

The Actuary

SOCIETY OF ACTUARIES

APRIL/MAY 2010 VOLUME 7 ISSUE 2

WHAT CAUSED THE CRISIS?

RETIREMENT SURVEY RESULTS

Do people plan for retirement differently now?

IMPROVING ACCESS TO HEALTH CARE

The series on health care reform continues

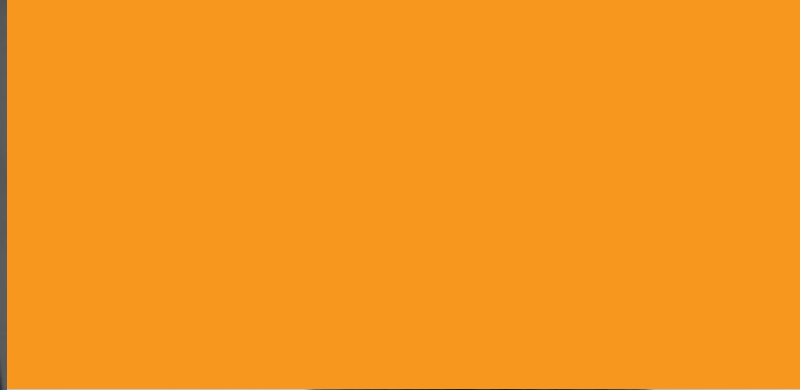
THE FIRST CENTERS OF ACTUARIAL EXCELLENCE

Thirteen universities recognized for dynamic actuarial science programs



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April / May

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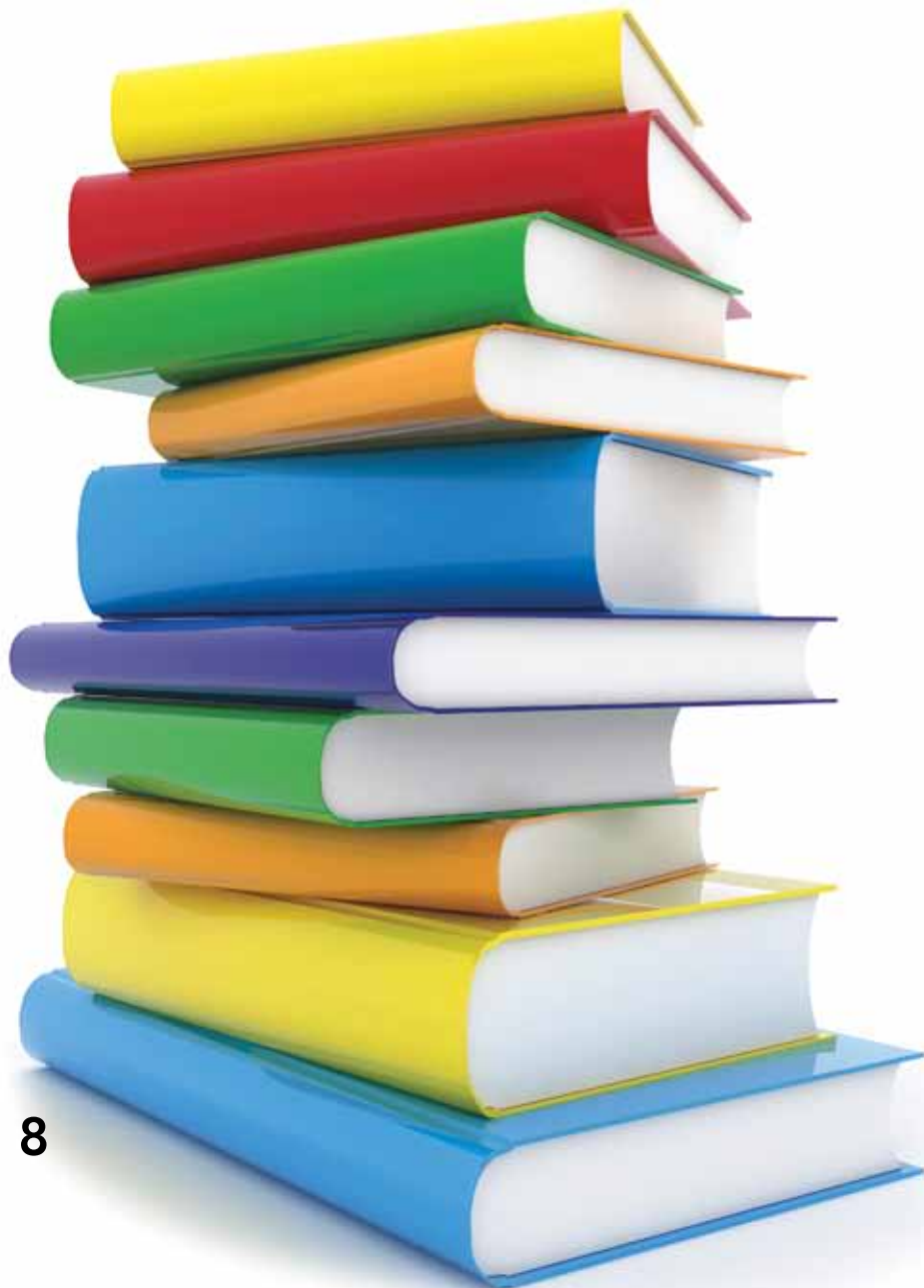
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Letter From The President

PROFESSIONAL DEVELOPMENT: THE SOA'S NEW APPROACH

BY MIKE MCLAUGHLIN

"Knowledge has to be improved, challenged, and increased constantly, or it vanishes."

—Peter Drucker

THE IMPORTANCE OF PROFESSIONAL DEVELOPMENT

Actuarial credentials are as good as gold. They are a ticket to a satisfying, remunerative, secure career. For actuaries, the education system and exams are the base of our actuarial knowledge. In mid-career, however, most of us realize that the skills needed for our work are mostly acquired *after* the exams—through on-the-job experience (arguably the most important), followed by professional development.

Our need for additional training does not cease once FSA, ASA or CERA follows our name (although taking a break is tempting once the FSA certificate is in your hands). Our growth and professional development is just as important as the basic education it takes to become an actuary.

We have to learn continuously throughout our careers. For the most part, any knowledge acquired has a decreasing lifespan. You must acquire new skills to grow in your career—and this doesn't just apply to actuaries—it applies in any profession.

WHY A NEW APPROACH?

Because professional development is so important, and the business environment is constantly evolving, the SOA is taking a new look at how it provides professional development opportunities to members.

In recent years, the number of professional development opportunities the SOA offers, including topics and delivery formats has increased, which is good news! However, with these changes is the need to take an overarching strategic approach to how learning opportunities are offered to members. In addition, the Continuing Professional Development requirement has resulted in more demand and focus on the professional learning options the SOA provides.

