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Staff Corner

By David Schraub

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 Investment 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.

My staff corner this month is focused on SOA research. It provides an overview of how it is conducted and describes the recent introduction of Strategic Research Programs. I hope to also encourage you to become involved in SOA 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 investment related projects that support Investment Section members, the Committee on Finance Research 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 is comprised of 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 helps to 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

USEFUL LINKS: FINANCE RESEARCH

<https://www.soa.org/research/topics/finance-res-report-list/>
<https://www.soa.org/research/topics/finance-exp-study-list/>

Fellow of the Society of Actuary tracks. To further leverage the research 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 skillset 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, and 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 research is conducted by the SOA. Going forward there will be a special pool of funding 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 to 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 Investment Section has done and will do through the Committee on Finance Research and the Section Council. Lastly, the SOA also 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 there will be funding or other support provided by

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external parties like the Canadian Institute of Actuaries, Casualty Actuary Society or others.

An important part of the research process is the dissemination of the final reports and other material such as Excel workbooks and data files. Depending on the topic, the SOA organizes webcasts, podcasts (<https://www.soa.org/resources/podcasts/#research-insights>) or newsletter articles to publicize the work. The article from Gabriella Piscopo¹ in this edition is a good example of such outreach; another example is the article from Mingyu Fang, Ken Seng Tan, and Tony Wirjanto in this edition, as well as the webcast organized in December 2018 around a February 2018 climate change and carbon risk research report.²

Two kind words: The first goes to the research department and particularly 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, reader of the newsletter. Thank you for your interest. Please consider this as an open invitation to raise your hand with an idea, or if you have 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. ■



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ENDNOTES

- 1 Gabriella Piscopo. 2018. "Reinvestment Strategies for Life Insurance Products in a Changing Economic Environment" Society of Actuaries. <https://www.soa.org/resources/research-reports/2018/2018-reinvestment-strategies-life-insurance-prod/>
- 2 Tan Ken Seng, Tony S. Wirjanto and Mingyu Fang. 2018. "Managing Climate and Carbon Risk in Investment Portfolios." Society of Actuaries. <https://www.soa.org/Files/resources/research-report/2018/managing-climate-carbon-risk.pdf>