April 2011

CAS Research & Development News

Enterprise Risk Management News

by Vice President-R&D Louise Francis



The 2011 ERM symposium was held March 14-16 in Chicago. A variety of topics were covered including systemic risk and systemic risk regulation,

emerging risks, and standards of practice for ERM. Handouts and papers are available at:

http://www.ermsymposium.org/2011/ handouts.php

A call for papers was sponsored in conjunction with the symposium. Topics vary from "Stress and Resiliency: Testing Mandlebrotian Grey Swans" to "US Property-Casualty Underwriting Cycle Modeling and Risk Benchmarks". The papers can be found at:

http://www.ermsymposium.org/2011/ call-for-papers.php. An exposure draft of standards of practice for ERM was recently released. I encourage you to go to the <u>ASB web site</u> to read and comment on the exposure draft.

The JRMS (Joint Risk Management Section) sponsored a call for essays on the financial crisis. The essays were published this winter. This was round two: "Systemic Risk Financial Reform and Moving Forward from the Financial Crisis," a sequel to essays published in 2008. The essays can be found at: <u>http://www.soa.org/news-and-</u> publica-

tions/publications/essays/default.aspx.

Due to the efforts of the Views and Visibility task force, an edited version my essay was published on Forbes.com:

www.forbes.com/2011/02/07/fraudrecession-corporate-responsibilityleadership-leaders-reform.html.

Attend the 46th Actuarial Research Conference!

The 46th Actuarial Research Conference (ARC) provides an opportunity for academics and practitioners to meet and discuss current actuarial problems and their solutions. This year's theme is "Connecting The-

ory and Practice." Practicing actuaries are urged to join the academics. Theory and Practice

Visit the <u>conference website</u> for a list of sponsors, online registration, online reservations for accommodations and abstract submission. Contact <u>Jim Bridgeman</u> for additional details. Theme: Connecting Theory and Practice Date: August 11-13, 2011 Location:

Storrs, Connecticut

<u>Reminder:</u> Second Cycle Reports Due April 15

Inside this issue:

Climate Change Committee	2
Committee on Ratemaking	2
Committee on Reserves	2
Hachemeister Prize Commit- tee	2
Committee on Management Data and Information	2
Dynamic Risk Modeling Committee	3
Committee on Health Care Issues	3
Valuation, Finance & Invest- ments Committee	3
Committee on Reinsurance Research	3
Committee on Theory of Risk	3
Working Party & Task Force Updates	4,

Climate Change Committee

The Climate Change Committee, chaired by Susan Woerner, has had two teleconferences in 2011 so far: January 11 and April 5. The committee is still waiting to get its research project on "Determining the Impact of Climate Change on Insurance Risk and the Global Community" started. An agreement is nearly complete between the CAS, SOA, CIA and the researchers.

Committee on Ratemaking

The Committee on Ratemaking, chaired by Todd Lehmann, recently completed its 2011 Call Paper Program. Nine papers were published in the <u>Winter, Volume 2 CAS *E-Forum*</u>. Six of those papers were presented at the Ratemaking & Product Management Seminar in New Orleans in March.

The Ratemaking Prize was awarded to Fred Klinker for his paper, <u>Generalized Linear</u> <u>Mixed Models for Ratemaking: A Means of Intro-</u>

Hachemeister Prize Committee

The Hachemeister Prize Committee is chaired by Dave Cummings and is currently underway for 2011. The sole goal of the Committee is to chose the 2011 Hachemeister Prize winner. ducing Credibility into a Generalized Linear Model Setting. This was the first time the prize has been given in 8 years.

The committee is also helping edit a Risk Classification Work Group Monograph, will soon launch its 2013 Call Paper Program, and has two active Working Parties: the Ratemaking Survey Working Party, and the R Working Party. More information on the Working Parties can be found on page 4.

Eligible papers are those that appeared in the 2010 ASTIN Bulletin issues, plus any papers presented at the 2010 ASTIN Colloquium or AFIR Colloquium. There are 72 eligible papers for the 2011 prize.

Committee on Reserves

The Committee on Reserves, chaired by Mark Shapland, most recently met on December 14 and plans to meet again on April 12.

The Committee's email list on reserving topics is still in the early stages of development.