The goal is to thoughtfully and deliberately improve *all* professional development content, as well as ensure our program meets the diverse needs of the profession and provides the highest-quality learning experience for members.

This is also an opportunity for us to use what we have learned from the redesign of our Education system to establish continuity from candidate to credentialed actuary. In essence, we are forming an integrated learning experience across the organization.

COMPETENCIES FOR SUCCESS

The first step in assessing our professional development program was to develop the competency framework, which you've already been reading about in this magazine. (For more information, see the article "Balance" from the February/March 2010 issue of *The Actuary*.) The competency framework is a combination of eight technical and non-technical skills that contribute to the actuary's professional development and value.

These competencies are:

- Communication,
- Professional Values,
- External Forces & Industry Knowledge,
- Leadership,
- Relationship Management & Interpersonal Collaboration,
- Technical Skills & Analytical Problem Solving,
- Strategic Insight & Integration, and
- Results-Oriented Solutions.

At our Spring and Annual Meetings, each session will be identified by the competency it fulfills to help you chart your professional development course.



Mike McLaughlin

Nearly 3,100 actuaries were involved in the creation of the competency framework. We also examined feedback from sources such as session evaluations, focus groups and member surveys to determine ways to enrich and enhance our program in order to provide access to the full array of professional development necessary to for career success.

WHAT WILL BE DIFFERENT?

We have created a Professional Development Committee, which has the responsibility of managing the SOA's overall professional development program.

This group will establish an annual plan for professional development, assessing the plan at the end of the year, and setting a new plan for the following year. Of course, the plan is not set in stone—their goal is to ensure that our opportunities remain relevant, flexible and able to respond quickly to emerging trends.

Sections have been and will continue to be the primary driver of professional development content. Our new approach includes giving sections and other content providers additional support and tools for successful learning material design and delivery, such as speaker databases, resource guides and presentation training.

We are focusing on current and forward-looking, technical and non-technical content, making appropriate use of technology to assure broad access to relevant and engaging programming.

As we know, technological advances have created many new options for cost-effective delivery and format of content. And with employer restrictions on travel, a growing global contingent and other factors, it is important that we increase opportunities for affordable and eas-

ily accessible education. This includes more webcasts, e-learning on-demand, podcasts, self-study documents and reports.

At last year's Annual Meeting, we began hosting virtual sessions, broadcast live from the meeting to your desktop. We have also made the fellowship modules available as another avenue for professional development—utilizing these modules will allow you to learn the same material as our new FSAs.

We are also exploring how best to leverage technology to provide tools for you to assess your own professional development needs as well as access an online catalog of cutting-edge content to make it easier for you to identify and explore your areas of interest.

Through member feedback, we know that you are interested in more practical, application-based sessions focused on modeling, emerging trends, new laws and regulations, and the use of case studies. You have told us that offering more international topics would be of benefit. There is also interest in incorporating business skills training, such as communicating to non-actuaries, negotiation, listening, image and leadership. And, finally, members also liked the idea of more MBA-style training covering project and personnel management, legal issues and entrepreneurship.

We also want to ensure that a portion of our offerings reflect current events—this is especially the case at live meetings with multiple sessions. We have already begun doing this—examples include adding sessions on the financial crisis and health care reform at our larger meetings. We also want to develop mechanisms to create content that meets instantaneous demands, such the passing of a new regulation.

Of course, the SOA cannot—and should

not—be the source of all professional development. We will partner with other entities of high member and employer value to develop content and offer more diverse learning opportunities when necessary. And, of course, there will be instances when you will seek professional development outside of the SOA, for example, through your employer, local actuarial club or a third party like Toastmasters.

NEW LIFE & ANNUITY SYMPOSIUM

One of the first examples of our new approach to professional development is the upcoming Life & Annuity Symposium (May 17-18, 2010). Based on the feedback of nearly 400 attendees, this meeting combines the best of the Life Spring Meeting and Product Development Symposium to include two full days of sessions, extended session lengths, in-depth coverage of important topics, more networking opportunities and an optional third day of seminars.

INVEST IN YOURSELF

This is a thoughtful and deliberate approach to professional development designed to meet our changing needs and supply the skills for success in today's business world.

One of the best things any professional can do is develop new skills and sharpen current ones. Like the Drucker quote in the beginning of this article, professional development is an opportunity to *improve*, *challenge* and *increase* your knowledge. I encourage you to make the investment in your career! **A**

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MEET THE CENTERS OF **Actuarial** **Excellence**

BY PEGGY HAUSER AND EMILY KESSLER

THE 13 UNIVERSITIES highlighted here are the first ones to earn the prestigious CAE designation.

The SOA recently named the first 13 Centers of Actuarial Excellence (CAE). These 13 universities applied for this recognition in the summer of 2009, completing a lengthy application that described their curriculum (including opportunities for students to gain broad business skills), faculty, graduate quality, integration within the business community, and research and scholarship. The 13 actuarial science programs recognized are:

- University of Connecticut
- Drake University
- Georgia State University
- Illinois State University
- University of Iowa
- Université Laval
- University of Manitoba

- University of Nebraska–Lincoln
- Robert Morris University
- St John's University
- Temple University
- University of Waterloo
- University of Wisconsin at Madison

The SOA Board of Directors established the Centers of Actuarial Excellence as part of its commitment to strengthen the academic branch of the profession. Universities represent a source of research and scholarship for the profession that can be better developed and nurtured.

The goal of the CAE program is to identify the actuarial science programs in the United States and Canada that embody a dynamic interaction of instruction, research and scholarship. The SOA will work



with these schools to strengthen actuarial science, primarily through targeted grants in education and research. Schools designated CAE may apply for multi-year grants in education and research. Grants can be for amounts up to \$100,000 per year, for periods up to five years. The SOA will provide one new education and research grant each year, beginning in 2010.



