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### **CHAIRPERSON'S CORNER**

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By Joan C. Barrett

In this day and age, no profession can remain viable without analytical tools sophisticated enough for today's complexity and simple enough for everyday use. While the actuarial profession has a long and proud history of providing just such tools, in light of recent events like the financial crisis and health care reform, we must rededicate ourselves to that end. To accomplish that, we must strengthen the partnership between practitioners and academia. But how?

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We already have a number of sponsored initiatives designed to support the strengthening the academic arm of the profession:

- The SOA directly sponsors research through the Committee on Knowledge Extension Research (CKER), <u>section-sponsored</u> research and SOA initiatives.
- The SOA has established <u>Centers of Actuarial Excellence</u> to recognize outstanding programs and support research that expands the boundaries of actuarial research and to identify opportunities for applications.
- The Actuarial Foundation sponsors <u>scholarships</u> such as the Actuary of Tomorrow - Stuart A. Robertson Memorial Scholarship, the Wooddy Scholarship and the Actuarial Diversity Scholarship.
- Several SOA sections sponsor the annual <u>Actuarial Research</u> <u>Conference</u>, an internationally recognized conference. The next conference will be held at the University of Connecticut in 2011. For information on past conferences visit.
- The Actuarial Foundation sponsors a number of <u>research prizes</u> including the Halmstad Prize and the James C. H. Anderson

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 The SOA provides support for eligible faculty members and PhD students to attend meetings, to have certain exam fees refunded upon passing and makes grants to schools whose faculty members earn SOA designations.

Although these initiatives are quite impressive, real partnership comes through person-to-person, day-to-day efforts. So what can you do to help? Volunteer.

Some of the key volunteer opportunities include:

- The Education Committee is always looking for volunteers to participate in the curriculum process, writing questions, etc. This is a good way to stay in tune with the process.
- There are always opportunities to speak at either national or local meetings. This is a great way to transfer knowledge and network.
- Each section of the SOA has a newsletter with topics of interest to its members. Although these articles do not go through a rigorous peerreview process, it provides a nice forum for letting others know what you are working on.
- Many committees within the SOA are heavily dependent on academics. For example, the Halmstad Prize Committee is responsible for naming the best paper on actuarial research each year.

To volunteer, simply fill out this form.

Even if you do not have a lot of time, please fill out the form. You never know when an hour or two can make a real difference for a project. More importantly, you never know when a volunteer effort will provide the networking opportunities you need.

Joan C Barrett, FSA, MAAA, is senior actuary at UnitedHealth Group in Hartford, Conn. She can be reached at <u>Joan C Barrett@uhc.com</u>.





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### E&R SECTION SPONSORS STATISTICS SESSION AT SOA '10 HEALTH MEETING

By Vincent Kane

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At the recent SOA '10 Health Meeting in Orlando, E&R Section Council members Margie Rosenberg and Joan Barrett led a highly participative workshop entitled "Statistics for Reading the Health Services and Policy Literature."

There were multiple objectives in designing this session. First, the session served to gently remind participants of all those statistics classes taken years ago, or perhaps content from early actuarial exams. Second, the session aimed to arm attendees with enough knowledge to more competently read the health services literature, thereby gaining greater awareness of today's statistical concepts and methods. To accomplish these objectives, the session was designed to review two peer-reviewed and published papers from both an actuarial and statistical perspective. However, the attendees became so engaged in the process that time allowed for a deep-dive into just one of the papers, "A Study of the Economic Impact of Bariatric Surgery," published in the *Journal of Managed Care* (2008).

In attendance at the session were over 30 participants affiliated with health plans, consulting firms and universities (not to mention members of the SOA research staff). Margie compared the structure and process of publishing in the health services research literature to more familiar actuarial journals such as the *NAAJ*. She then led a discussion on the paper's objective, which was to evaluate the private, third-party payer ROI for covering bariatric surgery. Such a study is challenging due to the fact that no randomized controlled trials were available, so statistical techniques such as matching algorithms were used. The paper utilized a time-dependent model structure; the model's coefficients were estimated based on a TOBIT approach. The ROI was developed using the estimated coefficients from the model.

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Contact the Expanding Horizons Editor Attendees were so engrossed by the discussion of this paper that nobody realized the session had run 15 minutes over into the luncheon session! Based on the attendance and level of interaction at "Statistics for Reading the Health Services and Policy Literature," it is clear that future sessions or workshops covering this topic will be very successful. We look forward to attending such a session at future meetings!

