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OUTGOING CHAIRPERSON'S CORNER

By Margie Rosenberg

It has been my pleasure to serve as the Education and Research Council Chair. I first want to thank the outgoing council members, Chuck Fuhrer, Mark Maxwell and Nariankadu Shyamalkumar. Chuck was active in helping to plan the sessions that we sponsored for the health, life and annual meetings. Mark and Shyamal were tremendous in redesigning our newsletter and gathering articles, helping us revise our Web pages, and providing assistance whenever needed. I would like to extend my sincere thanks to all three for their service on the council.

I see the Education and Research Section as a wonderful resource from which the Society of Actuaries (SOA) decision-makers could utilize. The Section members are academic and practitioners who are all interested in education and research.

I would like to highlight two major activities: the Centers of Actuarial Excellence (CAE) and the Future Education Methods (FEM).

The CAE initiative is underway, where schools applied to be considered and site visits have been completed. Decisions as to which schools are chosen as a CAE are targeted for year end. For those schools chosen, this means that they can use the designation in marketing efforts for potential students and also for encouraging employers to hire their students. In addition, education and research grants will be available exclusively to schools with CAE designations.

<u>Future Education Methods (FEM)</u>, proposed earlier this year in a joint announcement by the Casualty Actuarial Society, the Canadian Institute of Actuaries and the SOA, was conceived as concept where schools, or courses within schools, could be accredited so that students achieving a "very high-mark" in an individual course would be exempt from taking the multiple-choice preliminary actuarial exam associated with that course.

At the October SOA Board meeting, the SOA Board acknowledged the significant concerns raised by the membership regarding the FEM concept and agreed not to proceed with the concept in its current form. The Board has asked the Joint FEM Steering and Accreditation Committees to consider alternatives to the current concept and provide a report back to the Board in February 2010.

From my perspective, the Education and Research Section Council could play a valuable role in the early discussions of educational or research initiatives. The diversity of members within our section and represented by the council could provide the SOA ample feedback.

As an academic, my understanding of the educational system is dramatically different from when I was in industry. My appreciation has been expanded to include knowledge of differences in how we teach, the diversity of students, and how varied actuarial programs are from one another. Especially in a time when the SOA Board of Directors now has no academic board members, experts in education need to be included early in the process to offer direction and feedback as it contemplates substantial changes in our system.

Going forward, I am hopeful that the E&R Section will be more involved in improving the educational process and increasing research opportunities. With the new continuing education requirements, academics represent a key component to create new courses for practitioners. The continuing education courses offer an opportunity to move the profession forward, to cultivate and develop ways to bridge the gap between academics and practitioners. Having ideas of what kinds of courses the profession feels beneficial, would be useful information.

It has been my pleasure to serve as Section Council Chair. I look forward to the leadership of Joan Barrett and working with the rest of the Section Council to advance and achieve the goals of the coming year.











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INCOMING CHAIRPERSON'S CORNER

By Joan Barrett

Before I begin, I want to thank Margie Rosenberg for her great work as council chair last year. Margie has been, and continues to be, a tireless and articulate advocate for the need to "up our game" both in terms of education and research. As a result of her hard work, the Education and Research Section Council has set clear objectives for 2010, shown here.

While the council is firmly committed to these goals, they are not without their challenges. Our role as a council is to promote ideas and provide information about resources. In a way, our job is to make sure that people are talking to each other about education and research. To some extent, this will be easy. We have this newsletter. And we have newly designed Web pages that we can use to meet our objectives. Both media will give us a leg up, but that is not enough. We will have to find new avenues for outreach and new ways to sell the need to meet our objectives.

So how are we going to do this? First, we are going to reach out to our members in the form of a member survey. Our members clearly care about both education and research, so who better to ask for guidance? We are also going to reach out to others both in the profession and outside the profession. In some cases, this will be one on one outreach based on existing relationships. We will also seek other ways to get input.

What can you do to help? Here are some ideas:

Volunteer for the Education Committee. Generally speaking, the
Education Committee can find an opportunity for you to volunteer
even if you only have a few hours a year to devote to the cause.
Right now, there is a need for volunteers to write questions for the
Financial Economics Models (MFE) exam. To volunteer contact
Sarah Phelps at sphelps@soa.org.

Write an article and/or speak at a meeting. Every article published by the SOA provides a form of education and also may suggest an opportunity for research, even if that is not the intended purpose of the article.