WHAT WE WERE LOOKING FOR

The CAE program set standards to ensure the university could sustain a robust program of education, research and scholarship. CAE schools had to meet four initial quantifiable criteria:

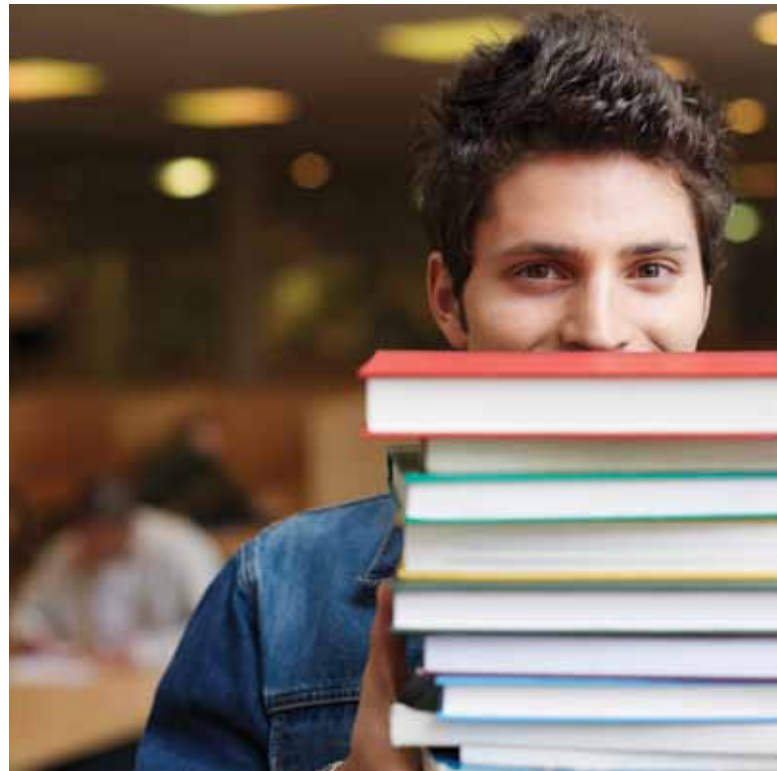
- Offer an actuarial science degree.
- Graduate an average of 10 students per year in all actuarial science degrees (undergraduate and graduate).
- Offer courses that covered 80 percent of the learning objectives in four of the first five examinations (P, FM, MFE, MLC and C) and be approved for all three Validation by Educational Experience (VEE) subjects.
- Have Ph.D.s and actuaries on the faculty; one of the actuaries has to hold a tenured or tenure-track position.

Four other criteria considered qualitative issues:

- The first looked at quality of graduates. We considered how many exams students had upon graduation; how many graduates eventually attained a credential; how many graduates were employed soon after graduation; and whether employers regularly returned to recruit students.
- Another criterion considered how the actuarial science program integrated skills from other fields, particularly busi-

ness and communication skills. We looked at whether the curriculum included team work and case studies; whether students took classes in writing, communication, risk management, accounting and other related topics; and if the program supported students obtaining internships.

- A third criterion considered whether the program was connected to industry. In this case, factors included whether employers returned to recruit students; if there was an active student actuarial science club; if local actuaries came to speak to the club or at other functions; whether there was an active employer advisory council; and if alumni and industry donated to the program.
- Last, but not least, we looked at whether the program contributed to research and scholarship in the profession. Factors included whether the faculty (as a whole) regularly published articles in peer reviewed journals (actuarial science or related topics); published textbooks; and contributed by volunteering to professional organizations (actuarial science or related industries).



As part of the application process, we visited each school to meet the administration (generally the department Chair and Dean), faculty and students. These meetings allowed our site visit team to ask questions and see the program in action. In addition, schools gathered letters of recommendation from local employers and alumni, and some of these employers and alumni were also able to meet the site visit team.



WHAT WE FOUND

The goal of the CAE program was to identify actuarial science programs that do more than prepare actuarial students to pass exams. While passing actuarial exams is extremely important, we know that a well-rounded education enables actuaries to develop into business leaders. These

THE GOAL OF THE CAE PROGRAM WAS TO IDENTIFY ACTUARIAL SCIENCE PROGRAMS THAT DO MORE THAN PREPARE ACTUARIAL STUDENTS TO PASS EXAMS.

CAE schools exemplify the best in actuarial education. We've introduced each school in The Universities Up Close section of this article (See page 12). These introductions can only highlight a few aspects of each program that impressed the site visit team. We've also given an opportunity for the schools to let us know what the CAE designation means to their school.

At each school, the site visit teams were impressed by the quality and dedication of the students, faculty and administration. Time and again, university administrators described the actuarial science program as a crown jewel of their university, based on the quality of students it attracted, the ability of students to move into industry and the strong connections to industry. We found actuarial science programs in both arts and science departments and business schools; within a business school, the actuarial science program is often the cornerstone of a risk management and insurance department.

These programs also exemplify the importance of interdisciplinary education. The CAE programs do more than teach to the syllabus of the SOA and CAS examinations. Each program works to integrate business and communication skills into the program. This integration is done through case studies, research projects, and by finding opportunities for actuarial science students to attend classes offered by other departments. Often the actuarial science program is one of only a few programs that offer students these interdisciplinary opportunities. Actuarial science students are recognized as bringing superior quantitative analysis skills to finance and risk management classes.

We found legions of local employers and alumni spending significant time support-

CAE SCHOOLS EXEMPLIFY THE BEST IN ACTUARIAL EDUCATION.

ing these programs. Through positions as guest speakers, adjunct faculty and advisory board members, actuaries in industry provide oversight and insight to the faculty and students. The employers also stressed the benefits these programs provided; on several occasions, employers stated their company wouldn't exist without strong graduates from the program and the resources the faculty and university provide.

Behind all these accomplishments are strong faculty members. Many faculty members have been at their program for years, establishing long-term relationships with students, alumni, the actuarial profession and the business community. These relationships keep faculty tuned into developments within the profession. Faculty expressed the challenge of both covering the syllabus for the early SOA and CAS examinations and bringing new techniques from the business world into the classroom.

In addition to their teaching, faculty members spend a great deal of time contributing to the research and scholarship supporting the profession. One of the key goals of the CAE initiative is to strengthen the contributions that academics make to actuarial science research. Actuarial science professors at these schools have been regular editors and contributors to the scholarly journals supporting the industry, including *The North American Actuarial Journal*, *Insurance: Mathematics & Economics*, *Journal of Risk and Insurance* and several international actuarial journals. Finally, most have devoted numerous hours in support of the

profession, by volunteering on SOA and CAS examination committees, speaking at meetings, writing research reports and serving on section councils, committees, task forces and boards of the SOA and the other actuarial organizations.



GOING FORWARD

The SOA looks forward to building strong relationships with the CAE schools. We hope to have another group of worthy additions to our CAE school list in mid-June. The 2010 CAE Grants will be announced in May.

The volunteer members and staff who participated in the selection of the CAE are grateful to the department chairs, administrators, faculty members, alumni, employers and students who supported their school in its application process. We appreciate the time you spent building our understanding of the value your program brings to the profession.

The SOA staff and Board also thank the volunteer members (and their employers) involved in the selection of the CAE schools. Six members served on the CAE Evaluation Committee, reading applications, making site visits and selecting the CAE schools: Peggy Hauser (chair), Steven Craighead, Bill Cutlip, Bill Falk, Jeremy Gold and Dale Yamamoto. Louis Lombardi and Sam Cox served as faculty advisors to the committee. The seven-member CAE Site Visit Panel supported the evaluation committee by attending site visits and co-authoring site visit reports: Jon Abraham, Claire Bilodeau, Allan Brender, Ian Duncan, Bill Gooden, Al Klein and Jim Miles.

