn Meyer Michael E. Mielzynski David L. Miller Richard B. Moncher Christopher J. Monsour Dawn Morelli Timothy C. Mosler Fritzner Mozoul Conrad P. Mueller William F. Murphy Charles P. Neeson Helen Patricia Neglia William S. Ober Kevin Jon Olsen Wade H. Oshiro Joanne M. Ottone John R. Pedrick Tracie L. Pencak Christopher Kent Perry George N. Phillips John Pierce Joseph W. Pitts Etienne Plante-Dube Igor Pogrebinsky Amber B. Popovitch Warren T. Printz David S. Pugel Alan K. Putney Karen L. Queen Kenneth Quintilian David C. Riek Karen Lynn Rivara Ezra Jonathan Robison Peter Kingslev Robson Rebecca L. Roever

Steven Carl Rominske Gail M. Ross Kenneth W. Rupert Stephanie Elizabeth Russell John Christopher Sadloske Timothy Steven Sallay Stephen Paul Sauthoff Joshua Stewart Sawyer Letitia M. Saylor Doris Y. Schirmacher Karen L. Schmitt Robert J. Schutte Debbie Schwab Jeffory C. Schwandt Lyndsey J. Schwegler Suzanne Mills Scott Richard A. Smith Elizabeth L. Sogge Anthony A. Solak Emanuel James Stergiou Jeffrey L. Subeck Wei-Chvin Tan Dan Omer Tevet Neeza Thandi Dawn M. Thayer Jonas F. Thisner Anne M. Thomas John Frank Thomas Robert W. Thompson Phoebe A. Tinnev Michael L. Toothman Turgay F. Turnacioglu Brian K. Turner Brian A. Viscusi Tice R. Walker Kimberley A. Ward Gabriel Matthew Ware David W. Warren Alfred O. Weller Scott Werfel Lawrence White Steve Winstead Kirby W. Wisian Michael Scott Woods Linda Yang Richard P. Yocius Edward J. Yorty Patrick Chan-Chin Yu Bin Yuan Michael R. Zarember

#### MEMBER ADVISORY PANEL COMMITTEE

The Member Advisory Panel Committee provides a mechanism that can be used to measure and assess CAS membership satisfaction levels, with a goal of assuring that the benefits of association far exceed the costs for members. To achieve this, CAS leaders and committees communicate openly with a representative collection of members who are willing to participate in surveys and research conducted by the CAS.

Robert J. Schutte, Chairperson

Regina M. Berens

Melisa L. Darnieder

Thomas J. DeFalco

Wendy A. Farley

Ginda Kaplan Fisher

Andrea Gardner

Charles Gruber

Stephen V. Merkey

David L. Miller

Karen Lynn Rivara

Dan Omer Tevet

Michael L. Toothman

Matthew Caruso, Staff Liaison

#### NEW MEMBERS COMMITTEE

The New Members Committee is responsible for effectively integrating new members into the CAS and for ensuring that new member perspectives are readily available to CAS committee's in their work. Initially, the New Members Committee is asked to consider the recommendations of the Task Force on New Members with respect to new member recognition and class spirit and to be a resource to the Leadership Development Committee as it explores development programs for the CAS.

A New Member is defined as any Associate or Fellow whose most recent credential has been awarded within the past ten years.

Kristin Harp Monopolis, Chairperson

Shane Eric Barnes John R. Emig Richard Charles Frese John M. Gilbert Stephen M. Harter Nerissa S. Nandram Ronald S. Scott

Kimberly Weidner

Chao Zheng

Matthew Caruso, Staff Liaison

#### COMMITTEE ON ONLINE SERVICES

The Committee on Online Services is responsible for assessing and providing guidance to staff on the configuration, content and "look" of the CAS website. At the direction of the Executive Council and the Board, the Committee will also provide support as the CAS explores and experiments with other emerging communication technologies.

Andrew Martin Chandler, Chairperson

Christina Marie Boglarski Paul J. Majchrowski Peter A. McNamara Robert M. Sanders Joshua Stewart Sawyer Joanne S. Spalla

Xiaomin Wang

Chunpong Woo

Jennifer D. Walton, Staff Liaison

#### COMMITTEE ON SPONSORSHIPS AND ADVERTISING

The Committee on Sponsorships and Advertising is responsible for managing all aspects of the CAS Sponsorship and Advertising Program. This Committee will implement the recommendations of the CAS Revenue Opportunities Task Force, lead the identification and consideration of potential new sources of CAS non-dues revenue sources, recommend appropriate policies and guidelines for managing the program, and regularly assess the effectiveness of the program from both member and sponsor perspectives. The Committee will prepare an annual report for the Board on the CAS Sponsorship and Advertising Program.

Eric J. Hornick, Chairperson

Mary D. Miller, Ex Officio Arlie J. Proctor, Ex Officio

Richard B. Moncher Joanne S. Spalla Kimberley A. Ward Cynthia R. Ziegler

Kathleen R. Dean, *Staff Liaison* Megan O'Neill, *Staff Liaison* Leanne Wieczorek, *Staff Liaison* 

#### CAS TRUST SCHOLARSHIP SUBCOMMITTEE

The CAS Trust Scholarship Subcommittee is responsible for all aspects of the CAS Trust Scholarship Program. The Subcommittee, which falls under the University Relations Committee, establishes eligibility requirements and application procedures, reviews applications and selects award winners, actively promotes the availability of the scholarship, and develops an annual recommendation for the number of scholarships and award amount, in consultation with the CAS Trustees.

Kenneth L. Leonard, Chairperson

Silvia Bach Aaron Nicholas Hillebrandt Brett D. Jaros Jennifer Marie Lehman Elizabeth A. Wellington Mark S. Wenger Chunpong Woo

Bob Searson, Staff Liaison

#### UNIVERSITY RELATIONS COMMITTEE

The CAS University Relations Committee is responsible for managing the CAS University Liaison and Academic Correspondent Programs. The Committee encourages and facilitates activities within the programs and actively promotes the programs to attract new participants. The Committee maintains liaison relationships with other committees involved in university activities to assure integration and coordination of efforts.

Wesley John Griffiths, Chairperson

Christian J. Coleianne

Robert F. Conger

Thomas J. DeFalco

Richard Charles Frese

Richard W. Gorvett

Paul E. Kinson

Aileen Conlon Lyle

Erin M. Olson

Joy-Ann C. Payne

Mark Priven

Thomas Struppeck

David M. Terne

Melissa Tomita

Mark S. Wenger

Thomas Michael Whitcomb

Bob Searson, Staff Liaison

#### UNIVERSITY LIAISONS

Established in 1999, the CAS University Liaison Program is made up of CAS members who have volunteered to be liaisons to colleges and universities. Managed by the University Relations Committee, the program matches CAS members with academics to provide the academics a one-on-one contact with a practicing actuary. The program helps facilitate the partnership between the academic community and the actuarial profession.

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TT
Hussain Ahmad
Denise M. Ambrogio
Vagif Amstislavskiy
Mark B. Anderson
Gwendolyn L. Anderson
Keat Beng Ang
Nolan E. Asch
Sarah Jane Austin
Farid Aziz Ibrahim
Gregory S. Babushkin
Robert Sidney Ballmer
Sophia Cyma Banduk
Phillip W. Banet
Rose D. Barrett
Aaron J. Beharelle
Jeremy Todd Benson
Jason E. Berkey
Linda Jean Bjork
Gavin C. Blair
Jonathan Everett Blake
Caleb M. Bonds
Lee M. Bowron
Thomas Leininger Boyer
Lori Michelle Bradley
Michael D. Brannon
Kelli Ann Broin
Tracy L. Brooks-Szegda
Elaine K. Brunner
Morgan Haire Bugbee
Christopher J. Burkhalter
Ryan A. Byrd
DuoDuo Cai
Chuan Cao
Maureen A. Cavanaugh
R. Scott Cederburg
Zhijian Chen
Hui Ying Chin
Kin Lun (Victor) Choi
Stephen Daniel Clapp
Stephen Damer Crapp
Kay A. Cleary
Christopher Paul Coelho
Christian J. Coleianne
Matthew P. Collins
Jeffrey Alan Courchene
Ryan J. Crawford
Michael John Crowe
Jonathan Scott Curlee
Michael Kevin Curry
Thomas Randall Daly
John Edward Daniel
Edgar W. Davenport
Robin Davis
Robert V. DeLiberato
Neal Ray Drasga
Thomas J. Duffy
Francois Richard Dumontet
Kevin M. Dyke
Grover M. Edie
Charles C. Emma
GHAITES G. EIIIIIIA

elps facilitate the partnersh
Keith A. Engelbrecht
David Engles
William H. Erdman
William H. Erdman Michael A. Falcone
Thomas R. Fauerbach
Vicki A. Fendley
Jacob C. Fetzer
Evan Fisher
Joshua L. Fishman
Dana R. Frantz
Yan Lap "Jess" Fung
Patricia A. Furst
Patrick P. Gallagher
Timothy M. Garcia
Anne M. Garside
Jacob Julius Geyer
Bernard H. Gilden
Patrick John Gilhool
Nathan Terry Godbold
Timothy L. Graham
Legare W. Gresham Francis X. Gribbon
Francis X. Gribbon
Jeffrey Robert Grimmer
Carleton R. Grose
Charles Gruber
Todd A. Gruenhagen
Tao Tony Gu
Scott T. Hallworth
David Scott Hamilton
Robin A. Harbage
Gary M. Harvey
Gordon K. Hay
Gregory L. Hayward
Michael A. Henk
Kathryn Enochs Herzog
Thomas E. Hettinger
Ashish Rasik Hingrajia
John V. Hinton
Carole K.L. Ho
Dennis E. Hoffmann
Bo Huang
Carol Irene Humphrey
Man-Gyu Hur
Brian L. Ingle
Shira L. Jacobson
Shiwen Jiang
Christian Jobidon
Jennifer Polson Johnson
Brian E. Johnson
Kelli Shepard-El Jones
Gary R. Josephson
Kai Kang
Sally M. Kaplan
Lawrence S. Katz
Cheryl R. Kellogg
Stacey M. Kidd
Young Y. Kim Paul E. Kinson
Paul E. Kinson

Kayne M. Kirby

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David M. Klein
James J. Kleinberg
David Koegel
Adam J. Kreuser
Jennifer M. Kubit
Jeffrey L. Kucera
David Matthew Lang Yin Lawn
Micah Lenderman
Yanqing Li
Zhe Robin Li
Lu Li
Xiaoxuan Li
Long Li
Victor Yusen Li
Lily (Manjuan) Liang
Guo Liang
Krista A. Lienau
Shiu-Shiung Lin
Jia (Judy) Liu
Erik Frank Livingston
Millie Man Sum Lo Michelle Luneau
Eric A. Madia
Dorothy Lentz Magnuson
James M. Maher
Jonathan L. Matthews
Ryan Andrew McAllister
Robert B. McCleish
Debra L. McClenahan
D. Michael McConnell
Renée Marie McGovern
Simon M. Mellor
William A. Mendralla
Ryan A. Michel
Albert-Michael Micozzi
Joseph A. Milicia
William J. Miller Neil L. Millman
Richard James Mills
H. Elizabeth Mitchell
David F. Mohrman
Marc Michael Molik
Jimmy Molyneux
Kristin Harp Monopolis
Kristin Harp Monopolis Matthew C. Mosher
Brian J. Mullen
Mark Naigles
Aaron West Newhoff
Loren J. Nickel
Matthew P. Nimchek Randall S. Nordquist
David J. Oakden
Denise R. Olson
Naomi S. Ondrich
Leo Martin Orth
Wade H. Oshiro
Ginette Pacansky
Rudy A. Palenik
•

Jeremy Parker Pecora John R. Pedrick Daniel Berenson Perry Richard N. Piazza Susan R. Pino Matthew D. Piser Peter Victor Polanskyj Junhua (Blanca) Qin Laura Ann Rapacz Eric W.L. Ratti Andrew Scott Ribaudo Robert C. Roddy Beatrice T. Rodgers Peter A. Royek Eric Ruppert Kelly Ann Salmon Mitra Sanandajifar Thomas E. Schadler Michael J. Scholl Andrew K. Schueler Ronald J. Schuler Genine Darrough Schwartz Steven George Searle Stephen Ray Segroves Ahmad Shadman Mark R. Shapland Steven A. Skov Robert K. Smith Gina L.B. Smith Scott G. Sobel David Spiegler David Chan Stanek James P. Streff Thomas Struppeck Zhongmei Su Brian Tohru Suzuki Chester John Szczepanski Megan Elizabeth Taylor Robert M. Thomas Gordon C. Thompson Melissa Tomita Michael L. Toothman Jennifer M. Tornquist Ethan Kenneth Triplett Kai Lee Tse Jerome E. Tuttle Matthew L. Uhoda Steven J. Vercellini Brian A. Viscusi Cameron J. Vogt Clinton Garret Walden Benjamin J. Walker Robert J. Walling Lisa Walsh Xuelian Wan Rina Meng-Jie Wang Huinian Wang Gabriel Matthew Ware Monty James Washburn

Elizabeth A. Wellington Jo Dee Westbrook Christopher John Westermeyer Steven B. White Charles Scott White Peter G. Wick John Spencer Wideman Brant Wipperman Trevar K. Withers David R. Wolf Xi Wu Ka Chun Yeung Jeanne Lee Ying Iva Yuan Bin Yuan Navid Zarinejad Wei Zhao Haixia Zhao Jun Zheng Yu Zhou Xi Zhu John D. Zicarelli David E. Zurndorfer

Bob Searson, Staff Liaison

#### COMMITTEE ON VOLUNTEER RESOURCES

The Committee on Volunteer Resources is responsible for reviewing volunteer involvement in the CAS and recommending ways to increase volunteer involvement and improve member satisfaction with CAS methods for utilizing volunteers.

Nancy A. Braithwaite, Chairperson

Paul D. Anderson Ann M. Conway Andrew J. Doll Scott J. Lefkowitz Roosevelt C. Mosley John Pierce Robert J. Schutte Caitlin E. Tatarzyn Denny Tei Tuan Kathryn Ann Walker

Matthew Caruso, Staff Liaison

#### LIAISON REPRESENTATIVES

#### American Risk and Insurance Association (ARIA)

Albert J. Beer

#### **International Association of Black Actuaries (IABA)**

Sharon Robinson

#### **Mathematical Association of America (MAA)**

Clifford A. Pence

# American Institute for Chartered Property Casualty Underwriters (AICPCU) and Society of CPCU

Cynthia Ziegler

### PROFESSIONAL EDUCATION COMMITTEES, TASK FORCES, AND LIAISONS

# JOINT CAS/SOA COMMITTEE FOR THE ENTERPRISE RISK MANAGEMENT SYMPOSIUM

The joint program committee of the CAS and the SOA is charged with sponsoring and conducting a symposium on enterprise risk management (ERM) issues. The Professional Risk Management International Association (PRMIA) and Canadian Institute of Actuaries are additional program sponsors. By providing extensive opportunities for interaction with faculty and peers, this symposium is ideal for learning more about current emerging risk management trends and practices, as well as keeping up to speed with the latest ERM developments.

Rebecca Scotchie, *Chairperson* Robert F. Wolf, *Vice Chairperson* 

Mark C. Abbott Eugene C. Connell Timur Gok Kathryn A. Hyland Jed Nathaniel Isaman

Colin Lawrence Robert M. Mark Irma Medina Lopez Shannon Mary Edith Patershuk Lori Ramos-Marilla Mark J. Scanlon Sim Segal Alexander Shipilov Thomas Emil Wendling

Ryan Smith, Staff Liaison

#### JOINT PROGRAM COMMITTEE FOR CLRS SEMINAR

The Joint Program Committee for the Casualty Loss Reserve Seminar is a joint Casualty Actuarial Society/American Academy of Actuaries Committee that is responsible for developing a program for the annual Casualty Loss Reserve Seminar.

Weng Kah Leong, *Chairperson*Justin J. Brenden, *Vice Chairperson*Margaret Wendy Germani, *Vice Chairperson* 

Scott C. Anderson
Jennifer A. Andrzejewski
Michael E. Angelina
Nancy L. Arico
Peter T. Bothwell
Anthony R. Bustillo
Xiaobin Cao
Xiangyu Cheng
Michael A. Coca
Charles F. Cook
Rachel C. Dolsky

Steven J. Groeschen Lise A. Hasegawa Patrick A. Hayden Michael A. Henk Daniel Patrick Jaeger Yi Jing Deborah M. King Scott J. Lefkowitz Yun Li Mark W. Littmann Paul David Miotke David F. Mohrman
Peter S. Rauner
Ahmad Shadman
Avivya Simon Stohl
Edward C. Stone
Peter Tomopoulos
Mary K. Woodson
Wei Xie
Vincent F. Yezzi
Joshua A. Youdovin

Kathleen R. Dean, *Staff Liaison* Vincent L Edwards, *Staff Liaison* 

#### IN FOCUS SEMINAR PLANNING COMMITTEE

This In Focus Seminar Planning Committee is responsible for developing the program for two-day seminars on topics of current interest. Past seminars addressed subjects such as managing catastrophe risk, pricing and underwriting, government in insurance, the underwriting cycle, predictive modeling, environmental and catastrophe risk, emerging technologies, medical cost containment, valuation, profitability and rate of return methodologies, and international issues.

Xiao-shu Su, Chairperson

Katharine Barnes Stephen L. Kolk Thomas V. Le Mathieu Picard Klayton N. Southwood

David Core, *Staff Liaison* Leanne Wieczorek, *Staff Liaison* 

#### ONLINE EDUCATION TASK FORCE

The Online Education Task Force, reporting to the Professional Education Policy Committee, is to select the audience or audience(s) (e.g. members, candidates, students, international) that would be targeted for new, customized online education courses and to list and prioritize the subjects to be covered in the initial offering of courses in early 2013. These new engaging, interactive online courses will address certain education gaps in basic and/or continuing education. The new courses will be offered through a new, CAS-branded online education portal that would include the current capabilities of UCAS and yet allow for greater interaction and engagement of the learner. The particular courses would be custom-developed for our audiences. Each online session would be between 60 and 90 minutes each. These new online courses would not supplant existing delivery mechanisms, such as webinars, recorded sessions and face-to-face learning.

David L. Ruhm, Chairperson

Roger M. Hayne Christopher M. Holt Therese A. Klodnicki Kristine Kuzora Mary Frances Miller David J. Oakden Ezra Jonathan Robison Jo Dee Westbrook

David Core, Staff Liaison

#### PROFESSIONAL EDUCATION POLICY COMMITTEE

The Professional Education Policy Committee endeavors to broaden the knowledge of the Casualty Actuarial Society membership in all areas of actuarial and related fields. The committee surveys the Society membership regarding its interests; works with the Program Planning Committee and other committees in planning topics for CAS meetings, special interest seminars, and limited attendance seminars; develops alternative continuing education vehicles; stimulates authorship of specified continuing education topics; and evaluates continuing education requirements.

Klayton Southwood, *Chairperson* Susan R. Pino, *Vice Chairperson* Christopher Tait, *Vice Chairperson* 

Carl Xavier Ashenbrenner Abbe Sohne Bensimon Kevin M. Dyke Joshua L. Fishman Susan J. Forray Eric J. Hornick Mary T. Hosford Weng Kah Leong Yvonne Naa Korkor Palm Igor Pogrebinsky Pamela Sealand Reale Delia E. Roberts Ezra Jonathan Robison Kevin D. Roll David L. Ruhm Xiao-shu Su Chad C. Wischmeyer

David Core, *Staff Liaison*Kathleen Dean, *Staff Liaison*Vincent Edwards, *Staff Liaison*Leanne Wieczorek, *Staff Liaison* 

#### COMMITTEE ON PROFESSIONALISM EDUCATION

It is the mission of the Committee on Professionalism Education to provide the CAS and appropriate Canadian Institute of Actuaries (CIA) membership with the professionalism education needed to meet applicable qualification standards and membership requirements.

In this capacity, members of the committee endeavor to conduct the Casualty Actuarial Society Course on Professionalism so that potential new members satisfy the applicable membership requirements as well as understand the ramifications of acceptance into a professional actuarial organization.

In addition, the members of the committee work with the American Academy of Actuaries and CIA in the development of qualification standards that have an impact on and apply to casualty actuaries. The members of the committee support these qualification standards through creation and sponsorship of appropriate educational opportunities for the membership.

Chad Wischmeyer, *Chairperson*Therese Klodnicki, *Vice Chairperson*Dorothy Lentz Magnuson, *Vice Chairperson* 

Elizabeth Cohen Bart
Esther Becker
Matthew R. Carrier
Michael Keryu Chen
Charles F. Cook
Robin Davis
Brian M. Donlan
Kevin M. Dyke
Kyle A. Falconbury
Tricia D. Floyd
Jacqueline Frank Friedland
Patrick John Gilhool

John T. Gleba Amy Beth Green Ryan D. Hartman Anthony N. Katz David M. Kaye Anand Khare Emilee J. Kuhn ZhenZhen (Jenny) Lai Martin Menard Melinda H. Oosten Melanie Ostiguy Fanny C. Paz-Prizant Martin M. Simons Michael William Starke Mindy M. Steichen Dan Omer Tevet Jennifer S. Vincent John E. Wade Kathryn Ann Walker Kimberley A. Ward Kendall P. Williams Rebecca R. Williams David S. Wolfe

Leanne Wieczorek, Staff Liaison

#### PROGRAM PLANNING COMMITTEE

The Program Planning Committee is responsible for the actuarial content of Society meetings, identifying and securing the services of faculty and speakers for the various segments of programs, and obtaining feedback from attendees on the effectiveness of various aspects of programs. The committee is also responsible for overseeing the coordination of all physical arrangements with hotels, resorts, conference centers, tour operations, etc., needed to house and accommodate the various functions at Society meetings.

Carl Xavier Ashenbrenner, *Chairperson*Linda K. Brobeck, *Vice Chairperson*Gregory L. Cote, *Vice Chairperson* 

Aadil A. Ahmad Benoit Carrier Bethany L. Cass A. David Cummings William Allen Hossom Xiang Ji Martin T. King Melody Ko Lin Roosevelt C. Mosley Daniel M. Murphy Samuel K. Nolley Beverly L. Phillips Sandra C. Santomenno Annmarie Schuster David C. Snow Simon Kai-Yip Wong Vincent F. Yezzi Raisa Zarkhin

David Core, *Staff Liaison* Kathleen R. Dean, *Staff Liaison* 

# RATEMAKING AND PRODUCT MANAGEMENT SEMINAR PLANNING COMMITTEE

The Ratemaking and Product Management Seminar Planning Committee is responsible for developing a program for the annual RPM Seminar.

Mary Hosford, *Chairperson* Kelly McKeethan, *Vice Chairperson* Shantelle Thomas, *Vice Chairperson* 

Kelleen D. Arquette John L. Baldan Robert J. Curry Thomas Gerald Hess Mark R. Hoffmann Joyce Lee Ronald S. Lettofsky Millie Man Sum Lo Melanie Ostiguy Jay Andrew Rosen Sheri Lee Scott Gary C. Wang Robert F. Wolf Cheng-Sheng Peter Wu

Vincent L Edwards, *Staff Liaison* Leanne Wieczorek, *Staff Liaison* 

#### JOINT PROGRAM COMMITTEE FOR REINSURANCE SEMINARS

The Joint Program Committee for Reinsurance Seminars is a joint Casualty Actuaries in Reinsurance (CARe)/CAS Committee that is responsible for continuing education seminars on the subject of property and casualty reinsurance. These seminars include, but are not limited to, the annual CARe/CAS Reinsurance Seminar and limited attendance seminars providing in-depth reviews of reinsurance topics.

#### Joshua L. Fishman, Chairperson

Raju Bohra, Vice Chairperson

Athula Alwis Timothy Paul Aman Michael E. Angelina Kimberly M. Barnett Barry E. Blodgett John W. Buchanan Elliot R. Burn Bruce D. Fell Robert L. Harnatkiewicz Sarah Krutov Jennifer Middough Ronald Taylor Nelson Matt J. Schmitt Bret Charles Shroyer Marina Vaninsky HongTao (Heidi) Wang Steven B. White Peter W. Wildman

Vincent L. Edwards, *Staff Liaison* Leanne Wieczorek, *Staff Liaison* 

#### WEBINAR COMMITTEE

The Webinar Committee develops educational webinars for CAS members and other insurance organizations that would benefit from education on various actuarial topics. The committee establishes the topics, recruits speakers/presenters for the webinars, and works with the CAS office to advertise the webinars to the appropriate audiences. Committee members also review attendee feedback to further enhance future offerings.

Ezra Jonathan Robison, *Chairperson*Pamela Sealand Reale, *Vice Chairperson* 

Elaine K. Brunner Ruchama Graff Christina Link Gwilliam Laura A. Maxwell Qing Janet Wang

Vincent L. Edwards, *Staff Liaison* Leanne Wieczorek, *Staff Liaison* 

#### LIAISON REPRESENTATIVE

#### Liaison to AAA Council on Professionalism

John T. Gleba

#### Liaison to the Conference of Consulting Actuaries' VP of Continuing Education

The liaison represents the CAS continuing education interests to the Conference of Consulting Actuaries' Vice President of Continuing Education. Eric J. Hornick, Liaison

#### **Representative Joint Committee Code Professionalism Conduct**

Michael Fusco

# RESEARCH AND DEVELOPMENT COMMITTEES, TASK FORCES, AND WORKING PARTIES

#### **ACCOUNTING CHANGES COMMITTEE**

The CAS Accounting Changes Committee is tasked to address the ongoing changes to the proposed International and US accounting standards for insurance, provide feedback to the Academy as it prepares its formal comments, and educate CAS members on these changes.

Steven M. Visner, *Chairperson* Orin M. Linden, *Vice Chairperson* 

Jacqueline Frank Friedland Gareth L. Kennedy Gary I. Koupf Robert S. Miccolis Chris E. Nelson Marc F. Oberholtzer Nicholas H. Pastor Parr T. Schoolman Vladimir Shander Kun Zhang John D. Zicarelli

Karen Sonnet, Staff Liaison

#### CLIMATE CHANGE COMMITTEE

The Climate Change Committee will recommend, support, and perform research on climate change and assess the potential risk management implications for the insurance industry.

#### Vijay Manghnani, Chairperson

Gwendolyn L. Anderson
John W. Buchanan
Alp Can
Yvonne W.Y. Cheng
Douglas J. Collins
Margaret E. Conroy
Les Dandridge
Brian S. Donovan
Howard M. Eagelfeld
Peter Eben
Yao-Chuen Fang

Tanya D. Havlicek
Kathryn Enochs Herzog
Amanda Kisala
Stephen L. Kolk
Stuart Leckie
Caterina Nicolina Lindman
Trevor Maynard
John C. Neal
Jason Pessel
John P. Richardson
Thomas A. Ryan

Michael P. Speedling Laura A. Stevens Ronora E. Stryker Thomas C. Toce Kanika Vats Betty-Jo Walke Tracey Zalk Dolph Emery Zielinski Rita M. Zona

Katharine Hayhoe, *Science Advisor* Evan Mills. *Science Advisor* 

Cheri Widowski, Staff Liaison

#### ACTUARIAL CLIMATE VOLATILITY INDEX SUBCOMMITTEE

Caterina Nicolina Lindman, Chairperson

Douglas J. Collins
Margaret E. Conroy
Les Dandridge
Frank Martin Grossman
Tanya D. Havlicek
Amanda Kisala
Stephen L. Kolk
Stuart Leckie
Vijay Manghnani
Stuart B. Mathewson
John C. Neal
Jason Pessel

Michael P. Speedling Tom Strickland

Ronora E. Stryker

Thomas N. Taylor

Kanika Vats Remi Villeneuve

Keiiii viiielieuve

Cheri Widowski, Staff Liaison

#### COMMITTEE ON DYNAMIC RISK MODELING

The Committee on Dynamic Risk Modeling will facilitate research and provide direction, guidance, and support to the profession, regulators, and others regarding dynamic modeling of property/casualty risks. The committee is also responsible for monitoring and coordinating activities with other organizations or CAS committees working in the areas related to property/casualty dynamic risk modeling. The committee also expects to support and enhance the Enterprise Risk Management process by researching and developing risk modeling tools and concepts for the practicing ERM professional.

#### Christopher Diamantoukos, Chairperson

Jason Edward Abril
Fernando Alberto Alvarado
Yanfei Z. Atwell
Rachel Radoff Bardon
Steven L. Berman
Morgan Haire Bugbee
Alp Can
Chuan Cao
Patrick J. Crowe
Charles C. Emma

Sholom Feldblum
Stephen A. Finch
Robert Jerome Foskey
Bo Huang
Ziyi Jiao
Steven M. Lacke
Zhe Robin Li
Christopher J. Luker
Xiaoyan Ma
Joseph O. Marker

John A. Pagliaccio Alan M. Pakula Ying Pan Theodore R. Shalack Min Wang Wei Xie Huiyu Zhang Kun Zhang

Karen Sonnet, Staff Liaison

#### HACHEMEISTER AND MICHELBACHER PRIZES COMMITTEE

The committee's purpose is to administer the awarding of the Hachemeister Prize and Michelbacher Prize. The evaluation of eligible papers for the Hachemeister Prize will take place predominately during the second quarter of each year. Eligible papers are those published in the ASTIN bulletin or presented as part of the ASTIN Colloquium in the prior calendar year, with additional criteria as posted on the CAS website. The committee strives to achieve a broad geographic mix for its committee members, consistent with the international focus of ASTIN.

The Michelbacher Prize is an award for significant achievement that has fundamentally advanced casualty actuarial science, to be administered by this committee. Selection of recipients could be based on a single contribution or a lifetime body of work at the committee's discretion; the award could be shared by two or more professionals if appropriate.

Christopher J. Monsour, Chairperson

Benjamin Avanzi Lisa A. Brown Kamil K. Jasinski Stephen J. Mildenhall Tatjana Miljkovic Roosevelt C. Mosley John C. Narvell Charles P. Neeson Eva M. Paxhia Klaus D Schmidt Debbie Schwab David B. Sommer Michael L. Toothman Kanika Vats

Karen Sonnet, Staff Liaison

#### COMMITTEE ON HEALTH CARE ISSUES

The Committee on Health Care Issues addresses actuarial issues related to property and casualty implications of health care. The committee's charge includes furthering the development and dissemination of research and information regarding health care as they pertain to property and casualty issues; identifying topics for research and discussion; monitoring professional developments and legislative/regulatory activities; and working with continuing education and program committees in sponsoring panels, seminars, and other public forums on health care issues.

Stephen R. DiCenso, *Chairperson*Anne Marlene Petrides, *Vice Chairperson* 

Edward G. Bradford Kevin M. Dyke Manalur S. Sandilya Anthony R. Bustillo Derek A. Jones Debbie Schwab Christian J. Coleianne Glen Alan Leibowitz Clista E. Sheker Michael L. DeMattei David M. Patterson Alfred O. Weller

Cheri Widowski, Staff Liaison

#### COMMITTEE ON MANAGEMENT DATA AND INFORMATION

The Committee on Management Data and Information addresses actuarial issues of property and casualty insurance data and information systems. The committee's charge includes furthering the development and dissemination of data management theory and principles; identifying topics for research and discussion; monitoring professional developments and regulatory activities; establishing liaisons with other organizations working in this area; and sponsoring panels, seminars, and other public forums on data management issues.

#### Peter T. Bothwell, Chairperson

Jeremy Todd Benson Yunhsia B. Liu Ying Pan Kirk Allen Conrad Peter A. McNamara Moshe C. Pascher Benedict M. Escoto Charles P. Neeson Richard H. Seward Raymond S. Nichols Peter Tomopoulos Dennis Dar You Huang Mary Jo Kannon James L. Norris Linda M. Waite Ravi Kumar Thomas A. Nowak Dominique Howard Yarnell Shan Lin Rudy A. Palenik

Cheri Widowski, Staff Liaison

#### **OPEN-SOURCE SOFTWARE COMMITTEE**

The purpose of the Open-Source Software Committee is to make advanced open-source reserving, ratemaking and predictive modeling procedures available, accessible and of practical value to a wider audience. The Open-Source Software Research Committee will foster the development of tutorials, interfaces, procedures, and educational resources, and will liaise with the Professional Education committees to disseminate information to CAS members. The committee's Wiki with their research on R can be found here: http://opensourcesoftware.casact.org/start.

Lee M. Bowron, *Chairperson*Benedict M. Escoto, *Vice Chairperson* 

Avraham Adler Steven J. Groeschen Peter A. McNamara Robert A. Bear Iames C. Guszcza Todd C. Meier Steven L. Berman Christopher Ross Heim Peter James Mulquiney John T. Bonsignore Greg Jaynes Daniel M. Murphy Hou-wen Jeng Kevin Scot Burke Ying Pan Alan Chalk Adam Lee Rich Ravi Kumar Hungchi Andy Chang Frederick Douglas Ryan Todd W. Lehmann Donald L. Closter Kirsten M. Singer Yun Li Francis L. Decker Scott G. Sobel Yali Li Brian A. Fannin Stephen L. Lienhard Joshua Adam Taub Sholom Feldblum Austin R. Wellesley Shan Lin Matthew J. Flynn Sean M. McAllister Hai You Edward W. Frees Rasa Varanka McKean Yi Zhang

Karen Sonnet, Staff Liaison

#### COMMITTEE ON RATEMAKING

The Committee on Ratemaking addresses actuarial issues of property and casualty insurance ratemaking including risk classification. The committee's charge includes furthering the development and dissemination of ratemaking theory and principles; identifying topics for research and discussion; monitoring professional developments and regulatory activities; and sponsoring panels, seminars, and other public forums on ratemaking issues.

#### Benjamin R. Newton, Chairperson

John L. Baldan LeRoy A. Boison Morgan Haire Bugbee Sandra J. Callanan William M. Carpenter Sa Chen Donald L. Closter Christopher L. Cooksey John S. Ewert John L. Baldan
Greg Frankowiak
Serhat Guven
Dennis L. Lange
Pierre Lepage
Lu Li
Yuan-Chen Liao
Shan Lin
Robert W. Matthews
Dennis T. McNeese

Gregory F. McNulty Joseph M. Palmer Jane C. Taylor Zheng Yu Wang Chad P. Wilson Yan (Peter) Yan Ronald Joseph Zaleski Lingang Zhang

Karen Sonnet, Staff Liaison

#### COMMITTEE ON REINSURANCE RESEARCH

The Reinsurance Research Committee addresses actuarial issues related to property and casualty ceded and assumed reinsurance. The committee's charge includes furthering the development and dissemination of actuarial practice, theory, and principles of reinsurance; identifying topics for research and discussion; monitoring professional developments and regulatory activities; establishing liaisons with other organizations working in this area; and sponsoring panels, seminars, and other public forums on reinsurance issues.

#### Mario E. DiCaro, Chairperson

Gary Blumsohn
Nebojsa Bojer
Michael A. Coca
Kirk Allen Conrad
Richard Jason Cook
Robert A. Giambo
Lilian Y. Giraldo
Evan W Glisson
Leigh Joseph Halliwell
Wei Juan Han
Robert L. Harnatkiewicz
James Anthony Heer
David L. Homer
Amanda Kisala

Richard Scott Krivo
Alex Krutov
Francois Lacroix
Apundeep Singh Lamba
Michael L. Laufer
Nicholas M. Leccese
Charles Letourneau
Li Ling Lin
Mundia Mubyana
Marc Lawrence Nerenberg
Raymond S. Nichols
James L. Norris
Gerard J. Palisi
Tracie L. Pencak

Anthony J. Pipia
John Bradley Raatz
Jaishan Rajendra
Nanxia Rao
Brett M. Shereck
Joel A. Vaag
Paul A. Vendetti
Ping Wang
Dominique Howard Yarnell
Ka Chun Yeung
Arthur J. Zaremba
Kan Zhong

Cheri Widowski, Staff Liaison

#### RESEARCH GRANTS TASK FORCE

The Research Grants Task Force is charged with reviewing letters of intent and grant proposals submitted to the annual Individual Grants Competition to determine CAS interest in the research projects. The Task Force makes recommendations to the CAS Vice President-Research and Development as to which (if any) of the proposals the CAS may be interested in funding.

Donald L. Closter, Chairperson

Kevin M. Cleary Li Hwan Hwang Rudy A. Palenik Aleksey Popelyukhin Yao Wang

David Core, Staff Liaison

#### RESEARCH OVERSIGHT COMMITTEE

The Research Oversight Committee coordinates the activities of the various research committees, working parties, and task forces. This includes assisting with the prioritization of research projects, reviewing the staffing of committees, and monitoring the activities of each committee, working party, and task force. The Research Oversight Committee also develops general research policies and goals for approval by the CAS Executive Council and Board of Directors.

Alice M. Underwood, Chairperson

Lynne M. Bloom
Peter T. Bothwell
Lee M. Bowron
Edward G. Bradford
Donald L. Closter
Christopher Diamantoukos
Mario E. DiCaro

Stephen R. DiCenso Sholom Feldblum Christopher Gerald Gross Sam Gutterman Steven C. Herman Allan M. Kaufman Vijay Manghnani

Rasa Varanka McKean Christopher J. Monsour Benjamin R. Newton Mark R. Shapland Steven M. Visner

David Core, *Staff Liaison* Karen Sonnet, *Staff Liaison* Cheri Widowski, *Staff Liaison* 

#### COMMITTEE ON RESERVES

The Committee on Reserves addresses actuarial issues related to reserves associated with property and casualty exposures including loss and loss adjustment expense reserves, premium reserves and other contingent reserves. The committee's charge includes furthering the development and dissemination of reserving theory, principles and practices; identifying reserving topics for research and discussion; and monitoring professional development and regulatory activities. The committee strives to maintain a balanced and diverse membership in terms of geography, employment (insurer/consultant/regulator), and background (personal/commercial/reinsurance) with significant and current reserving experience being a pre-requisite for membership.

Lynne M. Bloom, Chairperson

John P. Alltop Denise M. Ambrogio Bradley J. Andrekus Nancy L. Arico Alp Can Andrew Martin Chandler Susan J. Forray Ziyi Jiao Dana F. Joseph James B. Kahn Steven P. Lafser Weng Kah Leong Jeffrey H. Mayer Peter A. McNamara Ion W. Michelson Marc B. Pearl Christopher James Platania Michael J. Reynolds Ryan P. Royce Vladimir Shander Ernest I. Wilson Jennifer X. Wu Xi Wu

Cheri Widowski, Staff Liaison

Yi-Chuang (Sylvia) Yang

Jianlu Xu

#### COMMITTEE ON THEORY OF RISK

The Committee on the Theory of Risk (COTOR) is charged: To propose, encourage, and monitor research and other projects concerning the actuarial and financial evaluation of risk in insurance contracts and operations in support of the CAS Centennial goals.

#### Edward G. Bradford, Chairperson

David Appel
Yanfei Z. Atwell
Todd R. Bault
Anthony O'Boyle Beirne
Patrick L. Brockett
Alp Can
Alietia K. Caughron
Joseph F. Cofield
Richard A. Derrig
Marc-Andre Desrosiers
Robert G. Downs
Sholom Feldblum
James R. Garven

Richard S. Goldfarb Guo Harrison Philip E. Heckman Daniel D. Heyer Wang Yang Hu Zhigang Kevin Huang Alexander Kozmin Atul Malhotra Stephen J. Mildenhall Prakash Narayan William H. Panning Edward F. Peck Anthony J. Pipia Gregory S. Richardson Frederick Douglas Ryan James Charles Sandor Shayan Sen Richard H. Seward Paul Silberbush Thomas Struppeck Adam James Troyer Oakley E. Van Slyke Allan S. Voltz Ruth Ward Run Yan Yingjie Zhang

Karen Sonnet, Staff Liaison

#### COMMITTEE ON VALUATION, FINANCE, AND INVESTMENTS

The Valuation, Finance, and Investments Committee is charged with providing direction, guidance, and support to the profession, regulators, and others regarding valuation and financing of property and casualty risks and investments. The committee is also responsible for monitoring and coordinating activities with other organizations or CAS committees working in areas related to property and casualty valuation, finance, and investments.

Rasa Varanka McKean, *Chairperson* Christopher Gerald Gross, *Vice Chairperson* 

Michael J. Belfatti Edward G. Bradford Robin Davis Denis G. Guenthner Alexander Kozmin James M. Maher Lawrence F. Marcus David A. Rosenzweig David L. Ruhm Jason L. Russ Michael C. Schmitz HongTao (Heidi) Wang Yuanhe (Edward) Yao

David Core, Staff Liaison

#### WORKING PARTY ON BORNHUETTER-FERGUSON-INITIAL EXPECTED LOSSES

The goal of this working party is to produce a paper regarding the initial expected loss assumption in the Bornhuetter-Ferguson reserving method. The working party is not expected to engage in primary research, but instead will leverage initial expected loss approaches already in use. With many competent actuaries using the Bornhuetter-Ferguson method, there are probably many very good initial expected loss approaches already in use, but not documented.

Lynne M. Bloom, Chairperson

Nancy L. Arico Aaron Nicholas Hillebrandt Bertram A. Horowitz Ziyi Jiao Douglas Robert Nation Michael J. Reynolds Xi Wu

Karen Sonnet, Staff Liaison

#### ECONOMIC CAPITAL MODEL WORKING PARTY

The Economic Capital Model Working Party is charged with developing a stochastic, principles-based economic capital model that meets Solvency II objectives and can be used by insurers, rating agencies, and regulators for solvency monitoring. The Working Party is also preparing a white paper and presentation for insurers, rating agencies, and regulators to explain how to apply such a stochastic model. This paper will provide input to the American Academy of Actuaries, which in turn will provide input to the NAIC.

Sholom Feldblum, *Co-Chairperson* Sam Gutterman, *Co-Chairperson* 

Fernando Alberto Alvarado Rachel Radoff Bardon Robert P. Butsic Terri J. Dalenta Ian Hinder Zhongmei Su Susan E. Witcraft

Karen Sonnet, Staff Liaison

#### LOW INTEREST RATE ENVIRONMENT WORKING PARTY

The Low Interest Rate Environment Working Party is exploring issues related to the new environment of historically low levels of current interest rates with the purpose of uncovering and communicating potential problems before they occur. There are challenges posed to the property casualty industry from this new environment, both with regard to income statements – reduced investment income if rates stay low, as well as with the strength of balance sheets – market value of fixed income assets will drop if rates return to more normal levels. This Working Party is addressing questions related to insurance pricing policy, investment strategy, risks to solvency, use of debt, and long-term impacts, among other issues.

Christopher Gerald Gross, Chairperson

Jonathan L. Ankney Waswate Ayana Etai Barach Sandra J. Callanan Kenneth J. Eiger Eric J. Gesick Denis G. Guenthner Dave Kunka James M. Maher William H. Panning Leonid Rasin Lu Sun Gayna Swart Samantha M. Taylor Susan E. Witcraft Jianwei Xie

Karen Sonnet, Staff Liaison

#### RISK-BASED CAPITAL DEPENDENCIES AND CALIBRATION WORKING PARTY

The RBC Dependencies and Calibration Working Party will be researching how to handle dependencies and correlations in the NAIC P&C RBC formula, including the extent to which risk diversification should be reflected in the P&C formula.

#### Allan M. Kaufman, Chairperson

Karen H. Adams Emmanuel Theodore Bardis Jess B. Broussard Robert P. Butsic Pablo Castets Joseph F. Cofield Jose R. Couret Orla Donnelly Chris Dougherty Nicole Elliott Brian A. Fannin Sholom Feldblum Kendra M. Felisky Dennis A. Franciskovich Spencer M. Gluck James C. Guszcza

Robert Haimov Jed Nathaniel Isaman Shira L. Jacobson Shiwen Jiang Alex Krutov Terry T. Kuruvilla Apundeep Singh Lamba Giuseppe F. LePera Zhe Robin Li Lily (Manjuan) Liang Thomas Toong-Chiang Loy Eduardo P. Marchena Mark McCluskey James P. McNichols Glenn G. Meyers Daniel M. Murphy

Douglas Robert Nation
G. Chris Nyce
Jeffrey J. Pfluger
Yi Pu
Ashley Arlene Reller
David A. Rosenzweig
David L. Ruhm
Andrew Jon Staudt
Timothy Delmar Sweetser
Anna Marie Wetterhus
Jennifer X. Wu
Jianwei Xie
Ji Yao
Linda Zhang
Christina Tieyan Zhou

Karen Sonnet, Staff Liaison

#### TAIL FACTORS WORKING PARTY

Tail factors are widely used, have a huge impact on results, and yet there is minimal literature on the subject. The product of this working party will be a paper that will survey existing literature and then identify additional methods in use. The objective is both to educate students and to help practitioners.

Nancy L. Arico, *Chairperson*Steven C. Herman, *Co-Chairperson* 

Mohammed Q. Ashab Joseph A. Boor Anthony R. Bustillo David Alan Clark

Robert Jerome Foskey

Sejal Haria

Bertram A. Horowitz

Gloria A. Huberman

Richard Kollmar

Rasa Varanka McKean

David F. Mohrman

Michael R. Murray

Bernard A. Pelletier

Anthony J. Pipia

Frederick Douglas Ryan

Scott G. Sobel

Karen Sonnet, Staff Liaison

#### LIAISON REPRESENTATIVES

#### Liaison Representative to Actuarial Studies In Non-life insurance (ASTIN)

Louise A. Francis

Liaison Representative to the Society of Actuaries' (SOA) Committee on Knowledge Extension Research

Richard W. Gorvett

# OFFICERS OF THE SOCIETY SINCE ORGANIZATION

## PRESIDENTS AND VICE PRESIDENTS

YEAR	PRESIDENT	VICE PRESIDEN	JTS
1914–'15	*Isaac M. Rubinow	*Albert H. Mowbray	*Benedict D. Flynn
1916–'17	*James D. Craig	*Joseph H. Woodward	*Harwood E. Ryan
1918	*Joseph H. Woodward	*Benedict D. Flynn	*George D. Moore
1919	*Benedict D. Flynn	*George D. Moore	*William Leslie
1920	*Albert H. Mowbray	*William Leslie	*Leon S. Senior
1921	*Albert H. Mowbray	*Leon S. Senior	*Harwood E. Ryan
1922	*Harwood E. Ryan	*Gustav F. Michelbacher	*Edmund E. Cammack
1923	*William Leslie	*Gustav F. Michelbacher	*Edmund E. Cammack
1924-'25	*Gustav F. Michelbacher	*Sanford B. Perkins	*Ralph H. Blanchard
1926-'27	*Sanford B. Perkins	*George D. Moore	*Thomas R. Tarbell
1928-'29	*George D. Moore	*Sydney D. Pinney	*Paul Dorweiler
1930-'31	*Thomas F. Tarbell	*Roy A. Wheeler	*Winfield W. Greene
1932-'33	*Paul Dorweiler	*William F. Roeber	*Leon S. Senior
1934-'35	*Winfield W. Greene	*Ralph H. Blanchard	*Charles J. Haugh
1936-'37	*Leon S. Senior	*Sidney D. Pinney	*Francis S. Perryman
1938-'39	*Francis S. Perryman	*Harmon T. Barber	*William J. Constable
1940	*Sidney D. Pinney	*Harold J. Ginsburgh	*James M. Cahill
1941	*Ralph H. Blanchard	*Harold J. Ginsburgh	*James M. Cahill
1942	*Ralph H. Blanchard	*Albert Z. Skelding	*Charles J. Haugh
1943-'44	*Harold J. Ginsburgh	*Albert Z. Skelding	*Charles J. Haugh
1945-'46	*Charles J. Haugh	*James M. Cahill	*Harry V. Williams
1947-'48	*James M. Cahill	*Harmon T. Barber	*Russell P. Goddard
1949-'50	*Harmon T. Barber	*Thomas O. Carlson	*Norton E. Masterson
1951-'52	*Thomas O. Carlson	*Joseph Linder	*Seymour E. Smith
1953-'54	*Seymour E. Smith	*Dudley M. Pruitt	*John A. Mills
1955-'56	*Norton E. Masterson	*Clarence A. Kulp	*Arthur N. Matthews
1957-'58	*Dudley M. Pruitt	*John W. Carleton	*William Leslie Jr.
1959-'60	*William Leslie Jr.	*Ernest T. Berkeley	*L.H. Longley-Cook
1961-'62	*L.H. Longley-Cook	*Thomas E. Murrin	*Richard J. Wolfrum
1963-'64	*Thomas E. Murrin	*Harold E. Curry	*William J. Hazam
1965-'66	*Harold E. Curry	Charles C. Hewitt Jr.	*Harold W. Schloss
1967	*Harold W. Schloss	*William J. Hazam	*Daniel J. McNamara
1968	*William J. Hazam	*Richard L. Johe	*Daniel J. McNamara
1969	*Daniel J. McNamara	*Richard L. Johe	*LeRoy J. Simon
1970	*Richard L. Johe	Charles C. Hewitt Jr.	*LeRoy J. Simon
1971	*LeRoy J. Simon	Charles C. Hewitt Jr.	*Paul S. Liscord
1972	Charles C. Hewitt Jr.	*Paul S. Liscord	M. Stanley Hughey
1973	*Paul S. Liscord	M. Stanley Hughey	*Ronald L. Bornhuetter
1974	M. Stanley Hughey	*Ronald L. Bornhuetter	George D. Morison
1975	*Ronald L. Bornhuetter	George D. Morison	*P. Adger Williams
1976	George D. Morison	*P. Adger Williams	Ruth E. Salzmann
1977	*P. Adger Williams	Ruth E. Salzmann	W. James MacGinnitie
1978	Ruth E. Salzmann	W. James MacGinnitie	Jerome A. Scheibl
1979	W. James MacGinnitie	Jerome A. Scheibl	Steven H. Newman
1980	Jerome A. Scheibl	Steven H. Newman	Frederick W. Kilbourne
1981	Steven H. Newman	Frederick W. Kilbourne	Carlton W. Honebein
1982	Frederick W. Kilbourne	Carlton W. Honebein	C.K. Khury

### PRESIDENTS AND PRESIDENTS-ELECT

YEAR	PRESIDENT	PRESIDENT-ELECT
1983	Carlton W. Honebein	C.K. Khury
1984	C.K. Khury	Phillip N. Ben-Zvi
1985	Phillip N. Ben-Zvi	Michael A. Walters
1986	Michael A. Walters	David G. Hartman
1987	David G. Hartman	Kevin M. Ryan

<sup>\*</sup> Deceased

## PRESIDENTS AND PRESIDENTS-ELECT, CONT.

YEAR	PRESIDENT	PRESIDENT-ELECT
1988	Kevin M. Ryan	Michael Fusco
1989	Michael Fusco	Charles A. Bryan
1990	Charles A. Bryan	Michael L. Toothman
1991	Michael L. Toothman	David P. Flynn
1992	David P. Flynn	Irene K. Bass
1993	Irene K. Bass	Allan M. Kaufman
1994	Allan M. Kaufman	Albert J. Beer
1995	Albert J. Beer	Robert A. Anker
1996	Robert A. Anker	Mavis A. Walters
1997	Mavis A. Walters	Steven G. Lehmann
1998	Steven G. Lehmann	Alice H. Gannon
1999	Alice H. Gannon	Patrick J. Grannan
2000	Patrick J. Grannan	Robert F. Conger
2001	Robert F. Conger	Gail M. Ross
2002	Gail M. Ross	Mary Frances Miller
2003	Mary Frances Miller	Stephen P. D'Arcy
2004	Stephen P. D'Arcy	Paul Braithwaite
2005	Paul Braithwaite	Thomas G. Myers
2006	Thomas G. Myers	Christopher S. Carlson
2007	Christopher S. Carlson	John J. Kollar
2008	John J. Kollar	Roger M. Hayne
2009	Roger M. Hayne	Ralph S. Blanchard
2010	Ralph S. Blanchard	Patricia Teufel
2011	Patricia Teufel	Gary R. Josephson
2012	Gary R. Josephson	Wayne Fisher

## VICE PRESIDENTS

YEAR 1983-'85 1986-'88 YEAR 1983-'84 1986-'88 YEAR 1983-'84 1985-'87	VICE PRESIDENT-MEMBERSHIP Wayne H. Fisher Michael L. Toothman  VICE PRESIDENT-DEVELOPMENT Robert A. Anker David G. Hartman Charles A. Bryan  VICE PRESIDENT-PROGRAMS Michael A. Walters Michael Fusco	YEAR 1989 1990-'92 1993-'95 1996-'98 1999-'01 2002-'04 2005-'07 2008-'10 2011-	VICE PRESIDENT-ADMISSIONS Michael L. Toothman Steven G. Lehmann John J. Kollar Kevin B. Thompson Mary Frances Miller Thomas G. Myers James K. Christie David L. Menning Virginia R. Prevosto
1988	Richard I. Fein	YEAR	VICE PRESIDENT-CONTINUING EDUCATION
YEAR 1983-'84 1985-'87 1988-'90 1991-'93 1994-'96 1997-'99 2000-'02 2003-'05 2006-'08 2009-'11 2012-	VICE PRESIDENT-ADMINISTRATION *Herbert J. Phillips Richard H. Snader Robert F. Conger John M. Purple Paul Braithwaite Curtis Gary Dean Sheldon Rosenberg Deborah J. Rosenberg Kenneth Quintilian Leslie R. Marlo G. Chris Nyce	1989-'91 1992-'94 1995-'97 1998-'00 2001 YEAR 2002 2003-'05 2006-'08 2009-'11 2012-	Irene K. Bass David N. Hafling Susan T. Szkoda Abbe S. Bensimon Roger A. Schultz  VICE PRESIDENT-MARKETING & COMMUNICATION Roger A. Schultz Joanne S. Spalla Patricia A. Teufel Nancy A. Braithwaite Arlie Proctor

#### VICE PRESIDENTS, CONT.

VICE	PRESIDENTS, CONT.				
YEAR	VICE PRESIDENT-INTERNATIONAL		VICE PRESIDENT-RESEARCH &		
1999-'01	LeRoy A. Boison	DEVELOPMENT			
2002-'03	John C. Narvell	1989	Albert J. Beer		
2004-'06	Amy S. Bouska	1990-'92	Allan M. Kaufman		
2007-'08	Ralph S. Blanchard	1993-'95	Michael J. Miller		
2009-'11	Kris D. DeFrain	1996-'98	Robert S. Miccolis		
2012-	Robert F. Conger	1999-'01	Gary R. Josephson		
		2002-'04	Donald F. Mango		
YEAR	VICE PRESIDENT-PROGRAMS &	2005-'07	Roger M. Hayne		
1 12 111	COMMUNICATION	2008-'10	Louise A. Francis		
1989	Richard I. Fein	2011-	Alice M. Underwood		
1990-'91	Albert J. Beer				
1992-'94	Alice H. Gannon	YEAR	VICE PRESIDENT-ERM		
1995-'97	Patrick J. Grannan	2005-'06	John J. Kollar		
1998-'00	David R. Chernick	2007-'10	Kevin G. Dickson		
2001	Christopher S. Carlson	2011-	Barry A. Franklin		
	•		·		
YEAR	VICE PRESIDENT-PROFESSIONAL				
	EDUCATION				
2002-'03	Christopher S. Carlson				
2004-'05	Beth E. Fitzgerald				
2006-'08	Andrew E. Kudera				
2009-'11	Chester John Szczepanski				

#### OTHER OFFICERS

Mary D. Miller

2012-

OTH.	ER OFFICERS		
YEAR	SECRETARY-TREASURER	YEAR	LIBRARIAN
1914-'17	*Claude E. Scattergood	1914	*Winfield W. Greene
1918-'52	*Richard Fondiller	1915	*Richard Fondiller
1953-'68	*Albert Z. Skelding	1916-'21	*L. I. Dublin
1969-'71	*Ronald L. Bornhuetter	1922-'24	*Edward R. Hardy
1972-'73	*Robert B. Foster	1925-'36	*William Breiby
		1937-'47	*Thomas O. Carlson
YEAR	SECRETARY	1948-'50	*Samuel M. Ross
1974	*Robert B. Foster	1951-'57	*Gilbert R. Livingston
1975-'77	Darrell W. Ehlert	1958-'69	Richard Lino
1978-'80	David P. Flynn	1970	*William S. Gillam
1981-'82	Brian E. Scott		
TITLAT	TED ELA CLUB ED	YEAR	GENERAL CHAIRMAN EXAMINATION
YEAR	TREASURER		COMMITTEE
1974-'78	Walter J. Fitzgibbon Jr.	1949-'51	*Roger A. Johnson
1979-'81	Michael A. Walters	1952-'56	John W. Wieder Jr.
1982	*Herbert J. Phillips	1957-'61	*William J. Hazam
YEAR	EDITOR	1962-'68	*Norman J. Bennett
	*Winfield W. Greene	1969-'71	M. Stanley Hughey
1914		1972-'73	George D. Morison
1915-'17	*Richard Fondiller	1974-'76	Charles F. Cook
1918	*Winfield W. Greene	1977-'79	Jeffrey T. Lange
1919-'21	*Gustav F. Michelbacher	1980-'82	Phillip N. Ben-Zvi
1922-'23	*Olive E. Outwater		
1924-'32	*Robert J. McManus		
1933-'43	*Clarence W. Hobbs		
1944-'54	*Emma C. Maycrink		
1955-'58	*Edward S. Allen		
1959-'60	*Russell P. Goddard		
1961-'64	*Harold W. Schloss		
1965-'69	Matthew Rodermund		
1970-'74	*Luther L. Tarbell Jr.		
1975-'78	David C. Forker		
1979-'81	C. K. Khury		
1982	*E. Frederick Fossa		

## MEMBERSHIP STATISTICS

Membership, November 7, 2011	Fellows	Associates	Affiliates	Total
	3,873	1,576	21	5,470
Increased by:				
Reinstatement		2	1	3
Examination	33	184		217
Affiliate Application				0
Mutual Recognition	8			8
Decreased by:				
Death	(9)	(3)		(12)
Withdrawal	(23)	(12)		(35)
Transfer from Associate to Fellow	133	(133)	(1)	(1)
Membership, November 12, 2012	4,015	1,614	21	5,650

## ANALYSIS OF MEMBERSHIP BY EMPLOYMENT TYPE

	Fellows		Associates			Affiliates		
Type of Employment	Nov.	Nov.	Nov.	Nov.	Nov.	Nov.	Nov.	Nov.
	1992	2002	2012	1992	2002	2012	2002	2012
Insurance Company:								
Property/Liability	549	1,079	1771	414	629	675	8	5
Life and Accident & Health	12	11	76	12	24	28		1
Reinsurance*	93	329	428	55	136	118	6	2
Organizations Serving Insurance Business**	44	63	212	35	48	106		3
Consultants	266	433	637	159	206	253	7	4
Government	19	42	62	32	37	31		
Academic	4	7	17	9	2	7		1
Brokers and Agents*	16	55	79	17	54	41	1	
Other	22	193	492	33	119	246	1	4
Retired	96	142	241	50	78	109		1
Total	1,121	2,354	4,015	816	1,333	1,614	23	21

<sup>\*</sup> Category created in 1989

<sup>\*\*</sup> Formerly Bureaus and Associations

# MEMBERSHIP DIRECTORY ON THE CAS WEB SITE

Ithough it is no longer printed in the newly combined *Yearbook/Proceedings*, the CAS Membership Directory is available through the "Member Services" section of the CAS Web Site. The Membership Directory database can be searched on a number of criteria, including last name, designation, year designated, title, company name, city, state, country, or employment type. The search results provide the complete membership directory information for those members matching the search criteria, including pictures of members if available.

The Web site's searchable Membership Directory is updated weekly to provide the most current listing of CAS Fellows, Associates, and Affiliates. Members can submit updates to their membership listing information by indicating changes via an online form. Access to the Membership Directory requires a user name and password. For more information, contact the Webmaster at the CAS Office by phone at (703) 276-3100, or by e-mail at webmaster@casact.org.

