



Article from

Risk Management

May 2019

Issue 44

Staff Corner

By David Schraub

The Society of Actuaries (SOA), the Casualty Actuarial Society (CAS) and the Canadian Institute of Actuaries (CIA) jointly sponsor the Joint Risk Management Section (JRMS). In turn, the JRMS allocates resources to research projects through the Joint Risk Management Research Committee (JRMRC). As the JRMRC is technically part of the SOA research, my staff corner this month focuses on how the JRMRC fits into that framework. You can read how the CIA and CAS do research in the sidebar that accompanies this article.

The Society of Actuaries' mission statement reads: "Through education and research, the SOA advances actuaries as leaders in measuring and managing risk to improve financial outcomes for individuals, organizations and the public." The Joint Risk Management Section newsletter is an example of how the SOA provides practical, high-quality educational material. This is largely done through volunteers, as is the research that the SOA conducts.

Let me provide an overview of how research is conducted and describe the recent introduction of Strategic Research Programs. I hope to also encourage you to become involved in research by either volunteering your time to help oversee a report or doing some research yourself.

Essentially, there are two broad types of SOA research: topical research focused on advancing actuarial practice (practice research) and research that analyzes industry data and usually results in the creation of tables (experience studies).

Practice research can be done either in-house or externally. If conducted in-house, an SOA staff member primarily conducts research guided by a team of volunteers (called a modeling oversight group) by accessing industry databases and other resources. If done externally, normally the SOA hires an outside party through a request for proposal. The process for developing and issuing a request for proposal is overseen by a research committee that is another type of volunteer group with broad knowledge on a specific practice area.

For risk management-related projects that support the JRMS members, the JRMRC vets research proposals on a variety of finance and investment topics. The research is generally



conducted under the supervision of a project oversight group. This group comprises dedicated volunteers with expertise on the specific topic covered by the request for proposal. The group is recruited to provide meaningful comments to the researcher along the way to produce a high-quality report. It is truly a collaborative process that benefits from the partnership of expert volunteers and highly qualified researchers. SOA research staff support the process from the initial idea to the resulting publication.

The SOA conducts experience studies to provide actuaries with robust data that can be used for pricing and reserving. Experience studies have been undertaken for the major product lines of life insurance companies, as well as for more specialized financial products and subsidiary benefits. The SOA also sponsors continuing studies of the experience of public and private sector pension plans. Many of the SOA's studies have been conducted on a recurring basis over an extended period of time. Usually, the process includes study feasibility, study design, data vendor/researcher selection, data collection, data validation and aggregation, data analysis, report development and report publication and closure.

Topics of research undertaken by the SOA are aligned with the practice area expertise and work experience of the individual research committees. These research committees develop ideas and oversee the process leading to publication of reports. Historically, research topics were broadly categorized by the

Fellow of the Society of Actuaries tracks. To further leverage the research work the SOA has traditionally conducted, the SOA Board approved in October 2017 the introduction of five strategic research programs. The advantage of the programs is to take a more holistic approach to select research themes resulting in even more impactful information and enhancement of the reputation of actuaries. Moreover, the programs are intended to raise awareness of the skill set of actuaries to the general public and continue to demonstrate the thought leadership of the SOA. And they will help to make actuaries even more relevant in an evolving society. They include practice research and experience studies, as appropriate. These five strategic research programs, to be launched one at a time, include the following research themes:

- **Aging and retirement.** Reviews the societal impact of aging populations and the solutions for mitigating risks.
- **Actuarial innovation and technology.** Highlights the evolution of technology as it applies to the actuarial profession, industry and population trends.

- **Mortality and longevity.** Examines the factors impacting models and mortality predictions, as well as the analysis of longevity trends.
- **Health care costs.** Focuses on the forces that shape health care cost and utilization and the changes over time.
- **Catastrophe and climate.** Studies climate trends and their impact on extreme and catastrophic events.

In addition to the strategic research programs, there are other ways that research is conducted by the SOA. Going forward, a special pool of funding will be established for research that meets the needs of current events from all areas of practice in which members of the SOA are involved. Examples of current events would include research performed to better understand aspects of principle-based reserves and new developments on the Affordable Care Act (commonly referred to as Obamacare). In addition, SOA sections will continue to sponsor research for the benefit of their members and other audiences. This is what the JRMS has done and will do through the JRMSRC.

CASUALTY ACTUARIAL SOCIETY

To facilitate research, the Casualty Actuarial Society (CAS) has a number of committees dedicated to the production and oversight of research projects. Some of these committees focus on specific practice areas like ratemaking, reinsurance and reserving. The Theory of Risk Committee (COTOR) and the Dynamic Risk Modeling Committee (DRMC) are tasked with the theoretical and applied analysis of risk. In addition, there are task forces for narrow topics like climate change, cyber risk, automated vehicles and other areas. Finally, the CAS often creates working parties for research that is particularly focused.

The various groups typically oversee work that is outsourced to volunteers, academics or other researchers through a request for proposal process. In addition, the standing research committees support regular call paper programs. Brian Fannin is the CAS's research actuary and assists the committees with the development of project ideas.

The CAS has a dedicated research budget and looks for new and innovative ways to produce and promote research within the industry. The CAS also partners with other actuarial associations, such as the SOA, IFoA and CIA.

Dave Core is director of professional education and research at the Casualty Actuarial Society. He can be reached at dcore@casact.org.

CANADIAN INSTITUTE OF ACTUARIES

The Canadian Institute of Actuaries (CIA) Research Council (REC) manages research projects through the Experience Research Committee, the Academic Research Committee and dedicated project oversight groups (POGs). In most cases, external groups such as universities or independent research firms conduct the actual research, with the relevant committee overseeing the project. Shlomit Jacobson serves as manager of research, providing project management and strategic support to research activities.

The CIA commits significant resources to research, allocated to four project category types: experience, academic, topic-specific and member papers. Aligning with the institute's strategic priorities, funding for each category varies annually, influenced by industry trends and topics of public importance. The CIA welcomes opportunities to partner with other associations, including the SOA, the Institute and Faculty of Actuaries and CAS, and with business and academic organizations.

Shlomit Jacobson, Ph.D., MBA, is manager, Research, at the CIA. She can be reached at Shlomit.Jacobson@cia-ica.ca.

Lastly, the SOA supports academic research through a grant program.

Sometimes a particular project will have resource needs too great for an individual research committee or will span several practice areas. In such cases, the work is usually financed through collaboration of several SOA research committees or sections. And often, funding or other support will be provided by external parties such as the Canadian Institute of Actuaries, the Casualty Actuarial Society or others.

Two kind words: The first goes to the research department and particularly to Steve Siegel and Ronora Stryker. Thank you for the great work you do for the section and the SOA in general, and for me by reviewing this Staff Corner. Second goes to you, the reader of the newsletter. Thank you for your

interest. Please consider this an open invitation to raise your hand with an idea or interest in helping on a research committee or a project oversight group. Contact me at dschraub@soa.org, and I will be more than happy to point you in the right direction. ■

USEFUL LINK

Joint Risk Management Research Committee, <https://www.soa.org/research/topics/risk-mgmt-topic-landing/>.



David Schraub, FSA, AQ, CERA, MAAA, is a staff actuary for the SOA. He can be contacted at dschraub@soa.org.

P&C Insurance Industry Data Limited Attendance Seminar

June 17-18, 2019
Arlington, VA



Expertise. Insight.
Solutions.®

www.casact.org