THE UNIVERSITIES UP CLOSE

University of Connecticut is located near Hartford, Connecticut. The university draws on the talents of actuaries at local insurers and consulting firms to enrich its actuarial science program. Students spoke highly of faculty, many of whom have significant business experience. The university is also home to the Janet and Mark L. Goldenson Actuarial Research Center, which uses the talents of students and professors to produce “academically rigorous actuarial research that serves the needs of the insurance and financial services industry.”

According to Michael Braunstein, ASA, MAAA, assistant director, Actuarial Science Program, “The recognition of the University of Connecticut’s actuarial science program as a Center of Actuarial Excellence is the culmination of vision, ongoing commitment and dedicated effort by a diverse actuarial community of students, faculty, alumni and staff with the consistent and generous support of industry. The success of the program, its research capabilities and its positive impact on every individual involved can only be expected to grow with such acclaim.”

Drake University offers students an integrated actuarial science and business curriculum. In addition to a rigorous education in actuarial science, students must take four one-hour business courses that focus on academic integrity, leadership, ethics, business acumen and practical job search skills. As part of these courses students make 12 professional presentations which are videotaped for review. While its focus is on teaching, faculty have published refereed journal articles and textbooks, and actively partici-

pated in actuarial professional activities. Dr. Charles Edwards, dean of Drake’s College of Business and Public Administration noted, “This recognition is a tribute to the quality of our faculty, students and alumni, as well as our location in Des Moines. It also reflects our commitment to support the insurance industry by providing students with the technical foundation they need to pass the actuarial exams, plus a broad business background and an emphasis on communication skills that prepares them for management and leadership positions.”

Actuarial science at **Georgia State University** is an integral part of the risk management department. The site visit team was impressed with the broad focus that aligns the actuarial science program with risk management and other fields to allow students an engaging learning experience with a strong business focus. The dean spoke proudly of GSU’s Risk Management and Insurance department’s progress in raising the bar on the study of risk management and actuarial science at the university level, including bringing an increased awareness to other GSU departments of the importance of risk management.

Illinois State University’s dean of the Arts and Sciences college praised the actuarial science program for the “extraordinary pass rate of its students on the series of actuarial exams” and the “program’s engagement with the insurance industry both locally and nationally.” Actuarial science students actively participate in the programs and projects of

the Katie School of Insurance and Financial Services; and they regularly interact with actuaries from local insurers. The curriculum for the Katie School is set by a 26-member industry advisory board. “The recognition of Illinois State University as a Center of Actuarial Excellence is an honor and a milestone for our actuarial program,” commented Program Director Dr. Krzysztof M. Ostaszewski, FSA, CERA, MAAA, CFA. “Our program and our university are committed to the highest educational, research and professional standards. Illinois State University was the first public university in Illinois, and has been a leader in education and research since 1857. We have a keen sense of responsibility and obligation to work very hard to be a leader in actuarial education and research.”

University of Iowa’s focus on preparing students for exams and placing them with local employers draws many undergraduate students to the program. Iowa, with one of the oldest actuarial science programs in North America, has produced four SOA past presidents and several highly regarded actuarial educators. In addition, the faculty has published numerous scholarly articles, textbooks and other publications; the Halmstad prize for actuarial research has been awarded to Iowa faculty or graduate students seven times since 1979.

Université Laval is located in the heart of eastern Quebec. Graduates typically have three to four exams passed at graduation, and employer demand is so high that the program has its own placement officer, with a special recruiting session in the second week

of the fall term. While most students come from eastern Quebec, graduates of the Laval program are dispersed throughout Canada and the United States. Upper-level classes regularly include teamwork and projects, and by their final year students can take classes preparing them for different areas of practice. “The teaching of actuarial science at Université Laval dates back to more than 60 years,” noted Dr. Vincent Goulet, director, l’École d’actuariat. “Our graduates work on the five continents in all fields of actuarial practice, many of them in prestigious positions. We take pride in offering stimulating teaching, learning and research environments. The CAE designation is a recognition of the great work accomplished by the generations of faculty and staff, but also a tribute to the quality of our students.”

University of Manitoba’s actuarial science program is located in the Asper School of Business. Actuarial science students can choose a B.Science or B.Commerce degree. Students pursuing a B.Commerce degree lauded the integration of the actuarial science and business curriculum. In addition, the L.A.H. Warren Chair supports research and scholarly activities, including providing opportunities for the school to invite faculty from around the world to visit. Industry actuaries serve on the Warren Chair advisory committee, and the school is in the process of establishing an actuarial science advisory board. Dean Glenn Feltham, from the Asper School of Business, noted, “The Asper School of Business at the University of Manitoba has a long and storied history in actuarial sciences. Many of our graduates have gone on to lead Canada’s and the world’s leading insurance and risk management firms. In providing an outstanding business and actuarial education, our graduates are positioned to be leaders in the profession. The CAE desig-



nation reflects this proud tradition and our dedication to providing an excellent and relevant education.”

University of Nebraska–Lincoln’s strong partnership with industry shows in every aspect of its program. Its active actuarial science club features regular presentations by industry leaders. Since 1957, the Chair Committee, composed of nine industry representatives, has provided advisory and financial support to the actuarial science program. It also provides guidance on curriculum, and recently helped the program develop its mission statement and goals for student learning. Financial support has allowed for the addition of a third faculty position and student scholarships. Dr. Warren Luckner, FSA, CFA, David P. Hayes Memorial Chair in Actuarial Science commented, “The students, faculty and staff of the University of Nebraska–Lincoln are proud to be one of the first actuarial science programs designated as a Center of Actuarial Excellence. This is a recognition of the proud history of actuarial education at Nebraska and

the outstanding contributions that generations of UNL actuarial science students, alumni, faculty and staff have made to the actuarial profession and the financial well-being of individuals, organizations and society.”

With strong support from the business community and university leadership, the actuarial science program at **Robert Morris University** has focused on attracting high quality students to the program and preparing them for jobs with local industry. The dean noted that the program was able to draw students with strong records of academic achievement to RMU. RMU leverages its employer support with an employer advisory board, high school career fair, and has recently entered into a research partnership with a local insurer.

The actuarial science program at **St. John’s University** is housed within the School of Risk Management in the Tobin College of Business. St. John’s mission to serve “aca-




demically strong, economically disadvantaged” youth gives the actuarial science program a diverse student body. Students praised the ability to take rigorous risk management and finance classes in addition to their actuarial science courses. The School of Risk Management’s Board of Overseers provides significant financial support to the school, as well as providing internship, career and mentorship opportunities for students. “We view the CAE designation as a prestigious recognition of the dedication to the actuarial profession that has been a consistent theme of our program for many years,” commented Professor Albert J. Beer FCAS, MAAA. “Our connection to the risk management industry is without peer and the financial support we receive through scholarships for current students and career opportunities for graduates is recognition of the significant contributions our alumni, faculty and administration have made to these grateful companies. We are enormously proud of this award and we share it with everyone in the St. John’s family.”