Marjorie Rosenberg, PhD, FSA, MAAA, is a professor at the University of Wisconsin-Madison (UW) with a joint appointment in the School of Business, Department of Actuarial Science, Risk Management and Insurance, and in the School of Medical and Public Health, Department of Biostatistics and Medical Informatics. Her research interests are in the application of statistical methods to health care, and applying her actuarial expertise to cost and policy issues in health care. Margie was also the chair of the E&R Section Council for 2008-2009. She can be reached at <u>mrosenberg@bus.wisc.edu</u>.

Joan Barrett FSA, MAAA is a senior actuary at UnitedHealth Group, National Accounts, specializing in plan design and pricing and consumerism research. Joan was the chair of the E&R Section Council for 2009-2010. She can be reached at <u>Joan C Barrett@uhc.com</u>.

Vincent Kane, FSA, MAAA, is manager, associate actuary at Tufts Health Plan in Watertown, Mass. He can be reached at <u>Vincent Kane@tufts-health.com</u>.





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### CHANGES COMING TO THE SYLLABUS FOR EXAM MLC, MODELS FOR LIFE CONTINGENCIES

By Stuart Klugman

A revised set of learning objectives for Exam MLC will be in place for the spring 2012 administration of this examination. It is expected that syllabus materials will be announced around June 2011. The draft objectives (it is possible minor adjustments will be made over the next year) are available at <u>SOA.org</u> <sup>1</sup>. In this article we provide the motivation for making changes and an overview of the process used to bring them about.

The last substantial change to the learning objectives for this exam was in 1986 with the introduction of the Actuarial Mathematics text. There have been revisions to theory and practice since that time that are not reflected in the current syllabus. Among them are:

- The significant presence of flexible premium, interest-sensitive life insurance in addition to traditional life insurance.
- Analysis is done in spreadsheets and modeling software using discrete time steps rather than through integrals.
- Multi-state models have been well-developed and provide a more flexible approach to multiple-life and multiple-decrement situations.
- The risk currently emphasized (time of death risk in a single policy) is far less important than less-diversifiable risks such as investment and mortality.

Based on these observations, a task force was formed in 2007. It was chaired by Stuart Klugman and had eight members. After outlining issues of importance, the task force convened a brainstorming meeting on December 5, 2007. The twenty attendees included academics, current and past examination committee members and authors of life contingencies textbooks. They spent a day refining a proposed syllabus. The results were then turned over to a learning objectives drafting group chaired by James

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Stuart Klugman, FSA, CERA, PhD, is staff fellow, education at the Society of Actuaries in Schaumburg, III. He can be reached at <a href="https://sklugman@soa.org">sklugman@soa.org</a>.





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### 14TH ANNUAL INTERNATIONAL CONGRESS ON INSURANCE: MATHEMATICS AND ECONOMICS

By Samuel Broverman

The 14th annual International Congress on Insurance: Mathematics and Economics was held at the University of Toronto from June 17-June 19, 2010. The IME Congress has been an important forum for researchers to focus on the latest advances, trends and developments and to bring together scientists, academics and insurance sector professionals from all over the world in the area of actuarial science, insurance and financial modeling. The congress was held as part of the Fields Institute for Research in Mathematics thematic program in Mathematical Finance that took place during the first six months of 2010. The congress received a great deal of organizational support from the Fields Institute, as well as the sponsorship support from Algorithmics, BroadRiver, Canada Life, Great West Life, London Life and Manulife.

The congress had invited presentations from three speakers, Edward (Jed) Frees of the University of Wisconsin - Madison, Kai Ng of the University of Hong Kong, and Jostein Paulsen of the University of Copenhagen. Over 200 people registered for the congress and there were over 140 presenters of contributed talks. Along with many participants from Canada and the United States, there were participants from many parts of the world including Europe, Asia and Australia.

The sessions of the congress took place on the campus of the University of Toronto and a conference banquet was held on Friday, June 18, 2010 at the Delta Chelsea Hotel. About half of the congress participants went on a Niagara region wine tour and visit to Niagara Falls just after the congress ended on June 19.

The congress website remains active at <u>Fields.utoronto.ca</u> for those who would like to see additional details of the congress.