# **DECEASED MEMBERS**

The (†) denotes charter members at the date of organization—November 7, 1914. The (\*) denotes date of death unknown

Member	Designation	Year	Died	Member 	Designation	Year	Died
Acker, Milton	ACAS	1924	1956	Callahan, James J.	ACAS	1986	2001
Ain, Samuel N.	ACAS	1939	1988	Cameron, Freeland R.	FCAS	1932	1975
Ainley, John W.	FCAS	1930	1980	Cammack, Edmund E.	FCAS	†	1958
Allen,Austin F.	ACAS	1928	1969	Carleton, John W.	FCAS	1938	1982
Allen, Edward S.	FCAS	1947	1994	Carlson,Thomas O.	FCAS	1930	1964
Alibalic, Jasmin	FCAS	2009	2011	Carpenter, Raymond V.	FCAS	†	1947
Amlie, William P.	FCAS	1972	1989	Case, Gordon	FCAS	1915	1920
Anderson, Mary V.	FCAS	1988	2012	Cassity, H. Earl	ACAS	1976	1984
Andrews, Edward C.	ACAS	1955	1987	Cavanaugh, Leo D.	ACAS	1922	1965
Ankers, Robert E.	ACAS	1918	1964	Chen, Su Tu	ACAS	1927	1981
Archibald, A. Edward	ACAS	1930	1992	Cherlin, George Y.	ACAS	1961	1992
Atwood, Clarence R.	FCAS	1971	1994	Cima, Augustin V.	FCAS	1966	1971
Ault, Gilbert E.	FCAS	1931	1965	Clarke, John W.	FCAS	1949	1992
Bailey, Arthur L.	FCAS	1948	1954	Coates, Barrett N.	FCAS	1918	1976
Bailey, William B.	FCAS	1924	1952	Coates, Clarence S.	FCAS	1922	1997
Balcarek, Rafel J.	FCAS	1962 1924	2010	Collins Hangy	FCAS FCAS	1916 1915	1957 1972
Barber, Harmon T. Barker, Loring Montgomery	FCAS y FCAS	1924 1947	1983 2009	Collins, Henry Comstock, Walter P.	FCAS	1913	1972
Bart, Robert D.	FCAS	1947	1997	Constable, William J.	FCAS	1928	1951
Barter, John L.	FCAS	1932	1980	Conway, Charles T.	FCAS	†	1921
Bartik, Robert F.	FCAS	1972	2010	Cook, Edwin A.	FCAS	1934	1989
Batho, Bruce W.	ACAS	1940	1986	Cooper, Warren P.	ACAS	1969	2004
Batho, Elgin R.	FCAS	1931	1994	Copeland, John A.	FCAS	†	1953
Baxter, Don A.	ACAS	1915	1920	Corcoran, William M.	FCAS	1925	1977
Beckman, Woody R.	FCAS	1970	2007	Cowles, Walter G.	FCAS	†	1942
Benjamin, Roland	FCAS	†	1949	Craig, James D.	FCAS	†	1940
Bennett, Norman J.	FCAS	1956	2006	Craig, James McIntosh	FCAS	†	1922
Berkeley, Ernest T.	FCAS	1934	1969	Craig, Robert A.	FCAS	1964	1965
Bevan, John R.	FCAS	1953	1999	Crane, Howard G.	FCAS	1926	1978
Bittell, Harold W.	ACAS	1925	1993	Crawford, William H.	ACAS	1933	1979
Black, Nellas C.	ACAS	1920	1962	Critchley, Douglas	FCAS	1952	1997
Black, S. Bruce	FCAS	†	1968	Crouse, Charles W.	FCAS	1946	1981
Blackhall, John M.	ACAS	1940	1957	Crum, Frederick S.	FCAS	1916	1921
Blanchard, Ralph H.	FCAS	1917	1973	Cung-Rousseau, Alexandre	FCAS	2008	2011
Bomse, Edward L.	ACAS	1934	1981	Curry, Harold E.	FCAS	1953	1997
Bond, Edward J.	FCAS	1921	1941	Davies, E. Alfred	FCAS	1932	1967
Bondy, Martin	FCAS	1956	1998	Davis, Malvin E.	ACAS	1925	1966
Bornhuetter, Ronald L.	FCAS	1957	2008	Davis, Rex C.	ACAS	1967	2013
Boyajian, John H.	FCAS	1956	1999	Dawson, Alfred Burnett	FCAS	†	1931
Bradshaw, Thomas	FCAS	1915	1939	Dawson, Miles Menander	FCAS	†	1942
Brannigan, James F.	FCAS	1961	2011	Day, Elden W.	FCAS	1956	1969
Breiby, William	FCAS	1025	1968	Dearth, Elmer H.	FCAS	7004	1947
Brosmith, William Brown, F. Stuart	FCAS	1925	1937	Deemer, Paul DeKay, Eckford C.	FCAS	2004	2013
Brown, Herbert D.	FCAS FCAS	1927 1915	1967 1958	DeMelio, Joseph J.	FCAS FCAS	† 1965	1951 2007
Brown Jr., Nicholas M.	FCAS	1913	2008	Desjardins, Charles	ACAS	1989	1998
Brunnquell, Helmuth G.	ACAS	1918	1958	Deutschberger, Samuel	FCAS	1915	1929
Buck, George C., Sr.	FCAS	†	1961	Dickerson, O.D.	FCAS	1960	1974
Budlong, William A.	FCAS	†	1934	Dorweiler, Paul	FCAS	1920	1968
Buffler, Louis	ACAS	1915	1963	Dowling, William F.	ACAS	1941	1968
Bugbee, James M.	ACAS	1924	1981	Downey, Ezekiel Hinton	FCAS	†	1922
Burhans, Charles H.	FCAS	1932	1942	Drobish, Miles R.	FCAS	1957	1991
Burhop, William H.	FCAS	1917	1963	Dunlap, Earl O.	FCAS	1915	1944
Burling, William H.	FCAS	1928	2001	Durkin, James H.	ACAS	1963	1982
Burns, F. Highlands	FCAS	1915	1935	DuRose Jr., Stanley C.	ACAS	1958	2010
Burt, Margaret A.	ACAS	1920	1989	Dye, M.L. "Butch"	FCAS	1987	2009
Butler, Richard H.	ACAS	1959	1974	Eaton, Karl F.	ACAS	1954	2004
Cahill, James M.	FCAS	1929	1998	Economidy, Harilaus E.	ACAS	1923	1948

Member	Designation	Year	Died	Member	Designation	Year	Died
Eddy, Jeanne H.	FCAS	1979	2007	Granville, William A.	FCAS	1923	1943
Edwards, John	FCAS	1933	1974	Graves, Clyde H.	FCAS	1953	2005
Eger, Frank A.	ACAS	1925	1972	Green, John E.	FCAS	1998	2007
Eide, Knut Arne	FCAS	1959	1997	Green, Walter C.	ACAS	1927	1978
Elliott, George B.	FCAS	1940	1990	Greene, Winfield W.	FCAS	†	1965
Elston, James S.	FCAS	1922	1980	Grossman, Eli A.	ACAS	1940	2009
Eppink, Walter T.	FCAS	1935	1984	Guertin, Alfred N.	ACAS	1935	1981
Epstein, Michael B.	ACAS	1983	2011	Hachemeister, Charles A.	FCAS	1968	1993
Ernst, Richard C.	FCAS	1978	1997	Hagen, Olaf E.	ACAS	1939	2000
Espie, Robert G.	FCAS	1958	2005	Haggard, Robert E.	ACAS	1921	1958
Fackler, David Parks	FCAS	†	1924	Haley, James B.	FCAS	1953	1986
Fackler, Edward B.	FCAS	†	1952	Hall, Hartwell L.	ACAS	1922	1971
Fairbanks, Alfred V.	FCAS	1955	1997	Hall, James A. "Jim", III	FCAS	1973	2011
Fallow, Everett S.	FCAS	†	1976	Hall, Leslie LeVant	ACAS	1924	1931
Farley, Jarvis	FCAS	1940	1991	Ham, Hugh P.	ACAS	1936	1984
Farrer, Henry	FCAS	†	1972	Hamilton, Robert Cowen Lo		†	1941
Faust, J. Edward	FCAS	1960	1996	Hammer, Sidney M.	ACAS	1963	2005
Fellows, Claude W.	FCAS	1915	1938	Hammond, H. Pierson	FCAS	†	1963
Finkel, Daniel	ACAS	1962	1987	Hardy, Edward R.	FCAS	1916	1951
Finnegan, Joseph H.	FCAS	1956	1976	Harris, Scott	ACAS	1932	1975
Fitzhugh, Gilbert W.	FCAS	1935	1998	Hart, Ward Van B.	ACAS	1924	1973
Fleming, Frank A.	ACAS	1923	1971	Hart, Ward Van Buren, Jr.	FCAS	1956	2003
Flynn, Benedict D.	FCAS	† 1015	1944	Hatch, Leonard W.	FCAS	1915	1958
Fondiller, Richard Forbes, Charles S.	FCAS FCAS	1915	1962 1943	Haugh, Charles J.	FCAS ACAS	1926 1919	1988 1970
Forses, Charles 5. Fossa, E. Frederick	FCAS FCAS	† 1973	1945	Haydon, George F. Hazam, William J.	FCAS	1919	1970
Foster, Robert B.	FCAS	1955	2004	Hebert, Joseph	FCAS	2006	2010
Frankel, Lee K.	FCAS FCAS	1933	1931	Heer, LeRoy E.	FCAS	1969	2010
Franklin, Charles H.	FCAS	†	1951	Henderson, Robert	FCAS	1909	1942
Franklin, N. Matthew	ACAS	1952	1979	Hickman, James C.	ACAS	1959	2006
Fredrickson, C.H.	FCAS	1932	1969	Hillas, Robert J.	FCAS	†	1940
Froberg, John	ACAS	1924	1949	Hinsdale, Frank Webster	FCAS	1918	1932
Froggatt, Joseph	FCAS	1916	1940	Hipp, Grady Hayne	ACAS	1927	1965
Fuller, Gardner V.	FCAS	1934	1982	Hobart, Gary P.	ACAS	1976	2002
Fulton, Clyde B.	ACAS	1966	2003	Hobbs, Clarence W.	FCAS	1924	1944
Fung, Charles C.	ACAS	1992	1993	Hodges, Charles E.	FCAS	1926	1937
Furnivall, Maurice L.	ACAS	1929	1962	Hodgkins, Lemuel G.	FCAS	1915	1951
Furze, Harry	FCAS	†	1945	Hoffman, Frederick L.	FCAS	†	1946
Gage, Joseph A.	FCAS	2008	2013	Holland, Charles H.	FCAS	1915	1951
Gaines, Nathaniel	ACAS	1954	2000	Holmes, Dave R.	ACAS	1997	1997
Gardiner, James B.	FCAS	1948	2003	Holzinger, Ernest	ACAS	1945	1956
Garrison, Fred S.	FCAS	1915	1949	Hooker, Russell O.	FCAS	1924	1987
Gately, John J.	ACAS	1934	1943	Hookstadt, Carl	FCAS	1919	1924
Gaty, Theodore E.	FCAS	†	1925	Hope, Francis J. "Frank"	FCAS	1950	2010
George, Harold J.	ACAS	1947	1952	Horowitz, Milton	ACAS	1961	1984
Gildea, James F.	ACAS	1923	1975	Huebner, Solomon S.	FCAS	1932	1964
Gill, James F.	ACAS	1963	1992	Hughes, Charles	FCAS	†	1948
Gillam, William S.	FCAS	1957	2004	Hughey, M. Stanley	FCAS	1947	2013
Ginsburgh, Harold J.	FCAS	1924	1994	Hull, Robert S.	FCAS	1929	1947
Glenn, Joseph Bryan	FCAS	1930	1988	Hunt, Burritt A.	FCAS	†	1943
Glover, James W.	FCAS	1915	1941	Hunter, Arthur	FCAS	†	1964
Goddard, Russell P.	FCAS	1931	1987	Hurley, Robert L.	FCAS	1955	1998
Goodwin, Edward S.	FCAS	†	1966	Hutcheson, William Anderso		1921	1942
Gordon, Harold R.	ACAS	1929	1948	Jackson, Charles William	FCAS	1916	1959
Gossrow, Robert W.	ACAS	1967	2009	Jackson, Edward T.	ACAS	1917	1939
Gould, William H.	FCAS	†	1936	Jackson, Henry Hollister	FCAS	1929	1955
Graham, Charles M.	FCAS	1926	1981	Jacobs, Carl N.	ACAS	1929	1980
Graham, George	FCAS	1915	1937	Jensen, Edward S.	ACAS	1921	1966
Graham, Thompson B.	FCAS	1915	1946	Jensen, James P.	ACAS	1996	2001
Graham,William J.	FCAS	†	1963	Jerabek, Gerald J.	FCAS	1979	1990

Member	Designation	Year	Died	Member	Designation	Year	Died
Johe, Richard L.	FCAS	1954	2005	McCarter, Michael G.	FCAS	1980	2011
Johnson, Roger A.	FCAS	1941	1972	McClure, Richard D. FCAS		1963	1988
Johnson, William C.	FCAS	1915	1943	McClurg, D. Ralph FCAS		1923	1947
Jones, F. Robertson	FCAS	1928	1941	McConnell, Matthew H.	FCAS	1935	2003
Jones, Harold M.	FCAS	1939	2005	McDonald, Milton G.	ACAS	1955	1981
Jones, Nathan F.	ACAS	1952	2006	McDougald,Alfred	FCAS	1919	1944
Kates, Phillip B.	FCAS	1957	2000	McGuinness, John S.	FCAS	1960	1997
Kayton, Howard H.	FCAS	1976	2011	McIntosh, Kenneth L.	ACAS	1961	1995
Kearney, Thomas P.	FCAS	1921	1928	McIver, Rosswel A.	ACAS	1922	1959
Kelly, Gregory Cook	FCAS	1926	1948	McLean, George E.	FCAS	1964	2011
Kelton, William H.	FCAS	1926	1972	McManus, Robert J.	FCAS	1917	1960
Kime, Virgil Morrison	FCAS	1915	1918	McNamara, Daniel	FCAS	1962	2010
Kitzrow, Erwin W.	ACAS	1935	1983	Mean, Franklin B.	FCAS	1915	1933
Kline, Charles D.	FCAS	1990	2006	Meltzer, Marcus	FCAS	1917	1931
Kole, Morris B.	FCAS	1941	2011	Menzel, Henry W.	FCAS	1955	1984
Konopa, Milan E.	ACAS	1975	2009	Michelbacher, Gustav F.	FCAS	†	1974
Kopf, Edwin W.	FCAS	†	1933	Miller, David W.	FCAS	†	1936
Kormes, Mark	FCAS	1933	1985	Miller, John H.	FCAS	1938	1988
Kozik,Thomas J.	FCAS	1984	2009	Miller, Philip D.	FCAS	1975	2001
Kretsch, David J.	FCAS	1992	2003	Miller, Robert Anderson, III	FCAS	1986	2004
Kuenkler, Arthur S.	FCAS	1953	1975	Miller, Robert L.	FCAS	1994	2008
Kulp, Clarence Arthur	FCAS	1928	1957	Milligan, Samuel	FCAS	†	1965
LaCroix, Harold F.	FCAS	1949	1976	Mills, John A.	FCAS	1937	1982
Laird, John M.	FCAS	1915	1942	Mills, Richard J.	FCAS	1957	2011
LaMont, Stewart M.	FCAS	1931	1960	Mitchell, James F.	FCAS	†	1941
Landis,Abb	FCAS	1915	1927	Moir, Henry	FCAS	†	1937
Lange, John Robert	FCAS	1933	1957	Montgomery, Victor	FCAS	1921	1960
LaRose, J. Gary	FCAS	1981	2005	Montgomery,William J.	FCAS	1915	1915
Latimer, Murray W.	FCAS	1961	1985	Mooney, William L. FCAS		1926	1948
Lawrence,Arnette Roy	FCAS	1922	1942	Moore, George D.	FCAS	†	1959
Leal, James R., Sr.	FCAS	†	1957	Moore, Joseph P.	ACAS	1923	1981
Leight, Arthur S.	FCAS	1959	2001	Morris, Edward Bontecou	FCAS	1915	1929
Leslie,William	FCAS	†	1962	Moseley, Jack	FCAS	1961	2003
Leslie,William,Jr.	FCAS	1950	1990	Mothersill, Rolland V.	ACAS	1919	1949
Linden, John R.	FCAS	1961	2011	Mowbray,Albert H.	FCAS	†	1949
Linder, Joseph	FCAS	1924	1978	Mueller, Louis H.	FCAS	1920	1975
Linquanti,August J.	ACAS	1968	2009	Muetterties, John H. FCAS		1956	2013
Lis, Raymond S., Jr.	ACAS	1973	1994	Muir, Joseph M. ACAS		1957	1989
Liscord, Paul S., Jr.	FCAS	1955	2000	Mullaney, Frank	FCAS	†	1953
Little, James Fulton	FCAS	1921	1938	Muller, Fritz	ACAS	1929	1945
Livingston, Gilbert R.	FCAS	1950	1976	Munterich, George C. FCAS		1950	1997
Longley Cook, Laurence H		1951	1989	Murphy, Ray D. FCAS		1920	1964
Loper, Dennis J.	FCAS	1984	2010	Murray, Edward R. FCAS		1972	1984
Lubin, Harry	FCAS	1915	1920	Murrin, Thomas E. FCAS		1954	2000
Lunt, Edward C.	FCAS	1928	1941	Musante, Donald R. ACAS		1986	2008
Lyons, Daniel J.	FCAS	1936	1997	Myers, Robert J.	FCAS	1959	2010
MacKeen, Harold E.	FCAS	1954	1970	Naffziger, Joseph V.	FCAS	1968	2009
Magoun, William N.	FCAS FCAS	1059	1954	Nelson, John K.	ACAS	1968	2009
MaGrath, Joseph J.		1958	1983	Nelson, S. Tyler Neuhauser, Frank, Jr.	FCAS	1963 1976	1969 2006
Malmuth, Jacob	ACAS	1925	1974	i	ACAS		2000 *
Manley, Laura J.	ACAS	1990	1995	Newell, William	ACAS	1916 1928	1944
Marsh, Charles V. R.	ACAS	1927	1967	Newhall, Karl	ACAS		1944
Marshall, Ralph M. Masterson, Norton E.	FCAS FCAS	1928 1927	1987 2000	Nicholas, Lewis A. Nichols, Richard W.	FCAS FCAS	† 1984	2008
Matthew, Tracey Lynn	ACAS	1927	2000	Nicholson, Earl H.	ACAS	1984	1997
Matthews, Arthur N.	FCAS	1995	1983	Niles, Charles Lannon, Jr.	FCAS	1925	2006
Mauro, Elizabeth M.	FCAS	2011	2011	Oien, Robert G. "Gus"	FCAS	1965	2010
Maycrink, Emma C.	FCAS	1915	1972	Olifiers, Edward	FCAS	†	1962
Mayer, William H.	ACAS	1936	1972	Ori, Kenneth R.	ACAS	1971	1902
Mayerson, Allen L.	FCAS	1958	1971	Orr, Robert K.	FCAS	†	1967
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Member	Designation	Year	Died	Member	Designation	Year	Died
Otis, Stanley L.	FCAS	†	1937	Sawyer, Arthur	ACAS	1923	1980
Otteson, Paul M.	FCAS	1957	2007	Saxton, Arthur F.	FCAS	†	1921
Otto, Walter E.	ACAS	1919	1976	Scammon, Lawrence W.	ACAS	1947	1993
Outwater, Olive E.	FCAS	1919	1972	Schauer, Cindy R.	ACAS	1996	2003
Overholser, Donald M.	ACAS	1926	1970	Scheel, Paul J., Sr.	FCAS	1970	2005
Page, Bertrand A.	FCAS	1926	1941	Scheitlin, Emil	FCAS	†	1946
Panther, Philip J.	ACAS	2007	2010	Schloss, Harold W.	FCAS	1948	1979
Parlin, Robert W.	FCAS	1962	1995	Schneiker, Henry C.	ACAS	1957	2000
Penniman, Kent T.	ACAS	1972	1988	Schwartz, Max J.	ACAS	1947	1997
Pennock, Richard M.	ACAS	1924	1976	Scott, Brian	ACAS	2009	2012
Perkins, Sanford B.	FCAS	1921	1945	Scott, Gordon L.	FCAS	1993	2010
Perkins, William J.	FCAS	1957	2007	Seiffertt, Barbara Ann	ACAS	1976	2006
Perry, Robert C.	ACAS	1947	1998	Senior, Leon S.	FCAS	†	1940
Perry, William Thomas	FCAS	1918	1940	Sevilla, Exequiel S.	ACAS	1930	1985
Perryman, Francis S.	FCAS	1930	1959	Shapiro, George I.	FCAS	1937	1974
Peters, Stefan	FCAS	1941	1990	Shaver, C. Otis	ACAS	1957	1966
Petersen, Loren V.	FCAS	1991	2002	Sheppard, Norris E.	ACAS	1924	1980
Phelps, Edward B.	FCAS	†	1915	Sibley, John L.	ACAS	1918	1957
Phillips, Herbert J.	FCAS	1959	2005	Silverman, David	FCAS	1931	1980
Phillips, Jesse S.	FCAS	1926	1954	Simon, LeRoy J.	FCAS	1954	2010
Phillips, John H.	ACAS	1929	1989	Singer, Paul E.	ACAS	1963	1998
Pickett, Samuel C.	FCAS	1933	1970	Sinnott, Robert V.	FCAS	1933	1952
Pike, Morris	ACAS	1920	1989	Skelding, Albert Z.	FCAS	1929	1992
Pinney, Sydney D.	FCAS	1922	1973	Smick, Jack J.	FCAS	1932	1979
Plunkett, Joseph A.	ACAS	1967	1978	Smith, Arthur G.	ACAS	1921	1956
Poorman, William F.	ACAS	1922	1984	Smith, Charles Gordon	FCAS	1917	1938
Potter, John A.	ACAS	1976	2010	Smith, Edward Merrill	FCAS	1958	2005
Provencher, Yves	ACAS	1993	2011	Smith, Seymour E.	FCAS	1940	1980
Pruitt, Dudley M.	FCAS	1931	1967	Sobel, Mark J.	FCAS	1979	2008
Rasaretnam, Kiran	FCAS ACAS	1998 1965	2012 1986	Somerville, William F. Sommer, Armand	ACAS ACAS	1926 1925	1965 1976
Ratnaswamy, Rajaratnam	ACAS	1903	1981	Speers, Alexander A.	ACAS	1923	1970
Raywid, Joseph Reiter, Charles Grant	FCAS	†	1921	Spencer, Harold S.	ACAS	1918	1968
Remington, Charles	FCAS	†	1938	St. John, John B.	FCAS	1933	1908
Resony, Allie V.	FCAS	1955	2006	Stankus, Leo M.	FCAS	1962	2004
Resony, John A.	FCAS	1949	2007	Steinhaus, Henry W.	ACAS	1959	1966
Rice, Homer D.	FCAS	1951	1967	Stellwagen, Herbert P.	ACAS	1924	1981
Richards, Harry R.	FCAS	1963	2001	Stern, Philipp K.	ACAS	1956	1999
Richardson, Frederick	FCAS	1919	1955	Stone, Edward C.	FCAS	1927	1964
Richardson, Harry F.	ACAS	1932	1983	Stone, John T.	FCAS	1915	1920
Richmond, Owen D.	ACAS	1953	2004	Strong, Wendell Melville	FCAS	1916	1942
Richter, Otto C.	FCAS	1926	1962	Strong, William R.	FCAS	1915	1946
Riegel, Robert	FCAS	1921	1970	Strug, Emil J.	FCAS	1970	1998
Riek, David	ACAS	1999	2012	Styczynski, Mary Jane	ACAS	1987	1988
Roach, Robert F.	ACAS	1975	2003	Suchoff, Stuart	FCAS	1984	2004
Roberts, James A.	ACAS	1932	1973	Sullivan, Robert J.	FCAS	†	1934
Roberts, Lewis H.	FCAS	1958	2001	Sullivan,Walter F.	ACAS	1930	1971
Rodermund, Matthew	FCAS	1947	2011	Surrago, James	FCAS	1985	2003
Roeber, William F.	FCAS	1923	1960	Tapley, David A.	FCAS	1956	1981
Rood, Henry F.	ACAS	1962	1994	Tarbell, Luther L.	FCAS	1958	2006
Rosenberg, Norman	FCAS	1947	2008	Tarbell,Thomas F.	FCAS	1920	1958
Ross, Samuel M.	FCAS	1943	1951	Taylor, Frank C.	FCAS	1979	2009
Rosser, Harwood	ACAS	1971	1986	Terrill, Kathleen W.	FCAS	1986	2012
Roth, Richard J., Sr.	FCAS	1966	2010	Thomas, James W.	FCAS	1956	1995
Rowell, John H.	FCAS	1947	2000	Thompson,Arthur E.	ACAS	1921	1944
Rowland, William J.	FCAS	1980	2003	Thompson, John S.	FCAS	†	1979
Rubinow, Isaac M.	FCAS	†	1936	Thompson, Philip R.	ACAS	1963	2011
Ruchlis, Elise	FCAS	1938	2011	Thompson, Walter H.	FCAS	1934	1935
Ryan, Harwood Eldridge	FCAS	†	1930	Toja, Guido	FCAS	1921	1933
Sanko, Ronald J.	ACAS	1973	2012	Train, John L.	FCAS	†	1958
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Member	Designation	Year	Died	Member	Designation	Year	Died
Traversi, Antonio Thomas	FCAS	1922	1961				
Trench, Frederick H.	ACAS	1919	1972				
Trist, John A.W.	FCAS	1953	2005				
Trudeau, Donald E.	FCAS	1962	1982				
Turner, Paul A.	FCAS	1948	1961				
Uhl, M. Elizabeth	ACAS	1924	1976				
Uhthoff, Dunbar R.	FCAS	1947	2002				
Valerius, Nels M.	FCAS	1928	1987				
Vanderhoof, Irwin T.	ACAS	1964	2000				
Vantuyl, Hiram O.	FCAS	1919	1979				
Verhage, Paul A.	FCAS	1965	1998				
Vincent, Lewis A.	FCAS	1951	1990				
Voogt, Walter G.	ACAS	1919	1937				
Waite, Alan W.	FCAS FCAS	1920 1935	1969 1951				
Waite, Harry V. Walker, David	ACAS	1986	2010				
Walsh, Albert J.	FCAS	1962	1996				
Warren, Charles S.	ACAS	1902	1952				
Warren, Lloyd A. H.	FCAS	1925	1949				
Washburn, James H.	ACAS	1925	1946				
Watson, James J.	ACAS	1920	1937				
Weinstein, Max S.	ACAS	1932	1988				
Welch, Archibald A.	FCAS	1919	1935				
Welch, Eugene R.	ACAS	1921	1945				
Wellman, Alex C.	ACAS	1925	1981				
Wells, Walter I.	ACAS	1930	1986				
Wenitsky, Russell B.	ACAS	1989	2008				
Wermel, Michael T.	ACAS	1951	1962				
Wheeler, Charles A.	ACAS	1929	1956				
Wheeler, Roy A.	FCAS	1926	1932				
Whitbread, Frank G.	ACAS	1927	1979				
White, Frank T.	ACAS	1978	2011				
White, Hugh G.	FCAS	1970	2010 1943				
Whitney, Albert W.	FCAS ACAS	† 2003	2006				
Wilbert, Paul David Wilcken, Carl L.	FCAS	1960	2008				
Wilkinson, Albert Edward	ACAS	1918	1930				
Williams, Dewey G.	FCAS	1963	1996				
Williams, Harry V.	FCAS	1935	1991				
Williams, P.Adger	FCAS	1957	2010				
Williamson, W. Rulon	FCAS	1941	1980				
Wittick, Herbert E.	FCAS	1931	1998				
Wittlake, J. Clarke	ACAS	1939	1980				
Wolfe, Lee J.	FCAS	†	1949				
Wolfe, S. Herbert	FCAS	†	1927				
Wolfrum, Richard J.	FCAS	1949	1967				
Wood, Arthur B.	FCAS	1921	1952				
Wood, Donald M.	ACAS	1915	1971				
Wood, Donald M.	ACAS	1937	2000				
Wooddy, John C.	ACAS	1950	1987				
Woodward Parbara H	ACAS	1915	1955				
Woodward, Barbara H.	ACAS ECAS	1934	1975 1928				
Woodward, Joseph H. Woolery, James M.	FCAS ACAS	† 1925	1928 1999				
Wright, Byron	FCAS	1923	1999				
Young, William	FCAS	†	1927				
Yount, Hubert W.	FCAS	1953	1927				
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# CASUALTY ACTUARIAL SOCIETY MISSION STATEMENT

# (AS ADOPTED BY THE CAS BOARD OF DIRECTORS, NOVEMBER 7, 2010)

The purposes of the Casualty Actuarial Society are:

- to advance the body of knowledge of actuarial science applied to general insurance, including property, casualty, and similar risk exposures;
- to expand the application of actuarial science to enterprise risks and systemic risks;
- to establish and maintain standards of qualification for membership;
- to promote and maintain high standards of conduct and competence;
- to increase the awareness of actuarial science; and
- to contribute to the well being of society as a whole.

# CASUALTY ACTUARIAL SOCIETY VISION STATEMENT

# (AS ADOPTED BY THE CAS BOARD OF DIRECTORS, NOVEMBER 7, 2010)

Actuaries are recognized for their authoritative advice and valued comment wherever there is financial risk and uncertainty.

# CASUALTY ACTUARIAL SOCIETY DEFINITION OF A CASUALTY ACTUARY

# (AS ADOPTED BY THE CAS BOARD OF DIRECTORS, NOVEMBER 7, 2010)

A casualty actuary is a professional skilled in the analysis, evaluation, and management of the financial implications of future contingent events primarily with respect to general insurance, including property, casualty, and similar risk exposures. A casualty actuary has practical knowledge of how these various risks interact with each other and the environment in which these risks occur.



# (As Amended September 2, 2011) ARTICLE I.—Name

This organization shall be called the "Casualty Actuarial Society." (CAS)

# **ARTICLE II.—Statement of Purpose**

The purposes of the Casualty Actuarial Society are to advance the body of knowledge of actuarial science applied to property, casualty, and similar risk exposures, to establish and maintain standards of qualification for membership, to promote and maintain high standards of conduct and competence for the members, and to increase the awareness of actuarial science.

# **ARTICLE III.—Membership**

# **SECTION 1.—CLASSES OF MEMBERS**

The membership of the Casualty Actuarial Society shall be composed of three classes:

#### a) Fellows

The Fellows of the Society shall be the present Fellows and those who may be duly admitted to Fellowship as hereinafter provided. Fellows shall be eligible to vote, hold office, make nominations, and generally exercise the rights of full membership. Fellows are authorized to append to their names the initials F.C.A.S.

# b) Associates

The Associates shall be the present Associates and those who may be duly admitted to Associateship as hereinafter provided. Associates shall be entitled to attend meetings of the Casualty Actuarial Society and to participate at Society functions. Associates are authorized to append to their names the initials A.C.A.S.

# c) Affiliates

The Affiliates shall be the present Affiliates and those who may be duly admitted as Affiliates. Affiliates are encouraged to refer to themselves as such, but are not authorized to append CAS initials to their name. In referring to themselves Affiliates may refer to themselves as "Affiliate of the Casualty Actuarial Society." They may not refer to themselves as "Member of the Casualty Actuarial Society."

# SECTION 2.—REQUIREMENTS FOR ADMISSION TO MEMBERSHIP

#### a) Associateship

Any applicant shall be enrolled as an Associate upon notification by the Casualty Actuarial Society provided that:

- (i) the applicant successfully completes the examinations prescribed by the Board of Directors for Associateship and complies with any further requirements the Board may prescribe; and
- (ii) the applicant is approved by a majority vote of the Board of Directors.

# b) Fellowship

An Associate shall be enrolled as a Fellow of the Society following notification of successful completion of the examinations prescribed by the Board of Directors for Fellowship, subject to any further requirements the Board may prescribe.

# c) Affiliates

An actuary who is not otherwise a member shall be enrolled as an Affiliate upon action of the Board of Directors, subject to such requirements as the Board may prescribe.

# d) Waiver of Examinations

The Board of Directors may waive, subject to such other requirements as it may prescribe, any examination of the Casualty Actuarial Society if the applicant has passed an examination required by another recognized actuarial organization that the Board of Directors deems equivalent to such examination of the Casualty Actuarial Society.

# e) Mutual Recognition

The Board of Directors may negotiate and implement Mutual Recognition Agreements with other actuarial organizations that qualify actuaries through a process that includes rigorous testing of a comprehensive property and casualty specialization. Such Mutual Recognition Agreements will include requirements that applicants:

- (i) complete the property and casualty specialization requirements and all other requirements for full membership in their home organization,
- (ii) complete the CAS professionalism education requirements, and
- (iii) complete property and casualty experience requirements to be specified by the Board.

The Board may include additional requirements in the Mutual Recognition Agreements.

Any applicant who meets the Mutual Recognition requirements so agreed, and any other requirements prescribed by the Board, and who is approved by a majority vote of the Board of Directors shall be enrolled as a Fellow.

#### **ARTICLE IV.—Officers**

#### SECTION 1.—OFFICERS

The President, President-Elect, and the Vice Presidents, all of whom shall be Fellows, shall be Officers of the Society. The Chief Staff Executive is also an Officer. An Officer shall be designated by the Board as Secretary/Treasurer of the Society.

# SECTION 2.—ELECTION AND TERM OF OFFICE

At the close of the annual meeting, the President-Elect shall assume the office of President for a term of one year. Annually, a new President-Elect shall be elected by the Fellows in a secret ballot for a term of one year. Before the close of the annual meeting, the Board of Directors shall, by majority vote of the Directors present and voting, elect the Vice Presidents for a term of one year.

The term of all Officers shall begin at the close of the annual meeting in the calendar year of their election and continue until their successors take office.

# **SECTION 3.—DUTIES**

The duties of the Officers shall be such as are customarily incident to their respective offices and such other duties as specified in the Bylaws.

# **SECTION 4. REMOVAL FROM OFFICE**

The process for the removal from office of the President-Elect or President can be initiated by either a petition of 5% of the Fellows, a two-thirds majority vote of the Officers of the CAS (with the person proposed to be removed not voting), or a majority vote of the Board of Directors (with the person proposed to be removed not voting). Reasons for the removal include: violation of the code of conduct; abuse of power; behavior materially incompatible with the proper function and purpose of the office.

Procedures relating to the removal process shall be adopted by the Board. Once the removal process has been initiated, a hearing and vote of the Board will be held within 45 days. A vote to recommend removal requires a two-thirds majority of the Board members voting (with the person proposed to be removed not voting). A Board recommendation for removal shall be subject to approval by a vote of the Fellows, to be held within 45 days of the Board vote. A two-thirds majority of the Fellows voting is required for removal.

# **ARTICLE V.—Board of Directors**

# SECTION 1.—COMPOSITION

The Board of Directors shall consist of the President, the President-Elect, the immediate past President, 12 other elected Fellows, and up to three additional appointed members.

# SECTION 2.—ELECTION AND TERM OF OFFICE

Annually, in a secret ballot of the Fellows, four Fellows shall be elected to the Board of Directors for a term of three years. A retiring elected Director shall not be eligible for reelection for at least one year after the expiration of the term for which the Director was elected. Appointed Directors will be elected by the Board of Directors and will serve a term of one year, renewable for up to three years.

# **SECTION 3.—DUTIES**

The duties of the Board of Directors shall be to pass upon candidates for membership, to supervise the publication of papers presented at meetings of the Society, to supervise the examination of candidates and prescribe fees for such examinations, to call meetings, to ratify such committee and other special appointments as may be made by the President, to authorize promulgation of statements of principles, and, in general, to manage the affairs of the Society, and, for the latter purpose, shall determine all questions arising with respect to the interpretation or administration of this Constitution and the Society's Bylaws not inconsistent therewith.

The Board of Directors may, at its discretion, delegate authority to fulfill specific duties to the Executive Council, subject to policies adopted by the Board of Directors and ongoing monitoring and oversight by the Board.

# **SECTION 4. REMOVAL FROM OFFICE**

The process for the removal from the Board of the immediate past President or any elected Director can be initiated by either a petition of 5% of the Fellows, a two-thirds majority vote of the Officers of the CAS (with the person proposed to be removed not voting), or a majority vote of the Board of Directors (with the person proposed to be removed not voting). Reasons for the removal include: violation of the code of conduct; abuse of power; behavior materially incompatible with the proper function and purpose of the office.

Procedures relating to the removal process shall be adopted by the Board. Once the removal process has been initiated, a hearing and vote of the Board will be held within 45 days. A vote to recommend removal requires a two-thirds majority of the Board members voting (with the person proposed to be removed not voting). A Board recommendation for removal shall be subject to approval by a vote of the Fellows, to be held within 45 days of the Board vote. A two-thirds majority of the Fellows voting is required for removal.

#### **ARTICLE VI.—Executive Council**

# **SECTION 1.—COMPOSITION**

The Executive Council shall consist of the President, the President-Elect, the Vice Presidents, and the Chief Staff Executive. The number and duties of Vice Presidents shall be determined by the Board of Directors.

#### **SECTION 2.—DUTIES**

The Executive Council shall act on matters specifically delegated to it by the Board of Directors. It shall act as the principal forum in which the operational activities of the Society are coordinated and monitored, subject to policies adopted by the Board of Directors and monitoring and oversight by the Board of Directors.

# **ARTICLE VII.**—Meetings

There shall be an annual meeting of the Society on such date in the last quarter of each calendar year as may be fixed by the Board of Directors, but other Society meetings may be called by the Board from time to time and shall be called by the President at any time upon the written request of 5% of the Fellows. At least two weeks notice of all Society meetings shall be given to the members. At Society meetings, the presiding officer shall vote only in case of a tie.

# **ARTICLE VIII.—Quorum**

A majority of the members of the Board of Directors shall constitute a quorum. Five percent of the Fellows of the Society shall constitute a quorum at every meeting of the Society.

# ARTICLE IX.—Public Expression of Professional Opinion

No opinion with respect to questions of public interest shall be publicly expressed by, or on behalf of, the Casualty Actuarial Society, the Board of Directors, or any committee except on matters within the special professional competence of actuaries and then only in accordance with authority given and procedures determined in each instance by the Board and in accordance with the following conditions:

- (i) An opinion of the Casualty Actuarial Society (CAS) shall require advance approval by an affirmative vote of at least ninety percent of the Fellows who vote in a mail ballot. However, the Board of Directors of the CAS may, by a two-thirds vote of all members of the Board, direct the CAS's delegate to the International Actuarial Association (IAA) to vote on behalf of the CAS on a proposed public expression of professional opinion to be issued by the IAA and allow the IAA to list the CAS as a supporting organization of that public expression of professional opinion when the vote is positive.
- (ii) An opinion of the Board of Directors or a committee authorized by the Board to express an opinion shall indicate that it does not purport to represent the views of the Casualty Actuarial Society, but only of the Board of Directors or the committee, as the case may be.

# ARTICLE X.—Resignation and Discipline of Members

Any member who is not in default in payment of dues, and against whom no complaints are pending, may resign at any time by filing a resignation request in writing with the Casualty Actuarial Society Office. Notwithstanding the foregoing, the Board of Directors may, in its discretion, approve the resignation of a member in default of payment of dues or against whom a complaint or charge is pending before the Actuarial Board for Counseling and Discipline, the Canadian Institute of Actuaries, or other appropriate investigatory body, or against whom a recommendation for public disciplinary action has been made to the Society by the Actuarial Board for Counseling and Discipline, the Canadian Institute of Actuaries, or other appropriate investigatory body. The Board, on written application of any member who has resigned, may reinstate such member subject to such conditions as it may prescribe.

No member of the Society shall be subject to public disciplinary action except upon action of the appropriate disciplinary body in accordance with the Bylaws of the Society.

# ARTICLE XI.—Use of Financial Resources: Dissolution

The funds of the Casualty Actuarial Society shall be devoted exclusively to the purposes stated in Article II hereof. No part of the net earnings of the Society shall inure to the benefit of, or be distributable to, its members, Directors, Officers, or other private persons, except that the Society shall be authorized and empowered to pay reasonable compensation for services rendered and to make payments and distributions in furtherance of the purposes set forth in Article II hereof. If the Casualty Actuarial Society is dissolved, all of its remaining assets shall be transferred to one or more organizations organized and operating exclusively for purposes similar to those of the Casualty Actuarial Society and which qualifies as an exempt organization under section 501(c)(3) of the Internal Revenue Code of 1954 (or the corresponding provision of any future Internal Revenue Law).

# **ARTICLE XII.—Amendments**

This Constitution may be amended by an affirmative vote of 10% of the Fellows or two-thirds of the Fellows voting, whichever is greater. Notice of such proposed amendment shall be sent to each Fellow by the Casualty Actuarial Society Office at least one month before the vote is taken.

An amendment to the Constitution can be proposed by a two-thirds majority vote of the Board members voting. Alternatively, an amendment can be proposed by a petition of 5% of the Fellows, unless such petition is vetoed by a two-thirds majority vote of the Board members voting.



# (As Amended September 2, 2011)

# **ARTICLE I.—Order of Business**

The Board of Directors shall authorize the procedure for determining the agenda and order of business at all meetings.

# ARTICLE II.—Meetings of the Board of Directors

Meetings of the Board of Directors shall be chaired by the immediate past President and shall be called whenever the immediate past President or three members of the Board so request. Notice shall be sent to each member of the Board seven or more days before the time appointed. Such notice shall state the objects intended to be brought before the meeting, and, should any other matter be passed upon, any member of the Board shall have the right to reopen the question at the next meeting. At Board meetings, the presiding officer may vote in all cases.

A two-thirds vote of the Board members voting is required for approval or promulgation of statements of principles.

# **ARTICLE III.—Duties of Officers**

#### **SECTION 1.—President**

The President shall preside at meetings of the Society and at meetings of the Executive Council. The President shall appoint all committees and shall perform all duties customarily incident to the Office of President and such other duties as may be prescribed by the Board of Directors from time to time.

# **SECTION 2.—President-Elect**

The President Elect shall have such duties as may be assigned by the President or the Board of Directors. In the absence of the President, or in the event of the President's inability or refusal to act, the President-Elect shall perform the duties of the President.

# **SECTION 3.—Vice Presidents**

Each of the Vice Presidents shall have such duties as may be assigned by the President or the Board of Directors. In the absence of both the President and President Elect, one of the Vice Presidents shall be designated by the Board of Directors to preside at meetings of the Society.

#### **ARTICLE IV.—Chief Staff Executive**

The Chief Staff Executive shall be responsible for keeping a full and accurate record of the proceedings of meetings of the Society and of the Board of Directors and for sending notices of such meetings. Subject to the direction of the Board, the Chief Staff Executive shall have immediate charge of the archives of the Society, and shall have charge of the books, pamphlets, manuscripts, and other literary or scientific material collected by the Society.

The Chief Staff Executive shall also be responsible for collecting the annual dues of members, paying all bills for ordinary expenditures incurred by the Society and any other bills as authorized by the Board of Directors, keeping a detailed record of all receipts and expenditures, and presenting an accounting of same at the annual meetings. After the financial statements have been audited and reviewed by a committee appointed by the Board of Directors a financial report will be released reflecting the audited results.

The Chief Staff Executive shall have such other duties as may be assigned by the President or the Board of Directors.

# **ARTICLE V.—Elections and Filling of Vacancies**

Procedures for nominations and elections shall be established by a majority vote of the Directors present and voting at a meeting of the Board of Directors. These procedures shall be provided to the membership annually at the beginning of the election process. A majority of the votes cast by Fellows shall be necessary for the election of the President-Elect. For the election of Directors, the four candidates with the highest number of votes cast shall be elected, subject to a requirement that one-third of the valid ballots cast for Director shall be necessary for the election of a Director.

The Board of Directors may fill vacancies in the term of any Officer or member of the Board. Any Officer so appointed shall serve until the next annual meeting. Any member of the Board so appointed shall serve, subject to ratification by the Fellows at the next meeting of the Society, until the expiration of the term of office of the Board member being replaced.

# **ARTICLE VI.—Discipline of Members**

# **SECTION 1.—Complaints and Questions**

- a. Complaints concerning alleged violations of the Code of Professional Conduct, and all questions which may arise as to the conduct of a member of the Society, in the member's relationship to the Society or its members, or in the member's professional practice, or questions affecting the interests of the actuarial profession, constitute matters for serious consideration.
- b. Such complaints, questions, or requests for advice shall be referred to the national organizations responsible for profession-wide investigation, counseling and/or discipline, e.g., the Actuarial Board for Counseling and Discipline (ABCD) and the Canadian Institute of Actuaries (CIA).

# SECTION 2.—Referral and Consideration of Public Disciplinary Action

Acting pursuant to Section 1, and if circumstances warrant, the appropriate investigatory body shall present a recommendation for disciplinary action to the Society. The member whose activities are the subject of the disciplinary recommendation is referred to here as the subject actuary.

Disciplinary action includes a public or private reprimand by, or suspension or expulsion from, the Society.

If an appropriate investigatory body recommends disciplinary action to the Society, the matter shall be referred to the appropriate disciplinary body.

The CAS Discipline Committee shall be the appropriate disciplinary body for all CAS disciplinary actions unless the disciplinary action is recommended by an appropriate investigatory body and is covered by the terms of any joint agreement for discipline among various actuarial organizations including the CAS. In those cases the appropriate disciplinary body shall be the joint disciplinary panel or other body as provided in such an agreement. Such an agreement and any amendments to such agreement are only binding on the CAS if approved by a two-thirds majority vote of the CAS Board members voting, provided that:

- (a) No CAS member will be disciplined unless a majority of the panel judging that CAS member is composed of CAS members and a majority of those CAS members concur with the discipline.
- (b) The authority to impose penalties of expulsion or suspension for more than two years for any CAS member will remain with the CAS.

Appeals under such agreement will also be handled in accordance with the provisions of that agreement.

Should the recommended disciplinary action under such agreement require referral to the CAS for final disciplinary action, then the CAS Discipline Committee shall be the appropriate disciplinary body but only with regards to determining disciplinary action consistent with the terms of such agreement.

The remainder of this Article VI refers to matters for which the CAS Discipline Committee is the appropriate disciplinary body.

The CAS Discipline Committee shall consider the matter and may take such disciplinary action with respect to the CAS member (the subject actuary) as it deems appropriate in accordance with Rules of Procedure adopted from time to time by the Board of Directors.

The CAS Discipline Committee shall consist of ten Fellows. The Chairperson shall form a Discipline Committee Panel consisting of seven members of the Discipline Committee each time a recommendation for disciplinary action against a member is received from

- (a) an appropriate investigatory body and such recommendation is not covered by any joint agreement for discipline, or
- (b) an appropriate disciplinary body consistent with the terms of such an agreement.

The Discipline Committee Panel shall schedule a hearing at which the subject actuary shall have the right to appear personally and with counsel and/or other advisor (at the subject actuary's expense) to explain why the recommendation of the investigatory body should not be followed. A hearing of the Discipline Committee Panel shall require a quorum to be present, which shall be five members of the Panel.

The Discipline Committee Panel shall provide written notice of this hearing, including the time, date, and place where the Discipline Committee will consider the matter, to the subject actuary not less than 45 days in advance of the hearing date. The 45-day time limit may be waived by mutual written consent of the parties.

A Discipline Committee Panel decision to render an order to publicly reprimand, suspend or expel the subject actuary requires an affirmative vote of at least five members of the Discipline Committee Panel. The decision of the Discipline Committee Panel shall include a written report of its findings and the rationale for the conclusion. The decision of the Discipline Committee Panel action shall be provided to the subject actuary within 30 days after the decision is reached.

The decision of the Discipline Committee Panel shall be considered final and binding unless written notice of appeal is submitted by the subject actuary within 45 days of receipt of the decision of the Panel.

# **SECTION 3.—Appeals**

The subject actuary shall be entitled to appeal the decision of the Discipline Committee Panel by submitting a written request for an appeal to the CAS President within 45 days from receipt of the Discipline Committee Panel decision.

The CAS President shall designate five members of the Board of Directors as eligible to serve on an Appeals Panel, from which the subject actuary shall select three members to serve on the Appeals Panel. The Appeals Panel shall act on behalf of the CAS Board of Directors and in accordance with the Rules of Procedure.

The full written record, decision, findings and vote of the Discipline Committee Panel shall be made available to the Appeals Panel. The appeal shall be based entirely upon the written record and shall not include any appearance by the subject actuary but may include a written submission by the subject actuary, and any reply submission by the Chairperson of the Discipline Committee Panel.

The Appeals Panel shall conduct and complete the appeal within 90 days after receipt of the request for appeal. The Appeals Panel may affirm, modify or reverse the decision of the Discipline Committee Panel. A decision to do other than affirm shall require a determination by the Appeals Panel that: (1) the Discipline Committee Panel's factual determinations were clearly erroneous and, absent such errors, a different action is warranted; or (2) the Discipline Committee Panel failed to conform to the Rules of Procedure in a manner that was unduly prejudicial and which led to an unwarranted result; or (3) the disciplinary action imposed by the Discipline Committee Panel was clearly inconsistent with the magnitude of the Code of Professional Conduct violation or the harm that was done. The decision of the Appeals Panel shall require the vote of at least two members of the Appeals Panel.

The Appeals Panel decision shall include a written statement of the Panel's findings and conclusions and shall be provided to the subject actuary, the Chairperson of the Discipline Committee Panel, the Panel members, the CAS President and Chief Staff Executive, the CAS Board of Directors and the authorized representative of the relevant investigatory or disciplinary body. The Appeals Panel decision shall be final.

#### **SECTION 4.—Reinstatement**

An individual who has been expelled may be reinstated only upon request to and approval of the Board of Directors.

# **SECTION 5.—Confidentiality and Notification**

All proceedings under this Article shall be confidential in accordance with the Rules of Procedure.

The Board of Directors shall notify the members in all instances in which the Discipline Committee Panel or other appropriate disciplinary body orders public disciplinary action. Notification shall not be given until the time to appeal has expired or, in the event of an appeal, until such appeal has been resolved. At the same time notification is given to the members, the Board of Directors shall also give notice of any public disciplinary action to the appropriate investigatory or disciplinary body, all other actuarial organizations of which the individual is a member, and to other persons and organizations, including government entities, which, in the opinion of the Board, should also receive notice of the action as being in the best interest of the public.

In the event of subsequent reinstatement of the member, the Board of Directors shall give notice of such action to all members and to entities previously advised by the Board of the public disciplinary action.

#### **SECTION 6.—Case Reviews**

The Board of Directors retains the right to review a decision by a national organization responsible for profession-wide counseling and discipline which does not result in a recommendation for disciplinary action with respect to a CAS member.

# ARTICLE VII.—Indemnification of Officers, Members of the Board of Directors, Committee Members, Presidential Appointees and Employees

Persons who at any time shall serve, or shall have served, as Officers, members of the Board of Directors, committee members, Presidential appointees, members of any disciplinary board of the Society, or who are employees, or who were employees of the Casualty Actuarial Society (and their heirs, executors, administrators, and personal representatives) shall be indemnified by the Society against all costs and expenses (including but not limited to legal fees, amounts of judgments paid, and amounts paid in settlements) reasonably incurred in connection with the defense of any claim, action, suit, or proceeding, whether civil, criminal, administrative, or other, in which they may be involved by virtue of such persons being or having been Officers, members of the Board of Directors, committee members, Presidential appointees, members of any disciplinary board of the Society, or who are employees, or who were employees of the Casualty Actuarial Society, or in connection with any appeal therein; provided, however, that in the event of a settlement the indemnification herein provided shall apply only when the Board of Directors approves such settlement; and provided further that such indemnity shall not be operative with respect to any matter as to which such person shall have been finally adjudged liable in such claim, action, suit, or proceeding on account of their own willful misconduct.

The rights accruing to any persons under this Article shall be without prejudice to any rights or benefits given by the Board of Directors inconsistent therewith in special cases and shall not exclude any other rights or benefits to which they may be lawfully entitled.

# **ARTICLE VIII.—Dues**

# **SECTION 1.—Amount**

The Board of Directors shall fix the annual dues for Fellows, Associates and Affiliates.

#### **SECTION 2.—Failure to Pay**

The Casualty Actuarial Society shall be responsible for notifying by mail any Fellow, Associate or Affiliate whose dues may be six months in arrears, and to accompany such notice by a copy of this Article. If a Fellow, Associate or Affiliate shall fail to make payment within three months from the date such notice is mailed, the Fellow, Associate or Affiliate shall cease to be a member, except at the discretion of the Board of Directors this provision may be waived.

# SECTION 3.—Exemption, Deferral or Waiver

The Board of Directors may, at its discretion and in accordance with established policy, exempt, defer or waive, partially or fully, the dues of any member who submits a written request to the Board of Directors before dues have become six months in arrears, citing the reason for the request.

#### **SECTION 4.—Reinstatement**

A Fellow, Associate or Affiliate who has ceased to be a member because of failure to pay dues, or by voluntary resignation, may be reinstated by a majority vote of the Board of Directors upon payment of a reapplication fee, to be set by the Board of Directors, and such payment may be partially or fully waived by the Board at its discretion.

#### **ARTICLE IX.—Amendments**

These Bylaws may be amended by an affirmative vote of 10% of the Fellows or two-thirds of the Fellows voting, whichever is greater. Notice of such proposed amendment shall be sent to each Fellow by the Casualty Actuarial Society at least one month before the vote is taken.

An amendment to the Bylaws can be proposed by a two-thirds majority vote of the Board members voting. Alternatively, an amendment can be proposed by a petition of 5% of the Fellows, unless such petition is vetoed by a two-thirds majority vote of the Board members voting.

# CAS CENTENNIAL GOAL

# (ADOPTED BY CAS BOARD, MARCH 2007)

The CAS will be recognized globally as a leading resource in educating casualty actuaries and conducting research in casualty actuarial science. CAS members will advance their expertise in pricing, reserving, and capital modeling, and leverage their skills in risk analysis to become recognized as experts in the evaluation of enterprise risks, particularly for the property and casualty insurance industry.

# CASUALTY ACTUARIAL SOCIETY RULES OF PROCEDURE FOR DISCIPLINARY ACTIONS

# (As Amended May 3, 2009)

The Board of Directors of the Casualty Actuarial Society (CAS) has promulgated these Rules of Procedure to govern the consideration and recommendations for disciplinary action against members presented by the appropriate investigatory body, e.g., the Actuarial Board for Counseling and Discipline (ABCD) or the Canadian Institute of Actuaries (CIA). These Rules are intended to provide fundamental fairness and due process in the procedure for disciplinary action by requiring adequate notice, an opportunity to respond, and a fair and impartial decision maker in the discipline process.

The Board reserves the right to amend or otherwise alter these Rules of Procedure as it deems necessary and delegates the interpretation of these rules to the CAS Discipline Committee.

#### Introduction

The CAS Discipline Committee shall consist of 10 Fellows. The Chairperson shall form a Discipline Committee Panel consisting of 7 members of the Discipline Committee each time a recommendation for disciplinary action against a member is received from an investigatory body. If 7 members of the Committee without a conflict of interest cannot be found the President shall appoint (a) special member(s) to the Discipline Committee Panel to complete the formation of the Panel.

The Discipline Committee Panel shall be responsible for considering recommendations for disciplinary actions against members presented by the appropriate investigatory body and for taking actions on those recommendations as it deems appropriate. The member whose activities are the subject of the disciplinary recommendation is referred to here as the subject actuary.

# A. Consideration of Disciplinary Action

- 1. When the CAS receives from the appropriate investigatory body a written report recommending reprimand, suspension, or expulsion of a member of the CAS (the subject actuary) the matter shall be referred to the Chairperson of the Discipline Committee.
- 2. The Chairperson shall review the recommendation and record provided by the investigatory body and may seek further information from them or delegate further fact-finding or investigation to other members of the Committee.
- 3. The Chairperson shall schedule a hearing at which the subject actuary shall have the right to appear personally and with counsel and/or other advisor (at the subject actuary's expense) to explain why the recommendation of the investigatory body should not be followed.
- 4. The Chairperson, with the assistance of the CAS Executive Director, may engage legal counsel to advise the CAS and to explain relevant legal principles.
- 5. The Chairperson shall provide written notice of this hearing, including the time, date, and place where the Discipline Committee Panel will consider the matter to the subject actuary not less than 45 days in advance of the hearing. The 45-day time limit may be waived by mutual written consent of the parties.
- 6. The notice shall also be provided to the members of the CAS Discipline Committee, the CAS President, the CAS Executive Director and the authorized representative of the investigatory body that recommended discipline. The notice shall:
  - a. advise the subject actuary that disciplinary action has been recommended by the investigatory body, state the charge(s) made, and cite the specific Code of Professional Conduct violations that are alleged;
  - b. advise the subject actuary of the right to submit any new evidence which was not previously made available to or considered by, the investigatory body;
  - c. advise the subject actuary of the right to appear at the Discipline Committee Panel hearing with or without counsel and/or other advisor at the expense of the subject actuary;
  - d. list the Fellows who will serve on the Discipline Committee Panel and advise the subject actuary of the right to object to any Panel member he or she believes might have an actual or potential conflict of interest, provided that he or she must state the basis for that conflict in writing within 30 days of receipt of the written notice from the Chairperson; in the event that the subject actuary objects to a Panel member, the Chairperson (or, in the event that the person alleged to have the conflict is the Chairperson, the President of the CAS) shall determine if an actual conflict exists and if determined so to exist, shall appoint a replacement Panel member without a conflict of interest to consider the matter.
  - e. The Chairperson of the Discipline Committee shall serve as the Chairperson of the Discipline Committee Panel. If the Chairperson has a conflict of interest the CAS President shall designate one of the Panel members as the Panel Chairperson.

This notification may be made by certified mail or in such other manner in which receipt may be verified as the Discipline Committee Chairperson may direct.

- 7. If the subject actuary does not request an appearance, the Chairperson shall so advise the Panel members and the Panel shall then meet in person or by teleconference to consider the matter under review and render a decision in accordance with these Procedures.
- 8. If the subject actuary requests an appearance before the Discipline Committee Panel, any additional factual materials or new evidence which he or she wishes to be considered by the Panel must be submitted in writing at least 15 days in advance of the hearing.
- 9. A hearing of the Discipline Committee Panel shall require a quorum to be present, which shall be 5 members of the Panel. A Discipline Committee Panel decision to render an order to reprimand, suspend or expel the subject actuary requires the affirmative vote of at least 5 members of the Discipline Committee Panel. Members of the Committee Panel who were not in attendance at the hearing may not vote on the outcome.
- 10. A transcript shall be made of the hearing of the Discipline Committee Panel by a court reporter selected by the CAS. No other recording of the hearing will be permitted. However, since the hearing is intended to address the professional conduct of the subject actuary, professional dialogue between the subject actuary and Panel members should not be impeded by formal legal rules of evidence or procedure. Accordingly, there shall be no discovery, no depositions or interrogatories, and no new information or testimony presented by the subject actuary that was not provided in writing at least 15 days prior to the appearance.
- 11. The subject actuary may make an oral presentation of reasonable length and respond to any questions posed by the Discipline Committee Panel members. The subject actuary may be accompanied by legal counsel or other advisor, and may consult with such counsel. However, the role of such counsel shall be limited to providing advice to the client and explaining relevant legal principles.
- 12. The deliberations of the Discipline Committee Panel shall be limited to Panel members and counsel to the CAS. The Discipline Committee Panel has discretion to accept, reject, or modify the recommendation received from the investigatory body.
- 13. The Discipline Committee Panel decision shall be based on the investigative report, written record and any further information provided by the investigatory body as well as any additional fact-finding or investigation by the Discipline Committee Panel, and any new evidence submitted in writing by the subject actuary at least 15 days in advance of the hearing. In reaching its decision the Panel shall consider without limitation the intent of the subject actuary, whether the violation was willful, the economic loss or other harm caused by the conduct alleged, the seriousness of the violation, the experience of the subject actuary, any alleged prejudicial material errors in the process of the investigatory body, and any other factors the Panel deems appropriate. The Panel may also take into consideration whether the subject actuary has been disciplined before and the Chairperson is authorized to inquire with the CAS Executive Director or any other body in this regard.
- 14. The decision of the Discipline Committee Panel shall include a written report of its findings and the rationale for the conclusion. If the Panel determines that a violation of the Code of Professional Conduct has not occurred the decision should explain why the Panel's conclusion differs from that of the investigatory body. If the Panel determines that a violation has occurred the decision should cite the specific Code provisions violated and explain how the subject actuary's conduct constituted a Code violation. The Panel decision should also contain the rationale for the disciplinary action chosen.
- 15. The decision of the Discipline Committee Panel, including the vote, shall be provided to the subject actuary within 30 days after the decision is reached. Copies of the Panel decision shall be provided to the CAS President and the CAS Executive Director. The decision of the Panel shall be considered final and binding unless written notice of appeal is submitted by the subject actuary within 45 days of receipt of the decision of the Panel. If there is no request for appeal submitted by the subject actuary, the President shall then also provide notice of the decision of the Discipline Committee Panel to the Board of Directors.

# B. Appeals

- 1. The subject actuary shall be entitled to appeal the decision of the Discipline Committee Panel by submitting a written request for an appeal to the CAS President within 45 days from receipt of the Discipline Committee Panel decision.
- 2. Upon receipt of the written request for appeal, the CAS President shall designate 5 members of the Board of Directors who do not have a conflict of interest as eligible to serve on an Appeals Panel and provide those names to the subject actuary.
- 3. Within 5 days of receipt of those names the subject actuary shall select three of those designated Board members to serve on the Appeals Panel and provide those choices to the CAS President. The President shall select one of those three to serve as the Chairperson of the Appeals Panel and shall so notify the three panel members, the subject actuary and the CAS Executive Director. The Appeals Panel shall act on behalf of the CAS Board of Directors.
- 4. In the event of a request for appeal by the subject actuary, the full written record, decision, findings and vote of the Discipline Committee Panel shall be made available to the Appeals Panel. The appeal shall be based entirely upon the written record and shall not include any appearance by the subject actuary but may include a written submission by the subject actuary, and any reply submission by the Chairperson of the Discipline Committee Panel.
- 5. The Appeals Panel shall conduct and complete the appeal within 90 days after receipt of the request for appeal. The Appeals Panel may affirm, modify or reverse the decision of the Discipline Committee Panel. A decision to do other than affirm shall require a determination by the Appeals Panel that: (1) the Discipline Committee Panel's determinations were clearly erroneous and, absent such errors, a different action is warranted; or (2) the Discipline Committee Panel failed to conform to the Rules of Procedure in a manner that was unduly

prejudicial and which led to an unwarranted result; or (3) the disciplinary action imposed by the Discipline Committee Panel was clearly inconsistent with the seriousness of the Code of Professional Conduct violation(s) or the harm that was done. The decision of the Appeals Panel shall require the vote of at least 2 members of the Appeals Panel.

The Appeals Panel decision shall include a written statement of the Panel's findings and conclusions and shall be provided to the subject actuary, the Chairperson of the Discipline Committee Panel, the Panel members, the CAS President and Executive Director, and the CAS Board of Directors. The Appeals Panel decision shall be final.

# C. Confidentiality of Process

- 1. All proceedings with respect to communications, investigations, and deliberations as provided in these Rules, shall be confidential. This requirement shall not preclude the investigatory body from advising, at its discretion, complainants about the outcome of their complaints. And, this requirement of confidentiality shall not preclude the investigatory body from reviewing previously closed files as they relate, in any manner, to the consideration of a new matter before it.
- 2. Notwithstanding the above, should there be any unauthorized disclosure of information with respect to these confidential proceedings, the CAS shall have the right to respond to such disclosure by providing factual information about the deliberations and proceedings.
- 3. In all cases, except with respect to the specific notification authorized pursuant to Section D., the matter shall continue to be treated in a confidential manner, with all records of the hearing and any appeal sealed and retained by the CAS Office under the control of the Executive Director. The Discipline Committee Panel Chairperson, the President, or the Executive Director may, however, be required to divulge such records by court order or other legal process in some circumstances, or as necessary to fulfill their appointed functions.

# D. Disposition

- 1. The Board of Directors shall notify the members in all instances in which the Discipline Committee Panel orders public disciplinary action. Notification shall not be given until the time to appeal has expired or, in the event of an appeal, until such appeal has been resolved. Specifically, such notification shall not take place until after the subject actuary has received notice of the decision of the Discipline Committee Panel or Appeals Panel, as applicable, or otherwise reasonable efforts have been made to effect that notification.
- 2. At the same time notification of public disciplinary action is given to the members, the Board of Directors shall also give notice of any such disciplinary action to the appropriate investigatory body, all other actuarial organizations of which the actuary is a member, and to other persons or organizations, including governmental entities, which, in the opinion of the Board, should also receive notice of the action as being in the best interest of the public.
- 3. The President on behalf of the Board shall initiate and direct the action necessary to comply with the final decision and the determination of appropriate notification by the Board in cases of public disciplinary action. In the event that the Discipline Committee Panel hearing or the appeal results in no public disciplinary action, the President shall authorize the specified private disciplinary action, if any.
- 4. In the event of subsequent reinstatement of the subject actuary, the Board of Directors shall give notice of such action to all then current members and to entities previously advised by the Board of the public disciplinary action.

# E. Report on Activities

The Discipline Committee shall issue an annual report to the Board of Directors and to the membership that shall include a description of its activities, including commentary on the types of cases pending, resolved, and dismissed. This annual report shall be subject to the confidentiality requirements and provisions set forth above.

# CROSS-BORDER DISCIPLINE AGREEMENT

# (Effective November 1, 2005)

This is an agreement between the Canadian Institute of Actuaries ("CIA") and the American Academy of Actuaries ("AAA"), the American Society of Pension Professionals and Actuaries, the Casualty Actuarial Society, the Conference of Consulting Actuaries, and the Society of Actuaries (collectively "the U.S.-based organizations"). The CIA and the U.S.-based organizations agree that it is in the best interests of their members to reduce the risk that their members will be subjected to multiple disciplinary investigations arising out of a single complaint, inquiry or incident involving an alleged breach of the professional standards of the CIA and/or the U.S.-based organizations. Consequently, with regard to their members practicing in the United States and Canada, the CIA and the U.S.-based organizations agree as follows:

- 1. Members of the U.S.-based organizations practicing in Canada are required by the U.S.-based organizations to comply with the Rules of Professional Conduct, Standards of Practice and eligibility requirements of the CIA. Members of the CIA practicing in the United States are required by the CIA to comply with the Codes of Professional Conduct, Qualification Standards and Actuarial Standards of Practice of the U.S.-based organizations. The location(s) of the member's practice in each case is determined by the ultimate purpose(s) of the member's work, as determined by the facts and circumstances of the case. As between the United States and Canada, the ultimate purpose(s) of a member's work is determined by whether the work is performed pursuant to the legal or regulatory requirements of the United States or Canada, or whether it is intended for use in the United States or Canada. (Thus, for example, an actuary who performed work to be filed with a United States governmental body would be deemed to have practiced in the United States when performing that work; similarly, an actuary who performed work to be filed with a Canadian governmental body would be deemed to have practiced in Canada when performing that work.) The residence or physical location of the actuary is irrelevant to the determination of whether the actuary has practiced in the United States or Canada.
- 2. Questions concerning members' practice in Canada are investigated by the CIA in accordance with its rules and bylaws. Questions concerning members' practice in the United States are investigated by the Actuarial Board for Counseling and Discipline and acted upon by the U.S.-based organizations in accordance with their rules and bylaws.
- 3. If a question arises concerning a CIA member's practice in the United States and the CIA member is not also a member of one or more of the U.S.-based organizations, the question will be investigated by the Actuarial Board for Counseling and Discipline and reviewed by the Academy in accordance with its rules and bylaws as if the CIA member were a member of the Academy.
- 4. The parties hereby agree that, in instances where it is unclear whether a complaint, inquiry, or incident involving a member should be investigated by the CIA or by the ABCD, the CIA's executive director and legal counsel to the ABCD will initiate discussions between the CIA and ABCD to determine which organization will undertake the investigation.
- 5. A determination by the CIA that a member of one or more of the U.S.-based organizations breached the applicable rules of the CIA when practicing in Canada will be made solely by the CIA, and will be deemed final by all the parties to this agreement when the appeal process of the CIA has been exhausted. A determination by one or more of the U.S.-based organizations that a member of the CIA breached the applicable rules of the U.S.-based organization(s) when practicing in the United States will be made solely by the U.S.-based organizations pursuant to findings and recommendation of the ABCD, and will be deemed final by all the parties to this agreement as to each U.S.-based organization when the appeal process of that U.S.-based organization has been exhausted.
- 6. The CIA will retain sole authority to determine the penalty to be imposed by the CIA upon one of its members based upon a finding by one or more of the U.S.-based organizations that a CIA member breached applicable rules when practicing in the United States. Each of the U.S.-based organizations will retain sole authority to determine the penalty to be imposed by that organization upon one of its members based upon a finding by the CIA that the member breached applicable rules when practicing in Canada.
- 7. The CIA agrees to communicate to the relevant U.S.-based organizations any public finding that a member of the U.S.-based organizations breached applicable rules when practicing in Canada, regardless of whether the member is also a member of the CIA, and to provide each of the relevant U.S.-based organizations with a copy of the Appeal Tribunal transcript, if any, or the transcript of the Disciplinary Tribunal and the findings of the Appeal Tribunal, if any, or the findings of the Disciplinary Tribunal. The CIA will also provide to the U.S.-based organizations upon request any and all additional documents and evidence considered by the tribunal in rendering its decision not subject to the solicitor-client or litigation privileges. Each of the U.S.-based organizations agrees to communicate to the CIA any finding that a member of that U.S.-based organization who is also a member of the CIA breached applicable rules when practicing in the U.S., and to provide a copy of the ABCD's findings and conclusions and a summary of the U.S.-based organization's conclusions, as well as other documents not subject to the attorney-client or attorney work product privileges, upon request from the CIA. The Academy agrees to communicate to the CIA any finding that a CIA member who is not also a member of any U.S.-based organization breached applicable rules when practicing in the United States, and to provide a copy of the ABCD's findings and conclusions and a summary of the Academy's conclusions, as well as other documents not subject to the attorney-client or attorney work product privileges upon request from the CIA. The parties will communicate to each other any finding of breach of applicable rules that results in public discipline, but will not com-

municate or provide copies of documents generated through investigation of a complaint or question concerning an actuary's conduct that did not result in public discipline.

- 8. The CIA and each of the U.S.-based organizations will not recommend to each other that any specific penalty be imposed upon a member based upon a finding that a member breached applicable rules of conduct, qualification or practice, but they will recommend that public disciplinary action be considered against a member if that member has been found to have breached applicable rules of conduct, qualification or practice.
- 9. Where, in accordance with the Cross-Border Discipline Agreement, the CIA communicates to the relevant U.S.-based organization(s) a finding that a member of one or more of the U.S.-based organizations has breached applicable rules of conduct, qualification or practice when practicing in Canada, or the U.S.-based organization communicates to the CIA a finding that a CIA member has breached applicable rules of conduct, qualification, or practice when practicing in the United States, the parties hereby agree that each of the recommending organization(s) designates the following representative to assist in answering any questions that the penalizing organization(s) may have with respect to the recommendation(s):

Academy:	Executive Director
ASPPA:	Executive Director
CAS:	Executive Director
CCA:	Executive Director
CIA:	Executive Director
SOA:	Executive Director

Nothing in this agreement prevents a penalizing organization, when it receives a recommendation for discipline pursuant to this agreement, from undertaking whatever action it deems necessary, consistent with its own disciplinary procedures, for the limited purpose of determining whether a material breach of its own Code of Professional Conduct or Rules of Professional Conduct warranting discipline occurred.

10. The parties will each take the necessary steps to amend their rules and bylaws to implement this agreement.

This agreement will take effect for all complaints, inquiries or incidents involving members; practice as between the United States and Canada that are under consideration by the parties as of November 1, 2005.