Temple University’s actuarial science program benefits from the strengths of its school

of risk management and industry and alumni connections. Each Wednesday the school’s Gamma Iota Sigma chapter hosts a speaker from the insurance or financial services industry who discusses risk management topics. On Fridays an additional speaker is brought in just for the actuarial science students. Faculty members focus on both teaching and high quality research, with the dean stressing the importance of publication in top quality academic journals. M. Moshe Porat, the dean of the Fox School, said, “Being named a Center of Actuarial Excellence is a powerful affirmation of our talented and dedicated faculty and staff, motivated students, cutting edge research and a wealth of industry partners. Many of our alumni have assumed significant positions of leadership in the financial services industries, and we are thrilled that our program continues to gain in recognition and reputation.”

University of Waterloo may be best known for its actuarial science co-op program, which allows students to complete six quarters of employment while obtaining their actuarial science degree. The university has a strong research focus. Faculty members produce research articles and textbooks, are editors and associate editors of prestigious research journals, and regularly volunteer in professional activities. The recent establishment of WatRISQ, the Waterloo Research Institute in Insurance, Securities & Quantitative Finance, will increase the ability of the university to support cutting edge actuarial research even further. Dr. Mary Hardy, FSA, CERA, FIA, the CIBC chair in Financial Risk Management, noted, “The Actuarial Science group at the University of Waterloo is delighted to be recognized as a Center of Actuarial Excellence. The CAE initiative is a significant acknowledgement of the importance to the profession of maintaining an academic foundation, underpinning and supporting actuarial practice. The Waterloo actuarial faculty will continue to provide

support through research, teaching and professional service, with renewed enthusiasm thanks to this very welcome recognition of our record of contribution.”

The actuarial science program at **University of Wisconsin at Madison** is located within the school of business. Students and professors work with the department’s Co-Curricular Learning Board (made up of local employers) to organize events including the Primary Insurance Management Simulation Exercise and the Actuarial Awareness Night for high school students and undergraduates. An Actuarial Career Fair, organized by the student club and faculty, brings employers and students together. Wisconsin faculty members are also highly recognized for their research and contributions to the profession. “The CAE designation provides objective, professional validation of the strength of the UW–Madison actuarial program,” commented Dr. Marjorie Rosenberg, FSA, department chair. “The CAE program opens a dialog for potential partnership opportunities between our program and industry. Our faculty are experts in predictive modeling and risk management, and provide an alternative perspective for company-specific studies and facilitating continuing education seminars. In addition, the CAE designation recognizes our alumni and current students as recipients of an exemplary actuarial education at UW–Madison.” 

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ACCESS TO CARE



1 Access to Health Services

- Safety nets
- Primary care
- Alternative care and provider models
- Payment structure

2 Access to Insurance Coverage

- Guarantee issue with mandate
- Employer mandate
- Plan design
- Public plan with level playing field

3 Barriers to Access

- Affordability
- Geography
- Culture/ethnicity



Responsible HEALTH CARE REFORM

PART 2: ACCESS TO CARE

BY MAC MCCARTHY AND BARBARA NIEHUS

This is the **SECOND ARTICLE** in a four-part series about what actuaries see as ideal components of a health care reform package.

In the Feb./March 2010 issue of *The Actuary*, we introduced this series of articles, and reported on concerns and suggestions from the Healthcare Reform workshop session at the 2009 Conference of Consulting Actuaries (CCA) meeting. This article will focus on access to health care, especially noting the fact, expressed at that workshop, that access to health care is not the same as access to health insurance. Subsequent articles will address Cost Control/Efficiency and Funding/Financing.

To more thoroughly delve into actuaries' thoughts on access issues, we gathered ad-

ditional input from the CCA's Healthcare Reform Taskforce (HRT) members and other health actuaries, some of whom provided written comments while others offered their opinions via a January 5th conference call devoted to this subject. Our purpose is to summarize these perspectives, provide food for thought, and foster knowledgeable debate over alternative approaches for addressing the issues. If there appears to be bias or implied preferences anywhere in this article, these should be taken as personal opinions of the authors, not a consensus of the HRT nor the CCA or any other actuarial organization.

At the time this article was written, Congress was still working on a national health reform bill.¹ Regardless of the result of that effort, access and related health care issues will be at the forefront for the foreseeable future. For the purpose of this article, "Access to Care" includes the ability of individuals both to avail themselves of appro-

FOOTNOTES:

- ¹ Each house of Congress had passed different health reform bills. Congressional leadership was still working on a compromise bill.

appropriate medical services and to have access to insurance coverage to help finance the cost of those services, although we realize these are intertwined. Also, the use of the term “insurance” is broadly defined to include all health care coverage, public or private, insured or self-funded plans.



BARRIERS TO ACCESS TO HEALTH SERVICES

In the United States today, the same health care providers often see three different categories of patients, with a different method for determining provider payments for each category.² Without getting into details—we’ll save that for a later article—it works something like this:

- Services for those with government-provided insurance (Medicaid & Medicare) are paid at standard rates or formulas determined by the government;
- Services for those with private insurance receive payment according to fee arrangements negotiated in advance by the patient’s insurance carrier, if the provider is in the carrier’s network;
- Services for those without insurance, or insureds that go “out of network,” are charged fees determined by the providers, with little or no regulation or market pressures. (For those with insurance, out-of-network care may be partially reimbursed by the patient’s insurance carrier.)

Over time, these complicated payment

FOOTNOTES:

² There are exceptions, such as Veterans Administration hospitals, military facilities and a limited number of community care centers, but this statement is true for the vast majority of health care delivered today.

THIS CREATES A MEDICAL SYSTEM THAT IS DESIGNED PRIMARILY TO FIX MEDICAL PROBLEMS AFTER THEY OCCUR. ...

schemes have contributed to a variety of access-to-health-services issues.

For years, medical schools have produced many more specialists than primary care physicians, largely due to the fact that medical students are aware that payment schedules are more generous for specialty services. As a consequence, it can be more difficult to see a doctor for routine maintenance and preventive care than it is for a major illness. This creates a medical system that is designed primarily to fix medical problems after they occur rather than keeping people healthy, which is a rather poor risk management strategy.

There are exceptions to the over supply of specialty physicians. For instance, in the field of obstetrics, the high incidence of malpractice claims has driven up the cost of liability insurance and physician frustration levels often reach the point that few are entering this field and many are restricting their practices to gynecology or leaving the specialty altogether.

Many geographic areas, particularly rural and inner-city areas, suffer from an inadequate supply of some, if not all, types of medical providers. This may be exacerbated for individuals with network-based insurance plans who may have to travel considerable distances to find in-network providers.