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### ARC GRADUATE STUDENT PRESENTATION AWARDS

At each year's Actuarial Research Conference, the Education and Research Section offers cash prizes for outstanding presentations by graduate students. Presenters are judged on the quality of the delivery of their presentation, with a focus on presentation skills, such as vocal projection, connection with the audience and quality of slides. Winners from the 2010 conference at Simon Fraser University were:

- Brian Hartman (\$500) Texas A & M University, "Bayesian Methods for Fitting Regime-Switching Models"
- Barbara Sanders (\$400) Simon Fraser University, "Analysis of Variable Benefit Plans"
- Maciej Augustyniak (\$300) Université de Montréal, "Inference for a Family of Statistical Distributions with Heavy Tails"
- Ping An (\$200) China Institute for Actuarial Science, Central University of Finance and Economics, "Forecasting Mortality in the Presence of Missing Data: An Application to Chinese Population"
- Ya Fang Wang (\$100) Concordia University, "Distribution of Discounted Compound Sums when the Mean of Inter-arrival Time is Small"

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### LETTERS TO THE EDITOR WE WANT TO HEAR FROM YOU!

What do you want to see in Expanding Horizons? Comments about featured articles and/or topics you would like to read about are welcomed. Do you have a job listing that you would like us to post? Please e-mail your letters and comments to the editors at <u>maxwell@math.utexas.edu</u> and/or <u>shyamal-kumar@uiowa.edu</u>.

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### UNIVERSITY OF CONNECTICUT ASSISTANT PROFESSOR IN ACTUARIAL SCIENCE

**Job Summary:** The Department of Mathematics at the University of Connecticut invites applicants for a tenure-track position at the Assistant Professor level in Actuarial Science starting in Fall 2011. Highly qualified candidates in Actuarial Science, Mathematics, Statistics or related quantitative disciplines are encouraged to apply, but a clear commitment toward Actuarial Science is the focus of the search.

**Qualifications:** *Minimum Qualifications:* A completed Ph.D. by August 23, 2011; demonstrated evidence of excellent teaching ability and outstanding research potential; and progress toward Fellowship in a recognized actuarial professional society. *Preferred Qualifications:* Industry experience; and the ability to contribute through research, teaching, professional involvement, and/or public engagement to the diversity and excellence of the learning experience.

**Appointment Terms:** Position is at the Storrs campus. Candidates may have the opportunity to work at the campuses located at Avery Point, Hartford, Stamford, Torrington, Waterbury, and/or any other University location.

**To Apply:** Applications and at least 3 letters of reference should be submitted online at <u>Mathjobs.org/jobs</u>. Questions or requests for further information should be sent to the Hiring Committee at <u>actuarialhiring@uconn.edu</u>. Review of applications will begin on November 15, 2010, and continue until the position is filled.

The University of Connecticut is an Equal Opportunity and Affirmative Action Employer. We enthusiastically encourage applications from underrepresented groups, including minorities, women, and people with disabilities.

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### ROBERT MORRIS UNIVERSITY FACULTY POSITION - ACTUARIAL SCIENCE AND MATHEMATICS

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The Department of Mathematics at Robert Morris University is soliciting applications for a faculty position in Actuarial Science and Mathematics. Candidates should possess or be near completion of a doctorate in actuarial science, mathematics or statistics, and have teaching and research interests in Actuarial Science. Ideally, candidates will possess a professional actuarial qualification, or be well-advanced toward accreditation by the SOA or CAS. Industry experience, although not required, will be given strong consideration.

Rank and salary will be commensurate with qualifications and experience. The anticipated start date is fall 2011, and the position is dependent upon final budgetary approval.

Applicants should submit a letter of interest, current CV and a list of three academic and/or professional references, via e-mail, to: <u>SEMS@rmu.edu</u>, c/o Dr. Maria Kalevitch, Dean, School of Engineering, Mathematics and Science.

Robert Morris University is a Center of Actuarial Excellence, as officially designated by the Society of Actuaries. Ours is an undergraduate program, consisting of about 90 majors. We are seeking a colleague who is enthusiastic about teaching and advising students in a "full-service" actuarial program, capable of instructing in courses covering the preliminary actuarial exam syllabi, and eager to participate in a variety of ways toward maintaining overall programmatic excellence. In addition the successful candidate should have a record of scholarly contributions and be able to demonstrate the ability to engage in ongoing research and scholarship in the field of actuarial science.

Robert Morris University (RMU), founded in 1921, is a private university with

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Contact the Expanding Horizons Editor an enrollment of approximately 5,100 undergraduate and graduate students. RMU offers programs for undergraduate, graduate and doctoral candidates across its academic schools. The University is located 15 miles from downtown Pittsburgh on 230 acres of rolling hills, a short drive from the Pittsburgh International Airport.

It is the policy of Robert Morris University to provide equal opportunity in all educational programs and activities, admission of students and conditions of employment for all qualified individuals regardless of race, color, sex, religion, age, disability, sexual orientation or national origin. Robert Morris University is accredited by the Middle States Association of Colleges and Schools.