# DUES

**DUES SCHEDULE:** The schedule of CAS membership dues as approved by the Board of Directors for 2011 is as follows:

**Full Dues** 

Fellows, Associates \$475.00 Affiliate Members \$238.00

For U.S. members who are not also members of the American Academy of Actuaries, an additional \$80.00 is added to the CAS dues for the cost of operating the Actuarial Standards Board (ASB) and the Actuarial Board for Counseling and Discipline (ABCD).

**LATE FEE:** A late fee of \$75 will be assessed to member dues that have not been paid by January 31, 2013.

**WAIVER OR DEFERRAL OF DUES:** As prescribed by the CAS bylaws, a member may submit a written request for waiver of dues to the Board of Directors before dues have become six months in arrears citing the reason for the request.

The request for a dues waiver, either partial or full, will be granted in the following situations:

# Permanent Dues Waivers:

- 1. Attainment of age 70 (full dues waiver).
- 2. Attainment of age 55 and deriving little or no earned income (full dues waiver).

# Temporary Dues Waivers:

- 1. Retiring before the age of 55, deriving little or no earned income, and volunteering on a committee (CAS or Regional Affiliate), authoring a paper, participating as a panelist, or otherwise contributing to the Society (full dues waiver).
- 2. Retiring before the age of 55, deriving little or no earned income, and not actively contributing to the Society (50% partial dues waiver).
- 3. A Member on temporary leave from the actuarial profession because of active military service. This waiver is for one year and may be renewed each year upon written request.
- 4. A Member on temporary leave from the actuarial profession and deriving little or no earned income because of
  - a. a disability, or
  - b. full-time attendance at an accredited school of higher education, or
  - c. participating in a voluntary humanitarian service (Peace Corps, etc.), or
  - d. raising children or caring for another family member.

A Temporary Waiver granted for any of the reasons listed under item 4 above is for one year and may be renewed four additional years upon written request (maximum of five). Thereafter, additional requests for a temporary dues waiver for the reasons identified in item 4a-4c will require special consideration by the Board. Additional temporary full dues waivers for item 4d, may be granted to a member who is currently volunteering on a committee (CAS or Regional Affiliate), authoring a paper, participating as a panelist, or otherwise contributing to the Society. If not actively contributing to the Society, those members applying under item 4d may be granted unlimited additional 50% partial dues waivers.

There is no lifetime limit imposed for temporary waivers granted under the reasons identified in items 1, 2, 3, and the extension to 4d described in the preceding paragraph.

**Dues Deferral:** A member who is unemployed and actively seeking employment may submit a written request for deferral of dues to the Board of Directors before dues have become six months in arrears. The request will be granted for one year and may be renewed for one additional year upon written request. Deferred dues are payable when the member becomes employed.

Other Dues Waiver Requests: The Board will consider written requests for waivers for other reasons and may, at its discretion, by a majority vote waive the dues of a member.

**Failure to Pay:** Failure to pay dues when no waiver or deferral has been granted will cause the member to be dropped from the rolls and be subject to the reinstatement policy.

**Publications for Member with Dues Waived:** The rights and privileges appertaining to membership are not affected by a member's dues-waived or deferred status, with the exception that members in a full dues-waived status may elect to receive the *Variance* Journals for a fee of \$50.00 U.S. Members in a partial dues waived status will continue to receive *Variance* at no additional charge.

# AFFILIATE MEMBERSHIP

The Casualty Actuarial Society (CAS) has a class of membership, Affiliate, to serve qualified actuaries who practice in the general insurance field and wish to be active in the CAS, but do not meet the qualifications to become an Associate or Fellow of the CAS. Affiliate Membership recognizes that the Affiliate Member has been granted professional status as an actuary by another actuarial organization and practices in the property/casualty field.

Affiliates are governed by the CAS Constitution, Bylaws and Code of Professional Conduct, and are subject to CAS disciplinary procedures (documents may be viewed on the CAS Web Site). Practice rights are not granted to Affiliate Members; rather they must adhere to U.S., Canadian, or other nation specific qualification standards to determine eligibility to practice.

Affiliates are entitled to attend meetings and seminars of the CAS by paying the fees specified for members, participate at Society functions, and serve on CAS committees (except for Admissions and Board committees). Affiliates are assessed 50% of the annual dues for Associates and Fellows.

Affiliates receive all CAS publications including Actuarial Review (a quarterly newsletter) and Variance (a scientific journal). They also are granted access to the Member Directory on the CAS Web Site (upon application for a password).

They are not authorized to append CAS initials to their name or to refer to themselves as "Member of the Casualty Actuarial Society." Rather, they can refer to themselves as "Affiliate Member of the CAS" or "Affiliate of the CAS." Affiliates do not have CAS voting rights.

Applicants for Affiliate Membership must be sponsored by a CAS Fellow (including a letter of recommendation from the sponsoring Fellow); provide evidence of attaining membership of an organization that is a member of the International Actuarial Association; and provide evidence of significant practice in the property/casualty field.

The requirement for significant practice in the property/casualty field can be met by practice in any application of actuarial science other than life insurance or pensions. If the candidate does not practice outside the life or pension fields on a fulltime basis, significant practice should be demonstrated through recent, responsible actuarial work on several projects, indicating an intention to continue practice outside the life and pension fields.

To apply for Affiliate Membership, please print and complete the application, and provide documentation as prescribed.

# SUBSCRIBER PROGRAM

The Subscriber Program is for non-members (other than Academic Correspondents) who have an interest in the activities of the Casualty Actuarial Society of the United States. Individuals and organizations (for example, companies or regulatory bodies) are eligible for the Program. Enrollment as a Subscriber for 2013 requires payment of \$540 U.S. funds and acceptance of the guidelines regarding activities at CAS meetings and CAS sponsored seminars.

Subscribers receive *Variance* (a scientific journal), *Actuarial Review* (a quarterly newsletter), and notices of CAS meetings and seminars. Subscribers may attend CAS meetings and seminars by paying the same registration fee as a member. For an organization, one person may attend each meeting or seminar for each paid subscribership.

An additional benefit to the program is the ability to obtain access to certain password protected areas of the CAS Web Site, such as the searchable Directory of Members and the online dues payment area. Plus, when you "login," meeting registration forms and online store order forms are automatically populated with your name and address. Be sure to indicate your preferred password on the application form.

Subscribership does not bestow upon the designated individual the professional status attained by those fulfilling the examination and other requirements for membership in the Casualty Actuarial Society, nor does it grant to the individual or the participating organization recognition in the regular membership roster of the Society or the privileges of membership other than specified above.

# **ACADEMIC CORRESPONDENTS**

The Academic Correspondent program is for nonmembers who are involved in teaching actuarial science, mathematics, economics, business, or related courses, and who have an interest in the Casualty Actuarial Society. Such persons, by indicating their teaching involvement and their interest, and by payment of an annual fee of \$75 (U.S. funds) to the Society, are enrolled as Academic Correspondents. Academic Correspondents receive copies of *Variance* (a scientific journal), the *Actuarial Review* (a quarterly newsletter), *Future Fellows* (the candidate newsletter), and other publications of the Society. Academic Correspondents also receive notice of CAS meetings and seminars. Registration fees for up to three CAS meetings and continuing education seminars annually will be waived for Academic Correspondents. The CAS will make a grant to an Academic Correspondent's educational institution when the Academic Correspondent attains a CAS designation (\$7,500 for Fellow and \$5,000 for Associate).

Any organization, such as a university mathematics department, may become an Academic Correspondent and have one person attend each meeting. It should be noted that the Academic Correspondent program does not bestow upon a nonmember the professional status attained by those fulfilling the examination and other requirements for membership in the Society, nor does it grant to the individual or the participating organization recognition in the regular membership roster of the Society or privileges of membership other than specified above.

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# CODE OF PROFESSIONAL CONDUCT

(As Amended November 12, 2000) (Effective Date: January 1, 2001)

The purpose of this Code of Professional Conduct ("Code") is to require Actuaries to adhere to the high standards of conduct, practice, and qualifications of the actuarial profession, thereby supporting the actuarial profession in fulfilling its responsibility to the public. An Actuary shall comply with the Code. An Actuary who commits a material violation of the provisions of the Code shall be subject to the profession's counseling and discipline procedures.

The Precepts of the Code identify the professional and ethical standards with which an Actuary must comply in order to fulfill the Actuary's responsibility to the public and to the actuarial profession. The Annotations provide additional explanatory, educational, and advisory material on how the Precepts are to be interpreted and applied.

In addition to this Code, an Actuary is subject to applicable rules of professional conduct or ethical standards that have been promulgated by a Recognized Actuarial Organization for the jurisdictions in which the Actuary renders Actuarial Services. Actuarial Services are considered to be rendered in the jurisdictions in which the Actuary intends them to be used unless specified otherwise by an agreement between a Recognized Actuarial Organization for any such jurisdiction and the organizations that have adopted the Code.

Laws may also impose obligations upon an Actuary. Where requirements of Law conflict with the Code, the requirements of Law shall take precedence.

An Actuary must be familiar with, and keep current with, not only the Code, but also applicable Law and rules of professional conduct for the jurisdictions in which the Actuary renders Actuarial Services. An Actuary is responsible for securing translations of such Laws or rules of conduct as may be necessary.

#### Definitions:

As used throughout the Code, the following terms are capitalized and have the meanings indicated:

Actuarial Communication: A written, electronic, or oral communication issued by an Actuary with respect to Actuarial Services.

<u>Actuarial Services:</u> Professional Services provided to a Principal by an individual acting in the capacity of an actuary. Such services include the rendering of advice, recommendations, findings, or opinions based upon actuarial considerations.

<u>Actuary:</u> An individual who has been admitted to a class of membership to which the Code applies by action of any organization having adopted the Code. When the term "actuary" is used without being capitalized, it refers to any individual practicing as an actuary, regardless of organizational membership or classification.

<u>Confidential Information</u>: Information not in the public domain of which an Actuary becomes aware as a result of providing Actuarial Services to a Principal. It includes information of a proprietary nature and information that is legally restricted from circulation.

<u>Law:</u> Statutes, regulations, judicial decisions, and other statements having legally binding authority.

**Principal:** A client or employer of the Actuary.

<u>Recognized Actuarial Organization:</u> An organization that has been accepted for full membership in the International Actuarial Association or a standards setting, counseling, or discipline body to which authority has been delegated by such an organization.

# **Professional Integrity**

PRECEPT 1. An Actuary shall act honestly, with integrity and competence, and in a manner to fulfill the profession's responsibility to the public and to uphold the reputation of the actuarial profession.

ANNOTATION 1-1. An Actuary shall perform Actuarial Services with skill and care.

ANNOTATION 1-2. An Actuary shall not provide Actuarial Services for any Principal if the Actuary has reason to believe that such services may be used to violate or evade the Law or in a manner that would be detrimental to the reputation of the actuarial profession.

ANNOTATION 1-3. An Actuary shall not use a relationship with a third party or with a present or prospective Principal to attempt to obtain illegal or materially improper treatment from one such party on behalf of the other party.

ANNOTATION 1-4. An Actuary shall not engage in any professional conduct involving dishonesty, fraud, deceit, or misrepresentation or commit any act that reflects adversely on the actuarial profession.

# **Qualification Standards**

PRECEPT 2. An Actuary shall perform Actuarial Services only when the Actuary is qualified to do so on the basis of basic and continuing education and experience and only when the Actuary satisfies applicable qualification standards.

ANNOTATION 2-1. It is the professional responsibility of an Actuary to observe applicable qualification standards that have been promulgated by a Recognized Actuarial Organization for the jurisdictions in which the Actuary renders Actuarial Services and to keep current regarding changes in these standards.

ANNOTATION 2-2. The absence of applicable qualification standards for a particular type of assignment or for the jurisdictions in which an Actuary renders Actuarial Services does not relieve the Actuary of the responsibility to perform such Actuarial Services only when qualified to do so in accordance with this Precept.

# **Standards of Practice**

PRECEPT 3. An Actuary shall ensure that Actuarial Services performed by or under the direction of the Actuary satisfy applicable standards of practice.

- ANNOTATION 3-1. It is the professional responsibility of an Actuary to observe applicable standards of practice that have been promulgated by a Recognized Actuarial Organization for the jurisdictions in which the Actuary renders Actuarial Services and to keep current regarding changes in these standards.
- ANNOTATION 3-2. Where a question arises with regard to the applicability of a standard of practice, or where no applicable standard exists, an Actuary shall utilize professional judgment, taking into account generally accepted actuarial principles and practices.
- ANNOTATION 3-3. When an Actuary uses procedures that depart materially from those set forth in an applicable standard of practice, the Actuary must be prepared to justify the use of such procedures.

# **Communications and Disclosure**

PRECEPT 4. An Actuary who issues an Actuarial Communication shall take appropriate steps to ensure that the Actuarial Communication is clear and appropriate to the circumstances and its intended audience and satisfies applicable standards of practice.

- ANNOTATION 4-1. An Actuary who issues an Actuarial Communication shall ensure that the Actuarial Communication clearly identifies the Actuary as being responsible for it.
- ANNOTATION 4-2. An Actuary who issues an Actuarial Communication should indicate the extent to which the Actuary or other sources are available to provide supplementary information and explanation.
- PRECEPT 5. An Actuary who issues an Actuarial Communication shall, as appropriate, identify the Principal(s) for whom the Actuarial Communication is issued and describe the capacity in which the Actuary serves.
- PRECEPT 6. An Actuary shall make appropriate and timely disclosure to a present or prospective Principal of the sources of all direct and indirect material compensation that the Actuary or the Actuary's firm has received, or may receive, from another party in relation to an assignment for which the Actuary has provided, or will provide, Actuarial Services for that Principal. The disclosure of sources of material compensation that the Actuary's firm has received, or may receive, is limited to those sources known to, or reasonably ascertainable by, the Actuary.
  - ANNOTATION 6-1. An Actuary who is not financially and organizationally independent concerning any matter related to the performance of Actuarial Services should disclose to the Principal any pertinent relationship that is not apparent.
  - ANNOTATION 6-2. An Actuary employed by a firm that operates in multiple locations is subject to the requirement of disclosure of sources of compensation that the Actuary's firm may receive in relation to Actuarial Services with respect to a specific assignment for that Principal, regardless of the location in which such compensation is received.

# **Conflict of Interest**

PRECEPT 7. An Actuary shall not knowingly perform Actuarial Services involving an actual or potential conflict of interest unless:

- (a) the Actuary's ability to act fairly is unimpaired;
- (b) there has been disclosure of the conflict to all present and known prospective Principals whose interests would be affected by the conflict; and
- (c) all such Principals have expressly agreed to the performance of the Actuarial Services by the Actuary.

#### **Control of Work Product**

PRECEPT 8. An Actuary who performs Actuarial Services shall take reasonable steps to ensure that such services are not used to mislead other parties.

ANNOTATION 8-1. An Actuarial Communication prepared by an Actuary may be used by another party in a way that may influence the actions of a third party. The Actuary should recognize the risks of misquotation, misinterpretation, or other misuse of the Actuarial Communication and should therefore take reasonable steps to present the Actuarial Communication clearly and fairly and to include, as appropriate, limitations on the distribution and utilization of the Actuarial Communication.

# **Confidentiality**

PRECEPT 9. An Actuary shall not disclose to another party any Confidential Information unless authorized to do so by the Principal or required to do so by Law.

# **Courtesy and Cooperation**

PRECEPT 10. An Actuary shall perform Actuarial Services with courtesy and professional respect and shall cooperate with others in the Principal's interest.

- ANNOTATION 10-1. Differences of opinion among actuaries may arise, particularly in choices of assumptions and methods. Discussions of such differences between an Actuary and another actuary, or in observations made by an Actuary to a Principal on the work of another actuary, should be conducted objectively and with courtesy and respect.
- ANNOTATION 10-2. A Principal has an indisputable right to choose a professional advisor. An Actuary may provide service to any Principal who requests it, even though such Principal is being or has been served by another actuary in the same matter.
- ANNOTATION 10-3. An Actuary in the course of an engagement or employment may encounter a situation such that the best interest of the Principal would be served by the Actuary's setting out an alternative opinion to one expressed by another actuary, together with an explanation of the factors that lend support to the alternative opinion. Nothing in the Code should be construed as preventing the Actuary from expressing such an alternative opinion to the Principal.
- ANNOTATION 10-4. An Actuary may be requested to advise a Principal for whom the Actuary knows or has reasonable grounds to believe that another actuary has provided, or is providing, Actuarial Services with respect to the same matter. In such event, the Actuary may choose to consult with such other actuary both to prepare adequately for the assignment and to make an informed judgment as to whether there are circumstances involving a potential violation of the Code that might affect acceptance of the assignment. The Actuary should request the Principal's consent prior to such consultation.
- ANNOTATION 10-5. When a Principal has given consent for a new or additional actuary to consult with an Actuary with respect to a matter for which the Actuary is providing or has provided Actuarial Services, the Actuary shall cooperate in furnishing relevant information, subject to receiving reasonable compensation for the work required to assemble and transmit pertinent data and documents. The Actuary shall not refuse to consult or cooperate with the prospective new or additional actuary based upon unresolved compensation issues with the Principal unless such refusal is in accordance with a pre-existing agreement with the Principal. The Actuary need not provide any items of a proprietary nature, such as internal communications or computer programs.

# Advertising

PRECEPT 11. An Actuary shall not engage in any advertising or business solicitation activities with respect to Actuarial Services that the Actuary knows or should know are false or misleading.

ANNOTATION 11-1. Advertising and business solicitation activities encompass all communications by whatever medium, including oral communications, that may directly or indirectly influence any person or organization in deciding whether there is a need for Actuarial Services or in selecting a specific Actuary or firm to perform Actuarial Services.

# **Titles and Designations**

PRECEPT 12. An Actuary shall make use of membership titles and designations of a Recognized Actuarial Organization only in a manner that conforms to the practices authorized by that organization.

ANNOTATION 12-1. "Title" refers to any title conferred by a Recognized Actuarial Organization related to a specific position within that organization. "Designation" refers to a specific reference to membership status within such organization.

#### **Violations of the Code of Professional Conduct**

PRECEPT 13. An Actuary with knowledge of an apparent, unresolved, material violation of the Code by another Actuary should consider discussing the situation with the other Actuary and attempt to resolve the apparent violation. If such discussion is not attempted or is not successful, the Actuary shall disclose such violation to the appropriate counseling and discipline body of the profession, except where the disclosure would be contrary to Law or would divulge Confidential Information.

ANNOTATION 13-1. A violation of the Code is deemed to be material if it is important or affects the outcome of a situation, as opposed to a violation that is trivial, does not affect an outcome, or is one merely of form.

ANNOTATION 13-2. An Actuary is not expected to discuss an apparent, unresolved material violation of the Code with the other Actuary if either Actuary is prohibited by Law from doing so or is acting in an adversarial environment involving the other Actuary.

PRECEPT 14. An Actuary shall respond promptly, truthfully, and fully to any request for information by, and cooperate fully with, an appropriate counseling and disciplinary body of the profession in connection with any disciplinary, counseling or other proceeding of such body relating to the Code. The Actuary's responsibility to respond shall be subject to applicable restrictions on Confidential Information and those imposed by Law.

# CAS CODE OF PROFESSIONAL ETHICS FOR CANDIDATES

# (APPROVED BY THE CAS BOARD OF DIRECTORS ON NOVEMBER 12, 2006)

The purpose of the Casualty Actuarial Society (CAS) Code of Professional Ethics for Candidates (Candidate Code) is to require actuarial candidates to adhere to the high standards of conduct, practice, and qualifications of the actuarial profession, thereby supporting the actuarial profession in fulfilling its responsibility to the public. An actuarial candidate shall comply with the Candidate Code. An actuarial candidate who commits a material violation of the provisions of the Candidate Code shall be subject to the counseling and discipline procedures of the CAS.

"Actuarial candidates" are those persons who have registered for a CAS specific exam but have yet to fulfill all of the requirements for admission into the CAS. In situations where actuarial candidates perform actuarial work, their "principal" is defined as their client or employer. "Actuarial services" are professional services provided to a principal by an individual acting in the capacity of an actuary. Such services include the rendering of advice, recommendations, findings, or opinions based upon actuarial considerations.

- RULE 1: An actuarial candidate shall act honestly, with integrity and competence, to uphold the reputation of the actuarial profession.
- RULE 2: An actuarial candidate shall not engage in any professional conduct involving dishonesty, fraud, deceit, or misrepresentation or commit any act that reflects adversely on the actuarial profession.
- RULE 3: An actuarial candidate shall perform actuarial services with courtesy and professional respect and shall cooperate with others in the principal's interest.
- RULE 4: An actuarial candidate shall adhere to the CAS Policy on Examination Discipline.
- Rule 5: Actuarial candidates are not authorized to use membership designations of the CAS until they are admitted to membership by the CAS Executive Council.
- RULE 6: An actuarial candidate shall not disclose to another party any confidential information unless authorized to do so by the principal or required to do so by law, statute, or regulation. Confidential information includes information of a proprietary nature and information that is legally restricted from circulation.
- RULE 7: An actuarial candidate shall respond promptly, truthfully, and fully to any request for information by, and cooperate fully with, appropriate counseling and disciplinary body of the CAS in connection with any disciplinary, counseling or other proceeding of such body relating to the Candidate Code. The actuarial candidate's responsibility to respond shall be subject to applicable restrictions listed in Rule 6 and those imposed by law, statute, or regulation.

Candidates may obtain a copy of the Casualty Actuarial Society Rules of Procedure for Disciplinary Actions Involving Candidates by sending a written request to the CAS Office.

# USE OF TITLES AND DESIGNATIONS

Precept 12 of the Code of Professional Conduct and Section 1 of Article III of the Constitution are concerned primarily with the use of titles by members and, in particular, with designations related to the Society. The purpose of this material is to clarify the proper use of a designation. For this purpose, the term title means any title conferred by an employer or actuarial organization related to a specific position within that employer or actuarial organization. The term designation means a reference to a specific membership status within an actuarial organization.

# (a) Society Titles and Designations

The designation "F.C.A.S." or "A.C.A.S." may be signed, whichever is applicable, or may be written as "Fellow of the Casualty Actuarial Society" or "Associate of the Casualty Actuarial Society," respectively. No person is authorized to use these designations until such use has been approved by action of the Casualty Actuarial Society. As an example of the use of titles by a member, consider a member who has the title of "Vice President-Administration" conferred by the Society and is also a Fellow of the Society. The member would sign as follows:

J.H. Jones, F.C.A.S. Vice President-Administration

Or

J.H. Jones, Fellow of the Casualty Actuarial Society

Vice President-Administration

An Affiliate may refer to him/herself as "Affiliate of the Casualty Actuarial Society" or "Affiliate Member of the Casualty Actuarial Society." An Affiliate may not refer to him/herself as a "Member of the Casualty Actuarial Society" and is not authorized to append CAS initials to his/her name.

The use of a Society membership designation is optional.

(b) Employment Titles

A member may have an employment title conferred by an employer in addition to the titles and designations conferred by the Society. As an example of the use of employment titles by a member, consider a member who has the employment title "Assistant Actuary" and is also a Fellow of the Society. The member would sign as follows:

J.H. Jones, F.C.A.S. Assistant Actuary

or

J.H. Jones, Fellow of the Casualty Actuarial Society

Assistant Actuary

The use of a Society membership designation is optional.

(c) Society Business

A member of the Board of Directors may use the designation "Member of the Board of Directors, Casualty Actuarial Society" only when dealing with Society business or when authorized to speak for the Society. This authorization principle applies to all elective or appointive positions in the Society. Regardless of offices held, either elected or appointed, the member may never speak for the Society or for one of its committees unless authorized to do so by the Board of Directors.

(d) Non-Society Activities

A member may not include on a letterhead or signature block any references to Society titles and committee membership held in the Society, except when used for Society business.

(e) References

It would not be a violation of Precept 12 to refer to offices held in the Society in biographical material of any type (including material in connection with a book or article written by a member) or in connection with other generally published material. It would not be a violation to refer to offices held in the Society when giving testimony in a court of law or before a public body, provided it is made clear that the member does not speak for the Society or one of its committees unless specifically authorized to do so.

It would not be a violation to use such biographical material when appropriate in announcing a member's promotion or change in employment or on any similar occasion. The ultimate test is whether the reader could be led to conclude that the member is speaking for the Society or one of its component parts.

1 2 3 4 5	Statement of Principles  Regarding  Property and Casualty  Loss and Loss Adjustment  Expense Reserves
6 7	(ADOPTED BY THE BOARD OF DIRECTORS OF THE CAS, MAY 1988)
8 9 10 11	The purpose of this Statement is to identify and describe principles applicable to the evaluation and review of loss and loss adjustment expense reserves. Because of their size and the uncertainties in the estimation process, the evaluation of these reserves requires the use of proper actuarial and statistical procedures. The financial condition of a property and casualty insurer cannot be assessed accurately without sound reserve estimates.
12	This Statement consists of three parts:
13 14 15	I. Definitions II. Principles III. Considerations
16 17 18 19	The definitions in the next section apply to both loss reserves and loss adjustment expense reserves. For the purpose of this statement the terms loss and claim are used interchangeably, and the term insurer is meant to represent any risk bearer for property and casualty exposures, whether an insurance company, self-insured entity, or other.
20	I. Definitions
21 22	A loss reserve is a provision for its related liability. A total loss reserve is composed of five elements, although the five elements may not necessarily be individually quantified:
23 24 25 26 27	<ul> <li>case reserve</li> <li>provision for future development on known claims</li> <li>reopened claims reserve</li> <li>provision for claims incurred but not reported</li> <li>provision for claims in transit (incurred and reported but not recorded)</li> </ul>
28	Before these five elements are discussed, certain key dates and terms need to be defined.
29 30 31	The accounting date is the date that defines the group of claims for which liability may exist, namely all insured claims incurred on or before the accounting date. The accounting date may be any date selected for a statistical or financial reporting purpose.
32 33 34 35 36	The valuation date is the date through which transactions are included in the data base used in the evaluation of the liability, regardless of when the analysis is performed. For a defined group of claims as of a given accounting date, reevaluation of the same liability may be made as of successive valuation dates. A valuation date may be prior to, coincident with or subsequent to the accounting date.
37 38	The carried loss reserve is the amount shown in a published statement or in an internal statement of financial condition.
39 40	An indicated loss reserve is the result of the application of a particular loss reserving evaluation procedure. An indicated loss reserve for a given accounting date likely will change

from one valuation date to another.

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A division is often required between reserves for known claims and reserves for claims which have been incurred but not reported (IBNR). The reserve for known claims\* represents the amount, estimated as of the valuation date, that will be required for future payments on claims that already have been reported to the insurer. The IBNR reserve represents the amount that must be provided for future payments on insured losses that have occurred but that have not been reported.

The case reserve† is defined as the sum of the values assigned to specific known claims whether determined by claims adjusters or set by formula. Adjusters' estimates are the aggregate of the estimates made by claims personnel for individual claims, based on the facts of the particular claims. Formula reserves are reserves established for groups of claims for which certain classifying information is provided. Formula reserving may be applied to individual claims or to aggregations of claims with similar characteristics through use of average claim values or factors applied to representative statistics (for example, premiums in force or earned premiums).

Development is defined as the change between valuation dates in the observed values of certain fundamental quantities that may be used in the loss reserve estimation process. For example, the observed number of reported claims associated with losses occurring within a particular calendar period often will be seen to increase from one valuation date to the next until all claims have been reported. The pattern of accumulating claims represents the development of the number of claims.

In a similar fashion, the amount of claim payments for losses occurring within a specific calendar period also will be seen to increase at succeeding valuation dates. In this case the pattern of accumulating payments represents the development of claim costs and is usually referred to by the term paid development. The concept of development also applies to incurred losses. Incurred development is defined as the difference between estimates of incurred costs at two valuation dates for a defined group of claims.

The provision for future development on known claims relates to incurred development on those claims reported to an insurer on or before a specific accounting date that are still open on that accounting date. Incurred development on such claims can be either increasing or decreasing.

The reopened claims reserve is a provision for future payments on claims closed as of the accounting date that may be reopened due to circumstances not foreseen at the time the claims were closed. In some instances, post-closing payments or recoveries for claims not actually reopened may be included with the development on known claims.

For many insurers a claim is considered to be reported when it is first recorded in the accounting records of the insurer. Conceptually, two elements form the IBNR reserve. The first of these elements is the provision for claims incurred but not reported, referred to as the "pure" IBNR. This provision results from the normal delay that occurs in reporting losses. The second element is the provision for claims in transit, which are incurred and reported but not recorded. This provision represents the additional time consumed by the insurer's recording procedures. As a practical matter it is not always feasible to measure these two elements separately, but it is important to understand the effect reporting procedures can have on the amount of IBNR

The reserve for known claims is also sometimes referred to by other labels such as the "reported reserve," the "reserve for claims adjusted or in the process of adjustment," or the "reserve for unpaid losses excluding IBNR."

The term case reserve is sometimes used in place of the reserve for known claims. However, as defined, the case reserve does not include the provision for future development on known claims.

reserve. For some insurers claims in transit are considered known claims. The IBNR reserve must provide for the ultimate value of IBNR claims including the development which is expected to occur on these claims after reporting.

Loss adjustment expenses include allocated loss adjustment expenses and unallocated loss adjustment expenses. Allocated loss adjustment expenses are those expenses, such as attorneys' fees and other legal costs, that are incurred in connection with and are assigned to specific claims. Unallocated loss adjustment expenses are all other claim adjustment expenses and include salaries, utilities and rent apportioned to the claim adjustment function but not readily assignable to specific claims. The definition of allocated and unallocated loss adjustment expenses for reserving purposes varies among insurers, and an individual insurer's practice for reserving may not always conform to its definition for statistical reporting or ratemaking purposes.

Since allocated expenses are assigned to specific claims, all of the analyses performed on loss data can also be performed on allocated loss expense data. Thus, the allocated loss adjustment expense reserve can be divided into known and IBNR components. All of the concepts discussed in the preceding paragraphs, as well as each of the five elements of the loss reserve, have similar meanings with regard to the allocated loss adjustment expense reserve.

Although the same statistical procedures normally do not apply to unallocated expenses, the unallocated loss adjustment expense reserve can still be divided into known reserve and IBNR components, and the concept of a particular valuation date is meaningful.

#### II. Principles

- 1. An actuarially sound loss reserve for a defined group of claims as of a given valuation date is a provision, based on estimates derived from reasonable assumptions and appropriate actuarial methods for the unpaid amount required to settle all claims, whether reported or not, for which liability exists on a particular accounting date.
- 2. An actuarially sound loss adjustment expense reserve for a defined group of claims as of a given valuation date is a provision, based on estimates derived from reasonable assumptions and appropriate actuarial methods, for the unpaid amount required to investigate, defend, and effect the settlement of all claims, whether reported or not, for which loss adjustment expense liability exists on a particular accounting date.
- 3. The uncertainty inherent in the estimation of required provisions for unpaid losses or loss adjustment expenses implies that a range of reserves can be actuarially sound. The true value of the liability for losses or loss adjustment expenses at any accounting date can be known only when all attendant claims have been settled.
- 4. The most appropriate reserve within a range of actuarially sound estimates depends on both the relative likelihood of estimates within the range and the financial reporting context in which the reserve will be presented.

Although specific reserve requirements may vary, the same basic principles apply in each context in which the reserves are stated, including statutory balance sheets, statements of opinion on loss reserves, and reports to shareholders or securities regulators. Guidance in the application of these principles is provided in the Considerations section of this statement.

# 132 III. Considerations

Understanding the trends and changes affecting the data base is a prerequisite to the application of actuarially sound reserving methods. A knowledge of changes in underwriting, claims handling, data processing and accounting, as well as changes in the legal and social environment, affecting the experience is essential to the accurate interpretation and evaluation of observed data and the choice of reserving methods.

A knowledge of the general characteristics of the insurance portfolio for which reserves are

to be established also is important. Such knowledge would include familiarity with policy provisions that may have a bearing on reserving, as well as deductibles, salvage and subrogation, policy limits, and reinsurance.

# Data Organization

The categorization of claims by time unit is extremely important. The successful organization of a data base for reserving revolves around five key dates:

- accident date, which is the date on which the loss occurred, or for those losses that cannot
  be identified with a single isolated event, the date on which the loss is deemed to have
  occurred
- report date, which is the date on which the loss is first reported to the insurer (in practice it is often taken to be the recorded date)
- recorded date, which is the date on which the loss is first entered in the statistical records of the insurer
- accounting date
  - valuation date

Commonly, insurers compile claim data by accident periods (accident year, accident quarter, accident month, etc.), which group together all claims with accident dates falling within particular fiscal periods; or by policy periods, which group all claims relating to policies written during particular fiscal periods. Claim information by accident year is required for various financial reporting schedules. Many insurers also compile claim data by report periods, which group together all claims with report dates falling within specified fiscal periods.

Claims with report dates equal to or prior to a particular accounting date would be classified as known or reported claims with respect to the accounting date, but claims with report dates later than a particular accounting date and with accident dates equal to or earlier than the accounting date would be classified as IBNR with respect to the accounting date.

The preceding paragraph gives the precise definition of IBNR claims. In practice a broader definition is sometimes used in which the IBNR reserve denotes the provision for late reported claims, development on known claims, and a provision for reopened claims.

The ambiguity regarding the definition of IBNR can result from the differing strategies insurers may employ in approaching loss reserving. The two common strategies are the report period approach and the accident period approach. In the report period approach the adequacy of existing reserves on reported claims is estimated on the basis of the historical results. Further analysis is required in order to measure the emergence of IBNR claim. In a pure accident period approach, the ultimate cost of all claims, both reported and unreported, arising from each accident period is estimated. This approach results in an estimate of the loss reserve without segregation of claims incurred but not reported. The estimated loss reserve is then apportioned between reserves for IBNR and known claims on a suitable basis. Because accident period techniques do not necessarily require separate treatment of reported and unreported claims, their use can lead to a broader definition IBNR as mentioned above.

The method of assigning report dates to reopened claims can also affect the IBNR reserve. Because reopened claims are generated from claims previously reported and closed, there is general agreement that the provision for this liability should be included in the reserve for known claims. Some insurers, however, establish new report dates for reopened claims and thereby consider the provision for these claims as a component of the IBNR reserve.

# Homogeneity

Loss reserving accuracy often is improved by subdividing experience into groups exhibiting similar characteristics, such as comparable claim experience patterns, settlement patterns or size of loss distributions. For a heterogeneous product, such as commercial multi-peril or miscellaneous liability insurance, consideration should be given to segregating the experience into more homogeneous groupings. Other example applications concern the distinctions between personal and commercial risks and between primary and excess coverage. Additionally, subdividing or combining the data so as to minimize the distorting effects of operational or procedural changes should be fully explored.

# Credibility

Credibility is a measure of the predictive value that the actuary attaches to a body of data. The degree to which consideration is given to homogeneity is related to the consideration of credibility. Credibility is increased by making groupings more homogeneous or by increasing the number of claims analyzed within each group. A group of claims should be large enough to be statistically reliable. Obtaining homogeneous groupings requires refinement and partitioning of the total data base. There is a point at which partitioning divides data into cells too small to provide credible development patterns. Each situation requires a balancing of the homogeneity and amount of data in each grouping. Thus, line and coverage definitions suitable for the establishment of reserves for large insurers can be in much finer detail than in the case of small insurers. Where a very small group of claims is involved, use of external information such as industry aggregates may be necessary.

# Data Availability

Data should meet requirements for the proper evaluation of reserves. Existing information systems may impose constraints while more suitable data are being developed. Whatever data are used in analysis of reserves, they must reconcile to the insurer's financial records. If reserves are established in less detail than necessary for reporting requirements, procedures for properly assigning the reserves to required categories must be developed.

# **Emergence Patterns**

The delay between the occurrence of claims and the recording of claims depends upon both the line of business and the insurer's practices. In general, property claims are reported quickly, whereas the reporting of liability claims may be substantially delayed.

A review of the insurer's claims practices should be made to assure that assumptions regarding the claims process are appropriate. If a change in claims procedures is identified, its impact on emergence patterns should be evaluated.

# Settlement Patterns

The length of time that it normally takes for reported claims to be settled will affect the choice of the loss reserving methods. Lines of business for which claims settle quickly generally are less subject to reserve uncertainty. A claim arising under collision coverage, for example, tends to be settled quickly, and the amount of settlement is usually close to the original estimate. Conversely, a bodily injury liability claim often requires a long time to settle. Moreover, the amount of settlement often varies considerably from the original estimate, since it depends on the interaction of complex variables such as the type and severity of the injury and the intricacies of the judicial process.

# **Development Patterns**

The pattern of development on known claims should be carefully reviewed. An insurer's claims procedures will affect the manner in which the case reserves develop for any group of claims, and changes in claims practices may affect the consistency of historical developments. Further, the length of time to settlement may affect the observed development.

If reserves have been established at present values, the payments of claims, by themselves, cause an appearance of upward development apart from development due to other factors. To interpret development patterns correctly, the development history should be restated to remove the effect of discounting.

# Frequency and Severity

The same total dollars of losses may arise from a few very large claims or from many small claims. Reserve estimates will tend to be more accurate for losses resulting from a high frequency/low severity group of claims than from a low frequency/high severity group of claims. Therefore, the evaluation of reserves for low frequency/high severity groups of claims will ordinarily require more extensive analysis. If the exposure for the group of claims being considered includes the potential for claims of a magnitude not present in historical data, adjustments should be made to reflect the expectation of such claims.

# Reopened Claims Potential

The tendency for closed claims to reopen varies substantially among lines of business. Judicial opinions and legislation can affect the reopening of claims, as can changes in an insurer's procedures.

# Claims-Made

Some coverages may be provided on a policy form covering claims reported during a certain period rather than claims arising out of occurrences during that period. Claims-made data should be segregated from experience on occurrence policies. It may be necessary to augment claims-made statistics with appropriate report period statistics generated under occurrence programs.

Certain provisions may modify the claims-made policy upon fulfillment of conditions stipulated in the contract. Review of the contract wording is necessary to determine the appropriate reserve, if any, for occurrences prior to the policy effective date or claims reported after the policy expiration.

# **Aggregate Limits**

For certain insurance coverages, such as products and professional liability, aggregate policy limits may act to restrict total potential incurred losses and therefore reserve requirements. In the review of groups of claims where aggregate limits apply, modeling techniques or audit tests of the data will reveal to what extent limit ceilings have been reached and assist in determining how reserve projections may have to be modified.

# Salvage, Subrogation, and Collateral Sources

For a proper evaluation of an insurer's total reserve position, the potential impact of salvage and subrogation on the group of claims under consideration should be evaluated even though statutory accounting may prohibit a deduction from loss reserves. In addition, the impact of coinsurance, deductibles, coordination of benefits, second injury fund recoveries, as well as any other collateral sources, should be considered.

# Generally Accepted Accounting Principles

Reports to shareholders and to securities regulators are governed by generally accepted accounting principles (GAAP). GAAP reserves may be defined differently from statutory reserves. For example, GAAP reserves are ordinarily reduced by anticipated salvage and subrogation. The same principles of analysis used for statutory estimates can be applied to GAAP reserve estimates.

#### Reinsurance

Reserves are affected by the types of reinsurance plans and retentions that were and are in force, and the impact of changes in net retentions should be evaluated. To determine the effect of reinsurance it may be appropriate to analyze direct and ceded experience separately. The recoverability of ceded reinsurance is a further consideration; generally, it is addressed separately from the reserve evaluation process.

# Portfolio Transfers, Commutations, and Structured Settlements

Portfolio transfers, commutations, and structured settlements generally recognize the time value of money. Such transactions should be evaluated for their impact on the loss reserves and the development patterns.

# **Pools and Associations**

The loss liabilities of an insurer depend to some degree on forces beyond its control, such as business obtained through participation in voluntary and non-voluntary underwriting pools and associations. The operating and reserving policies of these organizations vary, and adjustments to reserves reported by the pools and associations may be warranted.

# **Operational Changes**

The installation of a new computer system, an accounting change, a reorganization of claims responsibility or changes in claims handling practices or underwriting programs are examples of operational changes that can affect the continuity of the loss experience. The computation of the reserves should reflect the impact of such changes.

# **Changes in Contracts**

Changes in contract provisions, such as policy limits, deductibles, or coverage attachment points, may alter the amounts of claims against an insurer. Such contractual changes may affect both the frequency and severity of claims.

# **External Influences**

Due regard should be given to the impact of external influences. External influences include the judicial environment, regulatory and legislative changes, residual or involuntary market mechanisms, and economic variables such as inflation.

# Discounting

There are circumstances where loss reserves are stated on a present value basis. To calculate or evaluate such reserves, it is generally appropriate to perform an analysis on an undiscounted basis and then apply the effect of discounting.

# **Provision for Uncertainty**

A reserve estimate should take into account the degree of uncertainty inherent in its projections. A reserve stated at its ultimate value may include an implicit provision for uncertainty due to the time value of money. If a reserve is to be stated at a present value, it may be appropriate to include an explicit provision for uncertainty in its undiscounted amount. Further, an explicit provision for uncertainty may be warranted when the indicated ultimate

313 reserve value is subject to a high degree of variability.

# Reasonableness

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The incurred losses implied by the reserves should be measured for reasonableness against relevant indicators, such as premiums, exposures, or numbers of policies, and expressed wherever possible in terms of frequencies, severities, and loss ratios. No material departure from expected results should be accepted without attempting to find an explanation for the variation.

# Loss-Related Balance Sheet Items

The loss reserve analysis may have implications for other loss-related balance sheet items. These include contingent commissions, retrospective premium adjustments, policyholder dividends, premium deficiency reserves, minimum statutory reserves and the deduction for unauthorized reinsurance.

# Loss Reserving Methods

Detailed discussion of the technology and applicability of current loss reserving practices is beyond the scope of this statement. Selection of the most appropriate method of reserve estimation is the responsibility of the actuary. Ordinarily the actuary will examine the indications of more than one method when estimating the loss and loss adjustment expense liability for a specific group of claims.

# Standards of Practice

This statement provides the principles of loss reserving. The actuary should also be familiar with standards of practice, which address the application of these principles.

# Statement of Principles Regarding Property and Casualty Insurance Ratemaking (Adopted by the Board of Directors of the CAS May 1988) The purpose of this Statement is to identify and describe principles applicable to the determination and review of property and casualty insurance rates. The principles in this Statement are limited to that portion of the ratemaking process involving the estimation of costs

associated with the transfer of risk. This Statement consists of four parts:

- I. Definitions
- 10 II. Principles

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- 11 III. Considerations
- 12 IV. Conclusion

The principles contained in this Statement provide the foundation for the development of actuarial procedures and standards of practice. It is important that proper actuarial procedures be employed to derive rates that protect the insurance system's financial soundness and promote equity and availability for insurance consumers.

Although this Statement addresses property and casualty insurance ratemaking, the principles contained in this Statement apply to other risk transfer mechanisms.

# 19 I. Definitions

Ratemaking is the process of establishing rates used in insurance or other risk transfer mechanisms. This process involves a number of considerations including marketing goals, competition and legal restrictions to the extent they affect the estimation of future costs associated with the transfer of risk. This Statement is limited to principles applicable to the estimation of these costs. Such costs include claims, claim settlement expenses, operational and administrative expenses, and the cost of capital. Summary descriptions of these costs are as follows:

- Incurred losses are the cost of claims insured.
- Allocated loss adjustment expenses are claims settlement costs directly assignable to specific claims.
- Unallocated loss adjustment expenses are all costs associated with the claim settlement
   function not directly assignable to specific claims.
- Commission and brokerage expenses are compensation to agents and brokers.
- Other acquisition expenses are all costs, except commission and brokerage, associated with the acquisition of business.
- Taxes, licenses and fees are all taxes and miscellaneous fees except federal income taxes.
- Policyholder dividends are a non-guaranteed return of premium charged to operations as
   an expense.
- General administrative expenses are all other operational and administrative costs.
- The underwriting profit and contingency provisions are the amounts that, when considered with net investment and other income, provide an appropriate total after-tax return.

40 II. Principles

Ratemaking is prospective because the property and casualty insurance rate must be developed prior to the transfer of risk.

Principle 1: A rate is an estimate of the expected value of future costs.

Ratemaking should provide for all costs so that the insurance system is financially sound.

Principle 2: A rate provides for all costs associated with the transfer of risk.

Ratemaking should provide for the costs of an individual risk transfer so that equity among insureds is maintained. When the experience of an individual risk does not provide a credible basis for estimating these costs, it is appropriate to consider the aggregate experience of similar risks. A rate estimated from such experience is an estimate of the costs of the risk transfer for each individual in the class.

Principle 3: A rate provides for the costs associated with an individual risk transfer.

Ratemaking produces cost estimates that are actuarially sound if the estimation is based on Principles 1, 2, and 3. Such rates comply with four criteria commonly used by actuaries: reasonable, not excessive, not inadequate, and not unfairly discriminatory.

Principle 4: A rate is reasonable and not excessive, inadequate, or unfairly discriminatory if it is an actuarially sound estimate of the expected value of all future costs associated with an individual risk transfer.

#### III. Considerations

A number of ratemaking methodologies have been established by precedent or common usage within the actuarial profession. Since it is desirable to encourage experimentation and innovation in ratemaking, the actuary need not be completely bound by these precedents. Regardless of the ratemaking methodology utilized, the material assumptions should be documented and available for disclosure. While no ratemaking methodology is appropriate in all cases, a number of considerations commonly apply. Some of these considerations are listed below with summary descriptions. These considerations are intended to provide a foundation for the development of actuarial procedures and standards of practice.

# **Exposure Unit**

The determination of an appropriate exposure unit or premium basis is essential. It is desirable that the exposure unit vary with the hazard and be practical and verifiable.

#### Data

Historical premium, exposure, loss and expense experience is usually the starting point of ratemaking. This experience is relevant if it provides a basis for developing a reasonable indication of the future. Other relevant data may supplement historical experience. These other data may be external to the company or to the insurance industry and may indicate the general direction of trends in insurance claim costs, claim frequencies, expenses and premiums.

# Organization of Data

There are several acceptable methods of organizing data including calendar year, accident year, report year and policy year. Each presents certain advantages and disadvantages; but, if handled properly, each may be used to produce rates. Data availability, clarity, simplicity, and the nature of the insurance coverage affect the choice.

# 81 Homogeneity

Ratemaking accuracy often is improved by subdividing experience into groups exhibiting similar characteristics. For a heterogeneous product, consideration should be given to segregating the experience into more homogeneous groupings. Additionally, subdividing or combining the data so as to minimize the distorting effects of operational or procedural changes should be fully explored.

# Credibility

Credibility is a measure of the predictive value that the actuary attaches to a particular body of data. Credibility is increased by making groupings more homogeneous or by increasing the size of the group analyzed. A group should be large enough to be statistically reliable. Obtaining homogeneous groupings requires refinement and partitioning of the data. There is a point at which partitioning divides data into groups too small to provide credible patterns. Each situation requires balancing homogeneity and the volume of data.

# Loss Development

When incurred losses and loss adjustment expenses are estimated, the development of each should be considered. The determination of the expected loss development is subject to the principles set forth in the Casualty Actuarial Society's Statement of Principles Regarding Property and Casualty Loss and Loss Adjustment Expense Reserves.

#### Trends

Consideration should be given to past and prospective changes in claim costs, claim frequencies, exposures, expenses and premiums.

# Catastrophes

Consideration should be given to the impact of catastrophes on the experience and procedures should be developed to include an allowance for the catastrophe exposure in the rate.

# **Policy Provisions**

Consideration should be given to the effect of salvage and subrogation, coinsurance, coverage limits, deductibles, coordination of benefits, second injury fund recoveries and other policy provisions.

# Mix of Business

Consideration should be given to distributional changes in deductibles, coverage limitations or type of risks that may affect the frequency or severity of claims.

# Reinsurance

Consideration should be given to the effect of reinsurance arrangements.

# **Operational Changes**

Consideration should be given to operational changes such as changes in the underwriting process, claim handling, case reserving and marketing practices that affect the continuity of the experience.

# Other Influences

The impact of external influences on the expected future experience should be considered. Considerations include the judicial environment, regulatory and legislative changes, guaranty funds, economic variable, and residual market mechanisms including subsidies of residual

122	market rate deficiencies.
123	Classification Plans
124	A properly defined classification plan enables the development of actuarially sound rates.
125	Individual Risk Rating
126 127 128	When an individual risk's experience is sufficiently credible, the premium for that risk should be modified to reflect the individual experience. Consideration should be given to the impact of individual risk rating plans on the overall experience.
129	Risk
130 131 132 133 134	The rate should include a charge for the risk of random variation from the expected costs. This risk charge should be reflected in the determination of the appropriate total return consistent with the cost of capital and, therefore, influences the underwriting profit provision. The rate should also include a charge for any systematic variation of the estimated costs from the expected costs. This charge should be reflected in the determination of the contingency provision.
135	Investment and Other Income
136	The contribution of net investment and other income should be considered.
137	Actuarial Judgment
138 139 140	Informed actuarial judgments can be used effectively in ratemaking. Such judgments may be applied throughout the ratemaking process and should be documented and available for disclosure.
141	IV. Conclusion
142 143 144	The actuary, by applying the ratemaking principles in this Statement, will derive an estimation of the future costs associated with the transfer of risk. Other business considerations are also a part of ratemaking. By interacting with professionals from various fields including underwriting,

marketing, law, claims, and finance, the actuary has a key role in the ratemaking process.

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**Statement of Principles** 2 Regarding Property and 3 **Casualty Valuations** 4 (As Adopted September 22, 1989) 5 The purpose of this Statement is to identify and describe principles applicable to property 6 and casualty valuations. The Statement establishes fundamental concepts for research and 7 education regarding valuation techniques. The principles in this Statement provide the 8 foundation for actuarial procedures and standards of practice regarding valuations. These 9 principles apply to valuations regarding any risk bearer of property and casualty contingencies. 10 This Statement consists of three parts: I. Definitions 11 II. Principles 12 III. Discussion 13 I. Definitions 14 Valuation is the process of determining and comparing, for the purpose of assessing a 15 risk bearer's financial condition as of a given date, called the valuation date, the values of part or all of a risk bearer's obligations and the assets and considerations designated as supporting 16 17 those obligations. 18 A valuation is carried out in accordance with specified rules or assumptions selected or 19 prescribed in accordance with the purpose of the valuation. 20 A risk bearer is a person or other entity that is exposed to the risk of financial losses 21 that may arise out of specified contingent events during a specified period of exposure. 22 Cash flows are receipts or disbursements of cash. 23 An asset is cash held or any other resource that can generate receipts or reduce 24 disbursements. 25 An obligation is a commitment by or requirement of a risk bearer to make disbursements 26 with respect to financial losses arising out of specified contingent events or with respect to any 27 type of other expense or investment commitment. 28 A consideration is a receipt or a reduction in disbursements in exchange for accepting 29 the risk of financial losses that may arise out of specified contingent events during a specified 30 period of exposure. 31 II. Principles 32 1. Every obligation, consideration or asset, with the exception of cash held, is 33 associated with one or more items of cash flow. 34 The value of every item of cash flow depends upon the following valuation variables, each of which may involve uncertainty: 35 36 the occurrence of the item of cash flow, 37 b. the amount of the item of cash flow, 38 the interval of time between the valuation date and the date of occurrence of 39 the item of cash flow, and 40 a rate of interest related to the interval of time between the valuation date d.

and the date of occurrence of the cash flow.

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- 42 3. The degree of uncertainty affecting each valuation variable for any item of cash flow associated with a given asset, obligation or consideration depends upon:
  - a. the nature of the asset, obligation or consideration,
  - b. the various environments (e.g. regulatory, judicial, social, financial and economic environments) within which the valuation is being performed, and
  - c. the predictive value of the data used to estimate the valuation variables associated with each item of cash flow.
  - 4. In general, the values of items of cash flow associated with a given asset, obligation or consideration, and the values of assets, obligations and considerations themselves are not only uncertain, they are also not independent of each other. Consequently, the degree of uncertainty relative to the combined value of items of cash flow or of assets, obligations and considerations reflects the uncertainties affecting the underlying valuation variables and arising out of the interaction of those variables in the process of combination.
  - 5. The value of an asset, obligation or consideration is equal to the combined values of its constituent items of cash flow.
    - 6. The result of a valuation is the combined value of the assets, obligations and considerations involved in the valuation with due recognition of the offsetting characteristics of receipts and disbursements.
    - 7. These valuation principles apply to any valuation whether it involves a risk bearer's total assets, obligations and considerations as of a given valuation date or only identified segments of the risk bearer's assets, obligations and considerations including:
      - a. commitments made on or before the valuation date, or
  - b. the commitments in (a) and commitments projected to be made after the valuation date, or
- 67 c. only those commitments projected to be made after the valuation date.

## 68 III. Discussion

Although no valuation methodology is appropriate in all situations, a number of considerations commonly apply. Some of these considerations are discussed in this section. These discussions are intended to provide a foundation for the development of actuarial procedures and standards of practice.

## Data

Data to be used in valuation include descriptions of the characteristics of the risk bearer's assets, obligations and considerations. The descriptions should be sufficiently detailed to permit reasonable projections of cash flows from these assets, obligations and considerations.

The actuary may use a risk bearer's own experience relative to its assets, obligations and considerations if this provides a basis for developing a reasonable indication of the future. Moreover, the actuary may use external data drawn from relevant experience of the insurance industry, other financial institutions or surrounding environments.

#### Organization of Data

Organization of data for valuation is affected by the characteristics of the assets, obligations and considerations involved and the characteristics of the valuation variables

84 connected with them.

Much of the data organizational work relative to obligations and considerations begins with data used in connection with the reserving and ratemaking processes. However, it may be necessary to adjust the results of those processes so as to take into account differences between cash flow dates and the various dates used in those processes. It may also be necessary to identify any relevant expenses that fall outside the data used in the reserving and ratemaking processes and reflect them in the valuation process. It is important, too, to identify potential adjustments to considerations like retrospective premiums or audit premiums that may be received or paid in the future.

If a valuation deals with detailed analyses of cash flows, data organization relative to assets involves principally the work of classifying the assets and developing projections of contractual or anticipated cash flows from them. It is also often necessary to divide assets into classes of investment by such things as time to maturity or quality and to project flows of anticipated receipts into particular classes of investment in accordance with an assumed investment strategy.

#### Homogeneity

Valuation accuracy is often improved by dividing the data on assets, obligations and considerations into groups exhibiting similar characteristics. Homogeneous groupings recognize, when appropriate, the interrelationships between those assets, obligations and considerations.

#### Credibility

Credibility is a measure of the predictive value attached to a body of data. Credibility is increased by defining groups of assets, obligations or considerations so as to increase their homogeneity or to increase the volume of data relative to the groups. Increasing homogeneity may fragment the groups to such an extent that their predictive value is reduced to an unacceptable level. Each situation requires balancing homogeneity and the volume of data.

#### **Operating Conditions**

Operating conditions should be reflected in valuation. Operating conditions include mix of business, underwriting, claims handling, marketing, accounting, premium processing, portfolio of investments, investment strategy, and reinsurance programs.

#### **Environmental Conditions**

Environmental conditions should be reflected in valuation. The regulatory, judicial, social, financial, and economic environments are some of the major ones to be considered.

### Losses and Loss Adjustment Expenses

The major obligations of a risk bearer are usually those relating to the future payment of losses and loss adjustment expenses. When these obligations are estimated for purposes of a valuation, their future development may be a factor for consideration. Development of losses and loss adjustment expenses is defined in the Casualty Actuarial Society's Statement of Principles Regarding Property and Casualty Loss and Loss Adjustment Expense Reserves.

## Rules and Assumptions

The objective of a valuation is to produce an assessment of a risk bearer's financial condition that will be useful for the purpose for which the valuation is performed. The purpose of the valuation affects the rules and assumptions used.

Cash flow analyses produce projections of receipts and disbursements. These analyses are conceptually the most fundamental of the forms of valuation. The other forms of valuation

127 can be derived from cash flow analysis by suitable selection of rules and assumptions relative to the valuation variables.

Balance sheets and income statements are often produced internally by a risk bearer using rules and assumptions established by its management to assess financial strength and earning performance.

Appraisals are intended to help determine the value of all or a part of a risk bearer's assets, obligations and considerations related to property and casualty contingencies, taking into account not only financial statement items but also off-balance-sheet items such as investment in staff, leases and so on. Appraisals are usually made in connection with mergers and acquisitions and the sale of parts of a risk bearer's business.

GAAP accounting rules or assumptions are intended to produce financial statements that the financial community believes are useful for assessing a risk bearer's earning capacity.

Statutory accounting rules or assumptions are intended to produce financial statements that regulators believe are useful for assessing whether an insurer's financial condition warrants its being allowed to write insurance.

The value of any of the valuation variables with respect to a given set of items of cash flow may be determined on the basis of any set of rules and assumptions that is appropriate to the purpose of the valuation. Rules and assumptions relative to different classes of assets, obligations or considerations need not necessarily be consistent with each other as long as the differences are consistent with the purpose of the valuation, or the effect of the inconsistencies is not great enough to invalidate the valuation.

Assumptions are based on a reasonable review of whatever appropriate facts are available supplemented by the actuary's experience and judgement as necessary. Rules are helpful to the assurance of appropriately consistent treatment of facts and assumptions in valuation. Both rules and assumptions can be helpful to achieving a result with a degree of refinement consistent with the purpose of the valuation. Anticipated changes in operating and environmental conditions should be reflected in the rules and assumptions applied to a valuation.

#### Valuation Variables

The valuation variables of occurrence, amount, interval of time and rate of interest describe the quantitative characteristics of all cash flows for purposes of financial analysis. All of the valuation variables are conceptually involved in the determination of the values of all assets, obligations and considerations. The roles of the valuation variables in the determination of values may be limited by the selection of rules or assumptions.

The value of any item of cash flow changes with the passage of time. This implies that valuations of the same sets of items of cash flow performed at different valuation dates will in general produce different results. It further implies that a valuation of one set of items of cash flow performed as of a given valuation date will produce a result that is not directly comparable with that of a second valuation of the same or a different set of items of cash flow performed as of a different date.

## Uncertainty

The result of a valuation involves uncertainty because of the uncertainty connected with the valuation variables themselves and because the result of combining valuation variables is affected by whatever relationships may exist among them.

#### Valuation Risks

The risks associated with valuation can be summarized into the following three broad classes:

### 1. Asset Risk

The risk that the occurrence, amount or timing of items of cash flow connected with assets will differ from that anticipated as of the valuation date for reasons other than a change in the interest environment.

There are several factors that affect asset risk:

- a. Type—This factor relates to whether the asset is, for example, a bond, a mortgage, a preferred or common stock, an agent's balance, a recoverable reinsurance item or interest accrued but not paid. It also relates to such things as whether a bond is callable and, if so, at what premiums; whether a bond has a sinking fund provision; or whether prepayments can be made on a mortgage and, if so, what penalty may apply.
- b. Quality—This factor relates to the financial strength of the entity from which the cash flow is to be received and the relative standing of the type of asset in the hierarchy of financial instruments.
- c. Deferred Acquisition Expenses, Goodwill and Similar Assets—This factor relates to the valuation question of whether any asset of these or similar types involves cash flows that are not explicitly or implicitly recognized elsewhere in the valuation.
- d. Investment Strategy—This factor relates to plans for investment of receipts in various types of security, taking into account such things as the insurer's needs for funds to meet obligations as they mature, market conditions at the time the investments are made, and the overall condition of the insurer's investment portfolio at the time the investments are made.
- e. Trends—This factor relates to changes over time in the valuation variables other than interest, insofar as they affect assets, and in the degree of uncertainty affecting them.

## 2. Obligation and Consideration Risk

The risk that the occurrence, amount or timing of items of cash flow connected with obligations and considerations will differ from that anticipated as of the valuation date for reasons other than a change in the interest environment.

There are several factors that affect obligation and consideration risk:

- a. Coverage—This factor relates to the riskiness of the coverage involved.
- b. Type—This factor relates to whether the obligation is, for example, a loss or loss adjustment reserve, an unearned premium reserve, a contingent commission reserve, a retrospective premium adjustment reserve, a policyholder or shareholder dividend reserve, a premium deficiency reserve, an income tax liability, an investment commitment or an account payable for something such as expenses, taxes, licenses, fees and assessments.
- c. Commitment Provisions—This factor relates to the extent to which the range of the valuation variables may be effectively limited by terms of the commitments out of which the obligations arise. Examples of such commitment provisions are basic

214 215 216			limits, increased limits, aggregate limits, claims made, salvage and subrogation, coinsurance, deductibles, coordination of benefits and second injury fund recoveries.
217 218 219 220 221 222 223 224		d.	Reinsurance Programs—This factor relates to the extent to which the range of the valuation variables may be effectively limited by the terms of reinsurance programs applicable to the commitments out of which the obligations arise. Examples of such programs are those involving surplus, excess of loss and catastrophe reinsurance. Frequency and severity of losses, attachment points and upper limits of reinsurance are features of the programs relating to their limiting effect. On the other hand, reinsurance programs also involve uncertainty as to whether reinsurance will be collectible.
225 226 227 228 229 230 231 232 233		e.	Exposure—This factor relates to the uncertainty involved in measuring or projecting levels of exposure, and for periods beginning after the valuation date, the considerations for those periods and the obligations to arise out of them. Obligations and considerations related to these periods of exposure may be offset against each other in recognition of the fact that the obligations would not arise if the considerations were not received. Determination of whether obligations and considerations relative to such periods should be recognized in a valuation depends upon the timing relative to the valuation date of the commitments to accept risks for those periods.
234 235 236		f.	Loss Development—This factor relates to the uncertainty arising out of changes over time in patterns of emergence, development, reopening, settlement and payment of claims.
237 238 239		g.	Trends—This factor relates to changes over time in the valuation variables other than interest, insofar as they affect obligations and considerations, and in the degree of uncertainty affecting them.
240 241 242		h.	Large Latent Losses—This factor relates to the treatment of identifiable classes of very serious potential losses for which probable frequency and severity can not be reasonably estimated for a considerable period of time.
243 244 245 246		i.	Off-Balance-Sheet Items Such as Long-Term Leases and Commitments to Buy Securities—This factor relates to the valuation question of whether any obligation of these or similar types involve cash flows that are not explicitly or implicitly recognized elsewhere in the valuation.
247	3.	Interest	Risk
248 249 250		uncerta	k that different amounts of change in the anticipated values, and the degree of inty therein, of obligations and of the assets and considerations with which the ons are being compared will occur:
251		i.	simply because of a change in the interest environment, or
252 253 254		ii.	because a change in the interest environment brings about a change from expected experience as to the occurrence, amount or timing of items of cash flow connected with assets, obligations or considerations.
255			There are several factors that affect interest risk:
256 257			a. Mismatch of Asset and Obligation Cash Flows—This factor relates to the development of an excess of a risk bearer's receipts over its required

258 disbursements or vice versa. 259 If an excess of receipts over required disbursements develops, the risk 260 bearer may not be able to invest the excess cash at yields that will produce 261 future cash flows large enough to meet its obligations as they mature. This is "reinvestment" risk. 263 If an excess of required disbursements over receipts develops, the risk 264 bearer may have to borrow or liquidate assets with yields below then current 265 market rates to make up the difference. Borrowing at a relatively high 266 interest rate, or inability to invest the difference at then current market rates 267 produces a reduction in the risk bearer's future profits. This is "market" risk. 268 b. Changes in the Timing of Receipts and Disbursements—This factor relates to 269 the preference of borrowers to prepay debt carrying high rates of interest 270 when rates go down and to defer repayments of debt carrying low rates of 271 interest when rates go up. For risk bearers of property and casualty 272 contingencies, this risk affects mainly their assets. 273 c. General Economy—This factor relates to the way in which things such as 274 275 276

- liquidity, inflation, demand for cash to fund expansion, government debt, trade imbalances and distortions in the yield curve affect the general level of interest rates.
- d. Trends—This factor relates to changes over time in the interest valuation variable and in the degree of uncertainty affecting it and how those changes affect the other asset and obligation valuation variables.

#### Interaction with Other Professionals

The uncertainties that affect other actuarial fields, such as ratemaking and reserving, also affect valuation. In addition, valuation is affected by uncertainties met in other fields, such as marketing, underwriting, finance, regulation, risk management and so on. This implies that professionals working in other fields can be helpful in gathering information and developing rules and assumptions to be used in valuation.

## Actuarial Judgment

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It is important to apply actuarial judgment based on education and experience in selecting and organizing data and making rules and assumptions to be used in the valuation process and in assessing the reasonableness of the results.

# PROCEDURES FOR RESPONDING TO QUESTIONS REGARDING CAS PRINCIPLES

(As Amended Februart 23, 1998)

The Casualty Actuarial Society has developed Principles for Loss and Loss Adjustment Expense Reserves (May 1988), Ratemaking (May 1988), and Valuations (September 1989). Discussion of the Principles is encouraged to stimulate the advancement of actuarial science, and the Society welcomes inquiries regarding the Principles from members and nonmembers. The procedure for dealing with such inquiries as approved by the Casualty Actuarial Society's Board of Directors on May 10, 1992, and amended by the Board of Directors on February 23, 1998, is described below.

Maintenance of the Principles is the responsibility of the Research and Development Committees. Inquiries should be directed to the Vice President-Research & Development for dissemination to the appropriate committee for analysis. Questions may arise from an actuary's own experience or from observed use of Principles by others.

The Vice President-Research & Development will send the inquiry to the appropriate research committee. The committee will prepare a proposed response which might involve elements such as the following:

- 1. Develop a committee interpretation of the Principles.
- 2. Identify areas of research required to resolve the inquiry.
- 3. Recommend discussion programs at CAS meetings to identify membership views on potentially complex issues.
- 4. Refer the inquiry to the appropriate practice council of the American Academy of Actuaries if the inquiry relates to the Standards of Practice rather than to the Principles. Refer the inquiry to the Actuarial Board for Counseling and Discipline if the inquiry relates to the appropriateness of conduct in a particular situation.
- 5. Consider revisions in the wording of the Principles.