Employed individuals often have difficulty accessing medical care during normal business hours, particularly during poor economic times when layoff concerns are heightened. This stress also occurs when the employee must take time off to accompany a child or dependent adult. The employee may feel that

emergency room care is the only option for them and their dependents. Government and carrier fee schedules do not encourage providers to maintain nontraditional hours.

To offset losses (or lower profits) from government-determined Medicare and Medicaid fees, providers generally seek to negotiate significantly higher fees with privately insured plans (including self-insured employer plans). “Retail” prices are set even higher for out-of-network and uninsured people, in part due to the bad debt associated with billings for services not covered by an insurer. For patients without insurance or with high deductibles, providers may require payment up front. With growing numbers of patients covered by government plans and increasing pressure from carriers and plan sponsors to hold down price increases, more and more providers either refuse to accept Medicaid and Medicare patients or limit the number they will see. Some actuaries feel these are inevitable consequences of a three-tiered financing structure overlaid on a single tier health system.

There are a few alternatives to the private medical system, such as Veterans Administration hospitals, and state-supported and charitable clinics—but these are not broadly available, not well known by the population, and face significant funding and capacity challenges. Further, budgetary considerations have led many states to close some facilities and to cut back on the social services workers, who have served to channel needy persons to these facilities.

The multicultural nature of our society presents further challenges to access due to lan-



not resolve all access-to-care problems.



BARRIERS TO ACCESS TO HEALTH CARE INSURANCE

Eligibility for public plans is defined by law. The two largest plans are Medicare and Medicaid. Enrollment for Medicare is managed through the Social Security Administration, and Medicaid enrollments are managed at the state level. For those covered by Medicare or Medicaid, it is important to locate providers who are willing to accept patients covered by the plan—this is especially

difficult in states where Medicaid reimbursements are low.

Most private health care insurance in the United States is provided through employer-sponsored plans. The prevalence of employer-sponsored plans grew rapidly during the 1940s when war-time wage freezes required unions and employers to create new approaches for offering economic benefits to employees. Favorable tax treatment added

there is a great amount of flexibility regarding the types of plans being offered and the cost sharing between the employer and employee. Over the years, as costs have risen, employers have scaled back plan designs and passed along a greater proportion of the funding costs to employees.

Employers and insurers have developed a succession of approaches over the years to try to keep costs affordable. These types of efforts have led, in many cases, to financial penalties or non-coverage of certain types of care or treatment. Plan designs that involve high deductibles were conceived as encouraging the patient to be judicious in the seeking of care.

There has been little federal regulation of employer plans over the years. Insured plans are subject to state regulations, but most large employers and a growing number of smaller employers offer fully or partially self-funded plans that are exempt from state regulation. Employers typically self-insure to avoid state mandates and/or premium tax, and to be assured that they are paying their own costs and not subsidizing others. In 1986 the Consolidated Omnibus Budget Reconciliation Act (COBRA) required em-

guage barriers and discomfort with traditional U.S. approaches to medicine. Many recent immigrants and subcultures have difficulty finding providers they trust and to whom they can relate.

High price is often cited as the reason that those without insurance, as well as those with high deductibles and limited benefits, do not seek medical coverage during the early stages of illness. But just as disconcerting as the price itself is the fear that comes from having no way of knowing in advance what the cost of care might be, due to the confusing and mysterious methodologies for setting prices. When someone is planning to have work done on a home or a car, an estimate can be obtained in advance to help make an informed decision—not so with health care.

An insurance card is often seen by patients, and used by providers, as the “ticket” to get in the door of the health care system. As long as there essentially is a single tier health care delivery system, access to health care insurance will be a necessary component of health care reform. However, insurance reform alone will

to the proliferation of plans, until such plans became an expectation for employees and an important topic for collective bargaining. For the most part, employers are not required by law to provide health care insurance.³ Many small employers do not offer a plan, primarily because of the cost and associated hassle of providing such plans. When an employer offers insurance,

employers with 20 or more workers to offer the opportunity to continue employer coverage to certain employees who had lost their jobs or to dependents who lost coverage.⁴

AN INSURANCE CARD IS OFTEN SEEN BY PATIENTS ... AS THE “TICKET” TO GET IN THE DOOR OF THE HEALTH CARE SYSTEM.

FOOTNOTES:

³ Since 1974 Hawaii has required all employers to offer health care insurance to all employees working at least 20 hours per week.



COBRA allows employers to pass along the full cost of insurance (as defined in the law) to the participant.⁵ And in many circumstances, an individual who had been covered through an employer group could opt for conversion coverage, albeit at different benefits and often higher premium, than that under which the individual had been covered.

Another important federal law affecting both self-funded and insured plans is the Health Insurance Portability and Accountability Act of 1997 (HIPAA). For large and small employers, HIPAA addresses concerns regarding pre-existing limitation conditions and “job-lock” where an employee would

be unable to change jobs because of ongoing medical treatment of a covered family member. HIPAA prohibits applying a new pre-existing condition limitation to a person who is changing coverage to a new plan, as long as there is not a major gap in coverage (63 or more days). It does not eliminate all use of pre-existing conditions; for example, if a new employee had no prior coverage and chooses to enroll, a limitation can apply for up to 12 months.

HIPAA also requires that, if a person had at least 18 months⁶ of coverage under an employer plan, when that coverage terminated, the person has a right to purchase individual coverage (without limits on pre-existing conditions). HIPAA does not address what rates can be charged for those individual policies. In some—but not all—states, state regulation addresses what rates can be charged.

Because of HIPAA, any person who is covered for at least 18 months under a group

or individual health care plan (including someone covered as a child of an employee) has a right to maintain continuous coverage without ever again being required to undergo assessment of health status (underwriting) or facing a new limit on pre-existing conditions. However, when there is no employer subsidy of the cost, the entire burden of the cost must be borne by the individual.

If the person loses group coverage and qualifies for COBRA, he/she can choose to extend coverage for the maximum period allowed. And when COBRA expires, or if COBRA is not available, HIPAA gives the person the right to purchase coverage from any carrier offering individual coverage in the state. The practical problem is that COBRA coverage or the individual policy can be very expensive. Many people are unaware of the rules or are unable or choose not to afford the costs and end up with a lapse in coverage (more than the 63 days proscribed by HIPAA). After a lapse in coverage, options become much more limited, and assessment of health risk plus application of new pre-existing condition waiting periods may be imposed.

So what happens to someone trying to purchase insurance in the individual market without qualifying under HIPAA? If the person has no medical problems, insurance can be found at a competitive (but still high) rate. Because of the high cost of insurance, frequently a plan with a high deductible will be chosen to make premiums more affordable.