- Suggest a research project to your practice council. Our section
 manages the CKER research budget and sections like the Health
 Section and the Retirement Section are always looking for good
 research projects to sponsor. They just need the good idea.
- Speak at a local university. If you have ever been at an actuarial
 career fair, you have seen first hand the eagerness of the students
 who not only want a good job, but a good actuarial job. Talking to
 them about the profession not only helps the students, it helps the
 profession.
- Help us build our Web presence. We are looking for both ideas about what to include as well as content for the site.

I am looking forward to being your council chair. I know that we can do great things together.











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EXPANDING HORIZONS GETS A MAKEOVER!

By Kathryn Baker

Expanding Horizons has long been providing the Education and Research Section members with valuable articles and updates on section activities, and although it's true what they say, "It's what's on the inside that counts," we thought it was time to bring the look of the e-newsletter up to the same level of the content!

In an effort to create a more dynamic and relevant look and feel that meets the standards of the profession's brand, the SOA has redesigned all of our newsletter publications (print and electronic) over the last year.

You will notice that the new *Expanding Horizons* layout is much more colorful and looks more like an actual newsletter. All the articles are now listed in the "In This Issue" section in the left navigation which will take you directly to the full text of the article on *SOA.org*.

We've also added some more features that readers will enjoy like the "Links" section where you can quickly access frequently visited pages on *SOA.org* such as the home page of the newsletter where you can find past issues, the E&R Section's newly designed Web page, as well as the pages for the Individual Grants and SOA Doctoral Stipends programs.

You can still print the "printer friendly" version of the newsletter and we continue to give you the option to forward the newsletter to colleagues and friends straight from the e-mail. In addition, when you click on the link for the full text of any article, it takes you to the *Expanding Horizons* newsletter on *SOA.org*. On this page, there is a "Share" option which we've added that enables you to bookmark or e-mail the article as well as sharing it on numerous social media sites such as Twitter, Facebook, LinkedIn, Digg.com and more.

Lastly, there is the "contact the Editor" link in the e-mail as well as on the SOA.org newsletter page. Please feel free to send us feedback on the newsletter. Whether it is comments about the new look and feel, or to suggest an idea for an article, we are always open to reader feedback!











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ACTUARIAL RESEARCH CONFERENCE AWARD WINNERS

By Mark Maxwell

The E & R section council is pleased to announce the top five graduate student presentations from the 44th Actuarial Research Conference July 30-Aug. 1, 2009 hosted by the University of Wisconsin–Madison school of business. The top speakers were selected by CKER, the Committee on Knowledge Extension and Research. This prestigious committee, led by Curtis Huntington, provides annual grants and funds research for the section and the SOA. The assessment of presenters included not only content, relevance, and appropriateness to the audience, but over all presentation skills as well–PowerPoint development, time management, and other public speaking skills.

Tying for first place (and cash awards of \$500 each) were Matthew Till, University of Waterloo, for *Regime-Switching Portfolio Replication* and Daniel Alai, Fianz Kompetenzzentrum (Competence Center for Law Economics–Europe), for *Prediction Uncertainty in the Bornhuetter Ferguson Reserving Method*.

The third place award (\$300) went to Brian M. Hartman, Texas A&M University, for *Bayesian Nonparametric Regression for Counts of Insurance Claims*. The fourth place award (\$200) was earned by Danaïl Davidov, Université du Québec á Montréal, for *On the Importance of Dispersion Modeling for Claim Reserving: Application of the Double GLM Theory*. And the fifth place award (\$100) went to Claymore Marshall, University of Waterloo, for *Static Hedging Strategies for Guaranteed Minimum Income Benefits (GMIBs)*.











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WORKING TOGETHER

By Joan Barrett and Thomas N. Herzog

Joan: The question arises as to how actuaries working in industry or government should develop collaborative relationships with faculty members of universities. Tom, could you describe some of your collaborative efforts with faculty members of universities?

Tom: I have collaborated on at least six projects with "full time" academics as follows:

- My first project was a theoretical mathematics paper I wrote with my thesis advisor at the University of Maryland. So, in a sense, this should not even count.
- My next project was a chapter in a book with Donald B. Rubin. This
 was the first paper on the application of multiple imputation. This
 paper may have technically been completed before Don entered
 academia but Don spent a large number of years as the Chairman of
 the Statistics Department at Harvard University. On this project, I
 wrote code implementing Don's ideas and then we each wrote
 different parts of the chapter.
- I then collaborated with Mike Clauretie of University of Nevada Las Vegas (UNLV) on two papers having to do with the effect of State foreclosure laws on the time between default and foreclosure. This was primarily a case in which I provided the data and Mike took it from there.
- I then wrote a book on Applications of Monte Carlo Methods to
 Finance and Insurance with Graham Lord of Princeton University.
 Here, we merged a short elementary piece of mine with extensive class notes of Graham. I rewrote his notes to get the bulk of the book into a single writing style.
- I then collaborated with Gil Fellingham and Dennis Tolley of Brigham Young University (BYU) on a paper on an application of credibility

- methods to health insurance. My main contribution here was the discussion on the history of credibility theory and its application.
- Finally, I worked with Robin Cunningham and Richard London on a text on *Methods for Quantifying Risk*. Here, each of us was responsible for a different part of the book and then generously critiqued the work of the others.