It's co-sponsoring the Loss Simulation Model call paper program with the Committee on Dynamic Risk Modeling. In addition, its two working parties, the Tail Factors Working Party and the Bornhuetter-Ferguson Initial Expected Losses Working Party have made significant progress recently.

Committee on Management Data & Information

The Committee on Management Data & Information, chaired by Virginia Prevosto, had its most recent meeting on March 16. Jeremy Benson is now the committee's Vice Chairperson.

Proposals have come in for the <u>2012 Data</u> <u>Management, Quality, and Technology Call for</u> <u>Papers</u>. The next step is for the authors to begin working on their papers. Ultimately, papers will be published in early 2012 and presented at the 2012 RPM Seminar. The Data committee also helped with 4 educational sessions on data at the 2011 RPM Seminar, and other sessions are being developed for the 2011 Seminar on Reinsurance and 2011 Casualty Loss Reserve Seminar. In addition, work continues on its data exchange project, its research committee Web site evaluation and maintaining liaisons with other organizations. The plan to turn its "Actuarial I.Q." paper of 2008 has been cancelled after receiving feedback from the Monograph Editorial Board.

The next meeting is planned for May 19.

Dynamic Risk Modeling Committee

The Dynamic Risk Modeling Committee, chaired by Robert Bear, held their most recent teleconference March 24.

The committee's Loss Simulation Model Subcommittee, chaired by Joe Marker, is currently heading a call paper program jointly with the Committee on Reserves that requires writers to show good applications and/or enhancements of the Loss Simulation Model, which can be found on the CAS website here. The call for papers received four proposals that were accepted, and first drafts of papers were due the last week of March. The subcommittee and the Committee on Reserves will begin reviewing the papers and getting back to the authors with comments. Plans are also in the works for another training session on the Loss Simulation Model to take place at this year's CLRS.

The committee has three active Working Parties. More information can be found on pages 4 and 5.

Committee on Health Care Issues

The Committee on Health Care Issues, chaired by Steve DiCenso, has convened twice so far in 2011, on January 26 and March 28. Its next meeting will be an in-person meeting on May 24 in Chicago, where the goal is to thoroughly discuss the committee goals and brainstorm on new project ideas. The major committee projects include planning educational sessions on health care topics at CAS meetings and seminars, like CLRS and Annual Meeting, as well as providing links to health-related readings and presentations on its Web site. The new Health Economics Working Party, sponsored by this committee, will soon have a kickoff meeting, too.

Valuation, Finance & Investments Committee

The Committee on Valuation, Finance and Investments, chaired by Rasa McKean, had its most recent meeting on January 11.

The committee continues to work on the

Risk Margins RFP project, a research project being written by a group from Milliman. There are also plans to do some research on contingent capital, either through a Call Paper Program or a Working Party.

Committee on Reinsurance Research

The Committee on Reinsurance Research, chaired by Mario DiCaro, has continued to hold its bi-monthly lunchtime webinars for its committee members. In February, James Heer presented on setting case reserves in worker's comp reinsurance. Other planned presentations are scheduled for April and June, led by Leigh Halliwell Jeff Yeung, respectively. The Committee is also in the final phase of the 2011 Call for Reinsurance Papers. Six final papers will be published in the Spring E-Forum, due out sometime in May. Many of the papers will also be presented at the 2011 Seminar on Reinsurance in June. Papers are also being reviewed for the Reinsurance Prize, with the prizewinner getting up to \$2,000. Many committee members are assisting with the Call Paper Program by reviewing papers.

Committee on Theory of Risk

The Committee on the Theory of Risk, which is chaired by Richard Derrig, held their most recent teleconference on March 15.

The Risk Premium Project (RPP II), has been completed and the fully functional website can be found at <u>http://www.casact.org/rpp2</u>. It is a compilation of both RPP I and II reports with the literature search implemented on the CAS website.

The Committee will hold their next teleconference on April 26.

Working Party & Task Force News

R Working Party

The R Working Party, co-chaired by Lee Bowron of the Committee on Ratemaking and Thomas Kolde of the Committee on Reserves, is charged with making advanced R-based reserving, ratemaking and predictive modeling procedures available, accessible and of practical value to a wider audience. Its latest teleconference took place on April 11.

The group discussed starting up their Wiki in order to share what the group has been working on with other CAS members.

The working party has also been asked to sponsor a limited-attendance seminar in the next year that will focus on an introduction to R with an emphasis on loss reserving with examples of pricing and ERM applications.