The Vice President-Research & Development will review the committee-proposed response and submit it to the Executive Council for its approval. Interpretations of Principles, or changes to the wordings of the Principles, also require Board approval. The committee chairperson will communicate the status and resolution of each inquiry to its originator. Where appropriate, the nature of the resolution of the inquiry will also be communicated to the Society membership. In particular, any interpretation of Principles shall be published and made available to all members.

# ANTITRUST COMPLIANCE POLICY

## (As Adopted February 12, 1993)

#### Policy

The antitrust laws are among the most important of all federal and state laws affecting associations such as the Casualty Actuarial Society. The purpose of the antitrust laws is to preserve fair and honest competition. It is the long-standing and undeviating policy of the Casualty Actuarial Society to comply in all respects with the letter and spirit of the antitrust laws.

#### Education

To ensure compliance with federal and state antitrust laws, CAS members are responsible for understanding those laws. The CAS Guidelines for Antitrust Compliance are adopted as a part of this Antitrust Compliance Policy. Members of the Casualty Actuarial Society are urged to become familiar with the antitrust laws as set forth in the Guidelines. It is also the policy of the Society that educational presentations on antitrust issues are periodically presented to the membership.

#### Agenda

A detailed agenda is prepared for each meeting planned by the Society. If potential antitrust questions are raised by agenda items, they are reviewed in advance by legal counsel. The agenda is distributed to participants prior to the meeting.

#### Meetings

Meetings of the Casualty Actuarial Society are regularly scheduled. Meetings follow the prepared agenda. Counsel is invited to be present at meetings at which antitrust-sensitive issues are to be discussed.

#### **Minutes**

Accurate minutes are kept of all Casualty Actuarial Society Board of Directors and Executive Council meetings. The minutes of the preceding meeting are read and adopted before the start of the following meeting. After the minutes have been adopted, they are promptly distributed to attendees.

#### Recordkeeping

Records of the CAS reflect a factual, objective, and businesslike account of the activities of the Society without retaining useless or outdated information. Notes taken at meetings and drafts of documents having no further lasting value are discarded.

#### Other Sessions

All meetings or sessions held by the Casualty Actuarial Society shall fully comply with this Antitrust Compliance Policy.

# **GUIDELINES FOR ANTITRUST COMPLIANCE**

## (As Adopted February 12, 1993)

#### Introduction

The antitrust laws were first created nearly a century ago to preserve and promote free and fair competition throughout the United States economy. Antitrust laws advance competition by preventing businesses and professionals from engaging in anticompetitive conduct such as price-fixing, market allocation, boycotts, monopolies, and other activities that limit free trade. Associations like the Casualty Actuarial Society, by bringing together actuarial professionals and facilitating the exchange of ideas and information among those professionals, have the potential to undermine competition. It should be no surprise that associations are examined with a suspicious eye by government enforcers under the antitrust laws. Because associations are watched so carefully, the CAS must be especially vigilant to be sure all of its policies and programs are in compliance with antitrust requirements.

The Casualty Actuarial Society recognizes the importance of the antitrust laws. It is the long-standing and undeviating policy of the Casualty Actuarial Society to comply strictly with both the letter and spirit of these laws. To help assure that every aspect of the CAS is in accord with antitrust strictures, these guidelines address: (1) the areas of antitrust which may relate to the CAS and its members, (2) the dangers that must be avoided to minimize the risk of antitrust liability, and (3) policies and procedures to follow in the area of competition. Members should be aware, however, that these guidelines cannot address every potential area of antitrust concern for the CAS and its members. Whenever there is doubt, it is the policy of the CAS to seek the assistance of legal counsel experienced in antitrust matters.

#### Antitrust Laws in General

The basic federal antitrust statutes are the Sherman Act, the Clayton Act, the Federal Trade Commission Act, and the Robinson-Patman Act.

The Sherman Act prohibits contracts, combinations, and conspiracies in restraint of trade in interstate commerce. Among the agreements prohibited by the Sherman Act are those that involve price fixing; allocation of markets or customers; and boycotts of competitors, suppliers, or customers. The Sherman Act also condemns monopolization.

#### Guidelines for Antitrust Compliance

The Clayton Act prohibits various kinds of business behavior which tend to lessen competition or monopolize trade. Among the activities prohibited by the Clayton Act are exclusive dealing arrangements, acquisitions, and mergers which tend to lessen competition.

The Federal Trade Commission Act, in addition to prohibiting the anticompetitive activities made illegal by the Sherman and Clayton Acts, bans unfair methods of competition and unfair or deceptive acts and practices. Unlike the Sherman and Clayton Acts, where most of what is prohibited requires the action of two or more parties, individuals or firms can be liable under the Federal Trade Commission Act even though they did not act in concert with others.

The Robinson-Patman Act prohibits price discrimination where the effect is to lessen competition.

In addition to the federal laws, most states have enacted statutes similar to the Sherman Act, the Clayton Act, and the Federal Trade Commission Act. The federal antitrust laws may not apply to some otherwise anticompetitive activities of the Casualty Actuarial Society and its members because there is an exemption under the McCarran-Ferguson Act for those engaged in the "business of insurance." However, state antitrust laws might well still be applicable in those situations. It is impossible for these summary guidelines to outline each state's antitrust laws. When particular questions arise, the Casualty Actuarial Society and its members must look to their own states' antitrust laws and enforcement mechanisms. In the meantime, it is prudent to use the federal antitrust laws for general guidance.

#### Antitrust Enforcement

The Sherman Act is enforced by the Antitrust Division of the United States Department of Justice and by the Bureau of Competition of the Federal Trade Commission, as well as through private suits for three times actual damages ("treble damages") that can be brought by those who claim they have been injured as a result of antitrust violations. The government may bring either civil or criminal suits. The remedy for a civil suit in an action brought by the government is an injunction prohibiting the offender from future violations. Criminal penalties can include fines, imprisonment, or both.

Sherman Act violations carry stiff fines with the added deterrent of significant jail terms. A violation of the Act is a felony, punishable by up to three years in prison. In addition, steep fines can be imposed for Sherman Act violations.

The Federal Trade Commission enforces the Federal Trade Commission Act by issuing cease and desist orders to stop practices found to violate the law. The violation of a Commission order may result in a penalty of as much as \$10,000 per day. Any association, such as the Casualty Actuarial Society, that is adjudged to be in violation of the antitrust laws can be dissolved by court order.

It is important to note that each party found liable, no matter how small a role that party played, can be held liable for all damages caused by all participants in the antitrust conspiracy. The legal costs incurred in defending an antitrust challenge, beyond the penalties that might ultimately be imposed, frequently run into the hundreds of thousands of dollars. Some associations have paid millions of dollars to defend themselves in especially long or complex antitrust suits.

## Antitrust Laws Applicable to the Casualty Actuarial Society

Focusing on the federal antitrust laws, of principal concern to the Casualty Actuarial Society and its members is Section 1 of the Sherman Act, which renders illegal all "contracts, combinations, and conspiracies" in restraint of trade in interstate commerce. Section 1 is interpreted to prohibit only agreements which have the effect of unreasonably restraining trade. A violation of the law occurs when, upon examination of all the facts and circumstances surrounding the conduct in question, it is determined that trade is unreasonably restrained.

Certain activities are regarded by courts as unreasonable by their very nature and are considered illegal per se. When an activity is designated a per se antitrust violation, a conclusive presumption is created that the activity was engaged in for no other purpose than to restrain trade. Practices within the per se category include agreements to fix or set prices, fees, rates, or commissions, as well as certain kinds of agreements to boycott competitors, suppliers, or customers. Note that the concept of "price fixing" encompasses agreements not only to raise prices but also to lower or stabilize prices. Virtually any agreement, arrangement, or understanding among competitors that involves tampering with free market prices, fees, rates, or premiums is a per se antitrust law violation.

The Sherman Act prohibition extends to any such agreement, whether written or oral, formal or informal, express or implicit. Only rarely is an anticompetitive agreement set out clearly in a written document. Antitrust liability is more often found by examining a course of business conduct from which a jury can infer the existence of an illegal conspiracy. The circumstances may be entirely innocent and lawful when viewed separately. But the same circumstances, when viewed in the aggregate, may be held to constitute an antitrust conspiracy.

Under the McCarran-Ferguson Act, the "business of insurance" is exempted from the federal antitrust laws when a state has regulated particular insurance activity. The McCarran-Ferguson Act exemption applies to three kinds of practices within the insurance business: practices that transfer or spread policyholders' risks, practices that are integral to the policy relationship between the insurer and the insured, and practices that are limited in effect to entities in the insurance industry. Under the McCarran-Ferguson Act, if an activity involves one of these three kinds of practices, and if the state has regulated that aspect of the insurance industry (as most have), federal antitrust laws do not apply. But state antitrust laws will apply unless the state also specifically exempts the "business of insurance" from its antitrust laws (many have not).

Despite the exemption from federal antitrust law in some instances, Casualty Actuarial Society members cannot afford to ignore the federal laws. Interpretation of the McCarran-Ferguson Act has narrowed the scope of the three "business of insurance" practices. For this reason, it is the policy of the CAS not to rely exclusively on the McCarran-Ferguson exemption, but also to carefully undertake all activities to avoid anticompetitive effects.

Basic Antitrust Rules for Members of the Casualty Actuarial Society

#### Guidelines for Antitrust Compliance

The legality of activities of associations and their members under the antitrust laws is determined according to standards no different from those used to determine the legality of the activities of other persons or firms. Special problems do arise, however, from the basic nature of an association. Many of an association's most fundamental policies and valuable programs directly impinge upon areas of particular antitrust concern.

The essential principle which should guide the policies and programs of the Casualty Actuarial Society and its members in order to avoid antitrust violations is that no illegal agreements, arrangements, or understandings should be reached or carried out through the Society. Conduct which might even give the appearance of an illegal agreement should also be avoided. Officers, directors, members and staff of the CAS should be alert to conduct that might fall into areas of particular antitrust concern.

In analyzing whether information to be exchanged at any Casualty Actuarial Society meeting or seminar is acceptable under antitrust guidelines, two critical questions must be asked. These are:

- 1. How does the information relate to the competitive behavior of the companies or firms represented by participants?
- 2. How does the information affect the independent business decisions of the companies or firms represented by participants?

As a general rule, if the exchange of information relates to the future competitive behavior of an individual company or will affect the independent business decisions of an individual company, then it is prohibited by these guidelines. More specific guidelines are as follows:

- 1. Discussion or exchange of information at Casualty Actuarial Society meetings or seminars concerning future price information or future competitive positions of an individual company or companies are prohibited.
- 2. Discussions or exchange of information at Casualty Actuarial Society meetings or seminars concerning current and future underwriting rules that deal with the eligibility for insurance with a particular company are prohibited.
- 3. Information concerning current experience of an individual competitor may, in some circumstances, be viewed as a means of "signaling" future pricing or business decisions. It is, therefore, potentially suspect, and should not be presented or exchanged without an affirmatively stated purpose that is consistent with current industry-wide data or experience and with competitive objectives.
- 4. Where an interpretation or analysis of information concerning past or current experience or prices is exchanged, the risk that the collective action will be linked to future market conduct is substantially increased. The prediction of a trend and its implications is, as a general rule, a matter for individual and independent decision-making.
- 5. A description of an actuarial methodology or mode of analysis of data and its logical internal consistency and past predictive accuracy is not a violation of the antitrust laws. Such a description, however, must be undertaken with extreme care to avoid being viewed as a means of "signaling" future pricing decisions. Any application or example of the methodology or analysis should be presented using insurance company experience that is generally available to the public or is hypothetical in nature rather than the past or current experience of any actual individual competitor.

In conclusion, the Casualty Actuarial Society policy prohibits any activities that could be considered anticompetitive or in violation of the antitrust laws. Any questions about the issues should be addressed to legal counsel.

# GUIDE FOR THE SUBMISSION OF PAPERS TO VARIANCE

#### (As Updated November 3, 2006)

#### Introduction

The purpose of the guides is two-fold: To assist all authors in the preparation of papers and to acquaint authors with procedures and rules governing the submission, evaluation, and acceptance of papers for inclusion in *Variance*.

#### Mission Statement for Variance

*Variance* is a peer-reviewed journal published by the Casualty Actuarial Society to disseminate work of interest to casualty actuaries worldwide. The focus of *Variance* is original practical and theoretical research in casualty actuarial science. Significant survey or similar articles are also considered for publication. Membership in the Casualty Actuarial Society is not a prerequisite for submitting papers to the journal and submission by non-CAS members is encouraged.

## **Who May Submit Papers**

Papers are welcomed from anyone regardless of their profession, education, geographic location, etc. Submissions will be evaluated based upon the merits of the paper and not authorship.

## **Paper Subject Matter**

Papers must meet the following standards in order to be eligible for further consideration:

- 1. The topic selected must be relevant to casualty actuarial science.
- 2. The subject matter must fit into one or more of the following categories:
  - **Research**—contains original ideas or new material
  - **Educational**—for actuaries or others involved in the analysis, modeling, or management of risk
  - **Practical**—provides synthesis of existing distinct processes, solutions to substantive problems, expositions of actuarial practices, compilation of current techniques, etc.

Papers on a wide variety of subjects are welcome. Casualty actuarial science is a broad and dynamic field and casualty actuaries must be knowledgeable about many subjects.

## **Guides for Preparation of Papers**

Authors should observe the following guides in preparing papers:

- 1. **Style.** The form, clarity, and literary quality of the paper must meet scholarly standards that will reflect credit upon *Variance*. The paper should show care in preparation including special attention to grammar, spelling, and related editorial items. It should not be considered as a draft to which extensive alterations will be made. Care should be taken so that papers are not unnecessarily complex in their wording. It may be helpful to the author to have a peer review prior to submission.
- 2. **Length.** As a general rule, papers should be fewer than 10,000 words exclusive of tables and appendices.
- 3. **Language.** Papers should be in English.
- 4. **Abstract.** Each paper must begin with an abstract of not more than 200 words. This abstract should provide an overview of the paper. When a paper is accepted for publication in *Variance*, the abstract may be published elsewhere.
- 5. Format.
  - Papers must be typed double-spaced on 8-1/2" by 11" stationery on one side of each sheet. Tables and footnotes may be single-spaced.
     Major captions should be centered and typed in capitals. Subcaptions must appear in the left-hand margin. Footnotes must be numbered consecutively throughout the paper.
  - Appendices: Use letters (A, B, ...) to distinguish different appendices. Begin each appendix on a new page.
  - Exhibits: All charts, exhibits, and tables in a paper should be numbered with Arabic numerals (1, 2,...). So far as possible, tables should be arranged so that they can be printed on a single page of the journal without undue reduction in size of type. Generally, tables will be incorporated into the body of the text when printed. References to the tables should be specific, ("Table 3") instead of general ("the table below").
  - Figures: Figures are graphs, pictures, etc. They should be numbered with Arabic numerals (e.g., "Figure 3"). Generally, figures are photoreduced, not typeset; therefore, high-quality originals must be submitted to the CAS Publications Production Coordinator.
  - Footnotes: Footnotes should be numbered with Arabic numerals. They should be numbered sequentially even through appendices. An
    asterisk may be used if there is only one footnote in the entire paper. Superscripts indicating footnotes should never be appended to
    numbers or formulae.
  - Footnotes should not be used when they only include a bibliographic reference. In that case, use brackets to enclose a reference number.

6. **References.** Authors are encouraged to include a suitable bibliography in their papers. The works cited should be pertinent. References to books, periodicals, and journals of professional societies should be sufficiently complete to permit obtaining a copy of the source. References should list the publisher, publication, dates, and page numbers for the first and last pages.

## 7. Mathematical formulae, variables, and symbols.

- Every effort should be made to use mathematical formulae and symbols that are generally accepted in the actuarial profession and, most particularly, to use symbols that have been used previously in papers in *Variance*.
- Formulae: If formulae are to be numbered, numbers must be in the form of S.N., where S is the section number and N is a sequential number for the formula within the section. Avoid complex notation.
- Variables: Avoid using the same variable for different references; e.g., i for an index and an interest rate; r for risk load and rate of return; v for variance and discount rate, etc. Authors must italicize all variables.
- Symbols: When life contingency symbols are applicable, the international actuarial notation should be used. This notation is as described in The *Theory of Interest and Life Contingencies with Pension Applications: A Problem-Solving Approach*, by M.M. Parmenter.
- 8. **Complete.** Authors must provide enough information, either in the paper or through citations of references, so that peer reviewers and readers can assess the validity of the author's results. Statements that data or derivations cannot be provided because they are proprietary are unacceptable and will lead to rejection of the paper for publication.
- 9. Miscellaneous. Papers are expected to be free of criticism of a personal nature.

## **Procedures for Submission of Papers**

Authors must submit their paper in electronic format, preferably as a PDF file or Microsoft Word document, to the Editor in Chief of *Variance* in care of the CAS Office. E-mail the file to Elizabeth Smith, CAS Manager of Publications at esmith@casact.org. The subject line should say "New Submission to *Variance*." If you have any questions, you can contact Elizabeth Smith.

The paper should not contain any information that might reveal the name or affiliation of the author. Instead, a transmittal document should be included containing the name, professional or educational designations, affiliation, email address, and telephone number of the author. The *Variance* Editorial Board will try to maintain anonymity of the author during the review process. The transmittal document should include responses to the following:

- 1. What is the title of paper?
- 2. **Has the paper been published in a CAS** *Discussion Paper Program?* Authors of discussion papers are encouraged to submit their papers for possible inclusion in *Variance*.
- 3. Has the paper been published elsewhere, in whole or in part, in identical or similar form? If the answer is "yes," the author should provide a copy of the previously published paper and a waiver by the publisher. In addition, the author should indicate whether the paper was reviewed for technical accuracy by the publisher. The author should set forth the special circumstances that merit its consideration for *Variance*. As a general rule, a paper that has been published in a refereed journal, or a paper that has been published or widely distributed elsewhere, will not be accepted for *Variance*.
- 4. Is the paper being simultaneously submitted elsewhere or will it be so submitted before the decision by the Editorial Board of *Variance*? If the answer is "yes," the author must provide the name of the journal and, if the paper is subject to copyright, provide a statement of willingness of the publisher to waive copyright. The CAS is unable to publish copyrighted material without a waiver from the copyright holder.
- 5. **Does the paper contain any material that is copyrighted?** This may include factual data, charts, graphs, etc. If so, has the author obtained a copyright waiver from the publisher or copyright holder? This waiver should be attached to the submitted paper.
- 6. **Does the paper contain any material that is proprietary?** This may include factual data, charts, graphs, etc. If so, has the author obtained permission from the relevant party to release the proprietary information? This permission sheet should be attached to the submitted paper.
- 7. Has the author read the Guides for the Submission of Papers and does the submission comply with these guides? If so, this should be stated affirmatively.
- 8. **Is the author prepared to execute a copyright assignment agreement with the CAS** (see copyright form appended to the Guides for the Submission of Papers)? If so, this should be stated affirmatively. A paper will not be accepted without a copyright agreement.

A copy of the transmittal document is available at www.casact.org/about/index.cfm?fa=transmittal. It is recommended that authors use this form. The CAS Publications Production Coordinator will acknowledge the receipt of the paper.

## **Exceptions**

In specific instances, the Variance Editorial Board may recommend exceptions to these guides to the Vice President-Administration.

## **Initial Screening of Papers**

Upon receipt of the paper, the CAS Publications Production Coordinator will determine whether the paper complies with the Procedures for Submission of Papers. If it does not, the paper will be returned to the author with comments as to the deficiencies. If the paper does comply, the paper will be forwarded on to the Editor in Chief and Associate Editor-Peer Review for initial review. If the paper is found to be relevant for publication in *Variance* the paper will be assigned to peer reviewers and the author will be informed of this decision.

It is the nature of refereed journals that it takes a considerable amount of time to review a paper. Authors may expect a preliminary response within 60 days. This preliminary response will concern the paper's probable acceptance or rejection and an estimate of the work required to ready the paper for acceptance. Authors can help the committee expedite the process by submitting carefully written and edited papers.

#### **Procedure for Reviewing Papers**

The Managing Editors determine the acceptability of the paper by evaluating the votes of the designated reviewers. The paper will be accepted or rejected based upon a majority decision of the reviewers. The Editorial Board's decision will place the paper in one of the following categories:

- 1. Accept. The Editorial Board will accept the paper unconditionally. The author will be notified of this decision through the Editor.
- 2. **Accept with suggestions for improvement.** The Editorial Board will suggest to the author ways in which the paper may be improved. The Editorial Board will communicate to the author its decision and its suggestions and will ask for affirmative action by the author either to revise the paper or to confirm the original submission.
- 3. **Accept conditionally.** The Editorial Board will require conditions that must be met by the author in order to make the paper acceptable. The Editorial Board will communicate to the author its decision, the reasons therefor and its conditions, and will ask the author either to revise the paper or to withdraw it from consideration.
- 4. **Request resubmission.** The Editorial Board will not accept the paper but will provide the author with general suggestions on how to reconstruct the paper to make it acceptable. This action contemplates papers with ideas acceptable for the journal but with inadequate presentation. The Editorial Board will communicate to the author its decision and reasons therefor along with its suggestions, and invite resubmission.
- 5. **Reject.** The Editorial Board will reject the paper and notify the author of its decision and the reasons therefor. An author, in case of rejection, may appeal to the Editor in Chief of *Variance*, who will conduct such inquiries as he/she deems appropriate and will make a binding decision based on one of the above four categories or rejection.

The following general principles will be observed by the Editorial Board in evaluating papers. Neither disagreement by the Editorial Board with opinions of the author nor unorthodoxy in the views expressed by the author will be a bar to acceptance of an otherwise suitable paper. The Editorial Board welcomes candor and genuine debate subject to the usual expectations of clarity, pertinence, and courtesy. The paper should recognize other viewpoints and explore its subject in sufficient depth to contribute to general enlightenment. Where the paper is found to be fallacious in logic or misleading in matters of fact, the Editorial Board will reject it.

When a paper includes material that the Editorial Board finds itself not qualified to evaluate, the Editors may seek advice or opinion from recognized experts.

#### **Guidelines for Resubmitting Papers**

When an author decides to resubmit a paper in connection with guidelines, all the rules and procedures for original submission will apply. The revised paper should be accompanied by a cover letter titled "RESUBMISSION." To expedite the resubmission review, authors are required to indicate in the resubmission cover letter how they have responded to the comments contained in the individual reviews. If an author does not agree with a recommended change, the author will provide a detailed explanation of the disagreement in the letter.

#### **Discussions of Papers**

As a general rule, discussions of previously published papers are subject to the guides in the same manner as papers, with the following exceptions:

- 1. **Length.** Discussions of papers should generally be fewer than 2,500 words. No abstract is required.
- 2. **Procedure for submission.** All requirements pertaining to anonymity of authors are waived. In general, authors of discussions should adhere to the Guidelines for Preparation of Papers explained above.
- 3. **General.** The author of a discussion should send a copy to the author of the paper being discussed with enough advance notice to allow the author of the paper to analyze and, if he or she wishes, prepare a reply to the discussion.

# **Authors' Replies**

Authors will be given an opportunity to respond to discussions of their papers. Replies are treated in the same manner as discussion of papers.

#### Reprints

Twenty-five reprints will be provided by the Editorial Board of *Variance* to the author of a published paper soon after the distribution of the *Variance* volume in which the paper is printed.

## Copyright

Before papers can be accepted for publication, authors are required to sign and return a CAS Copyright Assignment Agreement form to the CAS Office (see the following page for the form). This copyright agreement assigns the CAS exclusive right, title, and interest to the paper, including the right of the CAS to edit the paper and publish the author's name in connection with the publication of the paper in *Variance*. The CAS will grant back to the author certain rights under a limited license.

The Editorial Board of *Variance* will provide a Copyright Assignment Agreement form when notifying the author of the results of the committee's initial screening of a paper that falls into categories 1-3.

Authors will be asked to sign and return the Copyright Assignment Agreement form prior to official acceptance of the paper by the Editorial Board. Further consideration of the paper will be contingent upon the return of the signed Copyright Assignment Agreement form.

To protect the Casualty Actuarial Society's copyright, the following statement will be placed at the bottom of the first page of a paper after it has been accepted and before its reproduction:

"Reproduction in whole or in part without the written permission of the Casualty Actuarial Society is specifically prohibited, except that permission is granted to make copies for classroom or other educational use, but in no event for general distribution, advertising or promotional purposes, inclusion in new collective works, or for any commercial purposes."

# **Editing and Publication**

Primarily, it is the responsibility of the author, working with the Editorial Board of *Variance*, to produce a final draft of the paper suitable for printing.

After the author has been notified that the paper has been accepted for publication and the editorial review phase has concluded, the author must supply the CAS Publications Production Coordinator with an electronic copy of the paper and its accompanying tables, appendices, etc. The electronic file should be prepared in a commonly used word processing software such as Microsoft Word or WordPerfect. The author should indicate the word processing program used to create the paper. If an author has any questions about the compatibility of a particular word processing system, he or she should contact the CAS Publications Production Coordinator.

The author will have an opportunity to read, revise, and comment on the first typeset copy of the paper. *Variance* will not publish a paper if the author has not approved the Editorial Board's suggestions at this stage. Any subsequent editing is normally minor and is not referred to the author.

# COPYRIGHT ASSIGNMENT AGREEMENT

Lam	the author of (the "work") to be published in <i>Variance</i> , the peer-reviewed journal o
the Ca copyr with t	asualty Actuarial Society ("Society"). Based on good and valuable consideration, I grant to the Society all right, title and interest, including tight, in and to the work. I authorize the Society to edit the work and to publish my name, photograph, and biographical data in connection the Society's use and promotion of the work. I understand that I will receive no royalty or other compensation from the Society for the use of ork by the Society.
I u	nderstand that the Society grants back to me a limited permission to:
1)	Present the work orally;
2)	Distribute the work for educational, personal, noncommercial or commercial purposes or for my own professional use; and
3)	Revise, adapt, or prepare derivative works and to present such works orally and distribute or authorize publication of the works for educational, personal, noncommercial or commercial purposes or for my own professional use;
which	ovided that a) the works are not used in a manner that may be considered similar to the use or publication of the work by the Society, in a case the prior approval of the Society must be obtained, b) an appropriate written acknowledgment is included in the works that distribution de with the permission of the Society, and c) the Society shall have the right of first refusal to use or publish any revised, adapted, or derivative is.
	lso specifically grant a royalty-free license to any of the Society's members or other users of the Society's publications for use of any patents or procedures described in the work.
	onfirm to the Society that the work is my own, that I have the full right to make this assignment, that the work is factually accurate and law- nat the work does not violate any copyright, proprietary or personal rights of others, and that I have obtained all necessary permissions from s.
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March 14, 2007 Publications/Variance Copyright Assignment 03-14-07

# PRINCIPLES OF THE CASUALTY ACTUARIAL SOCIETY FOR BASIC EDUCATION

## (As Adopted May 6, 2001)

The primary purpose of the Casualty Actuarial Society (CAS) basic education process is to ascertain whether candidates for the CAS designations have satisfied CAS learning objectives:

- 1. Basic education will remain a cornerstone of the CAS.
- 2. The CAS will assure that its members have the knowledge of those areas needed to practice effectively in the broad and expanding range of property, casualty, and similar business and financial risks (general insurance).
- The CAS is committed to a depth of knowledge of techniques associated with the broad range of property, casualty, and similar business and financial risks.
- 4. The CAS will provide the basic education necessary to meet qualification standards to sign statements of actuarial opinion for general insurance and related specialties in at least the U.S. and Canada.
- 5. The education process will provide a balance among theoretical concepts, practical applications, and business acumen, to prepare our members to deliver high-quality service to meet current and projected future needs of employers and clients.
- 6. The CAS will approve the syllabus and examination standards used in determining eligibility for CAS membership.
- 7. Demonstration of mastery of the skill sets required of members is critical to basic education.
- 8. The CAS is committed to maintaining self-study as one route for attainment of designations.
- 9. The CAS will pursue strong working relationships with academia and professionals in related fields.
- 10. The CAS will attract a pool of strong candidates from a variety of backgrounds to the actuarial profession.
- 11. The CAS supports the goal of developing a global shared foundation of actuarial education, including joint sponsorship of examinations where consistent with other principles.
- 12. The CAS, as an educator of general insurance and related specialties, will remain a significant contributor to the worldwide actuarial profession.

# **EDUCATION POLICY STATEMENT**

# (As Adopted May 6, 2001)

The Casualty Actuarial Society is committed to the furtherance of actuarial knowledge through a comprehensive, integrated program of education and research, and to the establishment of related professional standards.

The basic educational objectives of the CAS shall be:

- 1. To provide and foster a program of actuarial education leading to Fellowship in the CAS
  - a. by defining the basic areas of knowledge and skills necessary to obtain the competence to practice in the various actuarial specialties,
  - b. by defining standards of educational achievement required for membership in the CAS,
  - c. by providing means of measuring educational achievement;
- 2. To provide and foster programs of actuarial education for members to update or expand their basic skills and knowledge;
- 3. To promote and foster educational activities and research that will expand and enhance the overall base of actuarial knowledge;
- 4. To provide mechanisms for disseminating to members and non-members resource material relating to actuarial topics of an educational nature.

# CONTINUING EDUCATION POLICY STATEMENT

The Casualty Actuarial Society Board of Directors approved the CAS Continuing Education Policy at its May 23, 2010, meeting. Continuing professional education is an integral part of any profession. The Board believes that the CAS Continuing Education Policy represents a significant milestone in ensuring that CAS members stay accountable to their principals and the public by maintaining appropriate levels of relevant continuing education.

The CAS provides continuing education through live events and online content to actuaries and other professionals interested in property, casualty, and similar risk exposures. CAS works to create programs to enhance an actuary's skills and knowledge and help experienced professionals keep up to date on advances in the field.

Members are encouraged to review the complete CAS Continuing Education Policy for all of the details on the CE requirements. The Policy can be accessed through the CAS Web Site at http://www.casact.org/cms/files/CAS\_CE\_Policy.pdf.

# SYLLABUS GOALS AND OBJECTIVES

## (As Adopted February 3, 1986 and updated July 19, 2000)

One of the primary objectives of the Casualty Actuarial Society (CAS) is the development of qualified professionals in the field of casualty actuarial science. The CAS conducts an educational and examination program for prospective members in order to achieve this objective. The Syllabus goals and objectives are as follows:

- 1. To develop a general understanding of the social, political, regulatory, legal, economic, and financial environment of the business of property and casualty insurance and similar risk assessment as well as the historical development of that environment.
- 2. To develop a thorough understanding of the fundamental mathematical concepts applicable to solving insurance and similar risk assessment problems and to develop a high degree of skill in their applications.
- 3. To develop a comprehensive understanding of the business of property and casualty insurance, including underwriting, claims, marketing, and finance, as well as how these functions are performed and interrelate.
- 4. To develop a working knowledge of property and casualty insurance policies and contracts.
- 5. To develop an expert knowledge of a broad range of techniques to solve problems and to develop the ability to discern the appropriateness of techniques for particular applications based on a knowledge of the underlying assumptions, strengths, and weaknesses.
- 6. To develop an expert knowledge of a broad range of relevant and standard actuarial practices in order to present a framework for the use of problem-solving techniques.
- To encourage a sense of inquisitiveness and creativity toward problem solving in order to foster an appreciation of the art in actuarial science.

# **EXAMINATIONS FOR ADMISSION**

Admission to the Casualty Actuarial Society requires successful completion of a series of examinations designed to test a candidate's skills and knowledge of actuarial theory and practice.

The CAS sponsors examinations each year. To be eligible for Associateship, a candidate must have credit for three Validation by Educational Experience topics, pass the seven Associate-level examinations, successfully complete the Course on Professionalism, and submit an application with two letters of reference. Completion of the two additional Fellowship-level examinations is required to become a Fellow.

A syllabus of basic education is published annually. It details the study material for each examination. It also provides the examination and fee schedules, registration information, rules regarding the examination, and information on waivers, appeals, accommodations for those with disabilities, and other pertinent topics. The *CAS Syllabus of Basic Education* is available at no charge in the "Admissions/Exams" section of the CAS Web Site (www.casact.org/admissions/).

# AMERICAN ACADEMY OF ACTUARIES

Successful completion of specified examinations of the Casualty Actuarial Society will satisfy the educational requirements of the American Academy of Actuaries. For further information, contact the Academy at:

American Academy of Actuaries 475 North Martingale Road, Suite 800 Schaumburg, Illinois 60173-2226 (847) 706-3513

# 2013 CAS BASIC EDUCATION SUMMARY

# **Associateship Requirements**

# **Validation by Educational Experience**

VEE-Applied Statistical Methods

**VEE-Corporate Finance** 

**VEE-Economics** 

#### **Online Courses**

Online Course 1 Risk Management and Insurance Operations (same as The Institutes Course CA1) †

Online Course 2 Insurance Accounting, Coverage Analysis, Insurance Law, and Insurance Regulation (same as The Institutes Course CA2) †

#### **Examinations**

Exam 1	Probability (same as SOA Exam P)*
Exam 2	Financial Mathematics (same as SOA Exam FM)*
Exam 3F	Models for Financial Economics (same as SOA Exam MFE) *
Exam 3L	Models for Life Contingencies and Statistics
Exam 4	Construction and Evaluation of Actuarial Models (same as SOA Exam C) *
Exam 5	Basic Techniques for Ratemaking and Estimating Claim Liabilities
Exam 6	Regulation and Financial Reporting (Nation-Specific)
	Actuarial Institute of Chinese Tainei

Actuarial Institute of Chinese Taipei

Canada

United States

## **Course on Professionalism**

# **Fellowship Requirements**

Fellowship requires all Associateship requirements plus the following:

Exam 7 Estimation of Policy Liabilities, Insurance Company Valuation, and ERM

Exam 8 Advanced Ratemaking

Exam 9 Financial Risk and Rate of Return

### **CERA Requirements**

The CERA designation requires all Associateship requirements plus the following:

Exam 7 Estimation of Policy Liabilities, Insurance Company Valuation, and ERM

Exam 9 Financial Risk and Rate of Return Enterprise Risk Management and Modeling Seminar

Exam ST9 of the Institute and Faculty of Actuaries (U.K.) on Enterprise Risk Management

<sup>\*</sup> Preliminary Actuarial Examinations administers the jointly sponsored Exams 1/P, 2/FM, 3F/MFE, and 4/C of the Canadian Institute of Actuaries, Casualty Actuarial Society, and the Society of Actuaries.

 $<sup>\</sup>ensuremath{\dagger}$  The Institutes administer the exams for Online Courses 1/CA1 and 2/CA2.

# 2013 EXAMINATION SCHEDULE

Exam 1/P by Computer-Based Testing

	EXAM DATES	DURATION	START TIME	REGISTRATION DEADLINE
January Test Window	January 10-21, 2013	3 Hours	Various	December 3, 2012
- Limited paper/pencil sites	January, 10, 2013	3 Hours	8:30 a.m.	December 3, 2012
March Test Window	March 14-25, 2013	3 Hours	Various	January 31, 2013
May Test Window	May 13-24, 2013	3 Hours	Various	April 2, 2013
- Limited paper/pencil sites	May 13, 2013	3 Hours	8:30 a.m.	April 2, 2013
July Test Window	July 18-29, 2013	3 Hours	Various	June 6, 2013
September Test Window	September 19-30, 2013	3 Hours	Various	August 8, 2013
- Limited paper/pencil sites	September 19, 2013	3 Hours	8:30 a.m.	August 8, 2013
November Test Window	November 1-12, 2013	3 Hours	Various	<b>September 26, 2013</b>

Note: Exam 1/P is administered by paper-and-pencil exam in limited sites outside the U.S. where CBT is not available on the dates indicated above.

# Exam 2/FM by Computer-Based Testing

	EXAM DATES	DURATION	START TIME	REGISTRATION DEADLINE
February Test Window	February 8-19, 2013	3 Hours	Various	<b>December 27, 2012</b>
- Limited paper/pencil sites	February 8, 2013	3 Hours	8:30 a.m.	<b>December 27, 2012</b>
April Test Window	April 9-20, 2013	3 Hours	Various	February 26, 2013
June Test Window	June 6-17, 2013	3 Hours	Various	April 25, 2013
- Limited paper/pencil sites	June 6, 2013	3 Hours	8:30 a.m.	April 25, 2013
August Test Window	August 8-19, 2013	3 Hours	Various	June 27, 2013
October Test Window	October 8-19, 2013	3 Hours	Various	August 27, 2013
- Limited paper/pencil sites	October 8, 2013	3 Hours	8:30 a.m.	August 27, 2013
December Test Window	December 9-20, 2013	3 Hours	Various	October 28, 2013

Note: Exam 2/FM is administered by paper-and-pencil exam in limited sites outside the U.S. where CBT is not available on the dates indicated above.

# Exam 3F/MFE by Computer-Based Testing

	EXAM DATES	DURATION	START TIME	REGISTRATION DEADLINE
March Test Window	March 7-13, 2013	3 Hours	Various	January 24, 2013
- Limited paper/pencil sites	March 7, 2013	3 Hours	8:30 a.m.	January 24, 2013
July Test Window	July 11-17, 2013	3 Hours	Various	May 30, 2013
- Limited paper/pencil sites	July 11, 2013	3 Hours	8:30 a.m.	May 30, 2013
November Test Window	November 13-19, 2013	3 Hours	Various	October 2, 2013
- Limited paper/pencil sites	November 13, 2013	3 Hours	8:30 a.m.	October 2, 2013

Note: Exam 3F/MFE is administered by paper-and-pencil exam in limited sites outside the U.S. where CBT is not available on the dates indicated above.

# Exam 4/C by Computer-Based Testing

	EXAM DATES	DURATION	START TIME	REGISTRATION DEADLINE
February Test Window	February 1-7, 2013	3.5 Hours	Various	<b>December 27, 2012</b>
- Limited paper/pencil sites	February 1, 2013	3.5 Hours	8:30 a.m.	<b>December 27, 2012</b>
June Test Window	June 18-24, 2013	3.5 Hours	Various	May 7, 2013
- Limited paper/pencil sites	June 18, 2013	3.5 Hours	8:30 a.m.	May 7, 2013
October Test Window	October 1-7, 2013	3.5 Hours	Various	August 20, 2013
- Limited paper/pencil sites	October 1, 2013	3.5 Hours	8:30 a.m.	August 20, 2013

Note: Exam 4/C is administered by paper-and-pencil exam in limited sites outside the U.S. where CBT is not available on the dates indicated above.

# Computer-Based Testing in Québec City, Québec

A mobile computer-based testing center will be available in Québec City, Québec on the dates listed below.

	EXAM DATES	DURATION	START TIME	REGISTRATION DEADLINE	
March Test Window					
- Exam P/1	Mar. 13-14, 2013	3 Hours	Various	January 31, 2013	
- Exam 3F/MFE	Mar. 13-14, 2013	3 Hours	Various	January 24, 2013	
June Test Window					
- Exam FM/2	June 17-18, 2013	3 Hours	Various	April 25, 2013	
- Exam 4/C	June 17-18, 2013	3.5 Hours	Various	May 7, 2013	
October Test Window					
- Exam 2/FM	October 7-8, 2013	3 Hours	Various	August 27, 2013	
- Exam 4/C	October 7-8, 2013	3.5 Hours	Various	August 20, 2013	
November Test Window (Computer-B					
- Exam 1/P	November 12-13, 2013	3 Hours	Various	<b>September 26, 2013</b>	
- Exam 3F/MFE	November 12-13, 2013	3 Hours	Various	October 2, 2013	

# Exams for Online Courses 1 and 2 by Computer-Based Testing

	EXAM DATES	DURATION	START TIME	EXAM REFUND DEADLINE
January-March Test Window	Jan. 15 – March 15, 2013	2 Hours	Various	Three business days prior to scheduled exam—fees apply.
April-June Test Window	April 15 – June 15, 2013	2 Hours	Various	Three business days prior to scheduled exam—fees apply.
July-September Test Window	July 15 – Sept. 15, 2013	2 Hours	Various	Three business days prior to scheduled exam—fees apply.
October-December Test Window	Oct. 15 – Dec. 15, 2013	2 Hours	Various	Three business days prior to scheduled exam—fees apply.

# **April-May 2013 Exam Administration**

	EXAM DATES	DURATION	START TIME	REGISTRATION DEADLINE	REFUND DEADLINE
Exam 3L	May 3, 2013	2.5 Hours	8:30 a.m.	March 21, 2013	April 26, 2013
Exam 5	April 30, 2013	4 Hours	8:30 a.m.	March 21, 2013	April 26, 2013
Exam 7	April 29, 2013	4 Hours	8:30 a.m.	March 21, 2013	April 26, 2013
Exam 9	May 2, 2013	4 Hours	8:30 a.m.	March 21, 2013	April 26, 2013

<sup>\*</sup>For eligible candidates only

#### October 2013 Exam Administration

	EXAM DATES	DURATION	START TIME	REGISTRATION DEADLINE	REFUND DEADLINE
Exam 3L	October 31, 2013	2.5 Hours	8:30 a.m.	<b>September 19, 2013</b>	October 25, 2013
Exam 5	October 29, 2013	4 Hours	8:30 a.m.	<b>September 19, 2013</b>	October 25, 2013
Exams 6-Canada and 6-U.S.	October 28, 2013	4 Hours	8:30 a.m.	<b>September 19, 2013</b>	October 25, 2013
Exam 8	October 30, 2013	3 Hours	8:30 a.m.	<b>September 19, 2013</b>	October 25, 2013

### ST9 Exam Administration for CERA Designation

	EXAM DATES	DURATION	START TIME	REGISTRATION DEADLINE	REFUND DEADLINE
April Administration	April 23, 2013	3 Hours	9:30 a.m.	February 7, 2013	February 6, 2013
October Administration	October 1, 2013	3 Hours	9:30 a.m.	July 18, 2013	July 17, 2013

## **Important Schedule Notes**

- Starting times listed for examinations refer to the local time.
- Candidates should arrive at the examination center at least 30 minutes prior to the scheduled exam time for the check-in process.
- Examinations administered exclusively by the CAS will have a reading time prior to the commencement of the timed exams. For Exam 3L, there will be a 10-minute reading period; for Exams 5-9, there will be a 15-minute reading period.
- Updated information for Exams 1/P, 2/FM, 3F/MFE, and 4/C that are jointly administered in 2013 by the Casualty Actuarial Society and the Society of Actuaries will be incorporated as necessary and will be noted in the syllabus section for the specific exam.
- To meet the CAS requirements for CERA, candidates should submit their registration to the CAS for Institute and Faculty of Actuaries (U.K.) Exam ST9.

# THE ABOVE & BEYOND ACHIEVEMENT AWARD

The Above & Beyond Achievement Award (ABAA) is designed to celebrate the spirit of volunteerism, a core value of the Casualty Actuarial Society. Each year more than 25 percent of our members participate in one or more CAS volunteer activities. A number of individuals perform with exceptional merit. Since such efforts are typically not apparent or widely known to the vast majority of CAS members, the ABAA was created to recognize these achievements.

All members of the CAS, except current board members and officers, are eligible to receive the ABAA. Any CAS member may nominate a person for this award at any time. The only criterion is that the recipient performs conspicuously above and beyond what is normally and reasonably expected. Nominations may be submitted to the Committee on Volunteer Resources, which will forward on recommendations to the CAS Executive Council. The CAS Executive Council will decide annually on the award recipient(s), with the award(s) to be presented at the annual meeting each year.

The award will include a tangible reminder such as a plaque or an engraved item, as well as public recognition by the CAS. Information about the ABAA and a nomination form can be found on the CAS Web Site at www.casact.org/aboutcas/abaa.htm.

# Recipients of the Above & Beyond Achievement Award

2002	Chalana Faldhlana
2003	Aaron M. Halpert
	Thomas Struppeck
202/	11
2004	*
	Kevin G. Dickson Stuart Suchoff
200	
2005	<u> </u>
	Kristine Kuzora Jerome Vogel
	Michael Wacek
2006	
2000	Rudy A. Palenik
	Nancy P. Watkins
2007	·
2007	Ralph S. Blanchard III
	Robert Campbell
2008	•
2000	Thomas E. Hettinger
2009	•
2009	Jacqueline Frank Friedland
	John T. Gleba
2010	-
2011	•
2012	Ginda Fisher and Aaron M. Halpert

# AMERICAN RISK AND INSURANCE ASSOCIATION PRIZE

This prize, established in 1997, is awarded to authors of papers published by the American Risk and Insurance Association (ARIA) that provide the most valuable contribution to casualty actuarial science.

Papers eligible for the prize include articles, workshop articles, and invited papers published in the Journal of Risk and Insurance during the preceding year. Papers published in new ARIA journals may also be eligible for this award.

Papers will be judged by a specially appointed committee of the Society whose decision will be final.

The presentation of the award will be made annually at the August ARIA Meeting. The author of the prize-winning paper will be invited to present the paper at a CAS meeting.

The amount of the ARIA Prize is currently \$1,000.

## **Recipients of the ARIA Prize**

1997 Daniel Zajdenweber, "Extreme Values in Business Interruption Insurance" 1998 Joan Lamm-Tennant and Mary Weiss, "International Insurance Cycles: Rational Expectations/Institutional Intervention" 1999 Richard D. Phillips, J. David Cummins, and Franklyn Allen, "Financial Pricing of Insurance in the Multiple-Line Insurance Company" 2000 J. David Cummins, Martin F. Grace, and Richard D. Phillips, "Regulatory Solvency Prediction in Property-Liability Insurance: Risk-Based Capital, Audit Ratios, and Cash Flow Simulation" Patrick L. Brockett, Hung-Gay Fung, Gene C. Lai, Richard MacMinn, and Robert C. Wit, "Great (and not so Great) 2001 Expectations: An Endogenous Economic Explication of Insurance Cycles and Liability Crises" Stewart C. Myers and James A. Read Jr., "Capital Allocation for Insurance Companies" 2002 Patrick L. Brockett, Richard A. Derrig, Linda L. Golden, Arnold Levine, and Mark Alpert, "Fraud Classification Using 2003 Principal Component Analysis of RIDITs" 2004 Natacha Brouhns, Montserrat Guillén, Michel Denuit, and Jean Pinquet, "Bonus-Malus Scales in Segmented Tariffs With Stochastic Migration Between Segments" Stephen P. D'Arcy and Richard W. Gorvett, "The Use of Dynamic Financial Analysis to Determine Whether an Optimal Growth 2005 Rate Exists for a Property-Liability Insurer" David Cummins and Richard D. Phillips, "Estimating the Cost of Equity Capital for Property-Liability Insurers" 2006 2007 Michael Sherris, "Solvency, Capital Allocation and Fair Rate of Return in Insurance" 2008 Patrick L. Brockett and Linda L. Golden, "Biological and Psychobehavioral Correlates of Risk Taking, Credit Scores, and Automobile Insurance Losses: Toward an Explication of Why Credit Scoring Works" 2009 **Pierre Picard**, "Natural Disaster Insurance and the Equity-Efficiency Trade-off" J. David Cummins and Phillipe Trainar, "Securitization, Insurance, and Reinsurance" 2010 2011 George Zanjani, "An Economic Approach to Capital Allocation" 2012 Richard A. Derrig and Sharon Tennyson, "The Impact of Rate Regulation on Claims: Evidence From Massachusetts Automobile

Insurance"

# CHARLES A. HACHEMEISTER PRIZE

This prize was established in 1993 in recognition of Charles A. Hachemeister's many contributions to Actuarial Studies in Non-Life Insurance (ASTIN) and his efforts to establish a closer relationship between the CAS and ASTIN.

Papers eligible for the prize include articles, workshop articles, and/or invited papers published in the applicable November and April issues of the ASTIN Bulletin, in addition to papers and Speakers' Corner papers presented at the ASTIN Colloquium in the calendar year prior to the prize award. Future International Actuarial Association (IAA) Congress or Actuarial Approach for Financial Risks (AFIR) Colloquium papers may also be eligible for this award.

Papers will be judged by a specially appointed committee of the Society. Emphasis will be placed on the paper's impact for North American actuaries and practicality of application. The committee's decision will be final.

The announcement of the award will be made annually at the CAS Spring or Annual Meeting.

The amount of the Charles A. Hachemeister Prize is currently \$2,500. For further information about the Hachemeister Prize, contact:

### **CAS Hachemeister Prize Committee**

Casualty Actuarial Society
4350 North Fairfax Drive, Suite 250
Arlington, Virginia 22203
Telephone: (703) 276-3100
Fax: (703) 276-3108
E-Mail: office@casact.org

# **Recipients of the Hachemeister Prize**

1994	Dr. Thomas Mack, "Which Stochastic Model is Underlying the Chain Ladder Method?"
1995	<b>Michel Laparra</b> , <b>Isabelle Lion</b> , and <b>Christian Partrat</b> , "Design and Analysis of Market Price Indices for the U.S. Natural Catastrophe Excess Reinsurance Treaties"
1996	Gregory C. Taylor, "Modeling Mortgage Insurance Claims Experience: A Case Study"
1997	<b>Stephen P. Lowe</b> and <b>James N. Stanard</b> , "An Integrated Dynamic Financial Analysis and Decision Support System for a Property Catastrophe Reinsurer"
1998	James A. Tilley, "The Securitization of Catastrophic Property Risks"
1999	No Award
2000	Uwe Schmock, "Estimating the Value of the Wincat Coupons of the Winterthur Insurance Convertible Bond"
2001	Morton Lane, "Pricing Risk Transfer Transactions"
2002	<b>Nicholas E. Frangos</b> and <b>Spyridon D. Vrontos</b> , "Design of Optimal Bonus-Malus Systems with a Frequency and a Severity Component on an Individual Basis in Automobile Insurance"
2003	Shaun S. Wang, "A Universal Framework for Pricing Financial and Insurance Risks"
2004	Donald F. Mango, "Capital Consumption: An Alternative Methodology for Pricing Reinsurance"
2005	Jon Holtan, "Pragmatic Insurance Option Pricing"
2006	William H. Panning, "Measuring Loss Reserve Certainty"
2007	<b>Emmanuel Bardis, Christina Gwilliam, Stephen P. Lowe,</b> and <b>Atul Malhotra</b> , "Considerations Regarding Standards of Materiality in Estimates of Outstanding Liabilities"
2008	Thomas Wright, "A General Framework for Forecasting Numbers of Claims"
2009	Thomas Mack, "The Prediction Error of Bornhuetter/Ferguson"
2010	Edward W. Frees, Peng Shi, and Emiliano A. Valdez, "Actuarial Applications of a Hierarchical Insurance Claims Model"
2011	<b>Robert S. Miccolis</b> and <b>David E. Heppen</b> , "A Practical Approach to Risk Margins in the Measurement of Insurance Liabilities for Property and Casualty (General Insurance) under Developing International Financial Reporting Standards"
2012	Yichun Chi and Ken Seng Tan, Optimal Reinsurance Under VaR and CVaR Risk Measures: A Simplified Approach"

# DORWEILER PRIZE

This award, commemorating the work of Paul Dorweiler, was subject to the same conditions as those specified for the Woodward-Fondiller Prize, except that the Dorweiler Prize was awarded each year to the best eligible *Proceedings* paper submitted by an Associate or Fellow who has attained his or her designation more than five years from submitting his or her paper.

# **Recipients of the Dorweiler Prize**

1971	Charles C. Hewitt, "Credibility for Severity"
1972	No Award
1973	LeRoy Simon, "Actuarial Applications in Catastrophe Reinsurance"
	Ronald L. Bornhuetter and Ronald E. Ferguson, "The Actuary and IBNR"
1974	Jeffrey T. Lange and Wayne H. Fisher, "Loss Reserve Testing: A Report Year Approach"
1975	Frank Harwayne, "Review of David Skurnick's Paper, 'The California Table L'"
1976	No Award
1977	No Award
1978	James R. Berquist and Richard E. Sherman, "Loss Reserve Adequacy Testing: A Comprehensive Systematic Approach"
1979	No Award
1980	C. K. Khury, "Loss Reserves: Performance Standards"
	Richard G. Woll, "A Study of Risk Assessment Using Massachusetts Data"
1981	Michael A. Walters, "Risk Classification Standards"
1982	Robert W. Sturgis, "Actuarial Valuation of Property/Casualty Insurance Companies"
1983	Stephen P. D'Arcy, "Strategy for Property Liability Insurers in Inflationary Times"
1984	No Award
1985	James N. Stanard, "A Simulation Test of Prediction Errors of Loss Reserve Estimation Techniques"
1986	Gary G. Venter, "Classical Partial Credibility with Application to Trend"
1987	Howard C. Mahler, "Review of Glenn Meyer's Paper, 'An Analysis of Experience Rating"
	Ronald F. Wiser, "The Cost of Mixing Reinsurance"
1988	Richard H. Snader, "Reserving Long-Term Medical Claims"
1989	Stephen J. Ludwig and Robert McAuley, "A Nonparametric Approach to Evaluating Reinsurers' Relative Financial Strength"
1990	Glenn G. Meyers, "An Analysis of the Capital Structure of an Insurance Company"
1991	No Award
1992	John P. Robertson, "The Computation of Aggregate Loss Distributions"
1993	Michael G. Wacek, "Review of Ronald Wiser's Paper, 'The Cost of Mixing Reinsurance'"
1994	Daniel F. Gogol, "An Actuarial Approach to Property Catastrophe Cover Rating"
1995	Roger M. Hayne, "Extended Service Contracts"
1996	Clive L. Keatinge, "Balancing Transaction Costs and Risk Load in Risk Sharing Arrangements"
1997	<b>Sholom Feldblum</b> , "Personal Automobile Premiums: An Asset Share Pricing Approach for Property-Casualty Insurance"
	Glenn G. Meyers, "The Competitive Market Equilibrium Risk Load Formula for Catastrophe Ratemaking"
1998	Rodney E. Kreps, "Investment-Equivalent Reinsurance Pricing"
1999	Gary G. Venter, "Testing the Assumptions of Age-to-Age Factors"

# Dorweiler Prize

2000	No Award
2001	Thomas J. Kozik and Aaron M. Larson, "The N-Moment Insurance CAPM"
	Stephen P. D'Arcy and Richard W. Gorvett, "Measuring the Interest Rate Sensitivity of Loss Reserves"
2002	No Award
2003	Gary G. Venter, "Tails of Copulas"
2004	David L. Homer and David R. Clark, "Insurance Applications of Bivariate Distributions"
2005	Rodney E. Kreps, "Riskiness Leverage Models"
2006	Gordon F. Diss and Richard E. Sherman, "Estimating the Workers Compensation Tail"
2007	No Award
2008	No Award

# DYNAMIC FINANCIAL ANALYSIS PRIZE

This award is made to the authors of the best papers submitted in response to calls for dynamic financial analysis discussion papers whenever the program is conducted by the Casualty Actuarial Society. Papers are judged by a specially appointed review committee on the basis of quality of the overall content of the paper as an advancement to the published literature on dynamic financial analysis as well as other factors. Recipients need not be members of the Casualty Actuarial Society. The announcement of the award is made at the seminar at which the papers are discussed.

## Recipients of the Dynamic Financial Analysis Prize

- 1996 **Douglas M. Hodes, Tony Neghaiwi, J. David Cummins, Richard Phillips**, and **Sholom Feldblum**, "The Financial Modeling of Property/Casualty Insurance Companies"
  - **Stephen P. Lowe** and **James N. Stanard**, "An Integrated Dynamic Financial Analysis and Decision Support System for a Property Catastrophe Reinsurer"
- 1997 **Gerald S. Kirschner** and **William C. Scheel**, "Specifying the Functional Parameters of a Corporate Financial Model for Dynamic Financial Analysis"
  - Stephen P. D'Arcy, Richard W. Gorvett, Joseph A. Herbers, Thomas E. Hettinger, Steven G. Lehmann, and Michael J. Miller, "Building a Public Access PC-Based DFA Model"
- 1998 **Salvatore Correnti, Stephen M. Sonlin**, and **Daniel B. Isaac**, "Applying a DFA Model To Improve Strategic Business Decisions"
  - **Stephen P. D'Arcy**, **Richard W. Gorvett**, **Thomas E. Hettinger**, and **Robert J. Walling III**, "Using the Public Access DFA Model: A Case Study"
  - Susan E. Witcraft, "Profitability Targets: DFA Provides Probability Estimates"
- 1999 **Glenn G. Meyers**, "Estimating Between Line Correlations Generated by Parameter Uncertainty"
- 2000 **Elizabeth R. Wiesner** and **Charles C. Emma**, "A Dynamic Financial Analysis Application Linked to Corporate Strategy"
- **John C. Burkett, Thomas S. McIntyre**, and **Stephen M. Sonlin**, "DFA Insurance Company Case Study, Part I: Reinsurance and Asset Allocation"
  - **Stephen W. Philbrick** and **Robert A. Painter**, "DFA Insurance Company Case Study, Part II: Capital Adequacy and Capital Allocation"
- 2002 **Lisa S. Ward** and **David H. Lee**, "Practical Application of the Risk-Adjustment Return on Capital Framework"
- 2003 No Award
- 2004 No Program Held
- 2005 No Program Held
- 2006 No Program Held
- 2007 No Award
- 2008 No Program Held

The Dynamic Financial Analysis prize was discontinued in 2010

# EMERGING ISSUES PRIZE

The Emerging Issues Prize is awarded to the best call paper to come out of a new, but not necessarily repeating, call paper program. The Emerging Issues Prize is not necessarily an annual prize and can be sponsored by a different committee each time.

# **Recipients of the Emerging Issues Prize**

- 2010 CAS Committee on Valuation, Finance and Investments Call for Papers: Parameters of a Financial Crisis

  Neil M. Bodoff, FCAS, MAAA, "A Conceptual Proposal to Use Appraisal Value as a Supplementary Basis for Financial Valuation"

  Louise Francis, FCAS, MAAA, "Banking on Robbery: The Role of Fraud in the Financial Crisis"
- 2011 CAS Dynamic Risk Modeling Committee and the Committee on Reserves call for papers

  Kailan Shang, FSA, CFA, PRM, SCJP, "Loss Simulation Model Testing and Enhancement"

# THE HALMSTAD PRIZE

The David Garrick Halmstad prize is given annually for actuarial research in memory of David Halmstad, an Associate of the Society of Actuaries, for his significant contributions to actuarial science and research. Funds for the prize were contributed in Mr. Halmstad's memory by his friends and colleagues. To select the best paper on actuarial research published each year, the SOA's Education and Research Section examines major English language actuarial journals, nominates outstanding papers, reviews the selected articles, and votes for the best paper. The results of these proceedings are submitted to the Research Committee of The Actuarial Foundation for the final selection. This award follows the year of publication rather than the actual calendar year.

## **Recipients of the Halmstad Prize**

- Mickkel Dahl, Martin Teilman Melchior, Thomas Melchior, and Thomas Møllerz, "On Systematic Mortality Risk and Risk-Minimization with Survivor Swaps," *Scandinavian Actuarial Journal* 2008, (2): 114-146.
  - **Edward W. Frees and Emiliano A. Valdez,** "Hierarchical Insurance Claims Modeling," *Journal of the American Statistical Association*, December 1, 2008, 103(484): 1457-1469.
- Philippe Artzner, Freddy Delbaen, Jean-Marc Eber, David Heath, and Hyejin Ku, "Coherent Multiperiod Risk Adjusted Values and Bellman's Principle," *Annals of Operations Research* 152(1), July 2007, pp. 5-22(18).
- **David Blake, PhD, BSC, MSc; Andrew J.G. Cairns, MSC; and Kevin Dowd, PhD,** "Pricing Death: Frameworks for the Valuation and Securitization of Mortality Risk" *ASTIN Bulletin* 36(1), 2006, pp. 79-120.
- 2005 **Geoffrey H. Hancock and John Manistre,** "Variance of the CTE Estimator," *NAAJ* 9(2), pp 129-156.
- **Leslaw Gajek and Dariusz Zagrodny**, "Reinsurance Arrangements Maximizing Insurer's Survival Probability," *Journal of Risk and Insurance* 71, pp. 421-435.
- A. S. Macdonald, BSc, PhD, FFA; H. R. Waters, DPhil, FIA, FFA; and C. T.Wekwete, BSc,MSc, PhD, "The Genetics of Breast and Ovarian Cancer I: A Model of Family History" and "The Genetics of Breast and Ovarian Cancer II: A Model of Critical Illness Insurance," *Scandinavian Actuarial Journal*, pp. 1-50.
- **Dr. Thomas Moller,** "On Valuation and Risk Management at the Interface of Insurance and Finance," *British Actuarial Journal* 8, IV, pp. 787–827.
- **Dr. Martin Schweizer,** "From Actuarial to Financial Valuation Principles," *Insurance: Mathematics and Economics* 28(1), 2001, pp. 31-47.
- Hans U. Gerber, PhD, ASA, and Elias S.W. Shiu, PhD., ASA, "Investing for Retirement: Optimal Capital Growth and Dynamic Asset Allocation," *NAAJ* 4(1), April 2000, pp. 42-62.
- 1999 **Uwe Schmock,** "Estimating the Value of the WinCAT Coupons of the Winterthur Insurance Convertible Bond: A Study of the Model Risk," *ASTIN Bulletin* 29(1), 1999, pp. 101-163.
- Hans U. Gerber, PhD, ASA, and Elias S. W. Shiu, PhD, ASA, "On the Time Value of Ruin," *NAAJ* 2(1), January 1998, pp. 48-78 and "Pricing Perpetual Options for Jump Processes," *NAAJ* 2(3), July 1998, pp. 101-112.
- 1997 Edward W. Frees, PhD, FSA; Yueh-Chuan King, PhD; Marjorie Rosenberg, PhD, FSA; Virginia Young, PhD, FSA, Siu-Wai Lai, PhD, ASA, "Forecasting Social Security Actuarial Assumptions," *NAAJ* 1(4), October 1997, pp. 49-82.
- 1996 **Edward W. Frees, PhD, FSA; Jacques Carriere, PhD, FSA; Emiliano Valdez, PhD, FSA,** "Annuity Valuation with Dependent and Mortality," *Journal of Risk and Insurance* 63(2), June 1996, pp. 229-261.
- 1995 **Gregory C. Taylor, PhD, FIA, FIAA,** "An Equilibrium Model of Insurance Pricing and Capitalization," *Journal of Risk and Insurance* 62(3), September 1995, pp.409-446.
- Hans U. Gerber, PhD, ASA; and Elias S. W. Shiu, PhD, ASA, "Martingale Approach to Pricing Perpetual American Opinions," *ASTIN Bulletin* 24, 1994, pp. 195-220 and "Option Pricing by Esscher Transforms," *Transactions of the Society of Actuaries* XLVI, 1994, pp. 99-140.
- 1993 **Knut K. Aase,** "Equilibrium in a Reinsurance Syndicate: Existence, Uniqueness and Characterization," *ASTIN Bulletin* 23(2), 1993, pp. 185-211 and "Premiums in a Dynamic Model of a Reinsurance Market," *Scandinavian Actuarial Journal* 2, 1993, pp. 134-160.
- James A. Tilley, PhD, FSA, "An Actuarial Laymen's Guide to Building Stochastic Interest Rate Generators," 7SA XLIV, 1992, pp. 509-538.
- 1991 **Patrick L. Brockett, PhD,** "Information Theoretic Approach to Actuarial Science: A Unification and Extension of Relevant Theory and Application," *TSA* XLIII, 1991, pp. 73-114.
- 1990 **Edward W. Frees, PhD, FSA,** "Stochastic Life Contingencies with Solvency Considerations," 78/4 XLII, 1990, pp. 91-129.

- 1989 **Hal W. Pederson; Elias S.W. Shiu, PhD, ASA; and A. Eric Thorlacius, FSA,** "Arbitrage-Free Pricing of Interest-Rate Contingent Claims," *TSA* XLI, 1989, pp. 231-265.
- 1988 **Henrik Ramlau-Hansen,** "The Emergence of Profit in Life Insurance," *Insurance: Mathematics and Economics* 7, 1988, pp. 225-236.
- 1987 **F. Delbaen and J. Haezendonck**, "Classical Risk Theory in an Economic Environment," *Insurance: Mathematics and Economics* 6, 1987, pp. 85-16.
  - **C.D. Daykin, G.D. Bernstein, S.M. Coutts, E.R.F. Devitt, G.B. Hey, D.I.W. Reynolds, and P.D. Smith,** "Assessing the Solvency and Financial Strength of a General Insurance Company," *Journal of the Institute of Actuaries* 114, Pt. 2, 1987, pp. 227-309.
- 1986 **Ragnar Norberg,** "A Contribution to Modelling of IBNR Claims," *Scandinavian Actuarial Journal*, No. 3-4, 1986, pp. 155-203.
- 1985 **Robert P. Clancy, FSA,** "Options on Bonds and Applications to Product Pricing," TSA XXXVII, 1985, pp. 97-151.
- **James D. Broffitt, PhD, ASA,** "Maximum Likelihood Alternatives to Actuarial Estimators of Mortality Rates," *TSA* XXXVI, 1984, pp. 77-142.
- Anders Martin-Lof, "Premium Control in an Insurance System, An Approach Sharing Feedback and Persisting," *Scandinavian Actuarial Journal*, No. 1, 1983, pp. 1-27.
- **L.A. Balzer, PhD,** "Control of Insurance Systems with Delayed Profit/Loss Sharing Feedback and Persisting Unpredicted Claims," *Journal of the Institute of Actuaries* 109, 1982, pp. 285-313.
- Newton L. Bowers Jr., FSA; James C. Hickman, PhD, FSA; and Cecil J. Nesbitt, PhD, FSA, "Dynamics of Pension Funding: Contribution Theory," *TSA* XXXI, 1979, pp. 93-119.
- William S. Jewell, PhD, "Models in Insurance: Paradigms, Puzzles, Communications, and Revolutions," *Transactions, 21st International Congress of Actuaries*, Zurich, June 19, 1980, Vol. S, pp. 87-130.
- **James C. Hickman, PhD, FSA, and Robert B. Miller, PhD,** "Bayesian Bivariate Graduation and Forecasting," *ARCH*, 1979.3, pp. 99-136.
- 1978 **Phelim P. Boyle, PhD, FCIA,** "Immunization Under Stochastic Models of the Term Structure," *Journal of the Institute of Actuaries* 105, Pt. II, 1978, pp. 177-187. Also *ARCH*, 1980.1, pp. 19-29.