If an insurance applicant has a history of medical problems, in most states the health insurer can decline coverage.⁷ Alternatively, the in-

FOOTNOTES:

⁴ Some states have passed “mini-COBRA” laws which expand the rule to smaller employers. COBRA coverage is a continuation within the employer’s plan, so it terminates if the plan terminates (for example, if the employer goes out of business).

⁵ The American Recovery and Reinvestment Act of 2009 (ARRA) provides a temporary government subsidy in certain cases equal to 65 percent of the total COBRA premium.

FOOTNOTES:

⁶ Some states have more favorable laws that would result in a required period of less than 18 months.

FOOTNOTES:

⁷ State laws vary. For example, in New York and New Jersey all health insurers who sell individual insurance must accept all applicants, at standard rates.

surer might modify coverage to exclude certain conditions and/or charge higher than standard rates. In the majority of states, there is some mechanism for someone who is otherwise uninsurable to purchase insurance (e.g., a state high-risk pool). This coverage is typically expensive and limits coverage of pre-existing conditions.

For individuals who cannot qualify for (or cannot afford) a traditional health care insurance policy, there are other alternatives available in the market. For people between jobs, a short-term (for example, six months) policy may be available for purchase. These plans can be affordable, but usually exclude all pre-existing conditions and provide only a temporary solution. Limited benefit plans (providing scheduled benefits up to, say, \$10,000) can give the person an insurance card to get them in the health care provider's door and can also offer access to network discounts, rather than paying retail prices. These sorts of plans are useful tools in certain situations but fall short of providing the benefits of a traditional plan, and can be woefully inadequate for someone facing a serious illness or accident, or hospitalization.



CONSEQUENCES OF IMPERFECT ACCESS

A serious consequence of imperfect access to health care services is the impact on public health. For example, lack of access to medical care can result in portions of the population not getting needed immunizations. This can lead to spread of disease that would otherwise be much better controlled.

The United States scores poorly when compared to other industrialized nations in two major measures of population health: infant mortality and life expectancy. Our high infant mortality rates are correlated with socio-

economic issues. Stresses on state budgets have led to the scaling back or elimination of many social services programs and public health facilities that would otherwise have been available to work with at-risk mothers; and in many states, contraception for women covered through Medicaid is limited to a brief period following a birth. These women have a higher rate of unplanned pregnancy, and statistics report a higher rate of problems associated with unplanned pregnancies. The problem of infant mortality does not appear to have been recognized as a priority at either the state or federal level and the causes are not well understood. Similarly, lower life expectancy is correlated with both socioeconomic and lifestyle issues. It seems likely that, without providing supporting social services, simply increasing access to health care insurance will not create major improvements in these measures.

Imperfect access also leads to inefficient use of existing resources. For example, overuse of emergency rooms, particularly by the Medicaid populations, has been identified as a problem. As a result, emergency rooms are frequently overcrowded and often provide care that could be provided much more effectively and efficiently in another setting. Further, emergency room resources needed for true emergencies are often delayed while lower level care is being provided.

Provider networks (or participating providers) are common across private plans as well as Medicare and Medicaid. A shortage of providers or a shortfall of certain specialties can make delivery of care less effective, and clearly reduces consumer choice. Cost-shifting from public plans to private payors (as discussed above) and the resulting higher fees for private patients can also limit access and choice.



POTENTIAL SOLUTIONS TO INADEQUATE ACCESS TO SERVICES

When asked to think about access to services separately from access to insurance, the actuaries at the CCA workshop and the members of the Health Reform Taskforce came up with a diverse array of possibilities. None were seen as a panacea, but several taken in combination would significantly improve the current situation. Some will likely be necessary whether or not insurance reform takes place.

- Develop a new government-administered health infrastructure to widen the social safety net for people who fall through the cracks of the current health care system. This would be a fallback system of community care clinics and public hospitals, which some felt could be modeled upon the Veterans Administration system for health benefits. In addition, this system could focus on expanded social services for vulnerable populations such as Medicaid-covered pregnant women and the homeless. Additional social service staff and resources would be required to support these safety nets in the form of educational and communication efforts, and outreach programs.
- Address inappropriate over-utilization to free up supply and increase access. This would include medical malpractice reforms to remove incentives to overtreat and overprescribe, and regulation of physician ownership of ancillary service providers to remove perverse profit incentives. Malpractice reform could have the added benefit of encouraging physicians back into underserved, currently high-risk specialties. Renewed emphasis, and associated rewards, should be directed at diagnostic skills over treatment skills, particularly for primary care physicians.

- Encourage the development of more retail clinics, urgent care facilities, after-hours physician office services and worksite wellness facilities. Adjust fee schedules to encourage after-hours access to existing facilities and professional providers. Consider educational expense support in exchange for commitments to work in locations with inadequate service, after-hours care, primary care, etc.
- Increase the supply of primary care physicians (PCPs) to improve access. Ideas to accomplish this include: requiring time spent as a PCP before being allowed to specialize; offering financial incentives such as loan forgiveness; and increasing relative fee levels for PCP services over specialist services.
- Increase regulation of provider fees and required disclosures to help overcome the sticker shock (or fear thereof) related to health care services. The most discussed suggestion was a national fee schedule that would apply to all patients, regardless of insurance status. Likely this would require increasing Medicaid and Medicare fee levels and decreasing commercial insurance fees and dramatically lowering charges to people who lack insurance. Another thought was allowing providers to freely set prices, but require that all payers

professionals in order to address cultural issues and provider supply limitations. For instance, expand the use of physician assistants, licensed midwives, nurse practitioners, pharmacist prescribing and complementary medicine practitioners.



POTENTIAL SOLUTIONS TO INADEQUATE ACCESS TO INSURANCE COVERAGE

There are a number of approaches to reforming the private insurance market to help make insurance more affordable and accessible:

- Require that the individual market offer insurance to all applicants on a guaranteed issue basis with no limits on pre-existing conditions. Experience under various state laws as well as COBRA and HIPAA have demonstrated that making insurance available is not a viable solution without also making it affordable. However, guaranteed issue requirements without mechanisms to address antiselection will lead to higher premium rates. There are a number of ways to avoid antiselection problems, with an effective individual mandate being the one most often discussed. An individual mandate

that alleviate antiselection include limited enrollment periods (e.g., an annual open enrollment); penalties for late enrollment (e.g., higher premiums for some period, such as five years); or allowing some less-severe pre-existing condition limitations. One, or a combination of these approaches, would be necessary since allowing people to game the system will increase the cost for everyone and lead to an unstable financial structure.

