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NEW ACTUARIAL RESEARCH IN DEVELOPMENT

BY R. DALE HALL

n keeping the past year's momentum with new research to support the actuarial profession, there are many Society of Actuaries (SOA) research projects and experience studies in the works, from those in early development to those just released. Here is a glimpse of the practical ideas and innovative concepts from life insurance, pensions and retirement to weather and financial risks.

PREDICTIVE MODELING

We have made available a collection of papers on predictive modeling and analytics, which cover several areas of practice. Also, we are developing a research project to provide a "primer" on predictive modeling for the life insurance industry, looking at a theoretical framework, insights on data, models and results, as well as more information on emerging issues.

PENSIONS

Following the finalization of the private pension RP-2014 Mortality Tables and Mortality Improvement Scale, the SOA's Retirement Plans Experience Committee (RPEC) has provided several new tools for use by actuaries, including "headcount" weighted mortality rates and a new Excelbased tool to construct two-dimensional mortality improvement scales. Visit www. soa.org/Research/Experience-Study/ Pension/research-mort-table-mort-imp-scale. aspx. Also on the topic of pensions, we will explore a framework for quantitatively evaluating retirement plans for use by plan participants and plan sponsors. The SOA and Canadian Institute of Actuaries are working together to develop data-driven, in-house research on Canadian pension topics. The projects are in the early stages, though they serve as an example of the collaborative approach in creating research to support Canadian actuaries.

ANNUITIES

We have released a new group annuity study and an individual annuity aggregated database. We are also conducting a thought leadership discussion on longevity risk, in building upon the important topic of living longer. Members will hear more about that discussion soon.

RETIREMENT RISKS

The SOA Committee on Post-Retirement Needs and Risks is hosting focus group research on the spending decisions of longterm retirees. The project will help to study the experiences of people who have been retired 15 to 25 years and to learn what major changes and issues have confronted them along the way. The committee is also continuing its retirement risk research survey series of pre-retirees and retirees, to better understand the risks and challenges in retirement.

WEATHER

On the topic of severe weather, the Actuaries Climate Index is an educational tool designed to help inform the insurance industry and the general public on the



extreme climate events over recent decades. This research is a culmination of jointly funded research by the American Academy of Actuaries, the Canadian Institute of Actuaries, the Casualty Actuarial Society and our organization. This February at the National Tornado Summit in Oklahoma City, the SOA will present on Midwest climate research and associated health costs with extreme weather events.

NEW RESEARCH IN DEVELOPMENT

We also are reviewing research proposals to conduct future studies on:

- · The financial impact of longevity pooling in retirement, insurance and savings systems
- New developments in economic capital
- Nested stochastic modeling
- Retention management issues for life insurers.

Visit the SOA research page at www.soa. org/content.aspx?id=3429 for the latest updates on new research opportunities and completed research projects.

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