# HAROLD W. SCHLOSS MEMORIAL SCHOLARSHIP FUND

In November 1984, the Harold W. Schloss Scholarship was established by the Casualty Actuarial Society as a memorial to Mr. Schloss, a past president of the Society. The fund for this annual \$500 scholarship stipend was initiated by Mr. Schloss' wife, Frances A. Schloss, and their children. The scholarship benefits deserving and academically outstanding students in the actuarial program of the Department of Statistics and Actuarial Science at the University of Iowa.

The student recipient is selected each spring by the Trustees of the CAS Trust, based upon the recommendation of the departmental chairperson at the University of Iowa.

# Recipients of the Harold W. Schloss Memorial Scholarship

1985	Steven W. Book
1986	Mark Meyer
1987	Brett Scranton
1988	Trenton Werner
1989	Jena Ann Losey
1990	Robert J. Moser
1991	LaTisha Boothe
1992	Jennifer Brinker
1993	Julie Ekdom
1994	Yong Yao
1995	Larry Lickteig
1996	Tendra J. Cady
1997	Ranee Thiagarajah
1998	Changki Kim
1999	Jingsu Pu
2000	Feng Sun
2001	Hongyan Hao
2002	Bangwon Ko
2003	Biou Xu
2004	Tony Van Berkel
2005	Alex Jin He
2006	Pui Sai Lau
2007	Lindsey Scott
2008	Jun Yang
2009	James P. Arns
2010	Zhujing Feng
2011	Daniel Stanford Benzshawel
2012	Thomas Ryan Duffy

# MANAGEMENT DATA AND INFORMATION PRIZE

This award is made to the authors of the best papers submitted in response to calls for data management/data quality discussion papers whenever the program is conducted by the Committee on Management Data and Information of the Casualty Actuarial Society. Papers are judged by a specially appointed review committee on the basis of originality of ideas, understandability of complex concepts, contribution to the literature, and thoroughness of ideas expressed. The committee's decision will be final. Recipients need not be members of the Casualty Actuarial Society. The announcement of the award will be made at the seminar at which the papers are presented.

The amount of the Management Data and Information Prize is determined annually.

# **Recipients of the Management Data and Information Prize**

1007	william naishle "Immunus Communica"
1997	William Raichle, "Insurance Geographics"
	Omar D. Kouatlym, Mark W. Littman, and Aleksey S. Popelyukhin, "Synchronizing Data Management Technologies to Integrate Actuarial Processes"
1998	No Program Held
1999	Alan E. Wickman, "Insurance Data and Intellectual Property Issues"
2000	No Program Held
2001	Douglas J. Collins and Stephen P. Lowe, "A Macro Validation Dataset for U.S. Hurricane Models"
	Louise A. Francis, "Neural Networks Demystified"
2002	No Program Held
2003	Louise A. Francis, "Martian Chronicles: Is MARS Better than Neural Networks?"
2004	No Award
2005	Louise A. Francis, "Dancing With Dirty Data: Methods for Exploring and Cleaning Data"
2006	Louise A. Francis, "Taming Text: An Introduction to Text Mining"
2007	No Program Held
2008	<b>Robert Neil Campbell, Louise A. Francis, Virginia R. Prevosto, Mark Rothwell,</b> and <b>Simon Sheaf</b> "Dirty Data on Both Sides of the Pond"
2009	No Program Held
2010	Louise Francis and Virginia R. Prevosto, "Data and Disaster: The Role of Data in the Financial Crisis"
2011	No Program Held
2012	Roosevelt C. Mosley Jr., "Social Media Analytics: Data Mining Applied to Insurance Twitter Posts"
	Jim Weiss and Jared Smollik, "Beginner's Roadmap to Working with Driving Behavior Data"

# MATTHEW RODERMUND SERVICE AWARD

This award was established in 1990 in honor of Matt Rodermund's years of volunteer service to the Casualty Actuarial Society. The funding for this award was provided by The Munich American Reinsurance Company.

The award is intended to recognize a CAS member, or members, who have made significant volunteer contributions to the actuarial profession. Volunteer contributions include, but are not limited to: committee involvement, participation in CAS meetings and seminars, volunteer efforts for Regional Affiliates or Special Interest Sections, and involvement with non-CAS actuarial professional organizations such as the American Academy of Actuaries or the Canadian Institute of Actuaries. Service as an elected CAS officer or director and authorship of *Proceedings* papers and Discussion Paper Program papers are not considered. Past presidents are not eligible.

The Board of Directors will name the recipient of this award, but any member may make nominations to the Committee on Volunteer Resources. The award will not necessarily be made every year.

The amount of the Matthew Rodermund Service Award is currently \$1,000.

# **Recipients of the Matthew Rodermund Service Award**

	recipients of the
1991	Robert B. Foster
1992	Norman J. Bennett
1993	Robert A. Bailey
1994	Robert A. Miller III
1995	Dale A. Nelson
1996	Walter J. Fitzgibbon Jr.
1997	Paul M. Otteson
1998	Richard H. Snader
1999	John H. Muetterties
2000	Charles F. Cook
2001	James R. Berquist
2002	David Skurnick
2003	C. Walter Stewart
2004	Arthur R. Cadorine
2005	Anne E. Kelly
2006	Richard J. Roth Sr. and Richard J. Roth Jr.
2007	Jeffrey T. Lange and Darrell Ehlert
2008	David J. Grady and Stephen Makgill
2009	David N. Hafling and Gary S. Patrik
2010	Glenn Meyers and Gary Venter
2011	Amy S. Bouska and Stephen W. Philbrick
2012	Chuck McClenahan and Debbie Rosenberg

# MICHELBACHER PRIZE

This award, which commemorates the work of Gustav F. Michelbacher, is made to the authors of the best papers submitted in response to calls for discussion papers whenever the program is conducted by the Casualty Actuarial Society. Papers are judged by a specially appointed committee on the basis of originality, research, readability, completeness, and other factors. The committee's decision will be final. Recipients need not be members of the Casualty Actuarial Society. The announcement of the award will be made at the meeting at which the papers are discussed.

The amount of the Michelbacher Prize is currently \$1,500.

# **Recipients of the Michelbacher Prize**

	Recipients of the Michelbacher Prize
1979	Robert P. Butsic, "Risk and Return for Property-Casualty Insurers"
1980	Russell T. John and Gary S. Patrik, "Pricing Excess-of-Loss Casualty Working Cover Reinsurance Treaties"
1981	Robert P. Butsic, "The Effect of Inflation on Losses and Premium for Property-Liability Insurers"
1982	Philip E. Heckman and Phillip N. Norton, "Optimization of Excess Portfolios"
1983	No Award
1984	Paul M. Otteson, "Property and Casualty Insurance: Solvency and Investments. Playing the Game"
1985	Robert P. Butsic, "Branch Office Profit Measurement for Property-Liability Insurers"
	David Skurnick, "Measuring Division Operating Profitability"
1986	Ronald F. Wiser, "The Cost of Mixing Reinsurance"
1987	Richard G. Woll, "Insurance Profits: Keeping Score"
1988	Robert P. Butsic, "Determining the Proper Interest Rate for Loss Reserve Discounting: An Economic Approach"
1989	Louise A. Francis, "A Model for Combining Timing, Interest Rate, and Aggregate Loss Risk"
1990	Cecily A. Gallagher, Joyce Fish, and Howard Monroe, "An Iterative Approach to Classification Analysis"
1991	Guy H. Whitehead, "No Claim Discount or Bonus/Malus Systems in Europe"
1992	Robert P. Butsic, "Solvency Measurement for Property-Liability Risk-Based Capital Applications"
1993	Sholom Feldblum, "Professional Ethics and the Actuary"
1994	No Award
1995	Leigh J. Halliwell, "Mean-Variance Analysis and the Diversification of Risk"
1996	Richard B. Amundson, "Residual Market Pricing"
1997	<b>Theresa W. Bourdon</b> , <b>Keith A. Passwater</b> , and <b>Mark Priven</b> , "An Introduction to Capitation and Healthcare Provider Excess Insurance"
1998	Richard L. Stein, "The Actuary or Project Manager in a Dynamic Product Analysis Environment"
1999	Richard W. Gorvett, "Insurance Securitization: The Development of a New Asset Class"
	Donald F. Mango, "Risk Load and the Default Rate of Surplus"
2000	Sergei Esipov and Dajiang Guo, "Portfolio Based Pricing of Residual Basis Risk with Application to the S&P 500 Put Options"
2001	No Award
2002	No Award
2003	No Program Held
2004	Greg Taylor and Grainne McGuire, "Loss Reserving with GLM's: A Case Study"
2005	No Award
2006	No Award
2007	No Award
2008	No Award
2009	No Award
2010	No Award

# NEW MEMBERS AWARD

The New Members Award is made annually to one or more members of the CAS who have made significant volunteer contributions within five years of their most recent credential.

# **Recipients of the New Members Award**

2011 Vijay Manghnani2012 Guillaume Benoit

# RATEMAKING PRIZE

This award is made to the authors of the best papers submitted in response to calls for ratemaking discussion papers whenever the program is conducted by the Committee on Ratemaking of the Casualty Actuarial Society. Papers are judged by a specially appointed review committee on the basis of originality of ideas, understandability of complex concepts, contribution to the ratemaking literature, thoroughness of ideas expressed, and timeliness and relevance of research. The committee's decision will be final. Recipients need not be members of the Casualty Actuarial Society. The announcement of the award will be made at the Ratemaking Seminar at which the papers are discussed.

The amount of the Ratemaking Prize is determined annually.

# **Recipients of the Ratemaking Prize**

1002	Herbert I. Weisberg and Richard A. Derrig, "Pricing Auto No-Fault and Bodily Injury Liability Coverages Using Micro-Data
1993	and Statistical Models"
1994	John Rollins and Monty J. Washburn, "A Quantification of Snader's Deductible Safety Factor"
1995	No Program Held
1996	<b>George Burger</b> , <b>Beth E. Fitzgerald</b> , <b>Jonathan White</b> , and <b>Patrick B. Woods</b> , "Incorporating a Hurricane Model into Property Ratemaking"
1997	Shaun Wang, "Implementation of PH-Transforms in Ratemaking"
1998	Tim McCarthy, "A Frequency Based Model for Excess Wind in Property Ratemaking"
1999	<b>Keith D. Holler, David Sommer</b> , and <b>Geoff Trahair</b> , "Something Old, Something New in Classification Ratemaking With a Novel Use of GLMs for Credit Insurance"
2000	James E. Monaghan, "The Impact of Personal Credit History on Loss Performance in Personal Lines"
2001	No Award
2002	Donald F. Mango and James C. Sandor, "Dependence Models and the Portfolio Effect"
2003	Donald F. Mango, "Capital Consumption: An Alternative Methodology for Pricing Reinsurance"
2004	No Award
2005	No Award
2006	No Program Held
2007	No Award
2008	No Program Held
2009	No Award
2010	No Program Held
2011	<b>Fred Klinker,</b> "Generalized Linear Mixed Models for Ratemaking: A Means of Introducing Credibility into a Generalized Linear Model Setting"
2012	No prize given.
2013	Best Paper— <b>Greg McNulty</b> , "Extending the Asset Share Model: Recognizing the Value of Options in P&C Insurance Rates" Most Practical Paper—Marquis Moehring, "PEBELS: Policy Exposure Based Excess Loss Smoothing"

# REINSURANCE PRIZE

This award is made to the authors of the best papers nominated for the prize as determined by the CAS Committee on Reinsurance Research (CORR).

Papers will be judged by CORR on the basis of originality of ideas, understanding of complex concepts, contribution to reinsurance literature, thoroughness of ideas expressed, as well as whether the papers are understandable and practical. If no paper is considered worthy in a given year, the award shall not be made. The committee's decision will be final. Recipients need not be members of the CAS. The announcement of the award will normally be made at the CAS Seminar on Reinsurance. The amount of the Reinsurance Prize is currently \$2,000.

# **Recipients of the Reinsurance Prize**

	Recipients of the Reinsurance Prize
1997	Donald F. Mango, "An Application of Game Theory: Property Catastrophe Risk Load"
	Gary Blumsohn, "Levels of Determinism in Workers Compensation Reinsurance Commutations"
	Emily Canelo and Bryan C. Ware, "Evaluating Variations in Contract Terms for Casualty Clash Reinsurance Treaties"
1998	No Program Held
1999	Robert P. Butsic, "Capital Allocation for Property-Liability Insurers: A Catastrophe Reinsurance Application"
	John M. Kulik, "A Practical Application of Modern Portfolio Theory to Capital Allocation"
2000	No Program Held
2001	Daniel D. Heyer, "Stochastic Dominance: A Tool for Evaluating Reinsurance Alternatives"
	<b>Rade T. Musulin</b> and <b>John W. Rollins</b> , "Optimizing a Multi-Season Catastrophe Reinsurance Program With Private and Public Components"
2002	No Program Held
2003	Donald F. Mango, "Capital Consumption: An Alternative Methodology for Pricing Reinsurance"
2004	Gary G. Venter, "Quantifying Correlated Reinsurance Exposures with Copulas"
	Shaun Wang, "Cat Bond Pricing Using Probability Transforms"
2005	Ira Robbin and Jesse DeCouto, "Coherent Capital for Treaty ROE Calculations"
2006	No Program Held
2007	No Program Held
2008	No Program Held
2009	Neil M. Bodoff and Yunbo Gan, "An Analysis of the Market Price of Cat Bonds"
2010	No Program Held
2011	David L. Homer and Richard A. Rosengarten, "A Method for Efficient Simulation of the Collective Risk Model"
2012	No Program Held

# RONALD BORNHUETTER LOSS RESERVES PRIZE

This award is made to the authors of the best papers submitted in response to calls for papers regarding reserves whenever the program is conducted by the Committee on Reserves of the Casualty Actuarial Society. Papers are judged by a specially appointed review committee on the basis of originality of ideas, clarity of presentation, contribution to the literature on loss reserving, and thoroughness of analysis. Recipients need not be members of the Casualty Actuarial Society. The announcement of the award is made at the Casualty Loss Reserve Seminar at which the papers are presented.

The amount of the Ronald Bornhuetter Loss Reserves Prize is determined annually.

# **Recipients of the Ronald Bornhuetter Loss Reserves Prize**

1994	Susan L. Cross and John P. Doucette, "Measurement of Asbestos Bodily Injury Liability"	
1995	No Program Held	
1996	Jeffrey J. Scott, "Workers Compensation Medical Reserving with Calendar Year Payments in a Cost Containment Environment"	
1997	<b>Prakash Narayan</b> and <b>Thomas V. Warthen III</b> , "A Comparative Study of the Performance of Loss Reserving Methods Through Simulation"	
1998	Chandrakant C. Patel and Alfred Raws III, "Statistical Modeling Techniques for Reserve Ranges: A Simulation Approach"	
1999	Thomas Struppeck, "Premium Earning Patterns for Multi-Year Policies with Aggregate Deductibles"	
2000	Allen J. Gould and Orin M. Linden, "Estimating Satellite Insurance Liabilities"	
2001	Aaron Halpert, Scott P. Weinstein, and Christopher Gonwa, "Evaluating Reserves in a Changing Claims Environment"	
	Daniel D. Heyer, "A Random Walk Model for Paid Loss Development"	
2002	No Award	
2003	David R. Clark, "LDF Curve-Fitting and Stochastic Reserving: A Maximum Likelihood Approach"	
2004	Richard E. Sherman and Gordon F. Diss, "Estimating the Workers' Compensation Tail"	
2005	No Program Held	
2006	Glenn G. Meyers, "Estimating Predictive Distributions for Loss Reserve Models"	
2007	No Program Held	
2008	James Guszcza, "Hierarchical Growth Curve Models for Loss Reserving"	
2009	No Program Held	
2010	Tapio Boles and Andy Staudt, "On the Accuracy of Loss Reserving Methodology"	
2011	No program held.	
2012	<b>Jessica (Weng Kah) Leong, Shaun Wang,</b> and <b>Han Chen,</b> "Back-Testing the ODP Bootstrap of the Paid Chain-Ladder Model with Actual Historical Claims Data"	

# THEORY OF RISK PRIZE

This award is made to the author of the best paper submitted in response to a call for theory of risk discussion papers whenever the program is conducted by the Committee on Theory of Risk of the Casualty Actuarial Society. Papers are judged by a specially appointed review committee on the basis of applied orientation, theoretical soundness, recognition of different sources of uncertainty, and illustration of method through an example that can be replicated. The committee's decision will be final. Recipients need not be members of the Casualty Actuarial Society. The announcement of the award will be made at the seminar at which the papers are discussed.

The amount of the Theory of Risk Prize is \$10,000, divided among authors of the best papers.

# **Recipients of the Theory of Risk Prize**

1993 **Richard J. Verrall**, "Statistical Methods for the Chain Ladder Technique"

**Thomas Mack**, "Measuring the Variability of Chain Ladder Reserve Estimates"

Ben Zehnwirth, "Probabilistic Development Factor Models with Applications to Loss Reserve Variability, Prediction

Intervals and Risk Based Capital"

1994–2009 No Program Held

The Theory of Risk Prize was discontinued in 2010.

# VARIANCE PRIZE

This prize recognizes the best papers published in *Variance*, the scientific journal of the Casualty Actuarial Society. The amount of the *Variance* Prize is currently \$5,000.

# Recipients of the Variance Prize

7Richard J. Verrall	2007
"Obtaining Predictive Distributions for Reserves Which Incorporate Expert Opinion"  **Variance 1:1**	
8Martin Eling, Hato Schmeiser, and Thomas Parnitzke "Management Strategies and Dynamic Financial Analysis" <i>Variance</i> 2:1	2008
9	2009
0	2010
1	2011
John A. Major, Shaun Wang, Hucheng (Charles) Pan, and Jessica Leong "U. S. Property-Casualty: Underwriting Cycle Modeling and Risk Benchmarks Variance 5:2	

# WOODWARD-FONDILLER PRIZE

This award, commemorating the work of Joseph H. Woodward and Richard Fondiller, was intended to stimulate original thinking and research. Each year it was awarded to the best eligible paper submitted to the Proceedings of the Casualty Actuarial Society by an Associate or Fellow who had attained his or her designation within the last five years of submitting his or her paper. An eligible *Proceedings* paper showed evidence of original research and solved advanced insurance problems. If no paper was considered eligible in a given year, the award was not made. Papers previously submitted to the Society or elsewhere were not eligible. Papers were judged by the Society's Committee on Review of Papers, whose decision was final. The announcement of the award was made at the November meeting each year, based on papers submitted to the Society at the previous November and May meetings. The prize was suspended after publication of the 2005 Proceedings, which marked the last time peer-reviewed papers were published as part of the Proceedings.

# Desirients of the Woodward Fondiller Drive

	Recipients of the woodward-rondiller Prize
1963	No Award
1964	James H. Durkin, "A Glance at Group Dental Coverage"
1965	Kenneth L. McIntosh, "A Mathematical Approach to Fire Protection Classification Rates"
1966	No Award
1967	Jeffrey T. Lange, "Implications of Sampling Theory for Package Policy Ratemaking"
1968	Charles F. Cook, "The Minimum Absolute Deviation Trend Line"
1969	J. Robert Ferrari, "The Relationship of Underwriting, Investments, Leverage, and Exposure to the Total Return on Owners' Equity"
1970	Jeffrey T. Lange, "The Interpretation of Liability Increased Limits Statistics"
1971	Woody Beckman, "Federal Income Taxes"
1972	David R. Bickerstaff, "Automobile Collision Deductibles and Repair Cost Groups: The Lognormal Model"
1973	C.K. Khury, "Review of LeRoy Simon's Paper, 'Actuarial Applications in Catastrophe Reinsurance'"
1974	C.K. Khury, "Personal Lines Pricing: From Judgment to Fact"
1975	David Skurnick, "The California Table L"
1976	Robert J. Finger, "Estimating Pure Premium by Layer—An Approach"
1977	Robert S. Miccolis, "On the Theory of Increased Limits and Excess of Loss Pricing"
1978	Edward W. Weissner, "Estimation of the Distribution of Report Lags by the Method of Maximum Likelihood"
	Sheldon Rosenberg, "Review of Robert Miccolis' Paper, 'On the Theory of Increased Limits and Excess of Loss Pricing"
1979	No Award
1980	No Award
1981	Stephen W. Philbrick, "The Implication of Sales as an Exposure Base for Products Liability"
1982	Stephen W. Philbrick, "An Examination of Credibility Concepts"
1983	<b>Philip E. Heckman</b> and <b>Glenn G. Meyers</b> , "The Calculation of Aggregate Loss Distributions from Claim Severity and Claim Count Distributions"
1984	Albert J. Beer, "Review of Margaret E. Wilkinson's Paper, 'Estimating Probable Maximum Loss with Order Statistics'"
1985	Glenn G. Meyers, "Empirical Bayesian Credibility in Workers' Compensation Ratemaking"
1986	Glenn G. Meyers, "An Analysis of Experience Rating"
1987	No Award
1988	Emanuel Pinto and Daniel F. Gogol, "An Analysis of Excess Loss Development"
1989	Manuel Almagro and Thomas L. Ghezzi, "Federal Income Taxes—Provisions Affecting Property/Casualty Insurers"
1990	Amy S. Bouska, "Exposure Bases Revisited"
1991	<b>Robert A. Bear</b> and <b>Kenneth J. Nemlick</b> , "Pricing the Impact of Adjustable Features and Loss Sharing Provisions of Reinsurance Treaties"
1992	William R. Gillam, "Parameterizing the Workers Compensation Experience Rating Plan"
1993	No Award
1994	Daniel M. Murphy, "Unbiased Loss Development Factors"
1995	No Award
1006	No Award

# The Woodward-Fondiller Prize

1997	Leigh J. Halliwell, "Loss Prediction by Generalized Least Squares"
1998	Donald F. Mango, "An Application of Game Theory: Property Catastrophe Risk Load"
1999	Stephen J. Mildenhall, "A Systematic Relationship Between Minimum Bias Methods and Generalized Linear Models"
2000	<b>Stephen J. Mildenhall</b> , "Discussion of Michael G. Wacek's Paper, 'Application of the Option Market Paradigm to the Solution of Insurance Problems"
2001	No Award
2002	No Award
2003	David L. Ruhm, "Distribution-Based Pricing Formulas Are Not Arbitrage-Free"
2004	No Award
2005	No Award
2006	No Award
2007	No Award

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# CASUALTY ACTUARIAL SOCIETY TRUST

The Casualty Actuarial Society Trust affords members and others an income tax deduction for contributions of funds to be used for scientific, literary, or educational purposes. The library function of the Society is managed by the Trust. The Trust was qualified by the Internal Revenue Service on February 26, 1979, as a non-profit organization exempt from federal income tax under section 501(c)(3) of the Internal Revenue Code. The Officers of the Society serve as Trustees. As funds permit they will be made available for such uses as scholarships and research grants. The CAS Trust Scholarship Program and the Reinsurance Prize are currently funded by the Trust.

Contributions for scientific, literary, or educational purposes should be made to the "Casualty Actuarial Society Trust" to qualify for an income tax deduction.

Inquiries and contributions should be addressed to the Society's Vice President-Administration, in care of the CAS Office at office@casact.org.

# CAS TRUST SCHOLARSHIP PROGRAM

The CAS Trust Scholarship Program, funded by donations to the CAS Trust, awards up to three \$2,000 scholarships to deserving students annually. The scholarship's intent is to further students' interest in the property/casualty actuarial profession and encourage pursuit of the CAS designation. Recipients are chosen by the CAS Trust Scholarship Subcommittee.

Completed applications are due by May 1 of each year for scholarships awarded for the fall semester. Additional details on application requirements are available through the Academic Community section of the CAS Web Site.

Inquiries should be addressed to the CAS Trust Scholarship Coordinator, in care of the CAS Office at office@casact.org.

## **Recipients of the CAS Trust Scholarship**

2003	Denise Leung Yu Cheung, University of Waterloo
	Marc G. Glickman, Yale University
	Sarah Mae Klein, University of Missouri-Rolla
2004	Carl Jeffrey Gillette, University of Texas at Austin
	Jenny Jin, University of Waterloo
	Grace M. Liu, University of Texas at Austin
2005	Daniel Alai, University of Waterloo
	Waswate Ayana, University of Texas at Austin
	Judy Wong, University of Waterloo
2006	Alexander Rosteck, Rutgers University
	Sharalyn Chen, University of Waterloo
2007	Nicole Belmonte, Bentley College
	<b>Matthew Steffen</b> , University of Minnesota-Duluth
	Emily Tipton, University of Florida
2008	Kathy Gu, University of Illinois-Champaign
	Brett Jaros, University of Illinois-Champaign
	Kristin Longenecker, Florida State University
	<b>Jeffrey Miklas</b> , University of Wisconsin-Madison
2009	James Arns, University of Iowa
	Lesley Eng, University of Calgary
	<b>Helen Muller</b> , University of Minnesota
2010	Jason Rohlfs, Illinois State University
2011	Kevin Owens, University of Iowa
	Danielle Gilmour, University of Connecticut
2012	Abby Popejoy, University of Illinois
	Maria Schiopu, Northwestern University
	<b>Hugo Lafortune Brunet</b> , University of Montreal

# **PUBLICATIONS OF THE SOCIETY**

CAS publications that are still in print may be purchased at the prices listed below. Prices include postage and handling for orders delivered in the U.S. and Canada. For deliveries outside the U.S. or Canada, add 50 percent to prices shown below. Canadian residents must add 7 percent for GST. Virginia residents must add 4.5 percent for sales tax. Those making bulk orders of 20 or more of any publication will receive a 20 percent discount.

Prepayment is required for all orders. Prepayment must be in U.S. funds in the form of check, draft, money order, or credit card (MasterCard, Visa, or American Express). NO RETURNS. All credit card orders must be submitted in writing to:

Casualty Actuarial Society 4350 North Fairfax Drive, Suite 250 Arlington, Virginia 22203

All prepaid orders made by check or money order must be submitted with payment to:

Casualty Actuarial Society
Post Office Box 425
Merrifield, Virginia 22116-0425.

#### **Publications and Prices**

Proceedings of the Casualty Actuarial Society (PCAS)

Volumes I (1914) through XCVIII (2011)	Available at www.casact.org
Index to the Literature of the Casualty Actuarial Society	
Volumes XXXI to XL (1944-1953)	Available at www.casact.org
Volume XLI to L (See 1963 PCAS)	ĕ
Volumes LI to LXXX (1964-1993)	
Volumes LXXX to LXXXV (1994-1998)	Available at www.casact.org
Foundations of Casualty Actuarial Science (Fourth Ed.)	\$75
CAS Discussion Paper Programs	
1984 through 2004	
2005—Primer on Enterprise Risk Management (ERM)	
2006—Current Issues in Insurance Financial Statements	\$30
CAS Forum	
Fall 1987 through Spring 2007	Available at www.casact.org
CAS E-Forum	
Fall 2007 through Spring 2013	Available at www.casact.org
2012 Yearbook/2011 Proceedings of the Casualty Actuarial Society	Available at www.casact.org
"American Remarriage Table"	Available at www.casact.org
CAS Syllabus of Examinations	Available at www.casact.org
The Actuarial Review (Annual Subscription)	\$10
Actuarial Considerations Regarding Risk and Return In Property-Casualty Insurance Pricing	Available at www.casact.org
Statement of Principles Regarding P&C Insurance Ratemaking	\$4
Statement of Principles Regarding P&C Loss and Loss Adjustment Expense Reserves	\$4
Statement of Principles Regarding P&C Valuations	\$4
Variance: Advancing the Science of Risk	\$50/year*

\*Dues-paying CAS members receive Variance as a member benefit. For information on subscriptions, visit www.variancejournal.org.

# LIBRARY

All candidates registered for CAS Examinations and all CAS members have access to the library facilities. The CAS Library is located at the CAS Office in Arlington, Virginia. Books may be withdrawn from the Library for 30 days without charge. In general, not more than two references may be in the hands of one borrower at a time. Candidates requesting study materials should keep in mind that only those materials marked with an "L" in the Syllabus are available through the CAS Library.

Address requests for books to:

Casualty Actuarial Society Library Service 4350 North Fairfax Drive, Suite 250 Arlington, Virginia 22203 Fax: (703) 276-3108; E-Mail: library@casact.org

# CAS WEB SITE

The CAS Web Site, at www.casact.org, provides comprehensive information about the CAS for members, candidates, and academics. Through the Web site, CAS members have access to a searchable database of members that contains the most up-to-date contact information for Fellows, Associates, and Affiliates. Other features of the Web site include the Calendar of Events, which is updated often with the latest information about upcoming continuing education programs and other CAS activities, and actuarial science research tools, including a searchable catalog of article citations and a downloadable library of papers. For questions on the CAS Web Site, send an e-mail to webmaster@casact.org.

# BEANACTUARY.ORG WEB SITE

The Web Site at www.BeAnActuary.org is devoted entirely to those interested in entering the actuarial profession. The site is sponsored by the CAS/SOA Committee on Career Encouragement. Designed primarily for those who know little about the actuarial profession, visitors will find testimonials from practicing actuaries, explanations of the examination process, and tips on finding a job. The site also boasts an online exam that visitors can take that will give them a better understanding of the actuarial examinations. For questions on the BeAnActuary.org Web Site, send an e-mail to webmaster@BeAnActuary.org.

# **CASNET**

CASNET is an Internet e-mail distribution list on casualty actuarial topics. Subscribers to CASNET are free to post messages for discussion on any topic that might be of interest to people who have casualty actuarial science in common. Topics could include research questions, CAS exams, CAS business, or actuarial jokes. To join CASNET, send an e-mail to webmaster@casact.org with your request to join. Your request should include your full name, date of birth, subscription mode (standard or digest), and e-mail address. You will receive a confirmation when you have been successfully added to the distribution list. For questions on CASNET, send an e-mail to webmaster@casact.org.

# REGIONAL AFFILIATES

The following regional actuarial organizations are affiliated with the Casualty Actuarial Society. Information regarding membership in any of these organizations may be obtained from the president or secretary-treasurer of that organization. Information regarding the requirements for affiliation with the Casualty Actuarial Society may be obtained from the Vice President-Professional Education of the Society.

# Regional Affiliates Inside the United States and Canada

# Association des Actuaires IARD (AAIARD)

Jean-François Lessard, President Sébastien Vachon, Vice President Sébastien Bernard, Secretary Amelie Beauregard-Beausoleil, Past President

For information, contact:
Mr. Jean-François Lessard, FCAS
Groupe Promutuel
2325 Bois-Brules
Quebec, QC G2C 0B2
jean-francois.lessard@promutuel.ca
www.aaiard.com

# **Buckeye Actuarial Continuing Education (BACE)**

Nathan K. Voorhis, President Christine R. Ross, President-Elect Joseph L. Petrelli, Vice President Steven J. Groeschen, Secretary John R. Emig, Treasurer James S. Shoenfelt, Immediate Past President

For information, contact: Steven J. Groeschen Secretary (614) 761-8602 sgroeschen@demotech.com

# Casualty Actuaries Of The Bay Area (CABA)

Anne Petrides, President Loren Nickel, Secretary-Treasurer

Elections - July

For information, contact: TBD

# Casualty Actuaries Of Desert States (CADS)

Paul Mayfield, President Melissa Tomita, Vice President Ryan Hartman, Secretary-Treasurer Gordon Thompson, Past-President

Officers hold office for 1 year

For information, contact: Ryan D. Hartman GPW & Associates, Inc 2700 N. 3rd Street Suite 3050 Phoenix, AZ 85004 (480) 365-2560 rhartman@gpwa.com

# Casualty Actuaries Of Greater New York (CAGNY)

Michael C. Dubin, President John Celidonio, Immediate Past President Kexin Li, President-Elect Kathy Garrigan, Vice President Marina Vaninsky, Education Chairperson Lina Boye, Treasurer

Elections - Spring Meeting
For information, contact:
Ishmealina (Lina) Boye
(646) 471-5171
ishmealina.boye@us.pwc.com

# Casualty Actuaries Of The Mid-Atlantic Region (CAMAR)

Lew Augustine, President
Michael Cascio, Vacant
Steve Manilov, Treasurer
Chuck Romberger, Secretary
Jon Levy, College Relations Chair
Alan Pakula, Education Chair
Maureen Donnelly, Past President
Mike Blivess, Past President
John Forney, Chair of Audit Committee

Elections - December

For information, contact: Chuck Romberger, Secretary Coal Mine Compensation Rating Bureau Commerce Building — Suite 403 300 North Second Street Harrisburg, PA 17101 (717) 238-5020 camar.secy@gmail.com

# Casualty Actuaries Of New England (CANE)

Stephanie Bolstridge, President Dave Pfahler, Immediate Past President Jonathan Blake, President-Elect Brian Chiarella, Vice President-Programs Meagan Mirkovich, Vice President-Education, Career Contact Person

**Craig Avitabile**, Vice President-Administration

Elections - March

For information, contact: Craig Avitabile Vice President of Administration Craig, Avitabile @ Liberty Mutual.com

# Casualty Actuaries Of The Northwest (CANW)

Heather Caffoe, President Eric Vaagen, Past President Joe Pietraszewski, Vice President Susan Hendricks, Secretary David Menard, Treasurer Calvin Schlak, Program Committee Chair

Elections - March (Spring Meeting)

For information, contact: Susan Hendricks CANW Secretary Safeco Insurance 1001 4th Ave, Suite 3000 Seattle, WA 98154 (206) 473-5837 Susan.Hendricks@Safeco.com

# Casualty Actuaries of the Southeast (CASE)

Kelly Mattheisz, President Ruth Howald, Past President Keith Palmer, President-Elect Ashley Lowenberg, VP-Administration Michael Speedling, VP-Education Zachery Ziegler, VP-College Relations Rebecca Williams, VP-Program

Elections - March

For information, contact:
Kelly M. Mattheisz, FCAS
National Council on Compensation Insurance, Inc.
901 Peninsula Corporate Circle
Boca Raton, FL 33487
(561) 893-3069
Fax: (561) 893-5506
kelly\_mattheisz@ncci.com

# **Central States Actuarial Forum (CSAF)**

Justin VanOpdorp, President Vacant, Vice President Jeff Adams, Secretary Patricia Smolen, Treasurer Kelly Wargo, Past-President

For information, contact: Justin M. VanOpdorp 444 W. 47th Street Kansas City, MO 64112 (816) 960-9572 jvanopdo@lockton.com

# Midwestern Actuarial Forum (MAF)

Richard Gorvett, President Dave Moore, Vice President Hyeji Kang, Secretary-Treasurer J.J. Ihrke, Education Officer

For information, contact: Midwestern Actuarial Forum c/o Hyeji Kang PricewaterhouseCoopers LLP One North Wacker Chicago, IL 60606 hyeji.kang@us.pwc.com

# Ontario Conference Of Casualty Actuaries (OCCA)

Chris Vankooten, President Vacant, Vice President Michael Cao, Secretary-Treasurer Matthew Buchalter. Past President

For information, contact: onpcactuaries@gmail.com www.ontariocasualtyactuaries.org

# Southern California Casualty Actuarial Club (SCCAC)

Edward Cimini, President Matt Antol, Vice President Iva Yuan, Secretary/Treasurer Stephen Koca, Past President

Elections - September

For information, contact: Iva Yuan iva.yuan@milliman.com

# Southwest Actuarial Forum (SWAF)

Ryan Voge, President
Ping Yang, President-Elect
Michael McPhail, Secretary-Treasurer
Suejeudi (Sue) Buehler, Past President
Mauricio Freyre, Education Officer
Ryan Dunkel, College Relations Officer

Elections - December

For information, contact: Michael McPhail USAA 9800 Fredricksburg Rd. H-03-E San Antonio, TX 78288 (210) 498-1913 Fax: (210) 498-0462 Michael.Mcphail@usaa.com www.southwestaf.org

#### **CAS International Regional Affiliates**

# Casualty Actuaries Of Bermuda (CABER)

Jay Rajendra, President Sandy Wu, Vice-President Melanie Ostiguy, Treasurer Nelson Le, Secretary

Elections - December

For information, contact:

CABER
PO Box 640
48 Par-la-ville Road
Hamilton HM11
Bermuda
caberexec@yahoo.com

# Casualty Actuaries In Europe (CAE)

Brad Raatz, President (London)

**Gareth Christopher,** Vice President / President-Elect (Zurich)

Waswate Ayana, Secretary / Treasurer (Munich) Laura Stevens, Past President (Greenwich) Frank Cuypers, European Liaison (Zurich)

Elections - Spring

For information, contact: Waswate Ayana wayana@munichre.com

# Casualty Actuaries Of The Far East (CAFE)

Yin Lawn, President

Kuei-Hsia Ruth Chu, Vice President Yung-Chih Chen, Secretary-Treasurer Yu-Te Lin, Education Chairperson

Elections - November

For information, contact: Mr. Yin Lawn Managing Director Centum Consulting Company 8F, No 176, Sec 1, Dunhua S Rd Taipei, 106 Taiwan

011-886-25584-2939 Fax: 011-886-25585-9320 yinlawn@yahoo.com

# CAS SPECIAL INTEREST SECTIONS

A Special Interest Section is a means for members of the Casualty Actuarial Society to organize the study and discussion of their common functional and professional interests. A section is intended to contribute information on these interests to the actuarial profession through special meetings, seminars, and research projects. Sections are organized only after the approval of the Board of Directors and remain subordinate organizations of the Society. They are self-supporting and open to all members of the Society without regard to their prior experience or training. Subscribers to the Society's Subscriber Program may also become subscribers to a section. Other nonmembers of the Society who meet the requirements of each section as defined in its Constitution may also become subscribers to a section. Information regarding the requirements to organize a Special Interest Section of the Casualty Actuarial Society may be obtained from the Vice President-Professional Education of the Society.

The following Special Interest Sections have been organized. Information regarding membership may be obtained through the individuals listed below.

# **Casualty Actuaries in Regulation (AIR)**

Richard Marcks. President

For information, contact: Richard Marcks State of Connecticut Insurance Dept. PO Box 816 Hartford, CT 06142-0816 richard.marcks@po.state.ct.us

## Casualty Actuaries in Reinsurance (CARe)

Elliot R. Burn, *President* Josh Fishman, *Vice President* 

Elections—June (biyearly)

For information, contact:
Steven Petlick
Senior Vice President, Casualty
Swiss Reinsurance America Corporation
175 King St
Armonk, NY 10504
(914) 828-8216
steven\_petlick@swissre.com

# **Credit Risk Section**

The purposes of the Credit Risk Special Interest Section are to promote discussion and the exchange of ideas among members and subscribers on the subject of credit risk evaluation, to provide forums for such discussions to take place, to advance the knowledge of actuarial science as applied to credit risk through both original research and surveys of members' and subscribers' collective knowledge, and to promote good fellowship among its member and subscribers.

#### **Officers**

Michael C. Schmitz, FCAS, *President* David L. Ruhm, FCAS, *Vice President* Michael C. Schmitz, FCAS, *Secretary* 

For information, contact: Michael C. Schmitz Milliman, Inc. 15800 Bluemound Rd, #400 Brookfield, WI 53005-6069 (262) 784-2250 mike.schmitz@milliman.com

## Joint CAS/SOA/CIA Risk Management Section

The Society of Actuaries (SOA), Casualty Actuarial Society (CAS) and Canadian Institute of Actuaries (CIA) jointly sponsor the Risk Management Section. The purpose of the Risk Management Section is to further the education and research in the area of risk management and establish leading risk management techniques. These efforts should help to increase the profile of the actuarial profession as being leaders in this field and should be rigorous and based on sound principles such that the resulting techniques are broadly transportable across disciplines and industries.

## **2013 Section Leadership**

#### **Officers**

Stephen Lowe, *Chairperson*Barry Franklin, *Vice—Chairperson*Eugene Connell, *Treasurer* 

## **Council Members**

Susan Cleaver Louise Francis Lloyd Milani Glenn Meyers Mark J. Scanlon David Walczak Stuart F. Wason Fei Xie

# **Board Partner**

Kory J. Olsen

#### Liaisons

David Core — CAS Liaison Wayne Fisher — ERM-II Liaison David Ingram — IN-ARM Liaison Sylvain Fortier — CIA Liaison

# **Program Committee Coordinators**

Jason Alleyne – 2013 Life & Annuity Symposium

TRD – 2012 Health Spring Meeting

 ${
m TBD-2013}$  Health Spring Meeting Fei Xie, 2013 Annual Meeting

#### **Newsletter Editors**

Ross Bowen

Pierre Cottrell Tournier David Schraub — Co-Editor

# Staff Partner

Mike Boot

# Section Specialist

Susan Martz

# **Seasoned Actuaries Section**

The purposes of this organization shall be to advance the knowledge of actuarial science applied to property, casualty, and similar risk exposures, to promote and maintain high standards of conduct and competence within the actuarial profession, to draw upon the experience base of its members to help promote the overall goals of the actuarial profession, and to promote social fellowship among its members.

Elections - November

#### Officers:

Joanne Spalla, *President* jspalla@berkre.com

Deborah M. Rosenberg, *President-Elect* fcas1984@gmail.com

Anne E. Kelly, *Secretary-Treasurer* akelly@ins.state.ny.us

<sup>\*</sup> Non-CAS Member

# NORTH AMERICAN ACTUARIAL COUNCIL WORKING AGREEMENT

#### (As Approved January 26, 2007)

This Working Agreement sets forth the cooperative goals of the American Academy of Actuaries (Academy), the American Society of Pension Professionals and Actuaries (ASPPA), the Asociacion Mexicana de Actuarios (AMA), the Asociacion Mexicana de Actuarios Consultores (AMAC), the Canadian Institute of Actuaries (CIA), the Casualty Actuarial Society (CAS), the Colegio Nacional de Actuarios (CONAC), the Conference of Consulting Actuaries (Conference), and the Society of Actuaries (SOA), collectively referred to as the Participating Organizations.

In order to: foster cooperation among the Participating Organizations consistent with their individual missions as described below; eliminate unnecessary duplication of effort and activity among the Participating Organizations (thereby maximizing the efficient use of the Participating Organizations' resources); encourage mutual recognition and cross-border discipline; and enhance the image, growth and reputation of the actuarial profession in North America, the Participating Organizations agree to participate in the North American Actuarial Council ("NAAC") as described in this Working Agreement.

The Participating Organizations agree to broadly publicize this Agreement (e.g., publish it in their Yearbooks and on their web sites).



# I. Missions of the Participating Organizations

Each of the Participating Organizations operates to further its self-identified mission. The missions of the Participating Organizations may be broadly summarized as follows:

**Academy**: nationally and internationally, to represent the entire U.S. actuarial profession in the formulation of public policy and support U.S. actuaries in fulfilling their related responsibilities; to encourage the professionalism of U.S. actuaries by fostering the establishment, communication, maintenance and enforcement of high professional standards; and to represent and advance the U.S. actuarial profession and increase the public's recognition of the U.S. actuarial profession's value.

**ASPPA**: to educate all retirement plan professionals and to preserve and enhance the employer-based retirement system as an essential part of a national retirement income policy in the United States.

**AMA**: to support the Mexican actuarial profession in maintaining high standards of professional integrity and technical expertise and, thereby, promote the dignity of the profession and enhance the public's recognition of the profession's value.

**AMAC**: to advance the quality of actuarial consulting practice in Mexico by providing continuing education and business support services to Mexican actuaries in consulting practice.

**CIA**: as the national organization of the Canadian actuarial profession, to serve the public through the provision by the profession of actuarial services and advice of the highest quality by: representing the Canadian actuarial profession in the formulation of public policy; promoting the advancement of actuarial science and sponsoring programs for the education and qualification of CIA members and prospective members; ensuring that actuarial services provided by its members meet accepted professional standards; and assisting actuaries in Canada in the discharge of their professional responsibilities.

**CAS**: to advance the body of knowledge of actuarial science applied to property, casualty, and similar risk exposures by: providing basic and continuing education; conducting research; establishing and maintaining high standards of conduct and competence for its members; communicating with the publics affected by insurance; and increasing the awareness of actuarial science.

**CONAC**: to serve as the professional membership organization for all the actuaries licensed to practice in Mexico, regardless of their specialty area; to advise the Mexican government concerning public policy matters with actuarial implications; and to foster actuarial education and research in Mexico.

Conference: to advance the quality of actuarial consulting practice, support the needs of consulting actuaries, and represent their interests.

**SOA**: The Society of Actuaries is an educational, research, and professional organization dedicated to serving the public and Society members. Its mission is to advance actuarial knowledge and to enhance the ability of actuaries to provide expert advice and relevant solutions for financial, business, and societal problems involving uncertain future events. The vision of the Society of Actuaries is for actuaries to be recognized as the leading professionals in the modeling and management of financial risk and contingent events. The Society also works to anticipate future member needs through environmental scanning, strategic planning, and dynamic strategy management.

Each of the Participating Organizations takes whatever measures it deems necessary, appropriate, or desirable to attract, recruit and serve its individual members. This agreement is not intended, nor should it be construed, to restrict in any way the independent business decisions of the Participating Organizations but, rather, to document the Participating Organizations' desire to cooperate in the service of the North American actuarial profession consistent with their own missions and purposes.

#### II. The North American Actuarial Council

#### A. Purpose of NAAC

The Participating Organizations jointly acknowledge that:

- The operating environments in the three North American countries are very different,
- The Participating Organizations' members expect the organizations to leverage resources and take appropriate advantage of synergies, and
- Increased information sharing and dialogue among the Participating Organizations has the potential to yield collective insights valuable
  to each organization.

Accordingly, the Participating Organizations define NAAC's purpose as follows:

- 1. NAAC is to be a catalyst for dialogue on key issues facing the North American actuarial profession.
- 2. NAAC is to be a facilitator of opportunities for leveraging of resources across organizations.
- 3. NAAC is to be a source of knowledge in identifying conditions, trends, assumptions, and key issues affecting the North American actuarial profession and benchmarking best practices among member organizations.
- 4. NAAC is to be a forum for information sharing on current and potential activities among the North American actuarial organizations.
- 5. NAAC is to be a forum where networking occurs and camaraderie is built among the leaders of the North American actuarial organiza-

In fulfilling its purpose, NAAC shall abide by the following guiding principles:

- The conditions, cultures and perspectives of each individual country and their member organizations will be respected and valued.
- The autonomy of each member organization to pursue its mission and purpose will be preserved.
- The public interest will always be a primary consideration.
- The best interests of the profession will always be considered.

#### **B.** Members

The North American Actuarial Council (NAAC) is comprised of up to two officers of each Participating Organization. One of the two officers shall be the President of the Participating Organization. The other officer shall be the President-Elect of the Participating Organization unless the Participating Organization appoints another officer it deems more appropriate. If a designated officer of a Participating Organization is unable to attend a meeting of NAAC, the Participating Organization may designate another appropriate representative to attend the meeting in that officer's stead.

The Executive Directors of the Participating Organizations attend and participate in NAAC meetings, but are not members of NAAC and do not vote

Additional organizations may participate in NAAC at the invitation of the Participating Organizations.

#### C. Meetings

NAAC will meet in person up to three times a year. Arrangements for the in-person meetings (e.g., location and chairing the local meeting) shall be the responsibility of the host country. The Participating Organizations shall decide how to coordinate the agenda and provide meeting materials for the following year no later than at their Fall meeting each year. The Participating Organizations agree to share equally the costs to perform this support function, with the Mexican organizations counting as one organization.

#### D. Legal

When appropriate, the Academy also agrees to make its legal counsel available to NAAC; and to coordinate, upon request, with counsel for the CIA and the Mexican organizations.

# III. Communications Among the Participating Organizations

- **A.** Each Participating Organization shall share items of mutual interest, including items distributed to the Participating Organization's board members (subject to board approval), with the other members of NAAC as soon as feasible after the items are available (electronically through the NAAC list server if appropriate). This sharing includes the Participating Organization's yearbook, newsletters, and board minutes, in addition to other important documents or significant studies that would be of value to the wider audience. This sharing does not apply to any item that a Participating Organization considers to be confidential.
- **B.** Each Participating Organization shall endeavor to inform each of the other Participating Organizations on a timely basis of any of its actions that are expected to have a significant effect on one or more of the other Participating Organizations or their members.
- C. Each Participating Organization shall invite the Members of NAAC to all general membership meetings, with the registration fee waived.

# AMERICAN ACADEMY OF ACTUARIES

The American Academy of Actuaries is a professional membership, public policy information and communications organization for all actuaries practicing in the United States.

As the organization representing the entire U.S. actuarial profession, the mission of the American Academy of Actuaries is to serve the public and the actuarial profession both nationally and internationally through a) establishing, maintaining, and enforcing high professional standards of actuarial qualification, practice, and conduct, b) assisting in the formulation of public policy by providing independent and objective information, analysis, and education, and c) in cooperation with other organizations representing actuaries: representing and advancing the actuarial profession, and increasing the public's recognition of the actuarial profession's value.

Professional standards of practice and discipline procedures are the responsibility of the Actuarial Standards Board and the Actuarial Board for Counseling and Discipline, respectively, both independent entities managed with Academy staff support. The Academy also establishes qualification standards for making prescribed statements of actuarial opinion.

Applications for membership and a copy of the Academy's Yearbook may be obtained from:

American Academy of Actuaries 1850 M Street NW, Suite 300 Washington, DC 20036 (202) 223-8196; Fax: (202) 872-1948 www.actuary.org

## Board of Directors 2012-2013\*

#### **Executive Committee**

President	Cecil D. Bykerk (2014)
President-Elect	Tom Terry (2015)
Immediate Past President	
Secretary	Steve Rosen (2013)
Treasurer	
Vice President, Casualty	Mike Angelina (2013)
Vice President, Health	David Shea (2013)
Vice President, Life	Cande Olsen (2013)
Vice President, Professionalism	
Vice President, Risk Management and Financial Reporting	Maryellen Coggins (2013)
Vice President	

#### **Directors**

Mary Bahna-Nolan (2014) Katie Campbell (2015) Godfrey Perrott (2015) Jeffrey Petertil (2013) Shari Westerfield (2015) Ken Kent (2014) Catherine Murphy-Barron (2014) Marc Oberholtzer (2013) Stephen Preston (2013)

## **Special Directors**

ACOPA President	Mark K. Dunbar (2013)
ACOPA President-Elect	
CAS President	
CAS President-Elect	
CCA President	Patricia A. Rotello (2013)
CCA President-Elect	
SOA President	Tonya B. Manning (2013)
SOA President-Elect	

<sup>\*</sup> For terms expiring at the annual meeting of the year given.

# INTERNATIONAL ACTUARIAL ASSOCIATION

The International Actuarial Association (IAA) is the international professional, educational, and research organization of actuarial associations and of actuaries. Its objectives include serving the public, enhancing the reputation of the actuarial profession throughout the world, promoting high standards of professionalism of actuaries in the public interest, advancing actuarial knowledge and its applications, and representing member associations in discussions with international bodies.

The first International Congress of Actuaries was held in 1895 in Brussels under the auspices of the Permanent Committee of International Congresses of Actuaries. The name of the organization was changed in 1968 to the International Actuarial Association. The IAA was restructured in June 1998 from an organization with individual members to become an organization of actuarial associations, and the International Forum of Actuarial Associations was simultaneously dissolved.

The committee structure of IAA includes Accreditation, Advice and Assistance, Education, Financial Risks, Insurance Accounting, Insurance Regulation, Member Services, Pensions and Employee Benefits, Professionalism, Social Security, Supranational Relations, and various governance committees. Nominations for committee representatives can be submitted by member associations on the basis of one per committee.

The CAS is a member association of the IAA and all CAS Fellows are members of the IAA, with dues paid for by the CAS. The American Academy of Actuaries (AAA) is also a member association of the IAA and all members of the Academy (MAAAs) are members of the IAA (with dues paid for by the AAA). All other CAS Associates who are not MAAAs may apply for IAA membership to the IAA Council (through the AAA Office).

Members of the IAA may attend its international congresses, generally held every four years. The 2014 congress will be held in Washington, DC. Members also receive the IAA Bulletin, which is distributed electronically on the IAA Web Site at www.actuaries.org. For CAS members who do not have access to the Internet, the CAS will reproduce and distribute copies of the IAA Bulletin on request. An IAA membership listing is available on the IAA Web Site under "Interactive Tools" in the Members section.

Following are URLs for IAA Sections and that are open to all IAA members:

Actuarial Approach for Financial Risks (AFIR)	http://www.actuaries.org/index.cfm?LANG=EN&DSP=AFIR&ACT=INDEX
Actuarial Studies in Non-Life Insurance (ASTIN)	http://www.actuaries.org/index.cfm?lang=EN&DSP=ASTIN&ACT=INDEX
Actuaries Without Frontiers (AWF)	http://www.actuaries.org/index.cfm?lang=EN&DSP=AWB&ACT=INDEX
IAA Health Section (IAAHS)	http://www.actuaries.org/index.cfm?lang=EN&DSP=IAAHS&ACT=INDEX
IAA Life Section (IAALS)	http://www.actuaries.org/index.cfm?lang=EN&DSP=LIFE&ACT=INDEX
International Association of Consulting Actuaries (IACA)	http://www.actuaries.org/index.cfm?lang=EN&DSP=IACA&ACT=INDEX
Pensions, Benefits, and Social Security (PBSS)	http://www.actuaries.org/index.cfm?lang=EN&DSP=PBSS&ACT=INDEX

Inquiries by CAS members regarding the International Actuarial Association should be directed to:

International Actuarial Association 150 Metcalfe Street, Suite 601 Ottawa, Ontario K2P 1P1 Canada

> Phone: +1-613-236-0886 Fax: 1-613-236-1386

# **Officers**

President	Kurt Wolfsdorf
President-Elect	Robert L. Brown
Immediate Past President	Desmond Smith
Secretary General	Vacant
,	

For more information, see the IAA Web Site at www.actuaries.org.

# THE ACTUARIAL PROFESSION (U.K.)

The Actuarial Profession represents the members of the Institute and Faculty of Actuaries externally, and regulates those members for the benefit of the outside world. The Institute and Faculty of Actuaries is the chartered professional body for actuaries in the United Kingdom.

The Actuarial Profession's aims are to:

- promote the work of actuaries
- · oversee the education of actuaries at all levels
- expand actuarial knowledge
- enforce professional and ethical standards
- cooperate with all other interested parties
- identify matters of public concern where the input and involvement of actuaries can be of benefit to society.

For more information, visit http://www.actuaries.org.uk/.

# THE GENERAL INSURANCE RESEARCH ORGANISING (GIRO) COMMITTEE

The Actuarial Profession's General Insurance Research Organising (GIRO) Committee is responsible for coordinating the General Insurance Practice Executive Committee's program of research and for organizing the annual general insurance conference.

The GIRO Committee is also responsible for the award of the Brian Hey prize which is presented annually to the best paper submitted to that year's GIRO conference.

For an archive of GIRO Convention papers, visit http://www.actuaries.org.uk/research-and-resources/pages/giro-convention-papers-archive.

# OTHER ACTUARIAL ORGANIZATIONS IN NORTH AMERICA

# American Society of Pension Professionals & Actuaries

www.asppa.org asppa@asppa.org

## Asociación Mexicana de Actuarios

www.ama.org.mx actuarios@ama.org.mx

# Asociación Mexicana de Actuarios Consultores

www.amac.org.mx informes@amac.org.mx

## **Canadian Institute of Actuaries**

www.actuaries.ca

#### Colegio Nacional de Actuarios

www.conac.org.mx info@conac.org.mx

# **Conference of Consulting Actuaries**

www.ccactuaries.org conference@ccactuaries.org

# **Society of Actuaries**

www.soa.org

# CAS FUTURE MEETINGS

# **CAS Annual Meeting**

#### 2013

November 3, 2013 - November 6, 2013 Hilton Minneapolis Minneapolis, MN United States

## 2014—Centennial Celebration

November 9, 2014 - November 12, 2014 Hilton New York New York, NY United States

#### 2015

November TBD, 2015 Boston, MA United States

# **CAS Spring Meeting**

#### 2013

May 19, 2013 - May 22, 2013 The Westin Bayshore Vancouver Vancouver, BC Canada

# 2014—ICA 2014 (International Congress of Actuaries)

March 30, 2014 - April 4, 2014 Marriott Wardman Park Washington, DC United States

#### 2015

May 17, 2015 - May 20, 2015 The Broadmoor Colorado Springs, CO United States

# **ICA 2014**

# (International Congress of Actuaries)

#### 2014

March 30, 2014 - April 4, 2014 Marriott Wardman Park Washington, DC United States

# **CAS Centennial Celebration**

#### 2014

November 9, 2014 - November 12, 2014 Hilton New York New York, NY

# Ratemaking and Product Management (RPM) Seminar

#### 2014

March 30, 2014 - April 1, 2014 Marriott Wardman Park Washington, DC United States

# Seminar on Reinsurance

#### 2013

June 6, 2013 - June 7, 2013 Fairmont Southampton Southampton Bermuda

#### 2014

June TBD, 2014 New York, NY United States

# **Casualty Loss Reserve Seminar**

#### 2013

September 16, 2013 - September 17, 2013 Boston Marriott Copley Place Boston, MA United States

#### 2014

September 15, 2014 - September 16, 2014 Manchester Grand Hyatt San Diego San Diego, CA United States

# **Limited Attendance Seminar**

#### 2013

# In Focus: Elephants in the Room

September 30, 2013 - October 1, 2013 Chicago, IL United States

# **Webinars and Online Courses**

See the CAS Calendar of Events for current information on CAS Webinars and Online Courses at http://www.casact.org/calendar/.

# **PROCEEDINGS**

# OF THE

# Casualty Actuarial Society

Organized 1914



VOLUME XCXI
Number 190—May 2012
Number 191—November 2012

# 2012 PROCEEDINGS OF THE CASUALTY ACTUARIAL SOCIETY

Part I: Spring Meeting 2012 May 20, 21, 22, 23, 2012 Arizona Grand Resort, Phoenix, AZ

# ADDRESS TO NEW MEMBERS—MAY 21, 2012

#### MARY FRANCES MILLER

Congratulations, both to the new Fellows and Associates and to those special people who have given much of themselves to support you in this achievement. Let's give a round of applause to them as well, for many of you would not be here without them.

I am honored to have the chance to address you this morning. Just since Pat asked me to give this address, I've come across some items on the radio and the news that I've found rather disturbing, that I'd like to share with you.

First: PBS's *Frontline* did a four part series on the financial crisis, and I happened to tune into parts three and four the other night. As with many documentaries, there was an attempt to humanize the picture, and they included snippets from interviews with some young women who had gone to work in the investment banking business sometime in the 1990s or shortly after the turn of the century. (Don't you love that expression? — Not too long ago it harkened back to ladies in long dresses and bicycles built for two. Now it's just the start of the last decade.) All of them would have made fine actuaries: very smart, great quantitative academic backgrounds, interested in careers in the real world, hard workers. All of them went to work in exciting jobs where they were on the cutting edge of financial innovation. All of them soon found themselves caught up in a corporate culture that was all about the profits. They worked long hours, and they were very well compensated. They were encouraged to identify with their employers, and not to question where the money was coming from, provided it kept on coming.

Let me tell you a bit about two in particular: One, a computer science grad, worked on sophisticated programs to predict when large pension funds would move in the market — so that her employer could jump in ahead of them. Her bank made a lot of money off her work, and nobody asked, "who were the losers?" Another, an American working as a trader in London, was expected not only to develop but also to market sophisticated derivatives to just about anybody who could be convinced to buy them, including entities that clearly didn't understand and had no business getting into them. The sales were all about the sizzle of the potential returns, and never about the risk. In the mid-1990s, as the countries in Europe got their balance sheets cleaned up in order to qualify for the Euro, Goldman Sachs helped Greece to get into some swaps that had loan provisions buried in them, effectively moving some of its debt off balance sheet. When news of these transactions hit the financial pages, this gal's employer didn't ask, "What were they thinking? Isn't this inappropriate?" Rather, they asked, "Why aren't we in on it?"

Second: We have the seemingly continuous discussion of the London Whale. What is a hedge? When is a hedge risk management, and when is it speculation? How can you tell? One NPR commentator stated that you can't. But a second one made my ears perk up when he countered that of course you can: the insurance industry has been able to tell the difference between insurance and speculation for well over a century. Did you know that the bookies in London suspended bets (shall we call them "trades"?) on when Greece will leave the Euro a couple of weeks ago? Why did they do that? Because they're risk averse. Nobody wanted to take positions on the other side, so there was no "market." The bookies know better than to try to create one, and they never, ever bet the house's money.

The last little bit I'd like to tell you about is a very sad story of a banker who went to jail. Not a big investment banker, just a guy who started — and successfully ran — a small community bank for a number of years. He was popular with his employees, considered a pillar in the community, active in his church. But things went awry. The bank lost money, and to shore up the cash flows, he decided to borrow against his house. Of course with the bank failing, he didn't have the income to back up the new mortgage, but he rationalized to himself that he soon *would* have it. So it was ok to put down more than he had, because it was temporary. You get the picture. Things went downhill and eventually led to creating homes to mortgage out of whole cloth. The interesting thing was that this guy needed help to commit the frauds. Not only his employees, but people from at least two title companies were easily talked into participating, on the grounds of helping a friend out. It was a business decision.

That particular story was newsworthy because it led to a psychological study on framing. Why did the banker crook's friends just up and agree to help him commit fraud? Why were the young investment bankers (and their employers) ok with transactions that made them a lot of money, when in hind sight that money was made by jumping in ahead of people's retirements, or off people who had no business being on the other side of the transaction? It turns out that, when a "business" decision needs to be made, just framing it as such changes the way we look at it. Ask people about the same decision, but in an ethical context, and they will make the right choice every time, but tell them it's a "business" decision and they will look right past the ethics.

What does that tell us about ourselves? Do we take the time to frame the question properly? Do we even know how to frame it? Luckily, we are actuaries. We do know how to frame it. We don't just make business decisions, because we are more than that. We are held to a higher standard.

An actuary shall act honestly, with integrity and competence, and in a manner to fulfill the profession's responsibility to the public and to uphold the reputation of the actuarial profession.

We're not a big profession. We're not often in the news. But more often than not when we are, it's in the context of "the actuaries say X." And if the actuaries say it, it must be true. Can you imagine "the investment bankers say..." or even "the economists say..."?

All of which is not to imply that it's our job to be the police. Yesterday at the Board meeting, our colleague from Australia reported that regulatory compliance requirements in his country are threatening the business relationship between actuaries and insurance companies, that actuaries are perceived in some cases more as spies than as trusted members of the team. Let's work together to ensure that doesn't happen in North America. It's a fine line to walk: being willing to take risks as well as mitigate them, because profits only come when some risks are taken. But also always, always asking those prickly questions that "business decisions" want to avoid: whose money is at risk here? What promises have been made? Not only *cui bono*, who benefits? But also *cui plagalis*, who loses? As the new members of our profession, I hope that you will be moving into even more visible, more creative, more interesting roles than those of us in my generation found. With those interesting roles, some of them outside our foundational industry, will come risks as well as rewards. Your best contributions will be realized, and you will fulfill the profession's responsibility to the public when you bring the Code of Conduct with you into each and every role you take on.

The address to new members isn't complete unless the codger at the podium gets to share a few personal observations. So let me share with you a few facts that I've learned from clients and colleagues over the years, in no particular order of importance:

- Every claims operation has just strengthened case reserves, and the changes that have been implemented are going to change the reserve adequacy
  permanently. Just ask them. The ratemaking corollary, of course, is that application of underwriting standards has been tightened and the expected
  loss ratio on the new business is points lower than anything we've written in the past.
- Nobody needs a tail factor. Tail factors are the product of reserve movements on really old claims. Those claims, of course, are a legacy from back
  when the underwriting and/or claims handling environment was different, so they're not relevant to the current business, which is already fully
  reserved to ultimate. In fact, anything that happened on the preceding guy's watch is not ever going to happen again.
- Two points make a trend, provided that it is in the right direction. Three to five points may not make a trend, however, if they lead to bad news,
- If the underwriting experience on an expanding book of business is poor, just giving it time will allow the premiums to catch up with the losses.

Now let me close with a few comments about our profession and your role within it. When I was doing a little research for the last time I got invited to give this talk, I came across an early paper in the *Proceedings* that was a breakthrough. It clearly outlined the need to recognize different kinds of reserves: case reserves, IBNR reserves, IBNER reserves, and unearned premium reserves. A small tree planted, and we stand today in its shade. Actuarial science and the actuarial profession only grow and evolve because our members contribute. Who among you will plant the next tree? The profession needs your time and talent. Join a committee. Write a paper. I assure you that the experience you gain and the contacts and friends you make will be worth every minute of the time you put in. Ask yourself — who will chair the loss reserve seminar? Or the Audit Committee? Who will help shape public policy? Who will write the next study note for the syllabus? Someday, one of you will chair this meeting. And—a very, very long time from now, one of you will be giving this address to a brand new class of Fellows and Associates.

Celebrate. You've earned it. You've demonstrated that you've got what it takes. My wish for you is that you will find as much in this wonderful profession as I have.

# MINUTES OF THE 2012 SPRING MEETING

#### Sunday, May 20, 2012

The Casualty Actuarial Society (CAS) Board of Directors met from 8:00 a.m. to 5:00 p.m.

The following Special Session was held from 1:00 p.m. to 5:00 p.m.:

## **Leading without Authority**

Panelists: Amber Hinkle, American Chemical Society

Joanne Spalla, Chair, CAS Leadership Development Committee

Registration was held from 4:00 p.m. to 6:30 p.m.

An officers' reception for new Associates and their spouses/guests was held from 5:30 p.m. to 6:30 p.m.

A welcome reception for all attendees was held from 6:30 p.m. to 7:30 p.m.

## Monday, May 21, 2012

Registration was held from 7:00 a.m. to 5:00 p.m.