DRM Handbook Working Party

The DRM Handbook Working Party, under the Dynamic Risk Modeling Committee, is cochaired by Chris Diamantoukos, Barry Zurbuchen, and Ted Shalack.

The separate groups meet regularly to discuss the chapters in progress, and strides have been made over the last several months by each group. Quite a bit of work has been done to update the literature and incorporate the updates into the current drafts.

The intention is to have the DRM Committee look at the work in late April in order to provide feedback, at which point further polishing will take place.

Ratemaking Survey Working Party

The Ratemaking Survey Working Party, headed by John Lewandowski, has completed its charge. The following presentation was given at last November's Annual Meeting:

http://www.casact.org/education/annual/2010/ handouts/C20-Stevens.pdf

The working party hasn't been disbanded quite yet because plans are currently in the works for a white paper.

Bornhuetter-Ferguson Initial Expected Losses Working Party

The Bornhuetter Ferguson Initial Expected Losses Working Party has convened to discuss both the work that was done by the prior committee and what work we would like to do going forward. It is chaired by Lynne Bloom.

It was agreed that a survey should be given to the CAS members regarding current practices with respect to initial expected loss ratios and the use of resultant estimates.

The working party has created this survey and will be coordinating with the CAS to get it published so that members may take it. Once those results are compiled, the working party plans to meet again to discuss and also plan steps for further testing the efficacy of current practices.

Economic Capital Model Working Party

This working party is chaired by Sam Gutterman and Sholom Feldblum, and its latest call took place on March 22. Objectives for the working party were discussed and the plan is to have a working party paper to present to the NAIC sometime later in the year.

The next call will take place on April 15 and will discuss in further detail the subgroups that the working party is focusing on.

Working Party & Task Force News Continued

RBC Underwriting Risk Working Party

At the behest of the P&C Risk-Based Capital Committee of the American Academy of Actuaries, the CAS RBC Underwriting Risk Working Party is conducting research into the Underwriting Risk components – Reserves (R_4) and New Written Premium (R_5) – of the NAIC risk based capital (RBC) formula. In the short term the Working Party is investigating potential improvements within the formula's current incarnation. A longer term project is to investigate alternatives unconstrained by RBC's current functional form.

The Working Party is comprised of twentyone actuaries from the U.S. and overseas. It was organized in January of this year and meets biweekly to discuss research issues and results. The Working Party is committed to substantial completion of the short-term project by mid-June.

Risk-Based Capital Dependencies Working Party

The RBC Dependencies Working Party's charge is to research the extent to which risk dependencies can be better addressed in the NAIC P&C RBC formula.

The output of the Working Party will be available to the American Academy of Actuaries P&C RBC Committee that will be providing RBC-related input to the NAIC generally and with respect to the NAIC Solvency Modernization Initiative.

The Working Party is considering the extent to which all appropriate risks are included in the NAIC formula, the extent to which those risks might be better measured, and the extent to which dependencies among the risks can be better measured.

The Working Party, which started work in mid-February and is having bi-weekly conference calls, is chaired by Allan Kaufman.

Research Grants Task Force

The Research Grants Task Force, chaired by Linda Howell, has been reviewing grant proposals submitted as part of the Individual Grants Competition. The proposals that were submitted were narrowed down by topic and then by usefulness. Two projects stood out this year to the reviewers and will likely receive CAS funding.

Health Economics Working Party

The Health Economics Working Party reports to the Committee on Health Care Issues and is chaired by Derek Jones. It plans to research the impact of health care costs on casualty insurance coverages.

After a call for volunteers on the CAS Web site, the committee is fully staffed and plans to get started soon, with a leadoff teleconference scheduled for May.

Working Party on Public Access DFA Model

The Dynamo Call Paper Program is being sponsored by the Dynamic Risk Modeling Committee's Working Party on Public Access-DFA Model, co-chaired by Pat Crowe and Morgan Bugbee. In this call paper program, participants will use the Public Access DFA Dynamo 4.1 Model to illustrate how the Dynamic Risk Modeling process can be applied to solve real world P&C Insurance problems. The model and manual are available on the <u>CAS Public-Access DFA Model working party website</u>.

The committee received three proposals for papers and is currently working with the authors on their drafts. The prize-winning paper will be decided in early 2012.