Joan: Why do you think you were able to work so well with such a wide range of academics?

Tom: I think there were two main reasons. First, I have a Ph.D. which is a research degree. Second, I have taught a number of statistics and actuarial science courses over the years, essentially as an adjunct professor. The general thread that I pick from this is that in addition to my research degree at least three of my collaborators had substantial experience working in industry. Don Rubin spent a number of years with the Educational Testing Service; Graham worked for Metropolitan Life and Morgan Stanley; and Dennis worked for Battelle. Moreover, Mike Clauretie was a member of the finance department of a business school and so it is not surprising that he should have a practical bent as well.

Joan: How did you meet your collaborators? How could someone without your connections go about that?

Tom: You need to get out of your cubicle. Go to national/international conferences or local seminars at universities or local clubs. The Actuarial Research Conference (ARC) is a great place to meet academics. Also, in Washington for example, there is the Washington Statistical Society which sponsors a number of technical statistical talks each month—all at no cost. Check with national organizations to find local chapters. Another organization is The Institute for Operations Research and the Management Sciences (INFORMS). The executive director is Mark Doherty formerly SOA research director.

Joan: How did you come up with ideas?

Tom: Let your mind wander. Ask yourself: If you do not do something that needs to be done, who will do it? I was reading several papers about credibility on the CAS syllabus when I worked for the Florida Insurance Department. Each paper had different notation and a lot of overlap. I thought that it would be much easier for the student if someone wrote a single paper combining the ideas of all of these other papers into one paper with a single set of notation. So I did it.

Joan: Where does the funding come from?

Tom: When I worked for the Social Security Administration (SSA), my Branch Chief, Fritz Scheuren, got SSA to hire Don Rubin as a consultant. In

other cases, no money changed hands between my employer and my collaborators. My employers have been good about funding university courses.

Joan: Were your results more towards practice, education or research? If so, how was it received by others? How were your results disseminated?

Tom: Some of each. Books were for education. The work with Rubin on multiple imputation was applied research and has had major impact on statistical community. Interestingly, one reviewer of our DQ text criticized it for only having three or four references on multiple imputation. The Clauretie and Fellingham/Tolley papers were very applied. The Fellingham/Tolley work (published in the NAAJ) was very technically sophisticated and carried out at BYU. Mike Clauretie was able to get two papers published in finance/economics journals.

Joan: Are there other ways in which businesses can promote a good relationship with a local university?

Tom: Hire their undergraduate students for full time positions.

Send both junior and senior staff to take courses at the university. Practitioners need money to pay for university courses and to hire academics to do consulting work at their company for short periods of time—e.g., (1) one day per week, (2) for a few weeks over the summer, or (3) even during sabbaticals.

Practitioners need to think "big tent" and to get outside their comfort zones.

Practitioners need to take the initiative. They need to try to find people they can effectively communicate with. The problem is that sometimes practitioners go to universities to give talks and the reaction from the faculty is that "these people just do not get it."

Joan: Tom, thanks so much for your time. You have certainly provided valuable insights into a subject that we need to promote within the profession.











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CALLING ALL CREATIVE MINDS!

By Mark Maxwell

Have you ever overheard a student complaining about a recent exam? "I do not believe that **they** expected me to memorize **that** formula." "There were four questions about *common shock* on my test." "I had to use integration by parts—twice."

A fun—but fruitless—exercise would be to collect the myriad of student complaints. But, ignoring accuracy of the student comments (and the fact that exam questions are confidential and are not to be taken from the examination site), you think that you could contribute valuable potential exam questions? Well we agree.

The Society of Actuaries (SOA) is seeking creative minds to contribute valuable potential exam questions. Think you are up to the task? Well, we agree.

In an effort to increase the number of exam question writers, the SOA published a policy statement relating to service on examination committees. The only *ineligible* people are those who are actively teaching exam review courses or preparation seminars. So you can submit interest theory questions while you are teaching an interest theory course.

Not only would your questions add to the diversity of the exam pool, you would provide a valuable service to the profession. And you would have fun. What is the downside? Only disgruntled comments about your work from future exam candidates.