A continental breakfast was served at 7:00 a.m. The business session was opened by CAS President Pat Teufel at 8:00 a.m. Ms. Teufel welcomed everyone and announced that the meeting was being webcast over the CAS Web Site. She extended a special welcome to the new Fellows and new Associates who would be recognized at this meeting.

Ms. Teufel introduced several special guests in attendance, including Jim Christie, President of the Canadian Institute of Actuaries and Fellow of the CAS; David Goodsall, President of the Actuaries Institute (formerly the Institute of Actuaries of Australia); Wayne Fisher, Executive Director of the Enterprise Risk Management Institute International; and Kathryn Morgan, Representative of the Institute and Faculty of Actuaries. Ms. Teufel acknowledged and thanked all those from outside of North America who came to the meeting.

Ms. Teufel went on to introduce the past presidents of the Society in attendance, including Irene Bass (1993), Ralph Blanchard (2010), Bob Conger (2001), Mike Fusco (1989), Dave Hartman (1987), Roger Hayne (2009), Allan Kaufman (1994), Stan Khury (1984), Steve Lehmann (1998), Mary Frances Miller (2004), Tom Myers (2006), and Mike Toothman (1991).

Ms. Teufel next introduced key CAS staff members in attendance: Cynthia Ziegler, Executive Director; Mike Boa, Director of Communications and Marketing; Dave Core, Director of Professional Education and Research; Kathleen Dean, Director of Meeting Services; Tom Downey, Director of Admissions; and Todd Rogers, Director of Finance and Administration.

Ms. Teufel then introduced the CAS Executive Council; the CAS Board of Directors; Chris Townsend, Board Liaison from the Canadian Institute of Actuaries; and Tim Wisecarver, Board Liaison from the American Academy of Actuaries.

Next, the names were announced of the new Associates and two new Fellows by Mutual Recognition. They are as follows:

#### **New Associates**

Tisha Abigail Abastillas	Ryan David Givens	James Andrew Kirtland	Mary E. Reading
Neal James Anderson	Heidi Kathryn Givens	Sz-Fan Lai	Katrina Andrea Redelsheimer
Colleen Patricia Arbogast	John Peter Glauber	Julie Laverdiere	Kyle B. Reed
Adam Bates	Mark M. Goldburd	Chun King Lee	Eric Ruppert
Kenneth C. Beckman	Meghan Sims Goldfarb	Elchanan Y. Levy	Zachary K. Rutledge
Matthew Robert Belter	Paul M. Grammens	Lu Li	Marion K. Sajewich
Whitney A. Billerman	Jesse Yehuda Groman	Melody Ko Lin	Crystal Valarie Sala
Laura Michelle Bonja	Kathy Gu	Steven Ling	Dawn M. Schulze
Ayla Brice Shaner Boyd	Nicole A. Hackett	Nathan Lester Luketin	Andrew James Scott
Zachary T. Brogadir	Jeremy Huston Harlow	Paul J. Majchrowski	David J. Sheridan
Ryan A. Byrd	Gregory L. Helser	Tamara Lynn Manges	Hoi Ying Katy Siu
Hui Ying Chin	Sara J. Hemmingson	Kevin S. McBeth	Jeremy C. Smith
Deborah Marie Chomiuk	Rachel C. Hemphill	Joseph Scott Merkord	Trevor Jon Soupir
Joel D. Clark	Rachel Henry	Raoul Jacob Milgraum	Shane Taylor Steele
Matthew Charles Coatney	Chi Ho Terence Ho	Tara Lynne Miller	Robert C. Swiatek
Robyn K. Coffman	Peter P. Huang	Marc Michael Molik	Samuel Tashima
Andrew Wells Dalton	Rachel Andrea Intveld	Nerissa S. Nandram	Allison C. Tiller
Michael Edward Day	Matthew M. Iseler	Nongkoh Dvukah Ndefru	Kristen Leigh Tolman
Mark R. Doucette	Bobby Jacob	Jennifer E. Prosser	Katherine Anne Vacura
David Daniel Evans	Matthew J. Jewczyn	William Joseph Prucknic	Ryan Vigus
Jayson C. Farrell	Karen Jordan	William Steve Randolph	Melissa Anne Elke Villnow
Alicia Marie Gasparovic	Sayali Jayant Joshi	Ravi Ranjan	Sarah M. Voit
Michael Ryan Gittings	Sandra F. Kipust	Laura Ann Rapacz	Marilyn Ashley Wilson

Sylvia Sze Wai Wong Michael Scott Woods James Tyler Word Xi Wu Yan Yan Jin Zhu Zhang Chao Zheng Thomas Anthony Ziniti Quncai Zou David E. Zurndorfer

#### NEW FELLOW BY MUTUAL RECOGNITION

Nelson Lee Joseph Charles Monk

Ms. Teufel next recognized the valuable work of CAS member volunteers, including moderators and panelists at this and other meetings and seminars this year; authors of papers; Regional Affiliate officers; chairs of CAS, CIA, or Academy committees; CAS, CIA, and American Academy of Actuaries committee members; individuals who have worked on the committees of other actuarial organizations; and Board Members and Officers of the Executive Council. Ms. Teufel noted that 34% of CAS members volunteer. She encouraged those not currently volunteering to learn more about volunteer opportunities at the CAS Volunteer and Recruitment table.

Ms. Teufel encouraged the audience to nominate worthy CAS members for the Above and Beyond Achievement Award, the Matthew Rodermund Service Award, and the New Member Volunteerism Award. The winners of these awards will be announced at the 2012 Annual Meeting in Florida.

Ms. Teufel then announced two scholarship awards administered by the CAS Trust:

The Harold W. Schloss Memorial Scholarship award is a \$500 scholarship to benefit a deserving and academically outstanding student in the actuarial program of the Department of Statistics and Actuarial Science at the University of Iowa. The student recipient is selected by the Trustees of the CAS Trust, based on the recommendation of the Department Chair at the University of Iowa. The 2012 Schloss Scholarship recipient is Thomas Ryan Duffy.

The CAS Trust Scholarship is funded by donations to the CAS Trust and awards up to three \$2,000 scholarships to deserving students annually. The scholarship's intent is to further students' interest in the property/casualty actuarial profession and to encourage pursuit of the CAS designation. Recipients are chosen by the CAS Trust Scholarship Subcommittee. The 2012 winners are Abby Popejoy, University of Illinois; Maria Schiopu, Northwestern University; and Hugo Lafortune Brunet, University of Montreal.

Ms. Teufel next awarded the 2010 *Variance* Prize to Dumaria Tampubolon and Gary Venter for their paper "Robustifying Reserving". The paper was published in Volume 4, Issue 2 of *Variance*, and Ms. Tampubolon will present the paper on Wednesday during the meeting. The prize was established to recognize the best papers published in the CAS peer-reviewed research journal, *Variance*.

Ms. Teufel announced that the CAS had recently received three awards of its own. The Be An Actuary Web Site, a collaborative effort between the CAS and the Society of Actuaries, was redesigned in fall 2011. The site was entered into the EXCEL Awards competition, which is sponsored by an organization called Association Media and Publishing. The EXCEL awards are widely recognized in the association community as honoring and representing the best publishing and media products in the industry. The Be An Actuary Web Site was recognized in three categories: Gold in Web Publishing: Editorial Excellence, Gold in Web Publishing: General Excellence, and Silver in Web Publishing: Redesign.

Ms. Teufel mentioned that the CAS website is currently being redesigned but that Spring Meeting attendees will have the chance to get a sneak preview of the new design at the cyber café.

Ms. Teufel recognized and thanked the participants in the Society Partners program. Society Partners are firms who demonstrate a commitment to the CAS and its mission by making an annual pledge to support CAS activities. Ms. Teufel noted that 2012 is the third year for the program and that, due to the support of the Society Partners and their sponsorships, fees for CAS meetings and seminars have been able to remain at the same levels as they were in 2011. Society Partners for the 2012 program are as follows:

#### **Platinum Partners**

- · Ernst & Young
- Ezra Penland Actuarial Recruitment
- ISO
- Milliman
- Pauline Reimer and Pryor Associates Executive Search
- Towers Watson

#### **Silver Partners**

- Actuarial Careers, Inc.
- Barrie & Hibbert
- Earnix
- · Guy Carpenter and Company
- Lexis Nexis
- Pinnacle Actuarial Resources
- Sensomatix

Following the Society Partners announcement, the new CAS Fellows were recognized in a special ceremony. The names of the members of the Spring 2012 class are as follows:

#### New Fellows

Brian C. Alvin	Etienne Collard-Proulx	Benjamin Carl Ferguson	Molly Catherine Ingoldsby
Shane Eric Barnes	James E. Davidson	Dennis A. Franciskovich	Brian M. Ironside
Sebastien Bernard	Denise Susan Di Renzo	Todd A. Gutschow	Yehuda S. Isenberg
Alissa Joy Bowen	Emilie Rovito Dubois	Fiona E. Ha	David Itzkowitz
Ghislain Brault-Joubert	Mark B. East	Andrew S. Herman	David R. Iverson
Derek P. Cedar	Katherine Ann Eenigenburg	Gordon Hamilton Hines	Brett D. Jaros
Devyn K. Clifford	Michael Epstein	Ashish Rasik Hingrajia	Alena Kharkavets

#### Minutes of the 2012 Spring Meeting

Paul E. Kutter	Sikander Shiraz Nazerali	Tracey Ellen Steger	Hao Wang
Steven P. Lafser	Sergei A. Panafidin	Jared Wallace Steinke	Zheng Yu Wang
Yun Li	Nadia Pelletier	Katherine Stelzner	Annie On Yee Wong
Xuan Li	Michael J. Reynolds	Ping Su	Chunpong Woo
Xiaoyun Ling	Lydia Roy	Kelly Aline Sullivan	Joanne Yammine
Xianfang Liu	Sean A. Ruegg	Lijia Tian	Bo Yan
Kwan Ying Loi	Julia Methling Ryan	Adam B. Tyner	Julieta A. Zambrano
Pin Chin Lung	Kaushika Sengupta	Tracy Leslie Valentine	Nan Zhang
Emily A. Lyons	Kirsten M. Singer	Michael Thomas Villano	

Ms. Teufel introduced Mary Frances Miller, a CAS past president, who gave the address to new members. Ms. Miller is a Fellow of the Casualty Actuarial Society and a Member of the American Academy of Actuaries. She served as President of the CAS in 2004 and as Chairperson of the CAS Board of Directors in 2005. Ms. Miller has served the CAS on numerous committees and task forces, many in the Admissions area, beginning with service on the Examination Committee more than 20 years ago. She has also been active in the American Academy of Actuaries, and she served as Academy President in 2011. She has also served on the Board of the Conference of Consulting Actuaries, and was elected an Honorary Fellow of the Institute of Actuaries in the U.K. While devoting a lot of time and energy to the actuarial profession, Ms. Miller found the time to help form Select Actuarial Services, where she serves as a senior consulting actuary.

Following the address to new members, Roger Hayne, chair of the ICA 2014 Scientific Committee, spoke of the various activities of the International Actuarial Association and other activities taking place around the world. In particular, Mr. Hayne reminded attendees that ICA 2014 is scheduled for 30 March through 4 April in Washington, D.C. The ICA 2014 Scientific Committee has just announced that it will award prizes for the one or two Best Papers or Best Presentations in each of the subject matter tracks, which include: Life Insurance, Health Insurance, Non-Life Insurance, Pensions, Employee Benefits and Social Insurance, Enterprise Risk Management and Financial Risks, Professionalism and Education, and Consulting.

Next, CAS Vice President-Research and Development Alice Underwood presented an update on CAS research activities and David Cummings gave an update on the activities of the Actuarial Foundation.

Chet Szczepanski, Vice-President—Professional Education, made several announcements regarding the meeting, stating that the Spring Meeting consisted of three general sessions and 30 different concurrent sessions, offering a maximum of 15.9 CE credits. He said that following the meeting, 27 sessions will be available on digital media at no cost for 2012 CAS Spring Meeting attendees. Mr. Szczepanski encouraged attendees to take advantage of the University of CAS, which provides recorded digital media of continuing education programs offered free to CAS Meeting attendees. He also encouraged members to attend the CAS Annual Meeting in Florida and to submit program ideas for that meeting. Mr. Szczepanski next recognized and thanked the following 2012 Spring Meeting Sponsors:

- Ezra Penland—notebook sponsor, eclipse viewing glasses sponsor, and advertiser
- Pauline Reimer and Pryor Associates Executive Search—tote bag and Cyber Café
- Red Mountain Technologies—networking break and USB drive
- Pinnacle Actuarial Resources—networking break and advertiser
- Towers Watson—networking break and advertiser
- ISO—USB car charger and advertiser
- The Jacobson Group—networking break
- Barrie and Hibbert—advertiser
- Ernst & Young—advertiser
- Guy Carpenter and Company—advertiser

Mr. Szczepanski announced the addition of the new Spring Meeting Roundtable Discussions, where four groups of nine participants and one facilitator discuss critical topics. Participants in the Roundtables earn CE credits. Mr. Szczepanski also encouraged new members to attend a special session later in the day called "The CAS and You: An Overview for New Members" and to download the free CAS Spring Meeting app. Attendees were asked to complete brief evaluation forms at the end of every session. They were also encouraged to use the social networking tool Twitter to post their thoughts on the Spring Meeting.

Mr. Szczepanski concluded by thanking the Program Planning Committee and members of the CAS Office staff for their contributions to the meeting. Following Mr. Szczepanski, Ms. Teufel briefly discussed current CAS Issues. She shared strategic issues being discussed during the CAS Board of Directors meeting on Sunday, May 20.

After a refreshment break, the following keynote session was held from 10:30 a.m. to 12:00 p.m.:

## **CEO Round Table**

Moderator/Panelist: Mark Vonnahme, Clinical Professor of Finance, University of Illinois at Urbana Champaign

Panelists: Laura A. Shanahan, President, Endurance Reinsurance Corporation of America

Bill Martin, President, Bankers Insurance Donald A. Smith, President & CEO, SCF Arizona A special luncheon for new members was held from 12:00 p.m. to 1:30 p.m., which included the following session:

CAS & You

Panelists: Joanne Spalla, Chair, CAS Leadership Development Committee

Beth Fitzgerald, Member, CAS Board of Directors

After the luncheons, the following concurrent sessions were held from 1:30 p.m. to 3:00 p.m.:

Actuarial Standard of Practice No. 8: Regulatory Filings for Health Plan Entities

Moderator: Mary D. Miller, Retired

Panelists: Donna Novak, President & CEO, NovaRest Consulting

Audrey Halvorson, Vice-President Actuarial Services & HCE, Blue Cross/Blue Shield of Arizona

**Applying Optimization Methods in Ratemaking** 

Moderator/Panelist: David Cummings, Vice President and Chief Actuary, ISO Innovative Analytics

Panelist: Rene Villalobos, Associate Professor, Department of Industrial Engineering, Arizona State University

**Global Economic and Insurance Market Outlook** 

Moderator/Panelist: Jeffrey Mayer, Director, PricewaterhouseCoopers LLP

Panelists: Thomas Holzheu, Senior Economist, Swiss Re

David Flandro, Managing Director, Head of Global Business Intelligence, Guy Carpenter & Company

Ltd.

Ratemaking Documentation: Does Yours Make the Cut?

Panelists: Linda Brobeck, Principal, Brobeck Analytics Consulting

Dan Tevet, Actuarial Associate Senior, Insurance Services Office, Inc.

**Reinsurance Evaluation using Capital Tranching** 

Panelists: Donald Mango, Head of Global Advisory, Guy Carpenter & Co., LLC

Claude Bunick, Managing Director, Guy Carpenter & Co., LLC

Richard Goldfarb, Group Chief Actuary and Chief Risk Officer, Torus Insurance

Reserve Risk Models: White, Grey, and Black Swans

Panelists: Glenn Meyers, Retired

Jessica Leong, Lead Casualty Specialty Actuary, Guy Carpenter & Co., LLC

The Revolution and Evolution of Predictive Modeling

Panelists: Claudine Modlin, Senior Consultant, Towers Watson

Steven Armstrong, Global Consumer Chief Actuarial Officer, Chartis Insurance

An Update on IFRS for Insurance

Moderator: Orin Linden, Director, Consulting Services, Towers Watson

Panelists: Steven Visner, Principal, Deloitte Consulting LLP

Marc Oberholtzer, Principal, PricewaterhouseCoopers LLP

Gareth Kennedy, Manager, Ernst & Young, LLP

Parr Schoolman, Senior Managing Director, Aon Benfield

After a refreshment break, the following concurrent sessions were held from 3:30 p.m. to 5:00 p.m.:

A Basic Predictive Modeling Exercise in R and Other Tips

Moderator: Daniel Murphy, President, Trinostics, LLC

Panelist: Benedict Escoto, Associate Director, Aon Benfield

#### California WC and Pension Modeling

Moderator: Martin King, Director of Property and Casualty Actuarial Services, Kaiser Permanente

Panelists: David Bellusci, W.C. Insurance Rating Bureau of California

Brian Jones, Principal, PricewaterhouseCoopers LLP

#### **Global Economic and Insurance Market Outlook**

Moderator: Jeffrey Mayer, Director, PricewaterhouseCoopers LLP

Panelists: Thomas Holzheu, Senior Economist, Swiss Re

David Flandro, Managing Director, Head of Global Business Intelligence, Guy Carpenter & Company

Ltd.

#### Math Education—Why Every Actuary Should Care About Kindergarten

Moderator: David Cummings, Vice President and Chief Actuary, ISO Innovative Analytics

Panelists: Eileen Streu, Executive Director, The Actuarial Foundation

Maureen Hager, Superintendent of Schools (Retired)

Kimberly Rimbey, Director of Curriculum and Professional Development, Rodel Foundation of

Arizona

## Price Optimization vs. Actuarial Standards

Moderator: Jeffrey Kucera, Senior Consultant, Towers Watson

Panelists: Michael McPhail, Director-Auto Pricing, United Services Automobile Association

Mary D. Miller, Retired

Chester Szczepanski, Vice President & Chief Actuary, Donegal Insurance Group

## **Professional Standards Regarding ERM**

Moderator: Joseph A. Herbers, Managing Principal, Pinnacle Actuarial Resources, Inc.

Panelists: Kevin Madigan, Director, PricewaterhouseCoopers LLP

Dave Ingram, Executive Vice President, Willis Re Inc.

#### **Reinsurance Evaluation using Capital Tranching**

Panelists: Donald Mango, Head of Global Advisory, Guy Carpenter & Co., LLC

Claude Bunick, Managing Director, Guy Carpenter & Co., LLC

Richard Goldfarb, Group Chief Actuary and Chief Risk Officer, Torus Insurance

Also during this time the following Variance papers were presented:

#### "Chain-Ladder Correlations" By Greg Taylor, Variance 5:2, 2011

"U.S. Property-Casualty: Underwriting Cycle Modeling and Risk Benchmarks" By Shaun S. Wang, John A. Major, Hucheng (Charles) Pan, and Jessica W. K. Leong, *Variance* 5:2, 2011

# "On the Importance of Dispersion Modeling for Claims Reserving: An Application with the Tweedie Distribution" By Jean-Philippe Boucher and Danaïl Davidov, *Variance* 5:2, 2011

Moderator: Carl Ashenbrenner, Principal and Consulting Actuary, Milliman, Inc.

Speakers: Greg Taylor, Actuary, Taylor Fry Consulting Actuaries

Shaun Wang, Chairman, Risk Lighthouse LLC

Jean-Philippe Boucher, Professor, University of Quebec at Montreal

An Officers' Reception for the New Fellows and their spouses or guests was held from 5:30 p.m. to 6:30 p.m.

#### Tuesday, May 22, 2012

Registration was held from 7:00 a.m. to 2:30 p.m.

A continental breakfast was served from 7:00 a.m. to 9:00 a.m.

A Town Hall Meeting was held from 7:00 a.m. -7:50 a.m. with CAS Leaders and Board of Directors.

The following concurrent sessions were held from 8:00 a.m. - 9:30 a.m.:

## A Basic Predictive Modeling Exercise in R and Other Tips

Moderator: Daniel Murphy, President, Trinostics, LLC

Panelist: Benedict Escoto, Associate Director, Aon Benfield

## Auto Safety Advances: Will They Shrink the Auto Market?

Moderator/Panelist: Geoffrey Werner, Director, Towers Watson

Panelist: Kim Hazelbaker, Senior Vice President, Highway Loss Data Institute

#### **Business Communication & Behavior Styles**

Moderator/Panelist: Kevin Helman, Senior Consultant, rogenSi, Inc.

Panelist: Yvonne Tam, Principal, rogenSi, Inc.

#### **Current State of the Reinsurance Market**

Moderator: Brian Johnson, Vice President/Senior Underwriter, Swiss Re

Panelists: Steven Kelner, Managing Director, Casualty, Swiss Re

David Spiegler, Executive Vice President & Chief Actuary, BMS Intermediaries, Inc.

Neal Schmidt, Executive Vice President & Chief Actuary, Platinum Administrative Services, Inc.

# Homeowners Insurance in the Lone Star State

Moderator: Karen Commons, Associate Actuary, Allstate Insurance Company

Panelists: James Murphy Jr., Vice President-Actuary, Texas Windstorm Insurance Association

Robert Zeman, Regional Counsel, Allstate Insurance Company

Kenneth Lovoy, Director of Market Research and Education, Office of Public Insurance Counsel

#### The Next Big Thing in Insurance Coverage

Panelists: Scott Kannry, Vice President, Aon Financial Services Group

Peter Hirsch, Executive Vice President, Ogilvy Public Relations Worldwide

Jane Veeder, Senior Vice President, Zurich Global Corporate

# An Update on CAS CE Requirements and Opportunities

Moderator: Chester J. Szczepanski, Vice President and Chief Actuary, Donegal Insurance Group

Panelists: Leslie Marlo, Managing Director, KPMG LLP

Christopher Tait, Principal and Consulting Actuary, Milliman, Inc.

#### **Roundtable Discussions I**

(1) Risk Quantification, Monitoring, and Reporting—and Potential Barriers to Doing this Efficiently and Effectively

(2) Operational Risk – Identifying/Measuring/Monitoring

Facilitators: Paul P. Delbridge, Partner on Secondment, PricewaterhouseCoopers LLP

Robert Wolf, Joint Risk Management Section

After a refreshment break, the following concurrent sessions were held from 10:00 a.m. -11:30 a.m.:

#### Avoiding Litigation and Disciplinary Risk

Moderator/Panelist: Michael Toothman, Consultant, Actuarial & Risk Consulting Services

Panelist: Ronald Lepinskas, Partner, DLA Piper LLP

#### Auto Safety Advances: Will They Shrink the Auto Market?

Moderator/Panelist: Geoffrey Werner, Director, Towers Watson

Panelist: Kim Hazelbaker, Senior Vice President, Highway Loss Data Institute

# **Business Communication & Behavior Styles**

Moderator/Panelist: Kevin Helman, Senior Consultant, rogenSi, Inc.

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Panelists: Steven Kelner, Managing Director, Casualty, Swiss Re

David Spiegler, Executive Vice President & Chief Actuary, BMS Intermediaries, Inc.

Neal Schmidt, Executive Vice President & Chief Actuary, Platinum Administrative Services, Inc.

# How to Estimate Risk Margins under Solvency II and IFRS

Moderator: Paul P. Delbridge, Partner on Secondment, PricewaterhouseCoopers LLP

Panelists: Jessica Leong, Lead Casualty Specialty Actuary, Guy Carpenter & Co., LLC

Arthur Zaremba, Manager, PricewaterhouseCoopers LLP

## **Innovations in Vehicle Ratemaking**

Moderator: David Cummings, Vice President and Chief Actuary, ISO Innovative Analytics

Panelist: Glenn Hofmann, Vice President, TransUnion

## **Reports from Risk-Based Capital Working Parties**

Panelists: Allan Kaufman, Managing Director, FTI Consulting

Daniel Murphy, President, Trinostics, LLC

Christina Zhou, Partner, DAS Actuarial Services, LLC

#### **Roundtable Discussions II**

(3) Share Price Versus Tangible Book Value—What Can Insurers Do to Regain Lost Ground?

(4) Prophets of Emerging Risk/Systemic Risk

Facilitators: Joe Calandro, Managing Director, PricewaterhouseCoopers LLP

Robert Wolf, Joint Risk Management Section

After a lunch break, the following roundtable discussions were held from 12:00 p.m. - 1:15 p.m.:

#### **Roundtable Discussions III**

- (5) Distribution Strategy and the Facebook/Smart Phone Generation—How Can Insurers Fully Harness Social Media and the Latest Technology? [Delbridge]
- (6) Industry Consolidation—Is the Time Ripe for Another Round? [Mayer]
- (7) Case Study Exercise—Making a Strategic Decision in the Face of Risks and Rewards [Wolf]
- (8) Own Risk Solvency Assessment (ORSA) and You [Lowe]
- (9) Allocating Capital (or the Cost of Capital) to Strategic Business Units [Meyers]
- (10) Solvency II and a One-Year Reserve Horizon—What does this Mean? [Madigan]
- (11) ERM—Aligning Incentive Compensation with Desired Behavior in Risk-Reward Decision Making [Connell]

Facilitators: Paul P. Delbridge, Partner on Secondment, PricewaterhouseCoopers LLP

Jeffrey Mayer, Director, PricewaterhouseCoopers LLP Robert Wolf, Joint Risk Management Section Stephen Lowe, Managing Director, Towers Watson

Glenn Meyers, Retired

Kevin M. Madigan, Director, PricewaterhouseCoopers LLP Eugene Connell, Executive Vice President, Risk Lighthouse

After the roundtable discussion, the following general sessions were held from 1:15 p.m. -2.45 p.m.:

## CERA: The Opportunities and Challenges on Your Way to Becoming a Chief Risk Officer

Moderator: Wayne Fisher, Enterprise Risk Management Institute International

Panelists: Abbe Bensimon, Senior Consultant, Towers Watson

Michael Fusco, Chief Actuary, Argo Group

Michael E. Angelina, Chief Actuary & Chief Risk Officer, Endurance Specialty Holdings, Ltd.

## Determining the Impact of Climate Change on Insurance Risk and the Global Community

Moderator: Vijay Manghnani, Exposure & Analytics Officer, Chartis — Commercial Property

Panelists: Prof. Andrew J. Weaver, Lansdowne Professor, University of Victoria

Mike Kreidler, Insurance Commissioner, State of Washington

Tanya D. Havlicek, MSc Land Resources, Marsh

A buffet dinner was held from 6:00 p.m. to 9:00 p.m.

#### Wednesday, May 23, 2012

Registration was held from 7:00 a.m. to 11:45 a.m.

A continental breakfast was served from 7:00 a.m. to 9:00 a.m.

The following concurrent sessions were held from 8:00 a.m. - 9:30 a.m.:

## Complementing an Actuarial Review with a Claims Review

Moderator/Panelist: Justin Brenden, Manager, Ernst & Young LLP

Panelists: Jim Kremer, Claims Advisor, Ernst & Young LLP

Christine Lawson, Senior Claims Consultant, Willis Group

## Price Optimization vs. Actuarial Standards

Moderator: Jeffrey Kucera, Senior Consultant, Towers Watson

Panelists: Michael McPhail, Director-Auto Pricing, United Services Automobile Association

Mary D. Miller, Retired

Chester Szczepanski, Vice President & Chief Actuary, Donegal Insurance Group

# **Recent CATs and Their Effects on CAT Modeling**

Moderator: David Snow, Vice President, Swiss Reinsurance America Corporation

Panelists: Sean Devlin, Senior Vice President, Swiss Re

Julie A. Serakos, Executive Vice President, BMS Intermediaries

Bill Churney, Senior Vice President, AIR Worldwide

## **Reserving Documentation: Does Yours Make the Cut?**

Panelists: John Wade, Senior Consultant, Pinnacle Actuarial Resources, Inc.

Joseph Herbers, Managing Principal, Pinnacle Actuarial Resources, Inc.

#### The Revolution and Evolution of Predictive Modeling

Panelists: Claudine Modlin, Senior Consultant, Towers Watson

Steven Armstrong, Global Consumer Chief Actuarial Officer, Chartis Insurance

#### **Workers Compensation: Recent Research on Medical Costs**

Moderator/Panelist: Frank A. Schmid, Director and Senior Economist, NCCI, Inc.

Panelist: Brian Ingle, Executive Vice President, Willis Re

During this time the Variance Prize and ARIA Prize papers were presented:

#### Variance Paper and ARIA Prize Paper

"An Economic Approach to Capital Allocation" (ARIA Prize) By George Zanjani (Journal of Risk and Insurance 77:3, pp. 523-599)

# "Robustifying Reserving" By Dumaria R. Tampubolon and Gary G. Venter (Variance 4:2, 2010, pp. 136-154, http://goo.gl/90e0o)

Speakers: George Zanjani, AAMGA Distinguished Chair in Risk Management and Insurance Associate Professor,

Georgia State University

Dumaria R. Tampubolon, Lecturer, Bandung Institute of Technology

Gary G. Venter, Head of Capital Modeling, Chartis Insurance

After a refreshment break, the following general session was held from 10:00 a.m. - 11:30 a.m.:

# The Future of the Profession

Moderator: Alice Underwood, Executive Vice President, Willis Re

Panelists: Steven Armstrong, Global Consumer Chief Actuarial Officer, Chartis Insurance

Mark Vonnahme, Clinical Professor of Finance, University of Illinois at Urbana Champaign

After the general session, Ms. Teufel encouraged all attendees to complete the online meeting evaluation form and announced upcoming meetings before he adjourned the meeting.

# 2012 CAS Spring Meeting Attendees

The 2012 CAS Spring Meeting was attended by 368 Fellows, 161 Associates, and three Affliates. The names of the Fellows, Associates, and Affliates are as follows:

## FELLOWS

FELLOWS					
Jason R. Abrams	William Brent Carr	Katherine Ann Eenigenburg	Scott E. Henck		
Barbara J. Addie	Laura M. Carstensen	David M. Elkins	Michael A. Henk		
Stephanie J. Albrinck	Bethany L. Cass	Michael Epstein	Dennis R. Henry		
Gregory N. Alff	Sanders B. Cathcart	Benedict M. Escoto	Andrew S. Herman		
Ethan D. Allen	Thomas L. Cawley	Juan Espadas	Wade R. Hess		
Sheen X. Allen	Derek P. Cedar	Dianne L. Estrada	Mark D. Heyne		
John P. Alltop	Francis D. Cerasoli	Benjamin Carl Ferguson	Gordon Hamilton Hines		
Brian C. Alvin	Flora Po Lam Chan	Kenneth D. Fikes	David J. Horn, Jr.		
Steven D. Armstrong	Carl Chang	Wayne H. Fisher	Mary T. Hosford		
Carl Xavier Ashenbrenner	Chung Man Ching	Beth E. Fitzgerald	Linda M. Howell		
Martha E. Ashman	Thomas J. Chisholm	Josie L. Fix	Long-Fong Hsu		
Peter Attanasio	Alan M. Chow	Chauncey Edwin Fleetwood	Dennis Dar You Huang		
Guy A. Avagliano	James K. Christie	James E. Fletcher	Brian L. Ingle		
John L. Baldan	Gregory J. Ciezadlo	Daniel J. Flick	Molly Catherine Ingoldsby		
Phillip W. Banet	Devyn K. Clifford	John R. Forney, Jr.	Brian M. Ironside		
Shane Eric Barnes	Michael A. Coca	Dennis A. Franciskovich	David Itzkowitz		
Irene K. Bass	J. Paul Cochran	Barry A. Franklin	David R. Iverson		
Patrick Beaudoin	Etienne Collard-Proulx	Kay L. Frerk	Stephen Jameson		
Gregory S. Beaulieu	Karen M. Commons	Michael Fusco	Brett D. Jaros		
Nicolas Beaupre	Robert F. Conger	Scott F. Galiardo	Xiang Ji		
David M. Bellusci	Eugene C. Connell	Chad J. Gambone	Thomas S. Johnston		
William H. Belvin	Ann M. Conway	Anne M. Garside	Brian A. Jones		
Guillaume Benoit	Vincent Coulombe	Nina Vladimirovna Gau	Jeffrey R. Jordan		
Abbe Sohne Bensimon	Benjamin E. Crabtree	Kristen Gervais-Andrade	Gary R. Josephson		
Sebastien Bernard	Ryan J. Crawford	John A. Gibson	Jack J. Joyce		
David Matthew Biewer	Alan M. Crowe	Brian P. Gill	Hyeji Kang		
Jennifer L. Blackmore	Jeanne E. Crowell	Isabelle Girard	Allan M. Kaufman		
Ralph S. Blanchard	David Cummings	John T. Gleba	Steven A. Kelner		
Michael J. Bluzer	David J. Curtis	Richard S. Goldfarb	Alena Kharkavets		
Jean-Francois Bolduc	Kenneth S. Dailey	Annette J. Goodreau	C.K. Stan Khury		
Steven W. Book	James E. Davidson	Philippe Gosselin	Rodney Christopher Kleve		
Alissa Joy Bowen	Chad Alan Davis	Eric F. Gottheim	Wen Kong		
Ghislain Brault-Joubert	Willie L. Davis, Jr.	Loic Grandchamp-Desraux	Richard Scott Krivo		
Adam E. Bremberger	Curtis Gary Dean	Todd N. Gunnell	John R. Kryczka		
Justin J. Brenden	Sean R. Devlin	Jonathan M. Guy	Jeffrey L. Kucera		
Karen E. Brinster	Hussain Z. Dhalla	Nasser Hadidi	Darjen D. Kuo		
Linda K. Brobeck	Denise Susan Di Renzo	Robert C. Hallstrom	Gregory E. Kushnir		
Jess B. Broussard	Behram M. Dinshaw	George M. Hansen	Steven P. Lafser		
James E. Buck	John L. Doellman	Ryan D. Hartman	R. Michael Lamb		
Gary S. Bujaucius	Hua Dong	David G. Hartman	Dean K. Lamb		
Claude B. Bunick	Brian M. Donlan	Eric Christian Hassel	Dennis L. Lange		
Scott G. Burke	Maja Dos Santos	Robin A. Haworth	Henry T. Lee		
Elliot R. Burn	Emilie Rovito Dubois	Roger M. Hayne	Louise Legg		
Cui Liu Cai	Darci Rae Earhart	Noel M. Hehr	Steven G. Lehmann		
Ryan V. Capponi	Mark B. East	Christopher Ross Heim	Weng Kah Leong		

	ASSO	CIATES	
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Thomas G. Myers	Surender S. Sekhon	Trent R. Vaughn	
James C. Murphy, Jr.	Ernest C. Segal	Justin M. VanOpdorp	
Daniel M. Murphy	Terry Michael Seckel	Oakley E. Van Slyke	Lito Biochevory
Roosevelt C. Mosley	Annmarie Schuster	John V. Van de Water	Eric Zlochevsky
Rodney S. Morris	Neal J. Schmidt Parr T. Schoolman	Tracy Leslie Valentine Marie-Pierre Valiquette	Kun Zhang John D. Zicarelli
Claudine H. Modlin Anne Hoban Moore	Eric L. Savage	Eric Vaith	Gene Zhang
Mary Frances Miller	Anita A. Sathe	Alice M. Underwood	Ruth Zea
Mary D. Miller	Julia Methling Ryan	Adam B. Tyner	Arthur J. Zaremba
Glenn G. Meyers	David L. Ruhm	Turgay F. Turnacioglu	Julieta A. Zambrano
Daniel John Messner	Sean A. Ruegg	Denny Tei Tuan	Vincent F. Yezzi
James R. Merz	Mark A. Ruegg	Alice H. Tsai	Andrew Yershov
Stephen V. Merkey	Nadiya Rudomino	Matthew D. Trone	Grace Huey-wen Yang
David L. Menning	Michael R. Rozema	Christopher J. Townsend	Yulai Yang
Michael Brandon McPhail	Lydia Roy		
	Jean Roy	Charles F. Toney Michael L. Toothman	Joanne Yammine Bo Yan
Stephane J. McGee Renée Marie McGovern	•	Lijia Tian Charles F. Toney	Jianlu Xu
•	James B. Rowland	*	Lin Xing Jianlu Yu
Paul H. Mayfield	Delia E. Roberts	Gordon C. Thompson	
Jeffrey H. Mayer	Michael J. Reynolds	Daria Lynn Thomas	Mican G. wooistennuime Xingzhi Wu
Stephen P. Marsden Jerrel H. Mast	Natalie J. Rekittke Sylvain Renaud	Patricia A. Teulei Dan Omer Tevet	Micah G. Woolstenhulme
	Donald K. Rainey	Luc Tanguay Patricia A. Teufel	Chunpong Woo Jeffrey F. Woodcock
Leslie R. Marlo	<u> </u>		Simon Kai-Yip Wong
Donald F. Mango	Roufat Raguimov	Christopher Tait	9
Vijay Manghnani	William Dwayne Rader, Jr.	Chester John Szczepanski	Annie On Yee Wong
Lynn C. Malloney	Vincent Quirion	John A. Swift	Brandon L. Wolf
John T. Maher	Kenneth Quintilian	Brian Tohru Suzuki	Robert F. Wolf
Eric A. Madia	Virginia R. Prevosto	Laura Lucy Sutter	Dean M. Winters
Emily A. Lyons	Derek Paul Pouliot	Zongli Sun	John Spencer Wideman
Benjamin James Lynch	Jean-Philippe Plante	Liqin L. Sun	Mark Whitman
James P. Lynch	Michael Petrocik	Kelly Aline Sullivan	Steven B. White
Amanda Cole Lubking	Julia L. Perrine	Heidi Joy Sullivan	Patrick L. Whatley
Stephen P. Lowe	Jaya Perrier	Sebastien St-Louis	Anna Marie Wetterhus
Achraf Louitri	Nadia Pelletier	Julia Causbie Stenberg	Matthew Westenberg
Kwan Ying (Eunice) Loi	Michael Thomas Patterson	Katherine Stelzner	Geoffrey Todd Werner
Fengru Liu Xianfang Liu	Felix Patry	Jared Wallace Steinke	L. Nicholas Weltmann, Jr.
Xiaoyun Ling	Andrea C. Parker	Samantha Elizabeth Steiner	Thomas E. Weist
	Sergei A. Panafidin Pierre Parenteau	Tracey Ellen Steger	James R. Weiss
Lian-Ching Lim Orin M. Linden	v 1	David Spiegler Grant D. Steer	Guixiang Wang Kevin E. Weathers
	Joseph M. Palmer	Joanne S. Spalla	Shaun S. Wang
Elise C. Liebers Herman Lim	Grant C. Owens Timothy A. Paddock	Jared G. Smollik	Morgan M. Wang
Yun Li	Randall William Oja	Kirsten M. Singer	Keith A. Walsh
Zhe Robin Li	Irina Viktorovna Odushkin	Dany Simard	Michael G. Wacek
Xuan Li	Jill E. O'Dell	Richard E. Sherman	Ryan Nolan Voge
Richard Brian Levy	Jennifer Lee Niles	Michael Shane	Steven M. Visner
Kenneth A. Levine	Minh-Huyen Nguyen	Vladimir Shander	Michael Thomas Villano
Justin M. Levine	Hiep T. Nguyen	Larry J. Seymour	Daniel Viau
George M. Levine	Aaron West Newhoff	Kaushika Sengupta	Gary G. Venter
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Tisha Abigail Abastillas	Matthew Robert Belter	Kenrick A. Campbell	Mark R. Doucette
Karen H. Adams	Whitney A. Billerman	Alan R. Clark	Christine A. Doyle
Sajjad Ahmad	Laura Michelle Bonja	Joel D. Clark	John Anthony Duffy
Nancy S. Allen	Ayla Brice Shaner Boyd	Matthew Charles Coatney	Ryan D. Dunkel
Neal James Anderson	Zachary T. Brogadir	Robyn K. Coffman	James C. Epstein
Michael E. Angelina	Christopher G. Brunetti	Ryan Michael Conrad	David Daniel Evans
Colleen Patricia Arbogast	Randall T. Buda	Andrew Wells Dalton	Gregg Evans
Paul C. Barone	Lisa K. Buege	Krikor Derderian	Jayson C. Farrell
Adam Bates	Ryan A. Byrd	Kevin George Donovan	Jeffrey R. Fleischer

# Minutes of the 2012 Spring Meeting

Alicia Marie Gasparovic Heidi Kathryn Givens Ryan David Givens Mark M. Goldburd Meghan Sims Goldfarb Allen Jay Gould John W. Gradwell Paul M. Grammens Jesse Yehuda Groman Kathy Gu Manuel S. Guerra, Jr. Nicole A. Hackett Jeremy Huston Harlow Tanya D. Havlicek Jason B. Heissler Gregory L. Helser Sara J. Hemmingson Rachel C. Hemphill Chad Alan Henemyer Paul D. Henning Rachel Henry Joseph A. Herbers Peter P. Huang Matthew M. Iseler Karen Lerner Jiron Brian E. Johnson Karen Jordan Sayali Jayant Joshi Cheryl R. Kellogg John B. Kelly Gareth L. Kennedy Martin T. King

Paul E. Kinson Sandra F. Kipust James Andrew Kirtland Steve C. Klingemann Richard Kollmar Kak Lau Julie Laverdiere Damon T. Lay Charles R. Lenz Elchanan Y. Levy Philip Lew Melody Ko Lin Nathan Lester Luketin David J. Macesic Kevin M. Madigan Paul J. Majchrowski Tamara Lynn Manges Richard J. Manship Albert Maroun Kevin S. McBeth Joseph Scott Merkord Albert-Michael Micozzi Raoul Jacob Milgraum Tara Lynne Miller Elena D. Mohler Marc Michael Molik Michael W. Morro Michael James Moss Nerissa S. Nandram Nongkoh Dvukah Ndefru Kwok C. Ng Wade H. Oshiro

Tetteh Otuteve Katherine D. Porter Jennifer E. Prosser William Joseph Prucknic Richard B. Puchalski William Steve Randolph Ravi Ranjan Mary E. Reading Karin M. Rhoads David A. Royce Eric Ruppert Julie Clarisse Russell Zachary K. Rutledge Marion K. Sajewich Frederic F. Schnapp Lawrence M. Schober Dawn M. Schulze Andrew James Scott David J. Sheridan Ben Silberstein Helen A. Sirois Charles Leo Sizer Donald P. Skrodenis David C. Snow Trevor Jon Soupir Shane Taylor Steele Michael Daniel Stephens Joseph John Stierman Jayme Peter Stubitz Gary A. Sudbeck Robert C. Swiatek Samuel Tashima

Craig P. Taylor Joseph P. Theisen Hemanth Kumar Thota Allison C. Tiller Kristen Leigh Tolman Melissa Tomita Frederick A. Urschel Katherine Anne Vacura John J. Varca Ryan Vigus Benjamin James Villnow Melissa Anne Elke Villnow Sarah M. Voit John E. Wade Monty James Washburn Robert A. Weber Matthew M. White Sylvia Sze Wai Wong Michael Scott Woods James Tyler Word Rick A. Workman Yan Yan Robert S. Yenke George H. Zanjani Jin Zhu Zhang Chao Zheng Christina Tieyan Zhou Thomas Anthony Ziniti Rita M. Zona

## **AFFILIATE**

Mark R. Atkinson Simon J. Day Bhavini V. Kamarshi

# EXECUTIVE DIRECTOR ADDRESS

# Cynthia Ziegler, Executive Director

As Executive Director, I have a unique perspective on CAS activities and I appreciate the opportunity to share my perspectives with Annual Meeting attendees.

I'll start with a broad overview of important metrics for our organization and then highlight some of the key accomplishments from the past 12 months.

## **A Growing Society**

Table 1

	November 2002	November 2012
Fellows	2,354	4,015
Associates	1,333	1,614
Affiliates	23	21
Total	3,710	5,650

For a professional society, an important metric is membership growth, and the numbers here indicate that we continue to be a growing Society. The total membership growth in the 10 year time frame in Table 1 is 52%. The growth from November 2011 to November 2012 was 3.3%.

Beyond membership, there are many other useful metrics that help illustrate the health of an association, and the CAS staff provides an annual report to the Board of Directors called Vital Stats.

We just completed this year's report for the Board meeting held yesterday, and I can confirm that the CAS is experiencing growth in all areas and functions of the Society, such as revenue, volunteers, meeting and seminar attendees, website hits, and social media connections.

#### **A Global Society**

Table 2

2012 Geographic Distribution			
United States	4,814	Hong Kong	31
Canada	469	Switzerland	33
Bermuda	113	Singapore	16
United Kingdom	48	Australia	12
China	42	Other	72

Not only are we growing in numbers, but we are growing in the geographic distribution of our members.

The CAS membership continues to be concentrated in the United States and Canada. However, it may surprise you to see the number of our members who are located in areas outside of North America. The need to maintain a global perspective is ever increasing as our membership expands internationally.

One way that we can better serve our members around the world is through the use of technology, and a few of our accomplishments from the past year have helped position CAS as a tech-savvy association.

Figure 1



The first is the redesign of the CAS Web Site (Figure 1).

This project is a great example of the staff and volunteer partnership that makes working for the CAS so rewarding.

The staff marketing and communications department collaborated with the Committee on Online Services to develop and launch the redesigned CAS website. Staff members brought expertise in Web development as well as knowledge of the trends in association websites. Volunteer committee members provided the user perspective.

Feedback has been positive since the new website launched over the summer. One of my favorite comments is from a member who wrote:

I just wanted to drop a note to let you know how clean and beautiful this new website is. I'm really enjoying the organized choices and great graphics. Thank you for giving us CAS members something to be proud of!

Meeting Apps Figure 2

The App for CAS meetings and seminars (Figure 2) is another tech-related accomplishment that has received high praise from members. Driven primarily by the staff, the CAS offered an event meeting app for the first time at the 2012 Spring Meeting, and you heard about all the great features earlier from Chet Szczepanski, the CAS Vice President-Professional Education.

What he didn't mention is that at the Spring Meeting, there were 444 unique visitors to the app. With 608 attendees in Phoenix, almost three-fourths of the attendees accessed the app. According to our app vendor, these are extraordinary numbers, and I hope we see even higher usage of the Annual Meeting app—go ahead and download it now if you haven't already.

We plan to offer this new service for attendees for all five major CAS events in 2013.

## **CAS Research Update**

Usually the Vice President of Research and Development gives a short update on CAS research activities during the Business Session, but, unfortunately, Alice Underwood could not be at this meeting. So I'll share a few highlights on CAS research.

The CAS continues to promote practical research and some of the projects underway or completed over the past year include the following:

- Determining the Impact of Climate Change on Insurance Risk and the Global Community, Phase 1: Key Climate Indicators.
- Development of a Network Model for Identification and Regulation of Systemic Risk in the Financial System
- Risk Premium Project II
- Application of Property-Casualty Actuarial Methodologies to Credit Risk: Development of a Theory and Model
- Development of Credit Risk Resources Compendium
- Understanding Contingent Capital

The most recently completed project is the report on climate change, which was jointly sponsored by the CAS, CIA, SOA and the Academy, and was driven by the CAS Climate Change Committee. The report is Phase 1 of a multi-phase project, so there will be more to come from the CAS on that topic.

## **Admissions Highlights**

CAS Admissions highlights include the following:

- Continuing implementation of Higher Level Testing based on Bloom's Taxonomy.
- Offering Exams 5 and 6 twice a year, beginning in 2013 and 2014 respectively.
- Devising and implementing Hurricane Sandy Contingency Plan.

On the Admissions front, we continue to support the most robust and comprehensive framework for training casualty actuaries in the world.

The CAS has initiated a number of changes in the past year that will help our program maintain its edge and clear differentiation in preparing casualty actuaries to fulfill the needs of employers.

For example, the staff is working with the Admissions Committees to implement higher level testing and to begin offering our upper level exams twice per year. These are no small tasks, and I am proud of the Admissions Department and the work they have done under trying circumstances this past year.

And no situation was more demanding for our Admissions Department and proctors than the complications caused by Hurricane Sandy, which affected test centers up and down the Atlantic coast. While our entire region was shut down when the storm came through D.C., CAS staffers Tom Downey, Bob Craver, and Ashley Zamperini all came into the office to coordinate the CAS response to the storm so we could get information out to proctors and candidates in a timely manner.

Tom spent the night at the CAS office on an air mattress because he couldn't get home safely when the weather turned for the worse in Virginia. I know this doesn't come close to comparing to the hardships still being endured in New Jersey and New York, and is of no consolation to the candidates who were scheduled to sit for the exam in affected sites, but I want you to know how committed our staff is to serving you.

It was with very real regret that I received Tom's resignation about a month ago. Tom's last day at the CAS office is December 14. After 16 years with the CAS, Tom is leaving and moving to New York City. Although he's not here today, please join me in recognizing Tom and his contributions to the CAS.

## Goals for 2012-13

Looking to next year, we have many challenges ahead, and we have established a set of office goals designed to continue to enhance the level of service provided to members and candidates. I've highlighted just a few of our goals as follows:

- Improve communications regarding CAS basic education with candidates and academics.
- Introduce a new robust online CAS community to facilitate communications and connections among members, candidates, and volunteers.
- Launch new bi-monthly Actuarial Review magazine.
- Implement the recommendations of the Task Force on University Engagement.
- Launch the Centennial Celebration year in conjunction with the 2013 Annual Meeting.



In addition to the changes to basic education I just discussed, we want to make sure we are adequately communicating those changes to candidates and academics.

Tech-wise, we continue to implement best practices in association with our online services and are working with the Committee on Online Services to develop an internal CAS social network, to enable better connections among members and candidates.

We are rolling out a new Actuarial Review in 2013 that will be produced every other month instead of quarterly.

We are working with the Task Force on University Engagement, which is focused on creating better connections with academics and college students, and there are a number of initiatives being considered for implementation to meet that goal.

And next year at this meeting, we will be launching a number of activities to kick-off our year-long Centennial Celebration, culminating with the Centennial Meeting in 2014 in New York City.

In closing, I want to again thank Pat for the opportunity to speak here today. But I also want to thank her for a wonderful presidential year on behalf of all 27 staff. It has been a real pleasure working with Pat and the entire CAS leadership team over the past year.

Thank you!

# Part II: Annual Meeting 2012 November 11, 12, 13, 14, 2012 Walt Disney World Dolphin/Swan Hotel, Lake Buena Vista, FL

# ADDRESS TO NEW MEMBERS—NOVEMBER 11, 2012

# Ralph S. Blanchard

#### The Human Element

Thank you, Pat.

Now first, to all the new Fellows in front of me, Congratulations! You have demonstrated a mastery of key elements of actuarial science. You have attained one of the most valued actuarial credentials in the world, the FCAS. And to all the new Associates, Congratulations to you too, welcome to the CAS, and hopefully you will continue on to obtain the valued FCAS credential.

All of you have shown excellence in the analysis of numerical data. But (and there is always a "but" in the real world) further advancement most likely requires the development of a new analytical skill - the analysis of people, the human element.

Your training to-date has focused on the ability to analyze numbers. You have become familiar with the use of spreadsheets, GLMs, distributions, data files, and (perhaps) financial reports. This familiarity will help you and your clients and employers make decisions, but these items do not make the decisions themselves. We (and others in management) are not mere puppets under the control of our models. The models and analyses we use and develop are only tools; tools that aid those who do make the decisions and, hopefully, help them make intelligent decisions. The real decision makers are people. You know, those things made of flesh and blood.

Now if you decide you don't want to, you really don't have to worry about the human element. There are some actuaries that spend much of their careers in the backroom, surrounded by numbers and numerical analyses. You may even be well paid in such endeavors. But how much influence will you have on the business you work in, or on the profession, if you restrict your endeavors in such a way? How much of a footprint will you leave? Will people even be able to tell that you were there, after you leave a job position, a department, a company?

If you decide you want to leave noticeable footprints, to materially influence the areas you work in, then you will have to develop skills beyond the numerical analysis skills you've demonstrated mastery of. You will have to develop the ability to analyze and thereby influence people.

How might you do this? I offer a few humble suggestions.

First, observe people. Observe people with the same focus and analysis skills that you previously displayed in dealing with models, methods, distributions, and the like. Study what makes them act, what made them decide what direction to take, which side to take in a dispute. You will probably discover that not everyone thinks like an actuary. Surprise, surprise. Some people even make decisions more on emotion than fact. In the process of observing others, you will also probably learn more about yourself.

Second, in your observations be aware of the importance of culture. Culture matters, a lot. And it matters more and more, the more diversified and global our society becomes. What you may first think is a different behavior pattern in someone may instead be the sign of a different culture. Different cultures have different value systems that lead to different decisions. As long as you respect these differences and don't merely tolerate them, you will be more successful in influencing others. Get to know these other cultures and their value systems, and it will give you a good foundation in your attempt to understand others.

And don't assume that a common language means a common culture. Remember the quote about Britian and the U.S. being two countries separated by a common language? Well, the same holds true for Canada, Australia, and other parts of the world. Many attempts to come to agreement are doomed due to failures to understand culture.

Third, broaden your experiences. As your careers advance you will probably increase your interaction with those outside the familiar actuarial world. These new folks may include underwriters, claims adjusters, accountants, lawyers, financial examiners, etc. As you move up the chain of command this list may also include CFOs, CEOs, politicians, consumer activists, many of whom may even ask you a question very familiar to many of us—"I hear you're an actuary. So ... what exactly is an actuary?"

Don't wait until your business assignments expose you to these different strains of Homo sapiens, many of whom find what we do to be magical and mysterious. Instead, go out and broaden your world outside of business. Join clubs, associations, intramural teams. Meet and get to know your neighbors (especially those of you who are new Fellows, now that you have all this free time on your hands with no more exams to take). Take advantage of opportunities to interact with different kinds of people. And observe while you're at it. (Think about what makes these different kinds of people tick. What makes them happy? What makes them decide to act or not act, to say yes or no to a new idea.)

I've personally found that those of us that become intimately involved with non-actuarial pursuits, whether it is a condo association, running club, or some other hobby or interest, have a leg up on those that always associate with actuaries with regard to interpersonal skills and influence. Actuaries that have broadened their experiences have witnessed different ways of thinking and acting, and hence may have a better idea of how to influence non-actuaries in various settings.

Fourth, volunteer for meaningful leadership roles in these non-actuarial pursuits. You are all intelligent people, go out and share your skills. There may be no greater opportunity to practice or hone your leadership skills at a relatively early age and in (hopefully) a relatively low-risk manner. The resulting skills you learn really do transfer over to the business world.

One caution here — many young actuaries have a natural tendency towards abrupt and abrasive leadership styles. Maybe this is due to the mathematics training we've all had. After all, the vast majority of you majored in a science where there was usually a clear right or wrong answer to the problem at hand. But most real-world problems don't have a clear right or wrong answer, especially in non-actuarial pursuits. Furthermore, people don't like to be dictated to. Try instead to apply a softer touch in your leadership roles. It will serve you better in your career.

Fifth, take risks. In stretching out your boundaries and skill sets, be proactive, but remember to take *calculated* risks. How do I now if I'm taking too much of a risk? One approach is to never do something you would be uncomfortable talking about on the witness stand. But don't be so cautious that you become just another actuarial wallflower in any non-actuarial setting. No one ever develops without going beyond their normal comfort zone at times.

And finally, when expanding your skill set beyond the realm of numbers, always be yourself. We all have our own styles, our own strengths and weaknesses. It helps to know your own strengths and weaknesses when practicing the art of influence. For example, I have never been very effective in influencing those who decide things based on emotions rather than facts. As a result, I don't think I would be a very successful politician.

So in summary:

- Observe people.
- 2. Learn about culture.
- 3. Broaden your experiences into non-actuarial areas.
- 4. Volunteer to lead in those new areas.
- 5. Take (calculated) risks
- 6. But always be yourself.

Now for one final bit of wisdom. As you continue on in your successful careers, as your hair turns from a youthful shade to gray or white, just remember the immortal words first uttered by Chuck Bryan over 20 years ago in his presidential address: "Old actuaries don't die, they just develop to ultimate."

Thank you for your attention, and I wish you all the best in your future endeavors as members of the CAS.

<sup>&</sup>lt;sup>1</sup>Charles Bryan presidential address, November 11, 1991, http://www.casact.org/pubs/proceed/proceed/91/91218.pdf

# PRESIDENTIAL ADDRESS—NOVEMBER 12, 2012

#### **Pat Teufel**

Wow! What a year this has been! Globally, domestically, and professionally

A sluggish, stagnant, global economy. Civil unrest throughout the world's emerging nations. Europe on the verge of bankruptcy.

In the U.S., an escalating debt crisis. A very divided Congress, paralyzed by its differences. A presidential campaign characterized by vicious personal attacks and non-stop rhetoric that finally, thank goodness, has ended. I feel for those of you who live in swing states like Ohio and Virginia, and had to endure the constant barrage of emails, telephone calls, and in-person visits from candidate staffers as the final days of the campaign approached!

Professionally, the "invitation" of the SOA to consolidate. That news came on October 17, as I was preparing to begin my presidential year. Then, the 20-year record low passing rates for CAS exams in fall 2011. The SOA's announcement that it would offer a general insurance fellowship credential beginning in 2013. The decision of the SOA Board to withdraw from the Joint Preliminary Actuarial Exams Agreement, effective December 31, 2013. And then, as if we hadn't had enough, a natural disaster, Hurricane Sandy, hitting the New York/New Jersey metropolitan area with a vengeance within days of this year's CAS exams.

I must admit, there were days when I wondered why I was so lucky. Did the SOA see me coming and say, "This is our year!" Were these events somehow punishment for past sins? More personally, would the demise of the CAS as we know it be my legacy. I hoped not.

I had been entrusted by the membership to lead the organization—and lead I must. I took comfort in knowing that I didn't need to do it alone. I prayed a lot. I regularly sought counsel of the CAS Board and Executive Council, a wonderful and talented CAS staff—and you, our members—on possible courses of action. I thank you for being there. And then, as all leaders must, I made the best decisions that I could. Decisions that I hope will be good for the Society. Decisions that I hope will be good for each of you, our members.

I find solace in knowing that the developments of the year have served as a catalyst for obviating one of my concerns for our Society: That the CAS and its members had become complacent in its success. That, as an organization, we suffered from "analysis paralysis" and had become too slow to act. That, as members, we were comfortable with "the way things are" and lacked the daring to experiment, innovate, and reach beyond our comfort zone. Funny how a new and aggressive competitor can change the landscape!

The challenges of the years ahead are indeed daunting. It would be easy to conclude, "that's just too hard". And yet, I would encourage us to look beyond the challenges to the possibilities for the future.

I take heart in this proverb:

In the darkest hour, the soul is replenished and given strength to continue and endure.

I believe, as Hilary Clinton suggests, that "it is often when night looks darkest, it is often before the fever breaks that one senses the gathering momentum for change, when one feels that resurrection of hope in the midst of despair and apathy".

Rather than focus on our current challenges, I believe that the real opportunity stems from focusing on our vision for the future. As we anticipate celebrating our 100th birthday, what is our vision for the CAS at 200 years old?

Permit me to share my hope for the CAS in 2114.

At 200 years old, there will be no need to discuss whether the CAS is a North American organization that happens to have members in other locations or a global organization. CAS membership will be recognized globally for the value that it brings to casualty and risk management professionals. Actuaries likely will receive their basic training locally, through IAA full member organizations; the CAS will be only one of many ways for actuaries to demonstrate the threshold actuarial skills for qualified actuaries. But many of those who work in the general insurance arena will seek the "advanced education" offered by the Casualty Actuarial Society—an education that prepares actuaries to apply standard actuarial methods to solve complex business problems. They will see the vast array of continuing education opportunities that enable casualty actuaries to continue to expand the application of their skills as a key value of membership. Some casualty actuaries will choose to expand their basic education by completing the robust and comprehensive basic education offered by the CAS; still others will choose to affiliate with the CAS so that they have full access to the intellectual property and networking opportunities that the CAS offers.

The CAS will have strengthened its long history of collaboration with other actuarial organizations. We will have helped emerging nations to build credible casualty curricula, and we will have worked collaboratively with all actuarial organizations to advance casualty actuarial practice.

The CAS will have advanced research and innovation in casualty actuarial science and related topics. We will have worked and be continuing to work with actuaries and other professions to advance casualty actuarial science.

The skills honed in casualty actuarial training will be widely recognized and valued for the insights that they bring to all aspects of casualty insurance. Our members will be engaged in technical as well as senior management roles, for traditional pricing and reserving roles, but also in enterprise risk management, in underwriting and claims analytics and even in distribution and marketing management. Recognition of the skills that casualty actuaries bring in solving business problems will not stop at insurance companies: casualty actuaries will be employed in the broader financial services arena, with utility companies, and mining operations, in designing and evaluating the effectiveness of differentiated learning

strategies for education, in aligning company marketing initiatives to customer profile demographics for all businesses, in optimizing inventory management strategies. Who knows, maybe we will be predicting election returns?

Perhaps the CAS will also recognize the similarities of the risks evaluated today by health actuaries and will have invited them to join our community. Even today, a number of health actuaries attend the CAS Ratemaking Seminar and applaud it as the best resource for learning about and applying innovative techniques to their business. And at this Annual Meeting, there is a session that discusses how to reform health insurance using casualty principles. This is but one example of the opportunities that exist when we learn from each other!

Your vision of the future may be different than the one that I have articulated. Whatever your views, I encourage you to engage in the dialogue. What do we as CAS members want the CAS to be when it grows up? How do we want to build on the CAS 98 year legacy to build a rich and energized future? The script is ours to write.

As we consider the future, what principles might guide our future direction?

## Principle #1: Be Bold. Be Daring. Be a Maverick.

Since our inception, the CAS has been a group of mavericks. Mavericks who rejected the status quo and then articulated a new and better path. In 1914, a group of insurance and statistical professionals working in a newly emerging field of workers compensation rejected the conclusion of the actuarial establishment that casualty work wasn't "real" actuarial work. They had the foresight to buck the establishment. They recognized opportunity when they saw it and they dared to stick their necks out.

Ruth Salzmann, the CAS president who signed my Fellowship diploma, saw the need for a systematic way of reporting reserve development and designed what we today know as Schedule P. Around the world, Schedule P (or its equivalent) is recognized as the gold standard for transparency in financial reporting. Where would we be in the U.S. if Ruth Salzmann hadn't advocated, first to her company management and then to the regulatory community, for this scorecard on reserves?

Today, we recognize opportunities in casualty actuarial science as the most significant for actuaries worldwide. While other disciplines have matured, casualty actuarial science continues to grow and expand. The skills that are honed in applying actuarial methods to casualty situations underscore the "art" of our business, and the opportunities for further expansion.

A maverick spirit is an important part of who we are as casualty actuaries. Let's never lose that anti-establishment spirit that challenges us to always reach higher!

## Principle #2: Ethics Can't be Compromised.

As actuaries, our first responsibility needs to be to the public and to the profession. The self-regulation of our profession carries with it enormous responsibility: it is our responsibility to identify shoddy actuarial work and to demand better. The Code of Professional Conduct requires us, where we have significant issues with the work of another actuary, to attempt to resolve our differences. And, except where disclosure would violate the law or divulge confidential information, we are further required to disclose apparent unresolved violations of the Code to the appropriate counseling and discipline body of the profession, which for us is the Actuarial Board for Counseling and Discipline. I expect that many of us have observed substandard actuarial work—and I'd ask "what have you done with it?"

We have a responsibility to our principals, but sometimes that responsibility means that we need to deliver bad news. We must all have the backbone to call it as we see it, regardless of the consequences.

Bottom line, we need to be able to look ourselves in the mirror and say honestly that we have done the best that we could for the profession that has served us so well. We need to be guided by our personal ethical compass. We need to be true to ourselves.

## Principle #3: Don't be Afraid of "Messy."

Casualty actuarial science is messy, but so is life. Data underlying our analyses is never "clean." Much of our work involves understanding the limitations of the data and making adjustments for those limitations. Our models are imperfect and in constant need of refinement.

The one thing that can be said of our estimates is that they will most likely be wrong. And yet, we venture to make estimates. And our estimates continue to provide insight and direction. We provide a tremendous value to the public in ensuring that that insurance promises can be honored, that the risks that consumers have entrusted to our principals are adequately protected. We need not apologize for the uncertainty that is implicit in our estimates. But we need to do a better job of conveying the magnitude of that uncertainty.

## Principle #4: We are Stronger Together than the Sum of our Parts.

Actuaries play an important role in protecting the financial security of a global economy and in ensuring that promises made by insurance companies can be met. We play a significant role in evaluating the "fairness" of rates that are charged.

But we do not act alone. The actuarial perspective must be heard, but we also need to listen—to underwriters, claims and marketing professionals, to legal counsel, to human resources, and IT professionals. Decisions that incorporate the diverse views of multiple professionals are generally better for the organization.

Similarly, as actuaries, we need to learn from other disciplines. How do advances in chaos theory, behavioral science, and data mining apply to the issues that we are facing? Each of us would benefit from moving outside of our comfort zones and investigating how other professions are adapting and using emerging technologies and science. Make it your business to learn about something new—another function within your company, another industry, another profession—and invest the time to evaluate how it applies to the issues that your company may be facing.

In any number of surveys, when asked how actuaries create internal barriers to their effectiveness and advancement, CEOs cite that we are not

good team players. We approach any subject from the perspective that we know more than anyone else in the room on the subject—that we are THE experts. We're quite willing to share that knowledge, but in lecture mode rather than dialogue. Our arrogance can be quite limiting. Let's get beyond our self-confidence and recognize that others have lots to offer, if only we'd listen. Let's start listening.

In closing, I would like to acknowledge those who have walked with me this year, and made our achievements possible.

First, I'd like to thank all those who volunteer their time and effort to make the CAS the successful organization that it is. Over 30% of our members contribute to the ongoing operations of the CAS. This level of involvement of our members is the envy of professional organizations and attests to the commitment of our members to the success of our organization. These volunteer contributions are an integral part of the CAS culture. Without the dedicated efforts of our volunteers the CAS would not be able to offer the membership benefits that all of us have come to expect. Neither would we have the strong sense of community that it exists today.

I would especially like to acknowledge the contributions of your Executive Council. These individuals have been entrusted with the operational leadership for our organization. In addition to their day jobs, they have dedicated significantly—in blood, sweat and tears—to the success of the CAS. I am personally indebted to them for their contributions to the CAS, but I hope that all of you as members recognize their above and beyond contributions. Take the time at this meeting to thank them for a job well done. Believe me, they hear your complaints; they deserve to hear a little praise from you every now and then on what's going well.

I'd also like to acknowledge and thank the CAS staff. How fortunate we are to have such a talented and dedicated group of professionals working on our behalf! In particular, I'd like to recognize the contributions of our Executive Director Cynthia Ziegler. Cynthia works tirelessly on behalf of the CAS; she is "on" 24/7. She is the ultimate professional. We are very lucky to have her at the helm.

Lastly, I would like to thank my family, most especially my husband Tom and our daughters Sarah and Rachel. I'd ask them to join me now on stage.

I would not have been able to do what I have done over the span of my career or this year as your president, had it not been for the support and understanding of my family. This has truly been a team effort.

Tom is my best friend, my soul mate, and my life's partner. He is the anchor in my life, offering a shoulder to cry on during the rough times, a toast to celebrate the happy times, and sound counsel when the path was not clear. Tom was the primary caregiver for our children, Sarah and Rachel. He did an admirable job! We are both so proud of our children and the adults that they have become!

Every significant mishap in their childhood years occurred when I was in charge. Sarah fell off the changing table at age 1 and had no front tooth until second grade when her permanent tooth finally grew in. It could have been a lot worse. She broke her leg when learning to ride a tricycle, as I pushed even when her leg was caught within the spokes. Both children almost died of heat stroke when I left them in the car and ran into Blockbuster to pick up a movie. Thanks to Tom, they survived—and will even still talk to me.

I retired from KPMG at the end of 2010. These years were to have been the beginning of my retirement, a time when Tom and I could finally spend time together, traveling, playing golf, and enjoying each other's company. We were to have been unfettered by demands for travel and late night phone calls. Instead, Tom put up with a grueling travel schedule as I gallivanted to conferences in exotic locations on behalf of the CAS—and with several late night "emergency" phone calls.

From the bottom of my heart, I thank my family for their support and understanding. I'd ask you also to thank Tom, Sarah and Rachel for their contribution to making this year possible. Being your CAS president has indeed been a family affair!

Finally, I'd like to thank each of you for letting me serve as your President this year. It has been an honor and a privilege! When the legacy is written, I hope you think that I've done an OK job.

# MINUTES OF THE 2012 ANNUAL MEETING

### Sunday, November 11, 2012

The Casualty Actuarial Society Board of Directors met from 8:00 a.m. to 5:00 p.m.

Registration was held from 4:00 p.m. to 6:30 p.m.

From 5:00 p.m. to 6:30 p.m. a reception for new Associates and their guests was held. CAS President Pat Teufel spoke briefly to the new CAS Associates, who were recognized in a graduation ceremony.

A welcome reception for all members and their guests was held from 6:30 p.m. to 7:30 p.m.

## Monday, November 12, 2012

Registration continued from 7:00 a.m. to 5:00 p.m. with a continental breakfast served from 7:00 a.m. to 9:00 a.m.

In her opening remarks at 8:00 a.m., CAS President Pat Teufel welcomed everyone to Disney World and the 2012 Annual Meeting. Ms. Teufel also welcomed all who were watching in their homes or offices via the Webcast, and she extended a special welcome to the new Fellows, new Associates, and Chartered Enterprise Risk Analysts who were to be recognized at the meeting. She announced that the Annual Meeting program would start with the celebration and recognition of the new Fellows, Associates, and CERAs, after which CAS Past President Ralph Blanchard would give the address to new members. The CAS Business Session would be conducted during the luncheon.

The new Associates were welcomed as a group, as well as the new Fellows by Mutual Recognition. Their names follow.

#### New Associates

	THEW ALS	SOCIALES	
Diego Fernando Antonio	Cory Michael Fujimoto	Guillermo A. Letona	Anne Lindsay Rowand
Jeffrey David Baer	Philippe Gagne	Victor Yusen Li	Jared F. Rubinstein
David M. Baldwin	Timothy James Gaugler	Daphne Y. Lum	Anne Ruel
Brendan P. Barrett	Brandon D. Gilbert	Yaming Luo	Antoine Sasseville
Yvan Berthou	Michael Ryan Gittings	Jinbing Ma	Christopher Merlin Schumacher
Tyler John Birkel	Eric L. Greenberg	Steven Luther Martin	Eric K. Slavich
Eliezer Yosef Blum	Joshua Thomas Greene	Victoria Arias Mayen	Eric M. Sligay
Gavin David Brown-Jowett	Carl Roy Gullans Jr.	Gregory F. McNulty	Katrina E. Smith
Alex Carges	Sarah Y. Haberman	Eric Mercier	Leigh A. Soltis
Eric P. Chassie	Anthony Hovest	Kellen Christopher Miller	Bryan M. Stewart
Sa Chen	Mu-Chun Huang	Michael H. Miniaci	Laura Michelle Stromberg
Sarah Ashley Chevalier	Wei Q. Huang	Bashir Moallim	Adam N. Sturt
Emily Daters Cilek	Anand Khare	Frederic Potvin	Michael Brandon Synowicki
Ryan Crabtree	Brian Y. Ko	Daniel Lee Price	Huinian Wang
Paul Michael Eaton	Roy Kohl	Edward L. Pyle	Kimberly Ann Walker
Jonathan G. Eshelman	Apundeep Singh Lamba	Elizabeth M. Regan	Steven Joseph Walsh
Matthew B. Estes	Marc-Andre Lebeau	Yan Ren	Michael A. Wykes
Benjamin Ewbank	Julie Ann Lederer	Amber M. Rohde	Randall Boualay Xayachack
Kendra C. Forrest	Amy Rachele Lerch	Jason Lee Rohlfs	

## New Fellows by Mutual Recognition

David Payne, Fellow of the Institute and Faculty of Actuaries (U.K.)
Matthew Ball, Fellow of the Institute and Faculty of Actuaries (U.K.)
Thomas James Marshal, Fellow of the Institute and Faculty of Actuaries (U.K.)
Jimmy Molyneux, Fellow of the Institute of Actuaries in Australia
Jon Edward Poole, Fellow of the Institute and Faculty of Actuaries (U.K.)
Robert Spaul, Fellow of the Institute and Faculty of Actuaries (U.K.)

Ms. Teufel then announced the inaugural class of Chartered Enterprise Risk Analysts, or CERA. The CAS became an award signatory for the CERA designation in 2011. The purpose of the CERA credential is to promote actuaries in the field of ERM, and the credential identifies actuaries who meet stringent education requirements in ERM and are governed by a strong code of professional conduct. Six CAS Fellows completed the additional educational requirements for earning the CERA with the CAS, including successful completion of the three-day CAS Enterprise Risk Management and Modeling Seminar for CERA Qualification and achievement of a passing score for Exam ST9, Enterprise Risk Management Specialist Technical, given by the Institute and Faculty of Actuaries in the U.K. The names of the inaugural class of CERAs follow.

# CHARTERED ENTERPRISE RISK ANALYSTS

Avraham Adler, Guy Carpenter & Company David Patrick Moore, CNA Insurance Companies Vikas P. Shah, Baldwin & Lyons, Inc. Jared G. Smollik, Insurance Services Office, Inc. Bryan C. Ware, Employers Insurance Group Sandy Wu, Allied World Assurance Company The CAS Fellows were next recognized in a graduation ceremony. The names of the new Fellows follow.

#### **New Fellows**

Christopher Allard Yun Gao Xiaojiang Ma Peter F. Soulen John E. Amundsen John M. Gilbert Peter Anthony Magliaro Xiao-shu Su Yui Pui Martin Mak Leslie D. Svoboda Jessica Lynn Archuleta John Peter Glauber Sarah Jane Austin Margaret Hendrix Glenn Jonathan T. Marshall Timothy Delmar Sweetser Ling Bai David Govonlu Anthony M. Milano Mark Taber Jennifer Lynn Balester Amy Beth Green Josee Morin Chien-Ling Tai Lauren Barozie Hai Na Han Christian Kleven Myers Casey Ann Tozzi Kelly Ann Bellitti Diana Marie O'Brien Edward F. Tyrrell Ann Marie Helmann Subhayu Bose Adam Baron Hirsch Melanie Ostiguy Katherine Anne Vacura Paul Andrew Brezovec Chi Ho Terence Ho Brent J. Otto Karl Veilleux Kelli Ann Broin Ray Yau Kui Ho Minesh Kumar Patel Phillip Anthony Victory Gavin David Brown-Jowett Lauren Miranda Inglis Kishen Patel Pascal Vincent Michael Burnett Daniel Patrick Jaeger David Payne Huinian Wang Michael Rice Cenzer Matthew J. Jewczyn Hong Peng Jin Wang Amy M. Chang Megan S. Johnson Matthew D. Piser Zachary Samuel Webber Sean O. Cooper Abigail Ouimet Katuska Daniel James Plasterer Darren Russell Weidner Colleen A. Cornell Jeffrey Grant Kinsey Amanda P. Pogson Radost Roumenova Wenman Xiaoye Cui Uri A. Korn Justin N. Pursaga Marilyn Ashley Wilson Lucia De Carvalho Seth Jason Kurpiel Christina Picarro Reich Aaron A. Wright Rachel C. Dolsky Paul E. Kutter Adam Lee Rich Jiangtao Xiong Brent P. Donaldson Alvin Kwong Sean Thompson Ritson Yan (Peter) Yan Bo Dong Nicholas Joseph LaPenta Kelly A. Rothermel Liqing Yang Xiaoyu Dong Elizabeth Asher Sanders Joyce Lee Goh Jio Young Neal Ray Drasga Courtney L. Lehman Jonathan R. Sappington Nan Jenny Zhang Daniel A. Engell Phillip F. Schiavone Yan Zhang Hua Li John Daniel Fanning Henry Hang-Lei Lim Stephen Ray Segroves Bei Zhou Ryan P. Farrelly Melody Ko Lin Ionathon L. Silver Yifan Fu Steven C. Lin Jeremy C. Smith

At the conclusion of the ceremony, Ms. Teufel acknowledged the new Fellows' family members and others who supported them on their path to Fellowship.

Ralph Blanchard then gave the Address to New Members and the Opening Session concluded. After a brief refreshment break, the first General Session was held from 9:15 a.m. to 10:45 a.m.

#### Chief Risk Officer Roundtable

Moderator: Stephen Lowe, Managing Director, Towers Watson

Panelists: Barry Franklin, Chief Risk Officer, Zurich North America

Patricia Matson, Enterprise Risk Management, MassMutual Financial Group

Mark A. Verheyen, Senior Vice President and Chief Risk Officer, CNA Insurance Companies

The meeting continued with the featured speaker session from 11:00 a.m. to 11:45 a.m. Dean Oliver, Director of Production Analytics for ESPN and author of *Basketball on Paper*, spoke about sports analytics.

A luncheon and the CAS Business Session followed the featured speaker session. CAS VP-Professional Education Chet Szczepanski welcomed attendees and thanked luncheon sponsor Milliman. Susan Forray, a representative from Milliman, briefly addressed those assembled.

Mr. Szczepanski announced that there would be three more general sessions, more than 20 different concurrent sessions, plus 9 roundtable discussions, giving attendees the chance to earn up to 16.7 CE credits. Some sessions would be recorded and made available on digital media after the meeting through the University of CAS. He reminded members that they could now go online to certify compliance with the CAS CE Policy for 2012. He also encouraged people to attend the CAS Spring Meeting in May 2013 in Vancouver and reminded them that there will not be a Spring Meeting in 2014. Then he recognized and thanked the 2012 Annual Meeting Sponsors:

- Milliman—opening luncheon
- ISO—meeting app, car charger and pen
- Ezra Penland—notebook

- Pryor Associates Executive Search—tote-bag and Internet Café
- · Red Mountain Technologies—breakfast
- Core Logic—networking break

Mr. Szczepanksi described the Roundtable Discussions, which were groups of 14 attendees and one facilitator who gather to discuss critical topics. He reminded attendees of a special Town Hall Meeting with CAS leaders during breakfast on Tuesday. CAS leaders would be available to discuss current issues with members. He encouraged CAS members to attend the Roundtable Discussion and Town Hall Meeting to share their views. Mr. Szczcepanski concluded with announcements regarding the mobile app and Twitter hashtag for the Annual Meeting, and he thanked the CAS Program Planning Committee.

Ms. Teufel welcomed everyone to Walt Disney World and the CAS 2012 Annual Meeting and expressed a special welcome to the 107 new Fellows and 80 new Associates who were recognized that morning.

She recognized special guests in attendance: Kathryn Morgan, Representative of the Institute and Faculty of Actuaries; Masahiko Saito, Representative of the Institute of Actuaries of Japan; and Tom Terry, President-Elect of the American Academy of Actuaries. Past CAS Presidents in attendance included Ralph Blanchard (2010), Chuck Bryan (1990), Bob Conger (2001), Alice Gannon (1999), Dave Hartman (1987), Stan Khury (1984), John Kollar (2008) and Michael Walters (1986). She then recognized CAS staff and the CAS Executive Council.

Four vice presidents who were retiring from their post at the conclusion of the 2012 Annual Meeting were recognized: Nancy Braithwaite, VP-Marketing & Communications; Kris DeFrain, VP-International; Leslie Marlo, VP-Administration; and Chet Szczepanski, VP-Professional Education. Ms. Teufel thanked the vice presidents and then welcomed the incoming vice presidents: Arlie Proctor, VP-Marketing and Communications; Bob Conger, VP-International; Chris Nyce, VP-Administration; and Mary Miller, VP-Professional Education. After recognizing the Board of Directors, she recognized the liaisons to the Board of Directors from other actuarial organizations: Chris Townsend, Board Liaison from the Canadian Institute of Actuaries; and Michael Angelina, Board Liaison from the American Academy of Actuaries.

She then recognized the outgoing Board members: Dick Delaney, Beth Fitzgerald, Richard Goldfarb, Kathryn Morgan, Arlie Proctor, Ken Quintilian and Board Chair Ralph Blanchard. President-Elect Wayne Fisher, who was elected in September 2012, and four new elected Board members and two new Directors appointed by the Board were introduced. The newly elected directors are Chuck Bryan, Dave Chernick, Ann Conway and Rick Gorvett, and the newly appointed directors are Mark Vonnahme and Maria de los Angeles Yanez.

DW Simpson Global Actuarial Recruitment was acknowledged and heartily thanked by Ms. Teufel for its \$10,000 donation to the CAS Trust, which brought the company's lifetime contribution to the Trust to \$160,000. The CAS Trust was established in 1979 as a non-profit organization for contributions of funds to be used for research and educational purposes. Ms. Teufel lauded DW Simpson Global Actuarial Recruitment for its contributions to the advancement of casualty actuarial science.

She then read the names of the members who had passed away since November 2011: Jasmin Alibalic, Mary V. Anderson, James F. Brannigan, Alexandre Cung Rousseau, Stanley C. DuRose, Morris B. Kole, George McLean, Michael G. McCarter, Kiran Rasaretnam, David Riek, Matthew Rodermund, Norman Rosenberg, Elise Ruchlis, Brian Scott and Kathleen W. Terrill. The audience rose for a moment of silence.

CAS Executive Director Cynthia Ziegler next spoke on the State of the CAS.

Bob Conger, chair of the ICA 2014 Organizing Committee, then spoke on preparations for ICA 2014 and presented a video promoting the event.

Pat Teufel recognized all of CAS volunteers, who serve in many capacities such as meeting moderators and panelists; authors; Regional Affiliate officers; CAS, CIA, and AAA committee members; CAS, CIA, and Academy committee chairs; committee members of other actuarial organizations; and CAS Board members and officers of the Executive Council. She then presented the CAS awards for volunteerism.

The New Member Award is made to a CAS member who has made significant volunteer contributions within five years of his or her most recent credential. The 2012 New Member Award is given to Guillaume Benoit. Mr. Benoit earned his CAS Fellowship in 2008. He was nominated for his outstanding work for the CAS Regional Affiliate in Quebec, AAIARD, which led him to become the organization's president in 2010. He has helped organize conferences in Quebec on behalf of the Regional Affiliate, which has been greatly appreciated by the members there.

The Above & Beyond Achievement Award was given to Ginda Fisher and Aaron Halpert.

Ms. Fisher was nominated by the Chair of the CAS Continuing Education Compliance Committee, a new committee charged with handling the CE compliance audit of CAS members. As a new committee, there was a lot of work to determine the procedures for the audit, and Ms. Fisher helped lead the way as a proactive member. In addition, Ms. Fisher took the lessons learned from the audit process and volunteered to prepare educational materials for the CAS membership, which was posted on the CAS Roundtable blog and published in the *Actuarial Review*. The committee chair summed up Ms. Fisher's service stating, "Ginda feels very passionate about ensuring a quality CE audit process as well as an educational process for the membership around CE. Her above and beyond effort for the Committee will benefit the entire CAS membership."

Aaron Halpert was recognized for his work as chair of the CAS Risk Management Committee. Over the past year, the CAS Board has significantly increased its demands on the Risk Management Committee due to the ever-changing environment in which the CAS operates. With the increasing demands, Mr. Halpert effectively orchestrated the completion of the requested tasks under very tight timeframes. The committee member who nominated him wrote, "Aaron clearly puts in a significant amount of time and effort to ensure the committee is as productive and effective as possible. His ability to inspire the committee members to engage in subcommittees for the individual tasks is critical to the committee's success."

Established in 1990 in honor of Matt Rodermund's years of volunteer service to the Casualty Actuarial Society, the Matthew S. Rodermund Service Award recognizes two CAS members each year who have made significant volunteer contributions to the actuarial profession. The 2012 winners of the Rodermund Service Award are Chuck McClenahan and Debbie Rosenberg.

Just after achieving his Fellowship in 1974, Mr. McClenahan joined the Committee on Review of Papers, and after three years as a committee member, he was asked to be the chair. He ultimately served 13 years on the committee over two different terms. He also served as chair of the Long Range Planning Committee and Textbook Steering Committee. A volunteer with many talents and interests, Mr. McClenahan is a frequent contributor to the Actuarial Review and has worked on the Exam Committee, Continuing Education Committee, and Ratemaking Seminar Committee. He

served two terms on the CAS Board of Directors.

Ms. Rosenberg's volunteer history also covers basically every functional area of the CAS, including basic education, continuing education, research, and administration. She has served on the Syllabus Committee, Program Planning Committee, Prizes and Awards Administration Committee, and Committee on Volunteer Resources. She served for six years on the Committee on Reserves, including three as chair. Ms. Rosenberg served on more than ten different CAS Task Forces. She is known as someone who reliably gets things done, which is the type of volunteer you need for a short-term task force. In addition, she has served a three-year term on the Board of Directors, a term on the Executive Council as VP-Administration, and as a Regional Affiliate president. Ms. Rosenberg currently serves on three committees, including as chair of the ICA 2014 Marketing Committee. She is president-elect of the CAS Seasoned Actuaries Section.

Switching to awards for outstanding actuarial research, the 2012 Hachemeister Award was next announced. The 2012 winners are Yichun Chi and Ken Seng Tan for their paper "Optimal Reinsurance Under VaR and CVaR Risk Measures: A Simplified Approach." Ken Seng Tan accepted the award. The prize was established in 1993 in recognition of Charles A. Hachemeister's many contributions to Actuarial Studies in Non-Life Insurance (ASTIN) and his efforts to establish a closer relationship between the CAS and ASTIN. The Prize is awarded by the CAS for a paper published in the ASTIN Bulletin or presented at an ASTIN/AFIR Colloquium.

The Dynamo Call Paper Prize was announced. The winning paper, "Effects of Simulation Volume on Risk Metrics for Dynamo DFA Model," by William Scheel and Gerald Kirschner, was selected by the Dynamic Risk Modeling Committee as the best submission to the Committee's call for papers on the topic "Solving Problems Using a Dynamic Risk Modeling Process". The two authors were present to accept the award.

The next award was the *Variance* Prize, which recognizes the best papers published in the CAS research journal. The 2011 *Variance* Prize was awarded to two papers: "Risk Valuation for Property-Casualty Insurers" by John Major and "U.S. Property-Casualty: Underwriting Cycle Modeling and Risk Benchmarks" by Shaun Wang, John Major, Charles Pan, and Jessica Leong. Both papers are published in *Variance* Volume 5, Number 2.

Ms. Teufel recognized and thanked the Society Partners, which are firms that demonstrate a commitment to the CAS and its mission by making an annual pledge to support CAS activities. The 2012 CAS Society Partners are as follows:

## **Platinum Partners**

Ernst & Young

Ezra Penland Actuarial Recruitment

Milliman

Pauline Reimer and Pryor Associates Executive Search

Towers Watson

## **Gold Partners:**

Earnix

**Gross Consulting** 

Red Mountain Technologies

#### **Silver Partners**

Actuarial Careers, Inc.

Barrie & Hibbert

CarFax Banking and Insurance Group

**Guy Carpenter** 

ISO

Lexis Nexis

Pinnacle Actuarial Resources

Sensomatix

After Ms. Teufel delivered the Presidential Address, Mr. Josephson returned to the stage and presented her with a plaque for her service as president. Ms. Teufel thanked Mr. Josephson and presented him with the presidential gavel and medallion. She then officially closed the Business Session of the 2012 CAS Annual Meeting.

The following concurrent sessions were held from 1:30 p.m. to 3:00 p.m.:

#### **CAS Examination Process: Present and Future**

Speakers: Ali Ishaq, Principal, Analytikus LLC

Michael R. Larsen, Director Research, The Hartford

Jeremy Shoemaker, Regional Actuary, Chartis International

#### How Do You Monitor Data Quality, and Why Should You?

Moderator/Panelist: Thomas Le, Property Actuary, XL Insurance

Panelists: Henry Jupe, Director, PricewaterhouseCoopers LLP

Mark Allaben, Vice President & Actuary, The Hartford

## **Translating Between Sports Lingo and Numbers**

Moderator: Mo Masud, Director, PricewaterhouseCoopers LLP

Panelist: Dean Oliver, Director of Production Analytics, ESPN

#### **Paper Sessions**

Variance Paper: "Empirical Method-Based Aggregate Loss Distributions" by C.K. "Stan" Khury

Moderator: A. David Cummings, Vice President and Chief Actuary, ISO Innovative Analytics

Author: C.K. "Stan" Khury, Principal, Bass & Khury

Hachemeister Prize Paper: "Optimal Reinsurance Under VaR and CVaR Risk Measures: A Simplified Approach" by Yichun Chi and Ken Seng Tan

Moderator: A. David Cummings, Vice President and Chief Actuary, ISO Innovative Analytics

Author: Ken Seng Tan, Professor, Department of Statistics & Actuarial Science, University of Waterloo

## **Underwriting Cycles and Reserve Adequacy**

Moderator/Panelist: Brian Brown, Consulting Actuary, Milliman, Inc.

Panelists: Matthew Mosher, Senior Vice President & Chief Rating Officer, A.M. Best Company, Inc.

Lori Julga, Consulting Actuary, Milliman, Inc.

## Usage-Based Insurance: Setting Realistic Goals and Expectations in Data, Modeling, and Implementation

Moderator: Heather McIntosh, Actuary, United Services Automobile Association

Panelists: Jeff Stempora, Founder & CEO, Advanced Insurance Products & Services

Oren Steinberg, CEO, Sensomatix

Prof. Udi Makov, Head of Actuarial Research Center, University of Haifa

## Review of the 2012 Elections and Their Impact on the P&C Industry

Moderator/Panelist: Raul Allegue, Vice President-Government Affairs, The Travelers Companies, Inc.

Panelists: Clifford Leach, Vice President and Associate General Counsel of Government Affairs, The Hartford

Willem Rijksen, Vice President of Public Affairs, American Insurance Association

Deirdre Manna, V.P. Industry, Regulatory and Political Affairs, Property Casualty Insurers Association

of America

## Dynamic Risk Modeling—Pricing and Reserving

Moderator: Wei Xie, Manager, Ernst & Young LLP

Panelists: Christopher Diamantoukos, Senior Consulting Actuary, Ernst & Young LLP

Alp Can, Assistant Vice President-Actuarial Services, Specialty Business, Rockhill Insurance Company,

a Member of the State Auto Insurance Group

The following concurrent sessions were held from 3:30 p.m. to 5:00 p.m.:

#### California Workers Compensation—Focus on SB 863

Moderator: Richard Kirste, Chief Actuary, Berkshire Hathaway Homestate Companies

Panelists: David Bellusci, Senior Vice President and Chief Actuary, W.C. Insurance Rating Bureau of California

Alex Swedlow, Executive Vice President, California Workers' Compensation Institute

### Usage-Based Insurance: Setting Realistic Goals and Expectations in Data, Modeling, and Implementation

(Session first conducted on Monday at 1:30 p.m.)

#### Behavioral Economics: Implications for Actuarial Science and Enterprise Risk Management

Moderator/Panelist: Rick Gorvett, Director, Actuarial Science Program, University of Illinois at Urbana-Champaign

Panelists: David Wheeler, Management Associate, Innodata Synodex, LLC

Robert Wolf, Managing Partner, Casualty Actuarial Practice, Willis North America

#### **State of Reinsurance Market**

Moderator/Panelist: Bruce Fell, Managing Director, Towers Watson

Panelists: Larry McClure, Senior Actuary, Travelers Insurance

Dan Ingersoll, Vice President, Towers Watson

## How Do You Monitor Data Quality, and Why Should You?

(Session first conducted on Monday at 1:30 p.m.)

## Paper Sessions—DRM Committee Call Paper Program

"Effects of Simulation Volume on Risk Metrics for Dynamo DFA Model" by William C. Scheel and Gerald Kirschner

Moderator: Steven Berman, Specialist Leader, Deloitte Consulting LLP

Authors: William C. Scheel, President, DFA Technologies, LLC

Gerry Kirschner, Senior Manager, Deloitte Consulting LLP

"Stochastic GBM Methods for Modeling Market Prices" by James P. McNichols and Joseph L. Rizzo

Moderator: Steven Berman, Specialist Leader, Deloitte Consulting LLP

Authors: James McNichols, Chief Actuarial Risk Officer, Southport Re

Joseph Rizzo II, Senior Consultant and Actuary, Aon Risk Consultants, Inc.

#### **Professionalism and the Practicing Actuary**

Moderator: Emilee Kuhn, AVP — Actuarial, Arch Insurance Group

Facilitators: Jamie Mills, Associate Actuary, Allstate Insurance

Steve Lin, Consulting Actuary, Towers Watson

Following the afternoon of concurrent sessions, a reception for new CAS Fellows and their spouses and guests was held from 5:30 p.m. to 6:30 p.m.

## Tuesday, November 13, 2012

Registration continued from 7:00 a.m. to 2:30 p.m. and a continental breakfast was served from 7:00 a.m. to 9:00 a.m.

The CAS Board of Directors and other CAS leaders conducted a town hall meeting from 7:00 a.m. to 8:00 a.m. CAS members were able to give feedback on association issues.

The following concurrent sessions were held from 8:00 a.m. to 9:30 a.m.:

### What is...Professionalism? Take Two!

Facilitators: Emilee Kuhn, AVP - Actuarial, Arch Insurance Group

Dorothy Magnuson, Actuary, The Travelers Companies, Inc.

Kevin Dyke, Chief Actuary, Michigan Office of Financial and Insurance Regulation

Martin Menard, Director, PricewaterhouseCoopers LLP

Amy Beth Green, Actuarial Senior Consultant, CNA Insurance Companies

Peter Royek, Senior Vice President & Actuary, Toa Reinsurance Company of America

## **Current Events in Workers Compensation—Focus on New York**

Moderator/Panelist: Ann M. Bok, Practice Leader & Senior Actuary, National Council on Compensation Insurance, Inc.

Panelist: Ziv Kimmel, Vice President and Chief Actuary, New York Compensation Insurance Rating Board

### **Business Process Simulation for Claims Transformation**

Moderator/Panelist: Elizabeth Riczko, Group Analytics Leader, Westfield Insurance

Panelists: Mark Grabau, Associate Partner, Advanced Analytics and Optimization, IBM

Melissa Marshall, Business Intelligence Analyst II, Westfield Insurance

## Crowdsourcing Predictive Analytics: Using 45,000 Heads Without Losing Yours

Moderator: Linda Brobeck, Principal, Brobeck Analytics Consulting

Panelists: William Cukierski, Data Scientist, Kaggle

Floyd Yager, Senior Vice President, Chief Data Officer, Allstate Insurance Company

## **State of Reinsurance Market**

(Session first conducted on Monday at 3:30 p.m.)

## **How to Reform Health Insurance Using Casualty Principles**

Speaker: Michael Walters, Retired

## The One Management Habit (You Can't Do Without)

Speaker: Fred Ray Lybrand, Transformational Leadership Coach, TrimTab Solutions

The following concurrent sessions were held from 10:00 a.m. to 11:30 a.m.:

#### What is...Professionalism? Take Two!

(Session first conducted on Tuesday at 8:00 a.m.)

## An Introduction to Captives and Conducting the Annual Reserve Analysis

Moderator/Panelist: James Bulkowski, Senior Manager, Ernst & Young LLP

Panelist: Al Rhodes, President and Senior Actuary, SIGMA Actuarial Consulting Group, Inc.

## Behavioral Economics: Implications for Actuarial Science and Enterprise Risk Management

(Session first conducted on Monday at 3:30 p.m.)

## California Workers Compensation—Focus on SB 863

(Session first conducted on Monday at 3:30 p.m.)

#### **Credit Risk Session**

Moderator/Panelist: David Ruhm, Vice President, Chief Actuary, First American Financial Corporation

Panelist: Michael Schmitz, Principal and Consulting Actuary, Milliman, Inc.

#### Crowdsourcing Predictive Analytics: Using 45,000 Heads Without Losing Yours

(Session first conducted on Tuesday at 8:00 a.m.)

### Death by Chartjunk? Graphical Excellence in Insurance

Moderator/Panelist: Adam Troyer, Director, Aon Benfield

Panelist: Christopher Gross, President and CEO, Christopher Gross Consulting, Inc.

## The One Success Habit (You Can't Do Without)

Speaker: Fred Ray Lybrand, Transformational Leadership Coach, TrimTab Solutions

The following general sessions were held from 12:00 p.m. to 1:30 p.m.:

#### What Executives Need to Know about Predictive Modeling

Moderator: A. David Cummings, Vice President and Chief Actuary, ISO Innovative Analytics

Panelists: Alan Bauer, Independent Consultant

Alice Gannon, Chief Actuary, USAA Property & Casualty Insurance

Martin Ellingsworth, President, ISO Innovative Analytics

Stephen Mildenhall, CEO, Aon Benfield Analytics

## The Expanding Role of the Actuary in Catastrophe Loss Estimation and Management

Moderator/Panelist: Karen Clark, President & CEO, Karen Clark & Company

Panelists: Susan Patschak, CEO, Canopius Bermuda Ltd.

Locke Burt, Chairman and President, Security First Insurance Company

Peter Taylor, Ph.D., Research Fellow, Oxford University

The following roundtable discussions were held from 1:45 p.m. to 2:30 p.m.:

# **Accelerating Analytics Speed to Market**

Facilitator: Mo Masud, PricewaterhouseCoopers LLP

**Actuarial Entrepreneurship** 

Facilitator: Linda Brobeck, Brobeck Analytics Consulting, LLC

## **Analytics Beyond Pricing and Reserving**

Facilitator: Beth Riczko, Westfield Insurance

### Behavioral Economics and Risk-Reward Decision-Making

Facilitator: Robert Wolf, Willis Re Casualty Actuarial Practice

#### **Deterministic v. Stochastic Models**

Facilitator: Bethany Cass, PricewaterhouseCoopers LLP

# High-Performance Computing (HPC) Used in Dynamo, an Open Access CAS Dynamic Financial Analysis Model [DRM

Call Paper]

Facilitators: William C. Scheel, DFA Technologies, LLC

Gerald Kirschner, Deloitte Consulting LLP

## Course on Professionalism and Beyond: How do You Make Professionalism a Part of Your Career?

Facilitators: Amy Green, CNA Insurance Companies; Emilee Kuhn, Arch Insurance Group

Kevin Dyke, Michigan Office of Financial and Insurance Regulation

#### The Role of Actuaries in Effective ERM and RMORSA

Facilitator: Alistair Macpherson, PricewaterhouseCoopers LLP

### Training Future Actuaries: What Role for Universities?

Facilitator: Rick Gorvett, University of Illinois-Urbana Champaign

After a brief break, attendees were treated to a buffet dinner from 6:30 p.m. to 9:30 p.m. at the World ShowPlace Pavilion at Epcot.

# Wednesday, November 14, 2012

Registration continued from 7:00 a.m. to 11:45 a.m. and a continental breakfast was served from 7:00 a.m. to 9:00 a.m.

A special session titled, "CAS & You for New Fellows", was conducted from 7:00 a.m. to 8:00 a.m.

The following concurrent sessions were held from 8:00 a.m. to 9:30 a.m.:

## Paper Sessions: Optimal Growth & Illiquidity Risk Premium

Variance Paper: "Optimal Growth for Property and Casualty Insurance Companies"

Moderator: Benoit Carrier, VP, National Commercial Pricing, Aviva Canada

Author: Luyang Fu, AVP, Predictive Analytics, Cincinnati Insurance Company

CAS-Commissioned Research: "Illiquidity Risk Premium: What Does It Mean to P&C Insurance Business"

Moderator: Benoit Carrier, VP, National Commercial Pricing, Aviva Canada

Author: Shaun Wang, Chairman, Risk Lighthouse, LLC

## **Tort Trends and Implications for Liability Insurers**

Moderator: Aadil Ahmad, Actuarial Director, CNA Insurance Companies

Panelists: Jerry Theodorou, Vice President, Conning

Morris Barto, Claims Executive, General Reinsurance Corporation

Heather Henderson, CNA Insurance

## **Business Process Simulation for Claims Transformation**

(Session first conducted on Tuesday at 8:00 a.m.)

## The One Management Habit (You Can't Do Without)

(Session first conducted on Tuesday at 8:00 a.m.)

## ASOP No. 36 - Results from the First Year under the Revised Standard

Moderator: Kevin Dyke, Chief Actuary, Michigan Office of Financial & Insurance Regulation

Panelists: Kevin A. Cormier, Sr. Managing Actuary, Financial Reports, Liberty Mutual Insurance

Lisa Slotznick, Managing Director, PricewaterhouseCoopers LLP

## Death by Chartjunk? Graphical Excellence in Insurance

After a short break the final general session was held from 10:00 a.m. to 11:30 a.m.:

## Economic Capital Modeling for ORSA in the U.S. P&C Industry: The Stakeholders Convene

Moderator: Jessica Leong, Lead Casualty Specialty Actuary, Guy Carpenter & Co. LLC

Panelists: Wayne Fisher, Former Group CRO of Zurich Financial Services and incoming President-Elect of the

CAS

Micah Woolstenhulme, Senior Vice President, Global Advisory, Guy Carpenter & Co. LLC

Shaun Wang, Chairman, Risk Lighthouse

After the general session, Ms. Teufel encouraged all attendees to complete the online meeting evaluation form and announced upcoming meetings before she adjourned the meeting.

## Attendees of the 2012 CAS Annual Meeting

The 2012 CAS Annual Meeting was attended by 551 Fellows, 144 Associates, 2 Affiliates, and Candidates, Subscribers, and other guests. The names of the Fellows, Associates, and Affiliates in attendance follow:

#### **FELLOWS**

Shawna S. Ackerman	Subhayu Bose	Xiangyu Cheng	Elizabeth Bassett DePaolo
Aadil A. Ahmad	James T. Botelho	Sarah Ashley Chevalier	Timothy M. Devine
Marcus R. Aikin	Roger W. Bovard	Max Chiao	Christopher Diamantoukos
Terry J. Alfuth	Ishmealina M. Boye	Wanchin W. Chou	Kevin G. Dickson
Mark S. Allaben	Nancy A. Braithwaite	Wasim Chowdhury	Natalia Dimitrienko
Christopher Allard	Rebecca Schafer Bredehoeft	Meng-Fang Chung	Mark A. Doepke
Brian C. Alvers	Linda K. Brobeck	Emily Daters Cilek	Brent P. Donaldson
John E. Amundsen	Maxime-Frédéric Brochu-Leclair	Jason A. Clark	Xiaoyu Dong
Mark B. Anderson	Kelli Ann Broin	T.J. Clinch	Bo Dong
Paul D. Anderson	Elisa Pagan Brown	Daniel G. Collins	Michael Alan Donnelly
George N. Argesanu	Brian Z. Brown	Robert F. Conger	Scott A. Donoho
Carl Xavier Ashenbrenner	Gavin David Brown-Jowett	Larry Kevin Conlee	Kirt M. Dooley
Genevieve Aubin	Yisheng Bu	Sean O. Cooper	Kiera Elizabeth Doster
Craig Victor Avitabile	Michael Burnett	Hugo Corbeil	David (Yiping) Dou
Kristi Spencer Badgerow	Richard F. Burt	Kevin A. Cormier	Robert B. Downer
Ling Bai	Douglas James Busta	Francis X. Corr	Neal Ray Drasga
Jennifer Lynn Balester	Cui Liu Cai	Gregory L. Cote	Sara P. Drexler
Patrick Barbeau	James E. Calton	Martin L. Couture	Leigh Maurice Duhig
Kim A. Barber	Alex M. Carges	Michael J. Covert	Judith E. Dukatz
Lauren Barozie	Benoit Carrier	Richard R. Crabb	Janet E. Duncan
Nicolas Beaudoin	Lynn R. Carroll	Jeanne E. Crowell	Sophie Duval
Anthony O'Boyle Beirne	Bethany L. Cass	Justin B. Cruz	Kevin M. Dyke
Kelly Ann Bellitti	Eric Daniel Cathelyn	Xiaoye Cui	Dana Embree
Jeffrey Donald Bellmont	Michael Rice Cenzer	Jason J. Culp	Daniel A. Engell
David M. Bellusci	Bernard Lee Chan	Keith Richard Cummings	Paul E. Ericksen
George M. Belokas	Chung Yin Eric Chan	A. David Cummings	Matthew B. Estes
Steven L. Berman	Amy M. Chang	Claudia Barry Cunniff	Richard J. Fallquist
William P. Biegaj	Hungchi Andy Chang	Michael T. Curtis	Bill Faltas
Rebekah Susan Biondo	Frank H. Chang	Daniel J. Czabaj	Yuting Fan
Ralph S. Blanchard	Guillaume Chaput	Kenneth S. Dailey	John Daniel Fanning
Peter George Blouin	Nathalie Charbonneau	Edgar W. Davenport	Bruce Fatz
Neil M. Bodoff	Michael Keryu Chen	Lucia DeCarvalho	Gary M. Feder
Christina Marie Boglarski	Mingqiong Chen	Martin W. Deede	Gregory Andrew Finestine
Mark E. Bohrer	Sa Chen	Thomas J. DeFalco	William M. Finn
Ann M. Bok	Zhijian Chen	Michael Brad Delvaux	Wayne H. Fisher
James M. Boland	Andrew M. Cheng	Patricia A. Deo-Campo Vuong	Ginda Kaplan Fisher

Ellen D. Fitzsimmons
Robin A. Fleming
Jason A. Flick
David A. Foley
Jennifer Yunqi Ford
Susan J. Forray
Hugo Fortin
Greg Frankowiak
Sara Frankowiak
Luyang Fu
Cory Michael Fujimoto
Andre Gagnon
John E. Gaines
Alice H. Gannon
Timothy James Gaugler
Thomas L. Ghezzi
John A. Gibson
Richard N. Gibson
John M. Gilbert
Bradley G. Gipson
Michael Ryan Gittings
Olivia Wacker Giuntini
Todd B. Glassman
John Peter Glauber
Ronald E. Glenn
Margaret Hendrix Glenn
Jio Young Goh
Seth A. Goodchild
Christopher David Goodwin
Richard W. Gorvett
David Govonlu
Ronald E. Greco
Amy Beth Green
Joshua Thomas Greene
Francis X. Gribbon
Stacie R.W. Grindstaff
Isabelle Guerin
Terry D. Gusler
Kofi Gyampo
Vincent Ha
William Joseph Hackman
Nasser Hadidi
Hai Na Han
Bobby Earl Hancock
John C. Hanna
Elizabeth E. L. Hansen
Allison Michelle Harris
Guo Harrison
David G. Hartman
Stuart J. Hayes
David Joseph Heilbrunn
Thomas Patrick Heise
Kandace A. Heiser
Kevin B. Held
Ann Marie Helmann
John Herder
Ronald J. Herrig
David R. Heyman
Joseph S. Highbarger
Aaron Nicholas Hillebrandt

Ray Yau Kui Ho Melissa S. Holt Hugh D. Hopper William Allen Hossom Derek Reid Hoyme Wang Yang Hu Marie-Josee Huard Scott R. Hurt Lauren Miranda Inglis Ali Ishaq Katherine Jacques John F. Janssen Ronald W. Jean Scott R. Jean Matthew J. Jewczyn Weidong Wayne Jiang Gary R. Josephson Lisa K. Juday Amy Ann Juknelis Lori Edith Julga Karine Julien Daniel Joseph Kabala Scott A. Kaminski Frank J. Karlinski Abigail Ouimet Katuska Tatyana Keller Brandon Daniel Keller Anne E. Kelly Amanda R. Kemling Sarah M. Kemp Andrew P. Kempen C.K. Stan Khury Ziv Kimmel Thomas Patrick King Jeffrey Grant Kinsey Gerald S. Kirschner Joseph E. Kirsits Richard O. Kirste Amanda Kisala Bradley J. Kiscaden Warren A. Klawitter Jeff A. Kluck Brenda L. Koenig John E. Kollar Uri A. Korn Ronald T. Kozlowski Zachary M. Kramer Alex Gerald Kranz Gustave A. Krause Brian S. Krick Andrew E. Kudera Emilee J. Kuhn Howard A. Kunst Darjen D. Kuo Seth Jason Kurpiel Paul E. Kutter Keith Patrick Kwiatkowski Alvin Kwong

Steven M. Lacke

Lan See Lam

Alan E. Lange Francois Langevin David Langlois Caroline Emily LaPenta Nicholas Joseph LaPenta Michael R. Larsen Rachel Andrea Larson Steven P. Lattanzio Jason A. Lauterbach Paul W. Lavrey Thomas V. Le Marc-Andre Lebeau Peng B. Lee Robert H. Lee Stephen E. Lehecka Courtney L. Lehman Jeremy M. Lehmann Weng Kah Leong Amy Rachele Lerch Jean-François Lessard Yuan-Chen Liao Jia Liao Simon John Lilley Henry Hang-Lei Lim Steven C. Lin Katherine Yukyue Lin Melody Ko Lin Anna Liu Jia (Judy) Liu Nataliya A. Loboda Allen C. Long Daphne Y. Lum Michelle Luneau James P. Lynch Jinbing Ma Xiaojiang Ma Rimma Maasbach Brett A. MacKinnon Alistair D. Macpherson Peter Anthony Magliaro Dorothy Lentz Magnuson Joseph O. Marker Leslie R. Marlo Jonathan T. Marshall Paul C. Martin Victoria Arias Mayen Sean M. McAllister Christina Abbott McArthur Robert D. McCarthy Laurence R. McClure Liam Michael McFarlane Heather L. McIntosh Michael F. McManus Sylwia S. McMichael Lawrence J. McTaggart William T. Mech Martin Menard James R. Merz Jennifer Lynn Meyer

Stephen J. Meyer

Thomas E. Meyer Thomas Walter Mezger Vadim Y. Mezhebovsky Anthony M. Milano Stephen J. Mildenhall Eric Millaire-Morin Richard James Mills Ain Milner John H. Mize Camilo Mohipp Josee Morin Francois L. Morissette Maria M. Morrill Matthew C. Mosher Fritzner Mozoul Joseph J. Muccio Raymond D. Muller Eric L. Murray Daniel G. Myers Christian Kleven Myers Seth Wayne Myers Brett E. Myers John A. Nauss Sikander Shiraz Nazerali Antoine A. Neghaiwi Benjamin R. Newton Samantha Lynn Nieveen John E. Noble Samuel K. Nolley Andre Normandin Alison Marie Norton G. Chris Nyce Diana Marie O'Brien Seoh Oh Colleen A. Olthafer Alejandro Antonio Ortega Melanie Ostiguy Christopher Nicholas Otterman Brent J. Otto Robert G. Palm Jean-Pierre Paquet Kishen Patel Minesh Kumar Patel Bruce Paterson Susan J. Patschak David Payne Harry Todd Pearce James L. Pearson Jeremy Parker Pecora John R. Pedrick Bruce G. Pendergast Melanie T. Pennington Sylvain Perrier Kraig Paul Peterson Faith M. Pipitone Matthew D. Piser Jordan J. Pitz Daniel James Plasterer Christopher James Platania Kristine E. Plickys

Felix Podgaits Igor Pogrebinsky Amanda P. Pogson Ricky R. Poulin Ruth Poutanen Timothy J. Pratt Stephen R. Prevatt Virginia R. Prevosto Deborah W. Price Daniel Lee Price Mark R. Proska Justin N. Pursaga Kenneth Quintilian Christopher David Randall Nanxia Rao Eric W.L. Ratti Elizabeth M. Regan Christina Picarro Reich Stéphane Renaud Elizabeth M. Riczko Dale M. Riemer Stephen Daniel Riihimaki Todd Richard Rio Brad M. Ritter Bruce A. Ritter Cheryl Lynn Roberts Valerie Robitaille Charles Francois Robitaille Juan Carlos Rodriguez Mayoral Rebecca L. Roever Keith A. Rogers Amber M. Rohde John R. Rohe Bradley M. Rolling A. Scott Romito Deborah M. Rosenberg Alexander Robert Rosteck Daniel G. Roth Jean-Denis Roy Ryan P. Royce David L. Ruhm

Kenneth W. Rupert Michael R. Sadowski Anthony D. Salido Mitra Sanandajifar Elizabeth Asher Sanders Donald D. Sandman Jonathan R. Sappington Stephen Paul Sauthoff Adam Koloman Scarth Phillip F. Schiavone Michael C. Schmitz Jeffery Wayne Scholl Lyndsey J. Schwegler Karen Scott Jeffery J. Scott Quan Shen Michelle G. Sheng Sarah J. Shine Jeremy D. Shoemaker Jacqueline W.Y. Shoong Raymond Bond Shum Jonathon L. Silver Panayiotis George Skordi Laurie A. Slader Lisa A. Slotznick Joseph Allen Smalley Joel M. Smerchek Tom A. Smolen Patricia E. Smolen Scott G. Sobel Joanna M. Solarz Peter F. Soulen Tiffany Jean Soyack Joanne S. Spalla Bruce R. Spidell Thomas N. Stanford

Brian Tohru Suzuki Roman Svirsky Timothy Delmar Sweetser Christopher C. Swetonic Chester John Szczepanski Susan T. Szkoda Chien-Ling Tai Gregory M. Talbot Patricia A. Teufel Thomas J. Thornburgh Tang-Hung Trang Adam J. Trelford Jeffrey S. Trichon Adam James Troyer Edward F. Tyrrell Matthew L. Uhoda Joel A. Vaag Katherine Anne Vacura William R. Van Ark Karen L. Van Cleave Oakley E. Van Slyke Richard L. Vaughan Andrew Vega Karl Veilleux Chinatsu H. Vergara Mark Alan Verheyen Victor Maximillian C. Victoriano Phillip Anthony Victory Pascal Vincent Michael A. Visintainer Claude A. Wagner Michael C. Walsh Michael A. Walters Huinian Wang Xiaomin Wang Cong Wang Anping Wang Qing Janet Wang Yingnian Wang

Wade Thomas Warriner Zachary Samuel Webber Lynne K. Wehmueller Chang-Hsien Wei Darren Russell Weidner Radost Roumenova Wenman Katherine Therese Werner Timothy G. Wheeler Mark Whitman William B. Wilder William Robert Wilkins Marilyn Ashley Wilson Ernest I. Wilson Robert F. Wolf Tad E. Womack Patrick B. Woods Micah G. Woolstenhulme Shawn A. Wright Aaron A. Wright Lin James Xia Wei Xie Gang Xu Floyd M. Yager Liqing Yang Yanjun Yao Kimberly Yeomans Claude D. Yoder Guanrong You Jiwei Yu Raisa Zarkhin Xiangfei Zeng Yan Zhang Yan Zhang Nan Zhang Juemin Zhang Lijuan Zhang Yue Zhao Kan Zhong Guo Zhong Steven Bradley Zielke David E. Zurndorfer

## **ASSOCIATES**

Michael Bryan Adams Mawunyo K. Adanu Julie A. Anderson Diego Fernando Antonio Nathalie J. Auger Jeffrey David Baer Brendan P. Barrett Brian P. Beckman Kenneth C. Beckman Tvler John Birkel Eliezer Yosef Blum Thomas S. Botsko Kristin J. Brown Jennifer S. Byington Alp Can Daniel George Charbonneau Eric P. Chassie

Harry Sigen Chen Hui Ying Chin Deborah Marie Chomiuk David A. Christhilf Donald L. Closter Michelle Codere Thomas P. Conway Phillip Charles Cooper Ryan Crabtree Mujtaba H. Datoo James R. Davis Raymond V. DeJaco William Der Jean-Francois Desrochers George T. Dunlap Jonathan G. Eshelman Benjamin Ewbank

Stephen R. Sten

Julia Causbie Stenberg

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Richard Carl Sutherland

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Kathryn Enochs Herzog

Min Wang

David W. Warren

Anthony Hovest Carol Irene Humphrey Somil Jain Betty F. Johnson Sally M. Kaplan Daniel R. Keddie Anand Khare Martin T. King Roy Kohl Stephen L. Kolk Thomas F. Krause Christopher S. Kwon Frank O. Kwon Heather D. Lake Jeffrey A. Lamy David Lawrence Larson

Thomas Samuel Lauren

## Minutes of the 2012 Annual Meeting

Julie Ann Lederer Giuseppe F. LePera Guillermo Andres Letona Victor Yusen Li Lu Li Yunhsia B. Liu Karen Ann Brostrom Lonergan Elizabeth Long Laura J. Lothschutz Tony Lu Yaming Luo Stephen N. Maratea Derek M. Martisus D. Michael McConnell Michael B. McKnight James P. McNichols Mea Theodore Mea Eric Mercier

Leonard L. Millar

Kellen Christopher Miller Chad M. Miller Bashir Moallim Gregory A. Moore Dawn Morelli Joey Doug Moulton Randy J. Murray W. Randall Naylor John-Giang L. Nguyen Lowell D. Olson James Alan Partridge Rosemary Catherine Peck Michelle Anne Pederson David M. Pfahler Beverly L. Phillips Frederic Potvin Edward L. Pyle Laura Ann Rapacz Yan Ren

Al J. Rhodes Christopher R. Ritter Joseph L. Rizzo Sophie Robichaud Jason Lee Rohlfs Randall D. Ross Peter A. Royek Anne Ruel Crystal Sala Sandra C. Santomenno Antoine Sasseville Michael James Seeber Yee Ting Lois She-Tom Richard S. Skolnik Eric M. Sligay Katrina E. Smith Gina L.B. Smith Robert Vincent Spencer Bryan M. Stewart

Laura Michelle Stromberg Adam N. Sturt Tu Ngoc Ta Christian Alan Thielman Hemanth Kumar Thota Robert Tiger Peter Tomopoulos Mitchell Lee Underwood Dennis R. Unver Kimberly Ann Walker Steven Joseph Walsh Gregory S. Wanner Monty James Washburn Thomas J. White Wanning Wu Xiaohui Wu Michael A. Wykes Randall Boualay Xayachack Eecher Yee

## **AFFILIATE**

Kathryn Morgan Pablo F. Nunez

# REPORT OF THE VICE PRESIDENT—ADMINISTRATION

This report provides a one-year summary of Casualty Actuarial Society activities since the 2011 CAS Annual Meeting and is organized into three sections:

- A summary of the past year's activities as they relate to the four core purposes of the CAS as stated in the CAS
  Constitution.
- 2. A summary of activities that may not relate to a specific purpose outlined in the Constitution, but that are critical to the ongoing vitality of the CAS.
- 3. Updates on CAS governance, membership statistics, and finances.

#### **CORE CAS ACTIVITIES**

## 1. Advance the body of knowledge of actuarial science applied to property, casualty, and similar risk exposures.

CAS contributions to actuarial literature through its many publications and numerous research and development projects are direct outputs of this goal. This year, as in previous ones, actuarial literature and research focused on theoretical and practical aspects of the actuarial profession.

In 2012 the CAS scientific journal *Variance* continued its commitment to publishing practical articles in actuarial science. The year also produced more offerings in the CAS *E-Forum* and Working Paper sites, which contributed greatly toward fulfilling this goal. Five *E-Forums* were posted this year including sponsored call paper programs on the topics of loss reserving; dynamic risk modeling; data management, quality, and technology; and ratemaking. *E-Forums* also featured reports from the CAS Risk-Based Capital Dependencies and Calibration Working Party (a four-part series) and the CAS Underwriting Risk Working Party, as well as a special report, "Acronyms for Actuaries."

One of the most significant research projects completed in 2012 was the release of the report titled, "Determining the Impact of Climate Change on Insurance Risk and the Global Community Phase I: Key Climate Indicators." This report, which was cosponsored by the CAS, Canadian Institute of Actuaries, Society of Actuaries, and the American Academy of Actuaries, is the first phase of an actuarial climate volatility index literature review being administered by the CAS Climate Change Committee. The committee's charge is to perform research on climate change and assess the potential risk management implications for the insurance industry.

Other significant CAS research projects completed include: updates to and a webinar on the Risk Premium Project II literature survey; a joint North American Actuarial Council project on inflation/deflation; an update of the DRM Handbook; and a collection of essays on "Risk Metrics for Decision Making and ORSA," compiled with the Joint Risk Management Section.

Also in 2012, the chairs of CAS Research Committees formed a new Research Oversight Committee to develop general research policies and goals for approval by the CAS Executive Council and Board of Directors. The committee will also coordinate the activities of the various research committees, working parties, and task forces. It began drafting a strategic plan for CAS research, which is intended to align with the overall CAS Strategic Plan.

## 2. Establish and maintain standards of qualification for membership.

Achievements in this area include measures to increase exam offerings and refine and streamline the Course on Professionalism.

The CAS Board of Directors approved an Examination Committee proposal to offer CAS Exams 5 and 6 twice a year beginning in 2013 and 2014, respectively. It is hoped that the increased offerings of Associate-level examinations will give some candidates the opportunity to complete the CAS membership requirements more quickly than under the current structure.

The Course on Professionalism also had significant structural changes made in 2012 that reduced the in-person course time from two days to 1.5 days. Many of the presentations became pre-course assignments and were only covered briefly during the actual course. Before participating in the course, candidates were required to watch presentations on each of the Actuarial Standards of Practice (ASOP) and similar documents that previously were presented during the course. These presentations, termed e-modules, are a series of slides with audio guides and questions that need to be answered correctly in order to proceed. The Committee on Professionalism Education determined that, because the ASOPs and other related documents are fairly dense with many details and nuances, it is better for candidates to study these items at their own pace. Every candidate is expected to be familiar with each professionalism document before coming to the course.

# 3. Promote and maintain high standards of conduct and competence of members.

Our Code of Professional Conduct continuously and successfully fulfills this core purpose. Other vital contributors to this goal are the CAS Continuing Education (CE) Policy, the new Chartered Enterprise Risk Analyst (CERA) credential, and our CE programs.

The CAS Continuing Education (CE) Policy is an important element of upholding strong standards for members. The Policy ensures that CAS members stay accountable to their principals and the public by maintaining appropriate levels of relevant continuing education.

After implementing the Policy's compliance recording in 2011, the CAS conducted its first review of the compliance information gathered. The CE Policy applies to all ACAS and FCAS members who provide actuarial services, defined in the CAS Code of Professional Conduct as "professional services provided to a Principal by an individual acting in the capacity of an actuary. Such services include the rendering of advice, recommendations, findings or opinions based upon actuarial considerations." Fellows and Associates were asked to certify their compliance with the policy's CE requirements as of December 31, 2011.

To accommodate the new compliance measure, the CAS modified its online membership directory to include information about member CE

compliance. This information is available to the general public as a limited directory that displays member names, membership designations, and current year's compliance status (compliant, not compliant, not providing actuarial services).

To verify the integrity of the information, the CAS randomly audited 1% of the continuing education logs of members attesting their compliance with the CE policy. In addition, the entire CAS Board of Directors and Executive Council (excluding appointed directors and the executive director) were also audited for CE Policy compliance. This will be an annual process going forward.

The CAS honored its inaugural class of Chartered Enterprise Risk Analyst (CERA) designees at the 2012 CAS Annual Meeting. The CERA designation promotes actuaries in the field of ERM (Enterprise Risk Management). It requires designees to meet stringent education requirements in ERM and to be governed by a strong code of professional conduct.

In 2012 the CAS continued developing the Experienced Practitioners Pathway (EPP), an alternative pathway to earning the CERA credential. The EPP awards the CERA to existing members whose work experiences have demonstrated levels of knowledge and understanding of ERM comparable to that achieved by other designees. At the end of 2012, the EPP was still pending approval of the CERA Treaty Board.

Following the 2012 Ratemaking and Product Management Seminar, the CAS implemented enhancements for its University of CAS (UCAS) offerings. The UCAS continued to grow with many offerings of inexpensive online recordings of educational sessions from past CAS meetings and seminars. UCAS users were able to evaluate recorded sessions online. Some UCAS recordings feature brief quizzes at the recording's end. Once users listen the entire recording, they were also able to print completion certificates for CE recordkeeping purposes.

The CAS provides members with educational opportunities through the publication of actuarial materials and the sponsorship of meetings and seminars. This past year's education programs included the following:

## **Meetings:**

	Location	CAS Members Attending		
Spring	Phoenix, AZ	643		
Annual	Orlando, FL	855		

#### **Seminars:**

Торіс	Location	CAS Members Attending
Ratemaking & Product Management	Philadelphia, PA	617
Enterprise Risk Management Symposium	Washington, DC	419
Reinsurance	Boston, MA	347
Casualty Loss Reserve Seminar	Denver, CO	568
In Focus: The Underwriting Cycle Seminar	Baltimore, MD	155

In addition to these major programs:

- Two (2) limited-attendance seminars were conducted titled "Predictive Modeling" and "Loss Distributions."
- One (1) online course offering of "Introduction to ERM" was available in 2012.
- Webcasts from the 2012 Spring and Annual Meetings were provided.
- The 2012 Spring Meeting offered the special training session, "Leading Without Authority."
- Three (3) special seminars on CERA credentialing, including "Enterprise Risk Management and Modeling Seminar for CERA Qualification" (two sessions in March and September) and "Experienced Practitioners Pathway for CERA Qualification."
- Twelve (12) Webinars were conducted in 2012:
  - Introduction to Predictive Modeling in R
  - An Update on CAS CE Requirements and Opportunities
  - Price Optimization vs. Actuarial Standards
  - The New NAIC ORSA Requirements—Latest Developments
  - Risk Premium Project/2011 Update
  - Optimal Pricing: Integrating Costs and Customer Behavior
  - Using Analytics to Improve the Claims Process
  - A Conversation with CAS Leadership (2 offerings)
  - Arriving at a Loss Ratio for Commercial Umbrella
  - CERA Designation for CAS Members
  - Data, Documentation, and Disclosure (COPFLR)
  - Seven (7) Courses on Professionalism were held in North America.

The variety and number of these offerings represent an ongoing expansion of education services to respond to members' demand for high-quality,

affordable continuing education opportunities.

#### 4. Increase the awareness of actuarial science.

The CAS undertook or participated in a number of communication initiatives designed to increase public awareness of the profession.

Press Releases

The CAS issued 10 press releases during 2012 in an effort to inform insurance industry professionals about CAS programs and initiatives.

· Career Encouragement

The CAS and SOA Joint Committees on Career Encouragement and Actuarial Diversity continued its efforts to promote the actuarial career to promising students who reflect a diverse population. The most visible product of this joint collaboration is the Be An Actuary Web Site, which gives an overview of the examination process and guidance for those searching for an entry-level actuarial job. In 2012 the newly redesigned website was recognized by the organization Association Media and Publishing with 2012 EXCEL Awards in three different categories: Gold for Web Publishing—Editorial Excellence, Gold for Web Publishing—General Excellence, and Silver in Web Publishing—Redesign. The website was also one of three award winners that received a coveted EXTRA! award for outstanding innovation in association media and publishing. The Annual EXCEL Awards recognize the best and brightest in association media and publishing. Over 1,000 entries were submitted in 2012.

Scholarships

The CAS Trust Scholarship Program awarded three (3) \$2,000 scholarships to deserving students for the 2012-2013 academic year. The CAS Trust also administered the Harold W. Schloss Memorial Scholarship Fund in conjunction with the University of Iowa.

#### **OTHER ACTIVITIES**

Other CAS activities contributed to the ongoing vitality of the organization during 2012.

• Above and Beyond Achievement Awards

The CAS awarded the 2012 Above and Beyond Achievement Award (ABAA) to Ginda Fisher and Aaron M. Halpert. Ms. Fisher was recognized for her contributions to the CAS Continuing Education Compliance Committee and Mr. Halpert for his work as chair of the CAS Risk Management Committee. The ABAA recognizes noteworthy volunteer accomplishments occurring within the past two years.

New Members Award

The New Members Award was initiated in 2011 and recognizes volunteer contributions during an individual's first five years as a member. The 2012 winner of the New Members Award is Guillaume Benoit who was recognized for his outstanding work for Association des Actuaires IARD (AAIARD), the CAS Regional Affiliate in Quebec. Mr. Benoit served as AAIARD president in 2010.

• Matthew Rodermund Service Award

The Matthew Rodermund Service Award is intended to annually recognize two CAS members who have made significant volunteer contributions to the actuarial profession over the course of their careers. The award was established in 1990 in honor of Mr. Rodermund's history of volunteer service to the CAS. The 2012 winners were Chuck McClenahan and Debbie Rosenberg. Each of the 2012 Matthew Rodermund Service Award winners exemplifies a lifetime of service helping to accomplish a variety of CAS initiatives.

• Mobile Meeting App

The CAS introduced its first mobile meeting app at the 2012 Spring Meeting. The free app for mobile device provided access to real-time schedule and speaker updates, the most current version of the list of attendees, and maps of the meeting space. More than 400 unique visitors (two-thirds of meeting attendees) accessed the app.

· Website Redesign

The CAS launched its new website in July 2012. The redesigned website features an upgraded search engine, making it easier for website visitors to quickly find information. All of the most popular website features such as the CAS member directory, calendar of events, admissions information and CAS publications remain on this resource-rich tool.

#### THE STATE OF THE CAS

## Governance

Wayne Fisher was elected President-Elect for 2011—2012. CAS Fellows elected Charles A. Bryan, David R. Chernick, Ann Conway, and Rick Gorvett to the Board of Directors. Gary R. Josephson assumed the presidency. As Immediate Past President, Patricia Teufel moved to chair of the Board of Directors. Also in 2012, Dr. Maria de los Angeles Yanez and Mark C. Vonnahme were appointed and Michael Steel was reappointed to serve on the Board.

The following members were elected or re-elected by the Board to serve as vice presidents: G. Chris Nyce, Vice President-Administration; Virginia R. Prevosto, Vice President-Admissions; Barry Franklin, Vice President-ERM; Robert F. Conger, Vice President-International; Arlie Proctor, Vice President-Marketing & Communications; Mary D. Miller, Vice President-Professional Education; and Alice M. Underwood, Vice President-Research & Development. The vice presidents serve on the Executive Council of the CAS, along with CAS Executive Director Cynthia Ziegler, and the president and president-elect.

A total of 1,670 Fellows (41.4%) voted in 2012 election, as compared to 1,375 Fellows last year (35.5%).

## **Membership Statistics**

Membership growth continued with 184 new Associates and 41 new Fellows, including eight new Fellows via mutual recognition agreements with other actuarial organizations. The total number of members as of November 12, 2012, is 5,650, a gain of approximately three percent from the previous year.

## **Financial Status**

The CPA firm CliftonLarsonAllen examined the CAS financial records for fiscal year 2012 and the CAS Audit Committee reported the firm's findings to the CAS Board of Directors in March 2013. The fiscal year ended with an audited net gain of \$1,148,243 compared to budgeted net loss of \$323,021.

The CAS surplus now stands at \$6,011,601. This represents an increase in surplus of \$966,336 over the amount reported last year. In addition to the net income from operations of \$257,878, there was interest and dividend revenue of \$171,794, a realized gain of \$69,430, and an unrealized gain of \$649,141. There was a total net increase of \$181,907 in various research, prize, and scholarship accounts (including the CAS Trust). Total Members' Equity (CAS surplus plus non-surplus accounts) now stands at \$7,328,655, an overall increase of \$1,148,243 over last year.

For FY 2013, the CAS Board of Directors has approved a budget of approximately \$9.7 million. Members' dues are \$475, representing an increase of \$25. The financial statements are attached to this report.

Respectfully submitted,

Leslie Marlo

Vice President-Administration

# FINANCIAL REPORT FISCAL YEAR ENDED 9/30/2012

FUNCTION	REVENUE		<b>EXPENSE</b>		DIFFERENCE
Membership Services	\$2,439,129		\$3,230,592	_	(\$791,463)
Seminars	2,651,871		2,170,734		481,137
Meetings	1,213,042		1,135,208		77,834
Exams	5,610,941	(a)	5,102,348	(a)	508,593
Publications	3,644		21,866		(18,222)
TOTALS FROM OPERATIONS	\$11,918,627		\$11,660,749	_	\$257,878
Interest and Dividend Revenue		_		_	171,794
Realized Gain/(Loss) on Marketable Securities					69,430
Unrealized Gain/(Loss) on Marketable Securities					649,141
TOTAL NET INCOME (LOSS)					\$1,148,243

NOTE: (a) Includes \$3,014,610 of Volunteer Services for income and expense (SFAS 116).

# **BALANCE SHEET**

ASSETS	9/30/2011	9/30/2012	DIFFERENCE
Cash and Cash Equivalents	\$1,471,491	\$2,041,221	\$569,730
T-Bill/Notes, Marketable Securities	6,984,424	8,390,826	1,406,402
Accrued Interest	8,931	11,012	2,081
Prepaid Expenses / Deposits	220,507	388,441	167,934
Prepaid Insurance	26,343	35,875	9,532
Accounts Receivable	411,937	173,393	(238,544)
Textbook Inventory	12,335	11,953	(382)
Computers, Furniture, Leasehold Improvements	767,338	780,219	12,881
Less: Accumulated Depreciation	(639,708)	(672,383)	(32,675)
TOTAL ASSETS	\$9,263,597	\$11,160,557	\$1,896,960
LIABILITIES	9/30/2011	9/30/2012	DIFFERENCE
Exam Fees Deferred	\$1,017,410	\$1,153,591	\$136,181
Seminar and Meeting Fees Deferred	691,012	977,152	286,140
Accounts Payable and Accrued Expenses	654,679	640,169	(14,510)
Accrued Pension	531,819	905,239	373,420
Deferred Leasehold Improvements Allowance	87,696	66,648	(21,048)
Deferred Rent Obligation	100,568	89,103	(11,465)
TOTAL LIABILITIES	\$3,083,184	\$3,831,902	\$748,718
MEMBERS' EQUITY			
Unrestricted	9/30/2011	9/30/2012	DIFFERENCE
CAS Surplus	\$5,045,265	\$6,011,601	\$966,336
Michelbacher Fund	161,162	162,541	1,379
CAS Trust - Operating Fund	237,075	243,151	6,076
Centennial Fund	304,420	373,529	69,109
ICA 2014 Fund	66,505	79,646	13,141
Research Fund	276,521	368,460	91,939
Subtotal Unrestricted	\$6,090,949	\$7,238,928	\$1,147,979
Temporarily Restricted	9/30/2011	9/30/2012	DIFFERENCE
Scholarship Fund	\$3,351	\$2,879	(472)
CAS Trust - Ronald Bornhuetter Fund	56,853	57,339	486
CAS Trust - Reinsurance Prize Fund	29,259	29,509	250
Subtotal Temporarily Restricted	\$89,463	\$89,727	\$264
TOTAL MEMBERS' EQUITY	\$6,180,412	\$7,328,655	\$1,148,243

G. Chris Nyce, Vice President - Administration

# **AUDITED**

CAS Audit Committee: Jeanne Crowell, Chairperson James Merz, Vice-Chairperson, Charles Bryan, Lisa Canzit, David Klein, and John Tierney

# 2012 EXAMINATIONS—SUCCESSFUL CANDIDATES

Spring sittings for Exams 3L, 5 (Transition Exams 5A and 5B), 7, and 9 of the Casualty Actuarial Society were held May 8-11, 2012. Fall sittings for Exams 3L, 6-Canada, 6-United States and 8 of the Casualty Actuarial Society were held October 30-November 1, 2012.

Exams 1, 2, 3F/MFE, and 4 are jointly sponsored by the Canadian Institute of Actuaries, Casualty Actuarial Society, and the Society of Actuaries. Exam ST9 is administered by the Institute and Faculty of Actuaries (U.K.) on Enterprise Risk Management.

These computer-based examinations are administered multiple times each year. Candidates successful on these examinations were listed in joint releases of the Societies.

Following are the lists of passing candidates for 2012 CAS Examinations.

## Exam 3L, Spring 2012

Gloria Aghaulor Jesse Theobald Carroll David Andrew Ellis Adam J. Greenspan Steven Saunders Chamberlain Daniel Steven Ajun Brooke A. Engel John Christian Gutzler Alicia M. Albini Robert Allan Chin Daniel Jay Falkson Marian R. Hanigan Robert Edwin Balmer Christopher S. Chirico Jeffrev M. Feder Nick G. Hartmann Peter Edward Bartlett Benjamin Lee Christensen Kenny Qiyuan Feng Christopher James Hedenberg Aaron Frederick Fezatte Garret D. Hepburn **Jacqueline Ann Bean** Po-Wei Chuang Philip Spencer Bellott Jessica Lee Copp Jamie R. Flowers Shimshon Herz Jordan Alexander Holland Pamela Brittany Biewer Christina May Coppage Thomas M Foster Paul Conlan Blain Lidia Frattaruolo Neal M. Holland Arijit Das Adam C. Blair Emily Catherine Dietrich Wei Hsiang Doupu Geng Megan Margaret Callahan Jeffery C. DiFranco Newton Bulter Jennings Wenyi Gong Kelda Mary Slattery Carlson Nicole Cathryn Dikun Lauren K. Graybeal Han Jiang

# Exam 5, Spring 2012

Laura Elizabeth Brench Olga Achkasova Bryn Louis Clarke Yocheved Ephrathi Amy E. Ahlbrecht Philip James Brodeur Jonathan James Clermont Adina Erdfarb Valerie Nicole Albers David James Broomhead Marc-Andre Clermont Justin Joseph Falzone Lauren E. Amendo Wendy E. Coffing Daming Fan Khue Anh Bui Eric Harvey Anderson Jacob E. Burger Allan M. Cohen Brian H. Felkel Amber Lee Anseeuw Lucas Burlingame William J. Collins David Matthew Fernandez Erim Alejandra Burns Chunling Cong Anna Antonova Vadim Filimonov Songphol Arrewijit Bradley Bykowicz Patricia Conway Lauren Rachelle Ford Cameron Timothy Custis Jennifer M. Aschenbrenner Steven M. Caluori Patrick John Ford Andrew J. Ascoli Megan Elizabeth Camanocha David Yi Dai Elizabeth Rose Foss Irena Avlijas Robert Feng Cao Gyasi K. Dapaa Solomon Lee Frazier Jeffrey David Baer Mariel Capco Sean Robert Davis Jonathan Richard Fulop Jason Jonathan Robert Bakker Caryn C. Carmean Amanda M. Dawson Maripier Gagnon Bouchard Karol Baldyga Ionathan Carmine Auntara De Gabriel Gaudreau Drolet Penny Dee Barker Joseph T. Gerhardstein Richard C. Carter Belinda Dearce Brendan P. Barrett Jeffrey James Cecil Brian Michael DeGeorge Nicholas J. Getter Justin J. Bartoszek Charles Cervinka Grant Michael Goedde Jing Deng Charles Beaudin Harlem Chamberland-Carrier Qianxin Deng Iimisha Harish Gohil Gabriel Belanger Constantine W. Chan Richard Dale Derr Marina Goldovskiy Mary K. Bernard Won K. Chang Maxime Desrosiers Yening Gu Annette M. Berry Steven J. Chanlok Hubert Anthony Gudanowski Connie Di Pierro John A. Bertino Nabanita Chatterjee Christopher M. DiNicola Erik M. Guffy Angelo Besana Feng Chen Mathieu Dionne Patrick Guillemette John Blaser Jeffery Zunfeng Chen Thomas D'Onofrio Ran Guo Elie Bochner Lu Yi Chen Brian Drissel Xin Guo Martin Boisvert Cheuk Kit Cheng Xavier Dube Victoria Gutica Maxime Boivin Jonathan Choi Matthew Daniel Dufek Sarah Y. Haberman Ashley Lynne Borchardt Yung Man Choi Sarah Dupuis-Carrier Jillian Elise Hagan Daniel Warren Box Lily Chou Nedime T. Durak Scott Handley Theodore J. Christakos Alison N. Handschke Ekaterina Boyan Jennifer Lynn Edwards Sana Riaz Chughtai Matthew B. Elliott Mark William Harrison Kirsten J. Boyd Stephanie C. Brazie John William Clabots James Peter Englezos Thomas Michael Hartsig

Bryan James Hartwig Liang He Michael Lloyd Hedstrom Jason Bradford Hermanson Nicholas Hinzman Rebecca Hoffmann James H. Hollman Robert Edward Hooley Yue Hou Anthony Hovest Anton A. Hu Guangyu Hu Yikai Huang Douglas Carleton Hubbard Lawrence Edward Hubbard Melissa N. Huenefeldt Sarah Louise Hunter Jessica Ann Hussong Laura B. Igl Kevin M. Inderhees Joseph F. Jenkins Scott E. Jensen Jaykishan Jeyendran Li Jiang Andreas Johnson Cory Brandon Johnson Cyprian Manyu Juma Rachel A. Kagan Levi Kamenetsky Robert Nickolas Kaskovich Karen Allyson Kazun Spencer David K'Burg Stacy Joan Kearney Margaret Mary Kelly Jeffrey P. Kenia Ryan D. Kimber James Patrick King Kenneth Scott Klassman Jonathan Louis Kloc Matthew Knepper Kathleen M. Knudson Aaron Charles Koch Ioshua Aaron Kraft Michael L. Krakoff Tyler A. Kroetsch Ekaterina Kruchinkina Hugo Lafortune Brunet James Arthur LaHood Hsin-Hong Lai John Andrew Laing Saleh Lalani Chun Hin Lam Charles Gregory Lamb William C. Lamont Nathan Lance Matthew S. Lasater Kenneth Yin-Hei Lau Thanyanop Lausuksringam Madeleine Lavery

**Julie Ann Lederer** Bradford C. Lee Dominic Noel Lee Esther Lin Tze Lee Hugh Lee Min G. Lee Dorothy Ann Leemhuis Charles Wang Lei Olivia Leung Andrew Michael Lewis Bingfu Li Shu Li Siqi Li Ying Li Xiong Lian Jin Yuan Lin Mei Hong Lin Yingxian Lin Ziping Lin Baixiu Liu Henry Ding Liu Jiejing Liu Lijiao Liu Kok Weng Low Guozhen Lu Ming Luan Jakkapan Luangnarumitchai Andrea Lucchesi Julia B. Lui Yaming Luo Daniel W. Lupton Patrick D. Lynch Stephanie I. Lynn Ryan Joseph Mackinnon Anna Maevskaia Kevin R. Magley Andree-Anne Mailhot Matthew G. Malusa Christopher Manhave Ruth W. Maringi Robert L. Markwell Benjamin Marleau Donais Kimberly Marie Marxkors James P. Mathews Lee W. Mathewson Peter S. Mattei Kyle A. McCauley Clayton E. McFerran Elizabeth McMillen Marlee R. Mengel Eric Mercier Glen Eric Meyer Robert Lazar Midgette Steven T. Miller Michael H. Miniaci Bashir Moallim Brett Moberg Veronika Molnar

Mellody A. Mondini

Allison Paige Montigny

Erica A. Rhodes Suh Sin Moo Beth Morgan Ieremiah I. Richardson Michelle Marie Moriarty Donte L. Riddick David Morin Adam M. Ring James W. Morse Jeffrey Robinson Landon Kimball Mortensen Seth Michael Roby Alex Joseph Morton Matthew Robert Roddy Isaac Mostov Jason Lee Rohlfs Caroline Christopher Muegge Stephen Eugene Roll Michael I. Muhanna Steven Lawrence Rosen Leigh J. Murdick Brad Joseph Rosin Matthew Grayton Murphy Laura G. Roth Andrew Michael Ruhrdanz Philip B. Natoli Joshua Jacob Newkirk Kyle M. Ryan Virginia Newton Vera Sakalova Khiem Dinh Ngo Ryan R. Samaratunga Silvana Sarabia Quiroz George Christopher Nicholas Andrew Scott Nonnweiler Sean Satar David Paul Ochodnicky Jean-Christophe Sauriol Murphy O'Hearn Shelley Schad Shintaro Arthur Okura Brian T. Schwartz Folasona Thomas Olorunsola Brian P. Scott Wei Wen Stella Ong David Cole Seaton Theodore S. Ori Brock A. Seim Andrew R. Orlando Kameron Seto John Wilson Orr Ryan Scott Shackelford Andrew Otto Sameer Shah Eric W. Overholser Jenna Ann Shatek Elaine T. Shen Mitchell AJ Paden John Michael Pagliarulo Holland Sherba Jonathan Park Fang Shi Wilnex Canes Paul David Evan Sidney George Pavlis Jeffrey R. Slocum Stephanie Marie Slowinski Nino Joseph Ibo Paz Yoram David Perez Amanda Jean Smith Owen Geoffrey Smith Katrine Pertsovski Tory M Peterson Robert Edward Feitt Smith Phong V.N. Pham Samuel Charles Smith Eric Pince Sean M. Smith Anthony Pinello Trevor Gordon Smith Christopher David Pirkl Anders C. Solberg William Joseph Pitts Andrew Kenton Somers Jonathan Poisson-Rioux Alan Speed Adam Ronald Popek Brett Lawrence Stocks Denis Poulin-Lacasse Emma Josephine Stokes Joseph Daniel Stratton Sarah Power Anwesha Prabhu Laura Michelle Stromberg Anthony Frank Pragovich Michelle Stutey Forrest Milton Preston Difei Sui Victor C. Primak Sun Sun Wenwen Sun Yingting Qiang David Scott Quaid Yuelin Sun Guy Rabinowitz Bryan Richard Takvorian Elliott T. Rakestraw Firoozeh Talebian Selena Elisabeth Ransom Jia Wen Tan Nadejda G. Raynova Jimmy Chun Meng Tan Conor A. Redmond Zongwen Tan Daniel David Reed Alvin Tan Jin Kuan

Christopher William Laws

PeiPei Tang

Katherine Renee Terpstra

Anthony Lans Reiher

Megan Marie Reinhardt

Julie-Anne Theriault-Cauchon
Clive Thompson
Kimberly A. Thompson
Rino Thouk
Alexander E. Timm
Vilay Trin
Danielle Nicole Trinkner
Robert Mark Tromans
Bryan Ray Trone
Eric L. Truax
Gabriel Vachon-Marceau
Dhimal Vagh
Guillaume Vaillancourt

Christy Lynn Wagner Kokfai Wai Timothy James Walant Kimberly Ann Walker Scott William Wallisch Kimberly Walters Di Wang Huijun Wang Wenfang Wang Xiaoye Wang Yi Wang Ludwig Steven Wasik Brian W. Wellman Brian Wiest Carly Williams Dylan R. Williams

Matthew Randall Willms
Ashley Wohler
Derek M. Wong
Jing Yean Wong
Li Kuan Wong
Victor K. Wong
David Wright
Judy J. Wu
Yi Wu
Michael James Wurm
Haiqing Xiao
Yaoxi Xiong
Youjia Xiong
Min Xu

Soojin Yang

Yuting Yang

Li Oin Yeoh Chi Yan Yeung Simon Ying Yong Kyu Yoo Kyung Min Yoon Allison L. Young Eric J. Yskes Hengyu Yuan Diana Zaidlin Wenjing Zeng Shu Zhang Wenyi Zhang Tao Zhao Xiaowei Zhu Tianchi Zou Maijaleena Zucker

# Exam 5A, Spring 2012

Timothy Cameron Vosicky

Olena Voloshyna

Aleksey G. Vulf

Shyam Bihari Agarwal John M. Allen Marco A. Baratta Brian S. Beaucage Yvan Berthou Jeffrey W. Casey Mark Travis Chamberlain Christian Choquette Kristen Marie Dardia Jacob Brennan Davis Xiaoyu Dong John A. Erickson Yue Fan Jun Fang Yulia Finkelshtein Marc-Antoine Gelinas Gilbert Grady Jr. Aaron G. Haning Yue Huang Janet M Kang Brian Y. Ko Rov Kohl Linda Kuan **Emale Laurant** Guillermo Andres Letona

Prashanth K. Madabushi Marie-Angelique Massie Stuart W. Montgomery Nicolas Nadeau Kai-Ting Neo Bradford S. Nichols Joel Aaron Pepera Frank S. Rau Andrew Wade Raynes David Adam Ring Colin M. Rizzio Jared F. Rubinstein Andrew K. Schueler Xuyan Shi Douglas Michael Stromberg Garry Steven Sui-Tit-Tong Christina Marie Trefil Randall Boualay Xayachack Exam 5B, Spring 2012 Joseph J. Allard Robert E. Allen Frank A. Andrews Choon Hong Ang Benjamin Beckman Sheila J. Bertelsen

Stephen D. Blaesing Christopher S. Bramstedt David Patrick Burke Robert L. Bush Bobbie Lynn Cavna Sammany Chea Caitlyn Hyun E. Chung Jacqueline P. Danetz Trenton Ross Davis Mark D. Denny Kenneth R. Dipierro Michael J. Fiorito Aron Michael Fisch Jeremy Shawn Fogg Darin W. Fraser Wen-Lan Fu Francois Fugere Michael B. Gunn Kanwal Hameed Katherine Lyons Houlihan Rong Hu Zhi Gang Huang Jean-Philippe Lapointe Eric Trung Le

Peng Li Nicole P. Libby Yu Te Lin Jamie Yudan Li-Sztronga Phillippe Martin Hernan L. Medina Nicholas Andrew Merollo Gabriel Merton Jennifer Y. Nei Susan K. Nichols-Horan Edward L. Pyle Benjamin M. Rice Todd Clayton Saunders David B. Schofield Qi Shen Thomas J. Sheppard Linjuan Tang Jennifer R. Teter Eileen P. Toth Han H. Tran David V. Uhland Christopher B. Walendin

## Exam 7, Spring 2012

Laura Anne Allen
Qi An
David M. Baldwin
Laura Michelle Bonja
Ayla Brice Shaner Boyd
Zachary T. Brogadir
Stephen T. Brumley
Eric P. Chassie
Christine H. Chou
Jean-Philippe Daigle
Marie-Anne Demers
Simon Deschatelets
Phillip Walter Dlugosz
Andrew J. Draper

David Daniel Evans
Benjamin Ewbank
Hang Fan
Lei (Justin) Feng
James Thomas Fry
Julie A. Hagerstrand
Pamela Suzanne Hughes
Naheed Z. Jaffer
Matthew J. Jewczyn
Simon Jomphe
Eric P. Krafcheck
Edwin David Lopez
Brandon Lord
Justin Mah

Cyan Justina Manuel
Simon Marchesseault-Groleau
Ian Colan Mui
Nongkoh Dvukah Ndefru
Pradnya Nimkar
Julie L. Palmer
Kari A. Palmer
Alyssa M. Potter
Geoffrey David Purvis
Kyle B. Reed
Thomas S. Roth
Nathan C. Rugge
Jonathan David Sanders
Patrick Santala

Hanjin Li

Antoine Sasseville
Gregory Murphy Sollenberger
Leigh A. Soltis
Shane Taylor Steele
Adam N. Sturt
Doug A. Summerson
Jonathan Russell Taccone
Laura M. Thomas
William A. Uffenbeck
Matthew Randall Willms
Pan Corlos Wong
Michael Scott Woods
Michael A. Wykes
Steve Yun

Jin Zhu Zhang Quncai Zou Robert W. Justice Spencer Lewis Kantner Anand Khare Hallie Kintner Connie Marie Koch Gurpreet Kohli Thomas JR Lapinski Ryan Edward Ledger Mingwei Lei Scott Bell Lombardo Michael Edward Marhoefer

Philip Marsel David James McFarland Matthew Philip Meade Elizabeth Ellen Meyers Matthew Louis Montero Amanda Lynne Morgan Ellen Joy Myerson Matthew E. Olson Peter Ott Amy M. Parrish Pauline E. Philip Gabriel James Plano Phani Prakash Poranki

Iustin M. Reischutz Florian Richard Alec J. Richards Danielle Rinaldi Jamie Coleen Roderick Benjamin Michael Rozema Gina J. Rusnak Evan P. Saline Christopher John Schubert Diana Shen Ishan S. Shukla Nicole Rose Sims Pratyush Singh

Benjamin A. Stieglitz Amy J. Tam Hengzhou Tang Russell Taylor Michelle A. Terriquez Max Unger Leonard S Untung Katherine A. Williamson Hamilton H. Wong Karissa Lynn Wysocki Rebecca L. Yellets

Phillip Vial Spolarich

## Exam 9, Spring 2012

Ionathan C. Abbott Mathieu Alarie Alexander Esmail Alimi Christopher Allard Emily Stone Allen John E. Amundsen Anusha Lakshmi Anantharaju Neal James Anderson Diego Fernando Antonio Amanda Aponte Colleen Patricia Arbogast Iessica Lynn Archuleta Michael Thomas Atkinson Ka Lap Au Sarah Jane Austin Dede Amadou M. Ba Nathan David Bailey Sean Michael Bailey Daniel Karl Bardo Lauren Barozie Anna Baryshnikova Adam Bates Mathieu Bellemare Kelly Ann Bellitti Matthew Robert Belter Rebecca R. Bertagnoli Michael R. Bertrand Subhayu Bose Stephen A. Bowen Edward G. Bradford Jarod James Brewster Paul Andrew Brezovec Kelli Ann Broin Ross Martin Brotherston Sr.

Gavin David Brown-Jowett Michael Burnett Ryan A. Byrd Li Cao Qian Cao Yang Cao William R. Carbone

Alex M. Carges Michael Rice Cenzer

Amy M. Chang Sa Chen Yuting Chen Chuen Chee Cheng Cynthia Cheng Jennifer L. Cheslawski Raymond Ioi Meng Chiang Kudakwashe F. Chibanda Hui Ying Chin Joel D. Clark Matthew Charles Coatney Ariel T. Cohen Andrew August Coleman

Sean O. Cooper Colleen A. Cornell Laura Cremerius Weiyi Cui Xiaoye Cui Andrew Wells Dalton Thomas Randall Daly William Henry Dashiell

Steven Mark Manuel D'Cruz Lucia De Carvalho Zheming Deng Philippe Desharnais Esaie Djossou Rachel C. Dolsky Brent P. Donaldson Bo Dong

Derek William Davey

Michael Edward Dav

Grant T. Donkervoet Kimberly M. Dorani Mark R. Doucette Neal Ray Drasga

Jinjie Duan

Paul Michael Eaton Wilfred John Edwards Zachary M. Eisenstein Elizabeth E. End Daniel A. Engell Jonathan G. Eshelman John Daniel Fanning

Ryan P. Farrelly Denise D. Fast Yifan Fu Jennifer Robin Fucile

Yun Gao Timothy James Gaugler Daniel F. Gibson

John M. Gilbert

Michael Ryan Gittings Heidi Kathryn Givens John Peter Glauber Margaret Hendrix Glenn Meghan Sims Goldfarb

Lauren Goldstein David Govonlu Paul M. Grammens Joel Christopher Griffith

Michael Steven Goldman

Zhiran Han David Yoshitaka Hausman

Jared A. Helms Rachel C. Hemphill Peter Hennes

Adam Baron Hirsch

Ann Marie Helmann

Chi Ho Terence Ho Ray Yau Kui Ho Andrew William Hoffman

Emily Y. Huang

Hsiang Wen Huang

Shengli Huang Xiaodong Huang Kevin Hughes Rachel O. Hunter Lauren Miranda Inglis Rachel Andrea Intveld Daniel Patrick Jaeger Megan S. Johnson

Karen Jordan Lin Ju Ricky Chun-Kit Kam

Abigail Ouimet Katuska Scott P. Key

Duk Inn Kim Matthew Charles King Jeffrey Grant Kinsey Adam Joseph Kinson

Sandra F. Kipust Xiaoling Kong Ashley Jean Kramer Robert A. Kranz Seth Jason Kurpiel Christopher Kwok Alvin Kwong

Guillaume R. Labrecque

Voon Seng Lai Eric J. Lam

Nicholas Joseph LaPenta Garret J. Larson Joyce Lee Peng B. Lee Ping Hsin Lee Pui Man Lee

Sophia Zhonghua Lee Courtney L. Lehman Lai Na Lei Amy Rachele Lerch

Hua Li Lu Li Victor Yusen Li

Weilin Will Li Robert Emmet Lighthizer Jr.

Melody Ko Lin Steven C. Lin Chi-Jou Liu Qing Liu Kim Ho Lo Oin Lu

Nathan Lester Luketin Daphne Y. Lum Brett A. Lyons Xiaojiang Ma Harsha S. Maddipati Peter Anthony Magliaro Jean-Philippe Maheu Yui Pui Martin Mak

Alyssa Lyn Mansolf Antoine Marquis Jonathan T. Marshall David N. Martindale Andrew Z. Martinez Victoria Arias Mayen Kevin S. McBeth Francis McKinnon Clifford Dean Mefford Michael Mendel Justin T. Milam Anthony M. Milano Raoul Jacob Milgraum Carrie F. Miller Kellen Christopher Miller Laura Delaney Miller Nathan Andrew Miller Tara Lynne Miller Marc Michael Molik Josee Morin Alexander F. Morrone Gregory Raymond Moyer Helen E. Muller Christian Kleven Myers Kimberly Roseline Myers Jill T. Mysliwiec Jin Ye Ngu Diana Marie O'Brien Nemanja Odzakovic Robert Henry Osicki Brent J. Otto Tetteh Otuteve Nathan Vea Owens

Adam Peleshok Hong Peng Lili Peng Ashley M. Persson Jonathan David Peters Rebecca Lyn Pettingell Matthew J. Phillips Nicholas Alton Pipitone Matthew D. Piser Daniel James Plasterer Amanda P. Pogson Susan M. Poole Frederic Potvin Michael E. Powers Daniel Lee Price Bernard Provencher Jared A. Pursaga Justin N. Pursaga Jose Antonio Ramos Elizabeth M. Regan Yan Ren Christopher J. Reynolds Adam Lee Rich Sean Thompson Ritson Peter Kingsley Robson Amber M. Rohde Kelly A. Rothermel Eric Ruppert Elizabeth Asher Sanders Amy Beth Green Sayegh Phillip F. Schiavone Eric J. Schmidt Andrew James Scott Stephen Ray Segroves Nihar Mahesh Shah Michael Shapiro Cunhua Shi Jonathon L. Silver

Wonsop Sim

Jean-Philippe Simon Arooran Sivasubramaniam Jason M. Smith Jeremy C. Smith Katrina E. Smith Peter F. Soulen Trevor Jon Soupir Matthew Lee St. Hilaire Monica St. Jean Jeffrey S. Stehlgens Xiao-shu Su Landon Brent Sullivan Xiaovu Sun Leslie D. Svoboda Timothy Delmar Sweetser Tu Ngoc Ta Mark Taber Chien-Ling Tai Ling Feng Tan Jingli Tang Qian Tao Samuel Tashima Paul Aaron Taylor Carcasole Rajesh Charles Thurairatnam Kristen Leigh Tolman Casey Ann Tozzi Bruno Tremblay

Christopher George Turner

Katherine Anne Vacura

Marquis Jacob Varghese

Phillip Anthony Victory

Pierre-Olivier Vincent

Melissa Anne Elke Villnow

Gary James Vadnais

Edward F. Tyrrell

Karl Veilleux

Pascal Vincent

Sarah M. Voit

Cheryl J. Vu

Tsz Kit Wong Michael Scott Woods Peter N. Wootliff Aaron A. Wright Bihling Wu Randall Boualay Xayachack Yiying Xie Yan Yan Liqing Yang Rui Yao Patrick Chan-Chin Yu Andrew Ryan Yuhasz Rui Zhang Yan Zhang Albert Zhou Bei Zhou Zhao Zhou Anna Zilber Thomas Anthony Ziniti

Mitchell Waldner

Ernest L.Y. Wan

Huinian Wang

Jing Guan Wang

Zachary Samuel Webber

Darren Russell Weidner

Marilyn Ashley Wilson

Jonathan B. Winn

Steve Winstead

Todd F. Witte

David R. Wolf

Chi Hang Wong

Radost Roumenova Wenman

Jingjing Wang

Fan Wang

Jin Wang

Lu Wang

Cody Webb

Qiong Wei

# Exam ST9, Spring 2012

Avraham Adler David Patrick Moore Vikas P. Shah

Ginette Pacansky

Craig Steven Pacelli

Minesh Kumar Patel

Michelle Anne Pederson

James H. Panning

Kishen Patel

Jared G. Smollik Bryan C. Ware Sandy Wu

## Exam 3L, Fall 2012

Andrew G. Abbott Matthew Chan Patrick Allen Xiaoming Chen Gloria Ochango Amakobe Ankit Samuel H. Chun Anand Mark G. Cichra David Bibo Evan Cole Kelsey M. Bridges Michael Thomas Cook Nicole Burton Charles John Cullen Christopher Ryan Cahill Ruonan Ding Adam Thor Camargo Ralph M. Dweck Laura M. Campbell Keith A. Edwards Xin Yuan Cao Kathryn A. Fargnoli Emily M. Carlson Mikalai Filon

Erin ElizabethFogarty
Brett Stuart Foster
Fruma Gewirtz
Claire R. Gillett
Constanza S. Giordano
Jing Gong
Frank Gorg
Kyle Gorski
Nicholas Gullo
Constantinos Hadjistephanou
Spencer Thomson Hall

Barbara Madelon Harrington

Michael Lloyd Hedstrom Erica Helinek Holly Marie High Gloria Hong Dana Signe Jackson Seth Alexander Jackson Devin Tyler Jones Mwiti Mark Kalothi Levi Kamenetsky Daniel Kang Jeffrey Paul Katzman

Michael Andrew Hartke

Katie G. Kerckaert Bradley Keuten Katherine M. Kilimas Stella J. Kim Holly L. King Hans Friedrich Kist Christopher Michael Knuth Sekeya Kouadio-Payne Max Kravitz Abhishek Kuppili Yun Lei Michael B. Lewitter Vincent Li Russell Andrew Linder Lai-yue Sam Luo Christina Lynn Lutz

Jacqueline Nyokabi Mathenge Mark Maxwell Michael A. Mazzonna Ernest McAlister John William Michael Michelle Marie Moriarty Saravanan Muthukrishnan Sumeet P.S. Nanar Kranthi Ram Nekkalapu Janet C. Ng Daniel A. Nysch Erik Peter Olson Kamila Paszek Phu Chanh Phan Fawn Melissa Racicot Dina Rego John Russell Rose Jhavid William Rouhani

Brian C. Ruberti Dustin Schneider David Cole Seaton Levi R. Self Reena Marissa Shanker Michael Jeffrey Shannon Ryan Shivy **Iamie Shooks** Daniel Sisson Lindsey Smith Stacey Marie Smith Brandon S. Smith Darryl R . Sorenson Adam Chandler St. John Robert John Stubbs David Claudio Tolusso Jose Angel Torres Manjit Varwandkar

Darby M. Wallis Christopher Washburn Elizabeth Mae Wiebke Dana L. Winkler Jason Alan Wix Nicholas R. Wood Thomas Wright Shan Yao Kai Kwan Yeung Gang Yin Daniel Yip Jianming Zhang Jie Zhang Wanyue Zhang Dandan Zhang Ioana Adina Zorca

## Exam 6-Canada, Fall 2012

NeethaMariam Mamoottile

Manpreet S. Mann

Gabriel Belanger Olivier Bernier Charles Cervinka Chung Yiu Chan Monica Ying Kwok Chan Esther Chungwai Chan Raymond Ioi Meng Chiang Chan Ip Chio Yung Man Choi Maki Dahchour Marie-Anne Demers Jeremie Desgagne-Bouchard Philippe Desharnais Mathieu Dionne

Stephane Genereux Marco J. Gorgonio Karim Hobeila Emily Y. Huang Easwarathas Krishnapillai Ekaterina Kruchinkina Madeleine Lavery John Le Nicolas Lehoux Jingwen Li Henry Ding Liu Anson M. Lo Leonor C. Lujan

Gabriel Gaudreau Drolet

Justin Mah Simon Marchesseault-Groleau David N. Martindale Amélie McDonald Mark Naccache Christian Nadeau-Alary Jean-Sebastien Nepton Judy Wai Yan Ng Nemanja Odzakovic George Pavlis Yoram David Perez Steven Edward Phillips Denis Poulin-Lacasse Haseeb Rehman

Nabanita Chatterjee

Chi Fu Chen

DerrickC. Chen

Kai Chen

Fiona So Paul Aaron Taylor Carcasole Olivier Tessier Pierre-Olivier Vincent Olena Voloshyna Ernest L.Y. Wan Dennis C. Wong Yun Xu Fang Alice Yang Sabrina Yuen-Ming Yip Ying Yuan Rui Zhang

Jean-Christophe Sauriol

Joelle Saba

## Exam 6-United States, Fall 2012

Olga Achkasova

Maria Ann Agostinone Alexander Esmail Alimi Laura Anne Allen Pranav M. Amin Eric Harvey Anderson Anna Antonova Amanda Aponte Jennifer M. Aschenbrenner Andrew I. Ascoli Michael Thomas Atkinson Aditi Baker Karol Baldyga Marco A. Baratta Amy E. Beckius James L. Bedford Richard D. Behnke Blake Timothy Berman Annette M. Berry

Rebecca R. Bertagnoli

Ronald Louie Bertrand

Elizabeth G. Beslow

Anthony Joseph Bierke Eric Raymond Blancke Elie Bochner Iames O. Boss Ekaterina Boyan Laura Elizabeth Brench Philip James Brodeur Peter J. Brown Sara A. Bryant Michael Edward Budzisz Joseph Daniel Buehner Jeffrey A. Buero Lucas Burlingame Bradley Bykowicz Megan Elizabeth Camanocha Li Cao

Yuting Chen Minlei Chen Jie Cheng Kudakwashe F.Chibanda Christine H. Chou Sana Riaz Chughtai Ryan A. Ciaccio Bryan Clark Benjamin J. Clark Andrew August Coleman William J. Collins Dalia Concepcion Christi Cavalieri Patricia Conway Jeffrey James Cecil Sean T. Corbett Mark Travis Chamberlain Laura Cremerius Lon Chang Weiyi Cui David Michael Charlton Jie Dai Oneida Charrett David Yi Dai

KristenMarie Dardia Arijit Das William Henry Dashiell Derek William Davev Erin Gerber Davidson Amanda M. Dawson Robert Jonathan De Jesus Alexandra Decoste Jing Deng Vasilis Panagiotis Dikeakos Robert Kenneth Dohner Daniel R. Donahue Thomas D'Onofrio Ross William Donovan DonaldW. Doty James W. Doxey Brian Drissel Jinjie Duan LaurenN. DuBois WilfredJohn Edwards

Zachary M. Eisenstein

Philippe Elkabas

Matthew B. Elliott James Peter Englezos Tricia G. English Adina Erdfarb Justin Joseph Falzone Daming Fan Brian H. Felkel David Matthew Fernandez Lauren Rachelle Ford Solomon Lee Frazier Blake Jay Fuchtman Jennifer Robin Fucile Jonathan Richard Fulop Meghan Therese Gallagher Mauro Garcia Doupu Geng Nicholas J. Getter Paul Michael Giangregorio Yoram S. Gilboa Grant Michael Goedde Pei Ying Goh Lauren Goldstein Yening Gu Hubert Anthony Gudanowski Julie A. Hagerstrand Zhiran Han Ridhima Handa Kevin James Hanson Thomas Michael Hartsig David Yoshitaka Hausman Benjamin Harrison Haynes Yan He Peter Hennes Christopher D. Hickey Andrew William Hoffman Rebecca Hoffmann CharlesGriffith Hollar Bridget L. Hollenbeck James H. Hollman Robert Edward Hooley Jimmy Houng Rong Hu Anton A. Hu Guangyu Hu Yikai Huang Frank Yeou-Gong Huang Rebecca Min Huang

Lihu Huang Hsiang Wen Huang

Chenyan Huang

Sarah Louise Hunter

Jessica Ann Hussong

Esther Zahava Hy Laura B. Igl

Ika Marissa Irsan

Scott E. Jensen

Andreas Johnson

Lars T. Johnson

Lin Ju

Newton Bulter Jennings

Ethan Yisung Kang Sandip A. Kapadia Robert Nickolas Kaskovich Margaret Mary Kelly Jeffrey P. Kenia Corey M. Kientoff Sean Robert Kiernan Duk Inn Kim Jung-Ah Kim James Patrick King Adam Joseph Kinson Kenneth Scott Klassman Megan Michelle Klein Anton M. Klemme Lee W. Knepler Aaron Charles Koch Kien Weng Koh Parker B. Koppelman Eric P. Krafcheck Joshua Aaron Kraft Michael L. Krakoff Ashley Jean Kramer Benjamin C. Kraus Carrie H. Kuczak Jill Anne Labbadia Hsin-Hong Lai Voon Seng Lai Richard Christopher Lally CharlesGregory Lamb Nathan Lance Anom Duy Lane Matthew James Lange Garret J. Larson Thanyanop Lausuksringam Christopher William Laws Denys Lebedev Sophia Zhonghua Lee Pui Man Lee Amanda Christine Leesman Kirk J. Leesman Lai Na Lei Andrew Michael Lewis Daochun Li Ying Li Guang Yan Li Xiaoxuan Li Siqi Li Chia-Ching Lin Ziping Lin Joseph Kenneth Lindner Chi-Jou Liu Iianchun Liu Lian Liu

Brett A. Lvons Anna Maevskaia Kevin R. Magley Brittany Manseau Alyssa Lyn Mansolf David Jason Markowitz Cody Lee Marsh Charles F. Marshall Gina Marie Marzullo Lee W. Mathewson Jonathan C. McBeath James Jerome McCarthy Michael Anthony McComis Samantha Maple McLeod Clifford Dean Mefford John H. Meisse Marlee R. Mengel Jonathan R. Mesagaes Yan Miao Simon A. Michellepis Jacqueline Louise Micheller NathanAndrew Miller Lia Iuliana Morelli Matthew C. Morris William F. Morrissey Alex Joseph Morton Darrin Robert Most Isaac Mostov Judy Pool Mottar Michelle Moyer Helen E. Muller Leigh J. Murdick Jill T. Mysliwiec Sameer Singh Nahal Philip B. Natoli Michael S. Nelson Joshua Jacob Newkirk Khiem Dinh Ngo George Christopher Nicholas Bradford S. Nichols Chanyuth Norachaipeerapat David Michael Nye Christine Morgan O'Connell Robert Allan Olshefski Shze Yeong Ong Patrick J. O'Rourke Eric W. Overholser Bryan M. Pack Catherine Pallivathuckal Kari A. Palmer Alan M. Parham **Juvun Park** Joshua William Parvin Dev M. Patel Nino Joseph Ibo Paz

Joel Aaron Pepera

Ashley M. Persson

Katrine Pertsovski

Jonathan David Peters

Benjamin Marshall Permut

Phong V.N. Pham Eric Pince Anthony Pinello Nicholas Alton Pipitone Eric Mario Polzella Susan M. Poole Michael E. Powers Anwesha Prabhu Anthony Frank Pragovich David Allen Prevo Geoffrey David Purvis Rebecca E. Rabern Jose Antonio Ramos Diana Vassileva Rangelova Kaitlyn S. Raser Keith J. Raymond Conor A. Redmond Christopher David Reich Rebecca Barbara Reich Jiandong Ren Jeremiah I. Richardson Adam M. Ring Colin M. Rizzio Jeffrey Robinson Seth Michael Roby Stephen Eugene Roll Thomas S. Roth Nathan C. Rugge NathanE. Rule Ianet E. Rush Vera P. Sakalova Wenwen Salerno Michael Salerno Brian J. Samuelson Warren P. San Luis Keith Sanders Jonathan David Sanders Patrick Santala Silvana Sarabia Quiroz Laura Anne Sarnese Shelley Schad **Tobias Schuler** Brock A. Seim Kameron Seto Ryan Scott Shackelford Nihar Mahesh Shah Jennifer Diane Shay Holland Sherba Xiang Shi David Evan Sidney Peter Felix Skerlj Amanda Jean Smith Sean M. Smith Justin P. Smith Jason M. Smith Ashley Kathryn Smock Elvar Snorrason Andrew Kenton Somers

Christopher August Petrolis

Carolyn A. Pfeffer

Kean Mun Loh

Oin Lu

Julia B. Lui

Daniel W. Lupton

PatrickD. Lynch

Edwin David Lopez

Jakkapan Luangnarumitchai

GiorgioAlfredoSpedicato Brooke S. Spencer Matthew Lee St. Hilaire Patrick Thomas Stapleton Jeffrey S. Stehlgens Glenn Edward Stewart Brett Lawrence Stocks Gennady Stolvarov Joseph Daniel Stratton Landon Sullivan Doug A. Summerson Sun Sun Xiaoyu Sun Kevin W. Sutanto Jonathan E. Swartz Whitney Lenae Sykora Jonathan Russell Taccone Bryan Richard Takvorian Andrew Lucien Talarowski Chunlei Tan

Ling Feng Tan Katherine Renee Terpstra Clive Thompson Michael B. Thompson Alexander E. Timm Cong Tan To Lukasz Tomaszewski Lauren Ann Train Gavin Mark Traverso Andrea E. Trimble Danielle NicoleTrinkner Bryan Ray Trone Eric L. Truax William A. Uffenbeck Leonard S. Untung Cheryl J. Vu Baongoc Hung Vu Christy Lynn Wagner Timothy James Walant Mitchell Waldner

Peter Douglas Waldron Scott William Wallisch Kimberly Walters Junmei Wang Yi Wang Jingjing Wang Timothy Y. Wang Lu Wang Cody Webb Richard A. Wein Andrew Michael Weinecke Thomas Christopher Werner Daniel Francis White Iaris B. Wicklund John Michael Wiechecki Matthew Randall Willms Jonathan B. Winn Kelly E. Witte Ashlev Wohler Derek M. Wong

Eric James Wunder Guangjin Xiao Yiying Xie Junkai Xu MarcusM. Yamashiro Rui Yao Iennifer Yeh AllisonL. Young Steve Yun Thomas Nelson Zdon Natalie Anne Zerwinski Wenyi Zhang Albert Zhou Xiaowei Zhu Derek Ryan Ziegler Tianchi Zou

Pan Corlos Wong

Kenneth H. Woo

Yun Wu

## Exam 8, Fall 2012

Tisha Abigail Abastillas Jonathan C. Abbott Scott D. Anderson ColleenPatriciaArbogast Songphol Arrewijit Dede Amadou M. Ba **Jeffrey David Baer** Nathan David Bailey Zachary Ballweg Kitty Bao Brendan P. Barrett Adam Bates Jennifer Lee Beers Nicole Kristen Belmonte Matthew Robert Belter Michael Bergeron Laura Michelle Bonja Stephen A. Bowen Ayla Brice Shaner Boyd Jarod James Brewster Elizabeth Janice Brown Ryan A. Byrd Steven M. Caluori WesleyCampbell William R. Carbone Alex M. Carges Eric P. Chassie Sa Chen Louis Chen Sarah Ashley Chevalier Penn Wang Chou Emily Daters Cilek

Joel D. Clark Matthew Charles Coatney

Ryan Crabtree

Michael B. Cunningham Andrew Wells Dalton

Thomas Randall Daly Craig C. Davis Michael Edward Day Zheming Deng Phillip Walter Dlugosz Matthew Richard Duke Paul Michael Eaton Elizabeth E. End Yocheved Ephrathi Matthew B. Estes David Daniel Evans Benjamin Ewbank Jayson C. Farrell Kevin L. Feltz Ivan M. Fernandez Cory Michael Fujimoto Wei Gao Timothy James Gaugler

Adam Michael Gerdes Demetria Anne Gianopoulos Mathieu Giguere Michael Ryan Gittings Ryan David Givens Mark M. Goldburd Meghan Sims Goldfarb Michael Steven Goldman Marcela Granados Joshua Thomas Greene Keven Grenier-Denis Joel Christopher Griffith Kevin A. Groom

Timothy Allen Gault

Justin Gordon Gensler

Kathy Gu Carl Roy Gullans Jillian Elise Hagan Brian P. Hall

Alison N. Handschke Jeremy Huston Harlow Gregory L. Helser Rachel C. Hemphill Heidi Marie Holtti Anthony Hovest Peter P. Huang Wei Q. Huang Shengli Huang Geng Song (Gibson) Huang Xiaodong Huang Kevin Hughes

Chris Izbicki Nitesh Jain Simon Jomphe Karen Jordan Karen Allyson Kazun Matthew M. Kershner Scott P. Key Aditya Khanna Anand Khare

Rachel O. Hunter

Sandra F. Kipust Aaron Charles Koch Moshe Kofman Roy Kohl Chi Hin Keith Kwan Guillaume R. Labrecque Hugo Lafortune Brunet Heather D. Lake Rachel Andrea Larson Marc-Andre Lebeau Julie Ann Lederer Peng B. Lee Chun King Lee

Isaac Lee

Ping Hsin Lee

Hugh Lee Dorothy Ann Leemhuis Amy Rachele Lerch Guillermo Andres Letona Victor Yusen Li Yanging Li

Linshu Li Joyce Cheuk Chi Li Winson See-Hung Li Robert Emmet Lighthizer Chi-Jou Liu

Jun Liu Kim Ho Lo Danielle Marie Long Kok Weng Low NathanLester Luketin Daphne Y. Lum Kun Ma Jinbing Ma Harsha S. Maddipati Paul J. Majchrowski Gregory Vincent Martain

Christopher B. Martin Victoria Arias Mayen Gregory F. McNulty John H. Meisse Eric Mercier Joseph Scott Merkord Justin T. Milam Tara Lynne Miller Michael H. Miniaci Marc Michael Molik Alexander F. Morrone Gregory Raymond Moyer Nerissa S. Nandram Joseph Nemet Alison Marie Norton

## 2012 Examinations—Successful Candidates

Robert Henry Osicki Veronique Ouellet Nathan Vea Owens John Francis Pagano James H. Panning Brett A. Parmenter Alden Penn Matthew J. Phillips Michaela C. Porter Daniel Lee Price Bernard Provencher Jared A. Pursaga Yingting Qiang Yitian Qin Guy Rabinowitz Moiz Rawala Elizabeth M. Regan

Melissa A. Remus

Arlene M. Richardson Amara Kamanu Robbins Peter Kingsley Robson Matthew Robert Roddy Amber M. Rohde Anne Ruel Eric Ruppert Marion K. Sajewich Robert M. Sanders Antoine Sasseville Sean Satar Christopher Merlin Schumacher Andrew James Scott Steffen Siegel Gabriel John Silvasi Wonsop Sim Leigh A. Soltis

Sneha Ramesh Soni

Shane Taylor Steele Joseph John Stierman Laura Michelle Stromberg Adam N. Sturt Landon Sullivan Samuel Tashima Caitlin E. Tatarzyn Cameron Ross Thomas Ryan Thomas Rajesh Charles Thurairatnam Melissa Tomita Etienne Trudel Diana Tsz Yan Tse Shane P. Vadbunker Ryan Vigus Todd Patrick Walker Qingxian Wang Huiping Wang

Dylan R. Williams Steve Winstead David R. Wolf Tsz Kit Wong Sylvia Sze Wai Wong Michael Scott Woods Michael A. Wykes Patrick Chan-Chin Yu Na Li Yu Jin Zhu Zhang Yeming Zhang Chao Zheng Zhao Zhou Anna Zilber Quncai Zou David E. Zurndorfer

# **NEW FELLOWS ADMITTED IN MAY 2012**



Row 1, (left to right): Heidi Sullivan (FCAS November 2011), Eunice K.Y. Loi, Emilie Rovito Dubois, Denise Susan Di Renzo, CAS President Patricia Teufel, Etienne Collard-Proulx, Alissa Joy Bowen, Yun Li, Alena Kharkavets.

Row 2, (left to right): Andrew S. Herman, Michael J. Reynolds, Derek P. Cedar, Sean A. Ruegg, Gordon Hamilton Hines, James E. Davidson, Todd A. Gutschow, Chunpong Woo, Dennis A. Franciskovich.

Row 3, (left to right): Katherine Stelzner, Shane Eric Barnes, Scott G. Burke (FCAS November 2011), Brett D. Jaros, Brian C. Alvin, Emily A. Lyons, Devyn K. Clifford, Molly Catherine Ingoldsby, Xianfang Liu, Sebastien Bernard.

# NEW FELLOWS ADMITTED IN MAY 2012



Row 1, (left to right): Kirsten M. Singer, Kelly Aline Sullivan, Tracey Ellen Steger, Annie On Yee Wong, Julia Methling Ryan, CAS President Patricia Teufel, Tracy Leslie Valentine, Julieta A. Zambrano, Joanne Yammine, Lydia Roy, Brian M. Ironside.

Row 2, (left to right): Kaushika Sengupta, Jared Wallace Steinke, David R. Iverson, Xiaoyun Ling, Nadia Pelletier, Ghislain Brault-Joubert, Sergei A. Panafidin, Laura Lucy Sutter (FCAS November 2011), Mark B. East, Pierre Parenteau (FCAS November 2011), Steven P. Lafser.

Row 3, (left to right): Michael Thomas Villano, Lijia Tian, Benjamin Carl Ferguson, Katherine Ann Eenigenburg, Adam B. Tyner, Bo Yan, David Itzkowitz, Michael Epstein, Xuan Li, Cui Liu (Karen) Cai (FCAS November 2011).

New Fellows not pictured: Fiona E. Ha, Ashish Rasik Hingrajia, Yehuda S. Isenberg, Paul E. Kutter, Pin Chin Lung, Sikander Shiraz Nazerali, Ping Su, Hao Wang, Zheng Yu Wang, Nan Zhang.

# **NEW ASSOCIATES ADMITTED IN MAY 2012**



Row 1, (left to right): Jesse Yehuda Groman, Jayson C. Farrell, Ryan A. Byrd, Tisha Abigail Abastillas, CAS President Patricia Teufel, Meghan Sims Goldfarb, Joel D. Clark, Whitney A. Billerman, Ayla Brice Shaner Boyd.

Row 2, (left to right): Peter P. Huang, Adam Bates, Matthew Robert Belter, Neal James Anderson, Colleen Patricia Arbogast, Laura Michelle Bonja, Zachary T. Brogadir, Heidi Kathryn Givens, Mark R. Doucette, Alicia Marie Gasparovic, David Daniel Evans, Matthew Charles Coatney.

Row 3, (left to right): Ryan David Givens, Mark M. Goldburd, Andrew Wells Dalton, Robyn K. Coffman, Paul M. Grammens, Kathy Gu, Nicole A. Hackett, Sara J. Hemmingson, Rachel Henry.

### **NEW ASSOCIATES ADMITTED IN MAY 2012**



Row 1, (left to right): Nerissa S. Nandram, Raoul Jacob Milgraum, Sandra F. Kipust, Joseph Scott Merkord, CAS President Patricia Teufel, Matthew M. Iseler, Tamara Lynn Manges, Karen Jordan, Kevin S. McBeth.

Row 2, (left to right): William Steve Randolph, Sayali Jayant Joshi, Julie Laverdiere, Tara Lynne Miller, Melody Ko Lin, Rachel C. Hemphill, Gregory L. Helser, Jeremy Huston Harlow, Paul J. Majchrowski, William Joseph Prucknic.

Row 3, (left to right): Mary E. Reading, Robert C. Swiatek, Nongkoh Dvukah Ndefru, James Andrew Kirtland, Jennifer E. Prosser, Elchanan Y. Levy, Nathan Lester Luketin, Marc Michael Molik, Ravi Ranjan.

### **NEW ASSOCIATES ADMITTED IN MAY 2012**



Row 1, (left to right): Sarah M. Voit, Allison C. Tiller, Jin Zhu Zhang, Chao Zheng, CAS President Patricia Teufel, Samuel Tashima, Andrew James Scott, Shane Taylor Steele, Kristen Leigh Tolman.

Row 2, (left to right): Katherine Anne Vacura, Marion K. Sajewich, Melissa Anne Elke Villnow, Eric Ruppert, Zachary K. Rutledge, Yan Yan, Dawn M. Schulze, Trevor Jon Soupir, Sylvia Sze Wai Wong.

Row 3, (left to right): Ryan Vigus, Thomas Anthony Ziniti, James Tyler Word, Michael Scott Woods, David J. Sheridan.

New Associates not pictured: Kenneth C. Beckman, Hui Ying Chin, Deborah Marie Chomiuk, Michael Edward Day, John Peter Glauber, Michael Ryan Gittings, Chi Ho Terence Ho, Rachel Andrea Intveld, Bobby Jacob, Matthew J. Jewczyn, Sz-Fan Lai, Chun King Lee, Lu Li, Steven Ling, Laura Ann Rapacz, Katrina Andrea Redelsheimer, Kyle B. Reed, Crystal Valarie Sala, Jeremy C. Smith, Hoi Ying Katy Siu, Marilyn Ashley Wilson, Xi Wu, Quncai Zou, David E. Zumdorfer.

### NEW FELLOWS ADMITTED IN NOVEMBER 2012



Row 1 (left to right): Aaron A. Wright, Darren Russell Weidner, Pascal Vincent, Minesh Kumar Patel, CAS President Patricia Teufel, Timothy Delmar Sweetser, Peter F. Soulen, Phillip Anthony Victory, Jeremy C. Smith.

Row 2 (left to right): Peter Anthony Magliaro, Liqing Yang, Jonathan T. Marshall, Karl Veilleux, John Daniel Fanning, Daniel James Plasterer, Xiao-shu Su, Marilyn Ashley Wilson, Matthew D. Piser, Radost Roumenova Wenman.

Row 3 (left to right): Anthony M. Milano, Matthew J. Jewczyn, Amanda P. Pogson, Melody Ko Lin, Nan Jenny Zhang (FCAS May 2012), Abigail Ouimet Katuska, Chien-Ling Tai, Zachary Samuel Webber, Huinian Wang, Chi Ho Terence Ho.

#### NEW FELLOWS ADMITTED IN NOVEMBER 2012



Row 1 (left to right): Lauren Barozie, Paul Kutter (FCAS May 2012), David Payne, Kishen Patel, CAS President Patricia Teufel, Yan Zhang, Gavin David Brown-Jowett, Jeffrey Grant Kinsey, Melanie Ostiguy.

Row 2 (left to right): Justin N. Pursaga, Bo Dong, John M. Gilbert, Daniel A. Engell, Xiaoyu Dong, Elizabeth Asher Sanders, Henry Hang-Lei Lim, Diana Marie O'Brien, Josee Morin, Christina Picarro Reich.

Row 3 (left to right): Michael Burnett, Colleen A. Olthafer, Ann Marie Helmann, Xiaoye Cui, Ling Bai, Alvin Kwong, Phillip F. Schiavone, Jonathon L. Silver, Neal Ray Drasga, Lauren Miranda Inglis, Nicholas Joseph LaPenta.

#### NEW FELLOWS ADMITTED IN NOVEMBER 2012



Row 1 (left to right): Amy M. Chang, Jennifer Cheslawski Balester, David Govonlu, Goh Jio Young (FCAS May 2012), CAS President Patricia Teufel, Michael Rice Cenzer, Edward F. Tyrrell, John Peter Glauber, Jonathan R. Sappington.

Row 2 (left to right): Christian Kleven Myers, Subhayu Bose, Kelli Ann Broin, Margaret Hendrix Glenn, Sean O. Cooper, John E. Amundsen, Brent J. Otto, Brent P. Donaldson.

Row 3 (left to right): Hai Na Han, Seth Jason Kurpiel, Ray Yau Kui Ho, Katherine Anne Vacura, Amy Beth Green, Lucia De Carvalho, Kelly Ann Bellitti, Christopher Allard, Courtney L. Lehman.

New Fellows not pictured: Jessica Lynn Archuleta, Sarah Jane Austin, Matthew Ball, Paul Andrew Brezovec, Rachel C. Dolsky, Ryan P. Farrelly, Yifan Fu, Yun Gao, Adam Baron Hirsch, Daniel Patrick Jaeger, Megan S. Johnson, Uri A. Korn, Joyce Lee, Hua Li, Steven C. Lin, Xiaojiang Ma, Yui Pui Martin Mak, Thomas James Marshall, Hong Peng, Adam Lee Rich, Sean Thompson Ritson, Kelly A. Rothermel, Stephen Ray Segroves, Leslie D. Svoboda, Mark Taber, Casey Ann Tozzi, Jin Wang, Jiangtao Xiong, Yan (Peter) Yan, Bei Zhou.

### NEW ASSOCIATES ADMITTED IN NOVEMBER 2012



Row 1 (left to right): Bryan M. Stewart, Jeffrey David Baer, Bashir Moallim, Yaming Luo, CAS President Patricia Teufel, Diego Fernando Antonio, Cory Michael Fujimoto, Sa Chen, Roy Kohl.

Row 2 (left to right): Kellen Christopher Miller, Julie Ann Lederer, Laura Michelle Stromberg, Katrina E. Smith, Adam N. Sturt, Eric M. Sligay, Marc-Andre Lebeau, Frederic Potvin.

Row 3 (left to right): Jinbing Ma, Eric L. Greenberg, Anand Khare, Eric P. Chassie, Matthew B. Estes, Anthony Hovest, Victor Yusen Li, Daniel Lee Price.

### NEW ASSOCIATES ADMITTED IN NOVEMBER 2012



Row 1 (left to right): Edward L. Pyle, Jason Lee Rohlfs, Sarah Y. Haberman, Michael A. Wykes, CAS President Patricia Teufel, Guillermo A. Letona, Amber M. Rohde, Joshua Thomas Greene, Timothy James Gaugler.

Row 2 (left to right): Benjamin Ewbank, Alex Carges, Daphne Y. Lum, Elizabeth M. Regan, Tyler John Birkel, Steven Joseph Walsh, Kimberly Ann Walker, Brendan P. Barrett.

Row 3 (left to right): Michael Ryan Gittings (ACAS May 2012), Randall Boualay Xayachack, Carl Roy Gullans Jr., Eliezer Yosef Blum.

### NEW ASSOCIATES ADMITTED IN NOVEMBER 2012



Row 1 (left to right): Victoria Arias Mayen, Antoine Sasseville, CAS President Patricia Teufel, Philippe Gagne, Eric Mercier. Row 2 (left to right): Sarah Ashley Chevalier, Emily Daters Cilek, Jonathan G. Eshelman, Ryan Crabtree, Anne Ruel.

New Fellows not pictured: David M. Baldwin, Yvan Berthou, Paul Michael Eaton, Kendra C. Forrest, Brandon D. Gilbert, Eric L. Greenberg, Wei Q. Huang, Mu-Chun Huang, Apundeep Singh Lamba, Amy Rachele Lerch, Steven Luther Martin, Gregory F. McNulty, Michael H. Miniaci, Yan Ren, Anne Lindsay Rowand, Jared F. Rubinstein, Christopher Merlin Schumacher, Eric K. Slavich, Leigh A. Soltis, Michael Brandon Synowicki.

### **OBITUARIES**

Mary V. Anderson
Alexandre Cung-Rousseau
Kiran Rasaretnam
David C. Riek
Norman Rosenberg
Elsie Ruchlis
Brian Michael Scott
Kathleen Williamson Terrill

## Mary V. Anderson 1941-2012

Mary V. Anderson of Indianapolis passed away on April 21, 2012 at the age of 71. She was an FSA since 1984 and an FCAS since 1988.

As president of the Actuarial Club of Indianapolis, she oversaw volunteers from her club act who acted as tutors, coaches, and mentors to the students of All Saints, a Catholic grade school in the heart of the city. The volunteers, who came from diverse companies in Indianapolis, tutored and coached the members of the school's Math Pentathlon team. The seventh graders competed in the citywide competition in which students played board games based on math principles. Mary once accompanied a group of 12-year-old "Math Pentathletes" to the annual meeting of the Society of Actuaries, Before the opening session, the students demonstrated their math abilities in a presentation that included remarks from teachers and students and a whirlwind game of Remainder Island, one of the Pentathlon games.

In the Actuarial Foundation's article "From Office To Classroom—Actuaries Spark Students' Love of Math" by Linda Heacox, Mary urged actuaries attending an SOA annual meeting to tutor children in math. "Get your company involved, your actuarial club, your university and call the Foundation," she said. "There is no reason actuaries in any city or professional situation should not be part of this great program."

## Alexandre Cung-Rousseau 1981-2011

Alexandre Cung-Rousseau died on December 6, 2011, at the age of 30 years old. He was born in 1981.

Alexandre graduated from La Camaradiere High School, Quebec City, in the class of 1998. He was admitted as a new Associate of the Casualty Actuarial Society in November 2006. He became a Fellow in 2008. He also had become a Fellow of the Canadian Institute of Actuaries in 2009.

He is survived by his mother, Suzette Rousseau; his father, Cung Trong Toan; his sister, Geneviève (Dean Oemcke); and his grandparents, Cung Dinh Lien and Phan Thi Hong. Outside his immediate family, Alexandre was also mourned by his uncles, aunts, cousins, friends, and colleagues at work.

## Kiran Rasaretnam 1967-2011

Kiran Rasaretnam died on September 20, 2011, at the age of 43. Born Nov. 26, 1967, he graduated from the University of California, Berkeley in 1990 with a bachelor of arts degree in applied mathematics with an emphasis in statistics and economics. He became a Fellow of the Casualty Actuarial Society in 1998.

From 1990 to 1999, he was the regional actuary and finance director for the largest region of the Fireman's Fund Insurance Company. Kiran joined InsWeb in March 1999 as vice president, consulting and actuarial Services. He was promoted to senior vice president, finance in April 2001. In 2007, Kiran was promoted to chief financial officer and was responsible for overall oversight of the financial operations of the company.

Kiran was a fun-loving person filled with positive energy. He was ready with a laugh and made others laugh with his stories. He was known as a good boss, a good friend, and an avid golfer. Kiran was the kind of guy who was delighted to dance with a three-year-old at a wedding or would drive two hours just to have a drink with an old friend. He will be terribly missed by his family and friends.

## David C. Riek 1967-2012

David C. Riek of Ridgefield, Connecticut, passed away on September 9, 2012 at the age of 44. Born in Chicopee, Massachusetts, he grew up in Hicksville, NY. He received his bachelor's degree from SUNY-Binghamton.

He entered the reinsurance industry first as an associate actuary and then as an underwriter, earning his ACAS in 1999. He was senior vice president at Ace Tempest Re, an Ace Group reinsurance unit based in Stamford, where he worked for eight years. A resident of Ridgefield during those years, he was a runner and participated in numerous triathlons. He enjoyed golf, music, and most especially spending time with his family. He is survived by his wife of 14 years Naomi (Collinge); his children Benjamin, Natasha, and Charley; his parents Justus and Mary Ellen Riek of Northport, New York; and his sister Jennifer, also of Northport.

### Norman M. Rosenberg 1912-2008

Norman Rosenberg died on Feb. 8, 2008, in Sedona, Arizona, at the age of 95. He was born on July 19, 1912.

He served in the U.S. Navy during World War II. After the war, he obtained his FCAS in 1947 while working for Farmers Insurance Group in Los Angeles, California.

Mr. Rosenberg retired in 1978 and lived in Beverly Hills, California, and Sedona, Arizona. During retirement Norman did some pro bono actuarial work and followed the school sporting career of his grandson.

In a 1997 Actuarial Review profile of the Fellowship class of 1946, Matt Rodermund wrote a rhyme in honor of Norman:

Now together let's lift a glass of fresh frozen

Orange juice to rhyme our salute to Norm Rosen-

berg, who, for some years, was the sole actuary in all of Los Angeles-

He couldn't even find a few reasonable facsimiles.

## Elsie Ruchlis 1913-2011

Elsie Ruchlis passed away on August 3, 2011, at the age of 98.

She became a Fellow in 1938 and was very proud of being one of the few early women Fellows of the CAS. She took her Associateship and Fellowship exams under her maiden name, Elsie Kardonsky, while she was employed at the New York Compensation Insurance Rating Board from 1934 to 1942. In 1942 she left the Compensation Board to raise her family. In 1954 she returned to work at the National Bureau of Surety Underwriters and remained there until she retired in July 1973.

In the last years of her life, Elsie was a contributor for the CAS Centennial History book. A self-proclaimed "accidental actuary," Elsie recounts what it was like to be a working woman in a predominately male field during the 1930s and 1940s. The CAS Centennial History will be published in 2014.

She was married for 58 years to her husband, Hyman Ruchlis, a well-known writer about science and mathematics for children, who died in 1992. Elsie was a resident of Oakland, California.

## Brian Michael Scott 1974-2012

Brian Michael Scott, 38, of Pfafftown, North Carolina, passed away on August 9, 2012, in Durham, North Carolina. He was born August 8, 1974, in Forsyth County, to Wade C. Scott and Brenda Hobson Scott, and was a lifelong resident of Winston-Salem.

He was a 1992 graduate of Mount Tabor High School and a 1996 graduate of Wake Forest University with a bachelor's degree in science in math and economics.

Brian worked as an actuarial consultant at his own company, Triad Analytic Solutions. He became an ACAS in 2009.

He is survived by his loving wife Carrie Cook Scott; his three young sons Alex, Mason, and Zach; his parents Wade and Brenda Scott of Winston-Salem; his sister Wendy Scott Cruess (Greg); and his grandparents Carl and Ruby Hobson of Winston-Salem.

He was an enthusiastic Wake forest fan, never missing a football or basketball game. His favorite thing to do was to spend time with his three boys and his extended family.

#### Obituaries

# Kathleen Williamson Terrill 1959-2012

Kathleen Williamson Terrill of Sunapee, New Hampshire and Northborough, Massachusetts, passed away in Worcester, Massachusetts, on April 10, 2012. She was 52.

She was born in Rochester, New Hampshire, in 1959 and grew up in Essex Junction, Vermont. She graduated from Bowdoin College with honors as a double major in economics and math. She worked as a property and casualty actuary in San Antonio, Worcester, Boston, and Chicago. She became a Fellow of the Casualty Actuary Society in 1986 and was a company officer at Liberty Mutual Insurance Company.

She is survived by her husband Robert Terrill, M.D.; her son James; her daughter Margaret; her mother Brenda Williamson; her sisters Jennifer Sorrell, Dott Lamore, Joan Safford, Helen Williamson, and Desiree Fields; and her brothers, Ron Williamson Jr. and Paul Williamson. She was predeceased by her father Ronald Williamson.

She managed her husband's office for the last 10 years of her career. She was an avid runner and enjoyed spending time with her flowers, friends, and family.