- Mandate employers to provide health insurance. In itself, a mandate will have little impact on the largest employers, since they already provide plans. It is likely that the smallest employers will be exempted. Successful business start-ups could encounter significant costs, just at a time when they cannot afford it. And once a mandate has been implemented, it is likely that additional rules will pile on, including reporting requirements, plan design requirements, contribution levels and other rules that could increase employer costs for expenses that are already considered uncompetitive in the global market.
- Provide premium subsidies based on income to the most needy. Note that this dovetails with rating restrictions. For example, limits on age bands will generally require younger people to pay higher premiums than their true underlying costs. If the youngest people are subsidizing older people, then publicly funded premium subsidies for low income young people will have to increase accordingly to make their coverage affordable. This is the most direct approach toward helping make coverage available,⁸ but will be an expensive undertaking.

THERE ARE A NUMBER OF APPROACHES TO REFORMING THE PRIVATE INSURANCE MARKET TO HELP MAKE INSURANCE MORE AFFORDABLE AND ACCESSIBLE.

be charged the same. At the very least, it was felt that providers should be required to make fees readily accessible to patients and potential patients.

- Make greater use of allied health care

must be enforced in a way that prevents people from moving in and out of the system as they need medical care—only paying premium when they expect to be submitting claims. Other mechanisms

FOOTNOTES:

⁸ It should be noted that even with the ARRA 65 percent subsidy of COBRA premiums, many people still deem it unaffordable.

- Put restrictions on plan design. There is a multitude of state and federal requirements adding to the cost of insurance, such as mental health parity, infertility treatments, chiropractic treatments and on and on. There has been discussion of setting minimum benefit thresholds, and, on the other extreme, possible taxation of “Cadillac Plans.” For each of these issues, there are winners and losers, and there is always a trade-off of costs versus benefits. Simplification of plan designs may also result in reduced administrative costs.
- Encourage High Deductible Health Plans (HDHPs) as a way for individuals to take more responsibility for their health expenditures and reduce costs. Consumer driven health plans, including HDHPs, have been shown to result in lower costs without reduction of appropriate care (see the American Academy of Actuaries’ monograph, *Emerging Data on Consumer-Driven Health Plans* at www.actuary.org/pdf/health/cdhp_may09.pdf). Deductibles for HDHPs are too high to be appropriate for many currently uninsured—however, so consideration should be given to tying minimum HDHP deductibles to income.
- Introduce a public plan that competes in the individual market. In order to maintain the current level of consumer options, it would be important that the public plan compete on a level playing field. A “level playing field” means that the new plan would negotiate with providers on the same basis, be expected to pay its fair share of expenses out of premium, pay premium taxes and comply with state laws comparable to insured plans, and meet the same solvency requirements, as private in-

surers. If those conditions aren’t met, it is unlikely that insurers could compete in the market, contrary to the stated goal of increased competition.

- Mandate provider fee schedules that apply in the private market. These schedules could be either the same as Medicare schedules, or could be different. This could create major savings in administrative costs, related to fee negotiations and maintenance of multiple schedules. It would also have major consequences for health care providers, with some winners and some losers.
- Mandate minimum medical loss ratios. A mandate such as this one requires insurers to “pay back” a minimum percentage of premium in the way of claims, or face penalties. Its purpose is to prevent insurers from making unreasonable profits and encourage them to control administrative costs. Such a mandate can create a number of unintended consequences. If the threshold is set too high, it could result in carriers withdrawing from the market or becoming insolvent. It potentially punishes a carrier for investing in new initiatives to help control claim costs. And it can provide a perverse incentive to pay extra claims.

Another approach would be to abandon the current private market approach and move entirely to a government insurance program. This could be done by expanding Medicare and Medicaid to cover the entire population. The program could be delivered in a way similar to Medicare Advantage where it is provided and administered through private carriers. Many layers of simplification could



result if only one provider fee schedule is used and all providers must participate. The role of employers and carriers would need to be carefully thought through. Because most insurance is employer based, the employers currently bear most of the cost of maintaining eligibility records and collecting employee contributions through payroll processing. These costs are not insignificant. Another practical reality is that Medicare and Medicaid have historically been underfunded. If they are the only game in town, hard questions would need to be answered to address both financing and cost controls.



UNINTENDED CONSEQUENCES

Legislators need to beware the potential unintended consequences of the solutions for which they agree to vote. Examples of problems that have arisen from efforts to address access problems include:

- Extending coverage to a large number of people, particularly those who heretofore have not had coverage and have postponed care, will increase the demand for medical services, and may overwhelm

the existing supply of providers. Contingency plans should be in place.

- Increased demand for services, by the law of economics, will put upward pressure on price. This could easily cause health care expenses to escalate even faster than they would have otherwise. As costs go up, premiums go up. Employer costs will rise; the need for individual publicly funded subsidies will grow. Consistent with these comments, Congressional Budget Office (CBO) projections indicate that the proposed legislation will cause premiums for individual coverage to be higher than they otherwise would have been. This can and should be addressed.
- As discussed above, rating restrictions can result in subsidies from one group to another and, over time, merely change the nature of the uninsured group, rather than a true reduction. This needs to be closely monitored and responded to accordingly.
- Additional restrictions and requirements may result in more carriers becoming insolvent or choosing not to participate in certain markets. If there are significant insolvencies, unfunded claims will need to be covered somehow, and guaranty associations will be stressed.⁹ The end result could be less competition in the health insurance market and fewer consumer choices.
- State budgets will be hit particularly hard by Medicaid expansion, when many states are currently barely covering their costs. State and municipal workers in many cases have traded off salary for security and better benefits—which now may be taxed as “Cadillac Plans.” All of this leads to less funding available for needed social services.

FOOTNOTES:

⁹ Guaranty Associations are established by the states to provide a safety net for consumers in the event of an insurance company insolvency. Funds for the Guaranty Associations are provided by assessments against insurance companies operating in the state. For more information, see www.nolhga.com.

- All of the proposals discussed to date leave a large number of uninsureds. In the absence of social safety nets, these people will have an even tougher time finding access to care and may have the added burden of penalties for being unable to afford insurance.



CONCLUSIONS/RECOMMENDATIONS

Legislators should look for solutions that are affordable and sustainable. In order to come up with meaningful solutions, it is first necessary to publicly acknowledge that our country has limited resources and that sacrifices (financial and otherwise) will be necessary to achieve universal access.

Actuaries generally agree that this country has done a very poor job of learning from initiatives that have already been tried, including state, federal and private initiatives. A comprehensive study should be completed to look at what has worked, what hasn't worked, and why.

It is reasonable and appropriate to desire that each person have access to an appropriate level of health care. However, it is not possible to achieve such a goal without significant change to our overall health care structure. Certainly, simply providing access to insurance coverage will not be sufficient.

We as a society need to honestly acknowledge that it is important to prioritize our efforts. We need to treat this as a method of dealing most efficiently with finite resources.



WRAPPING IT UP

Access issues really cannot be separated from cost and efficiency. Seeing to it that the right services are provided in the proper setting at the right time will certainly be more efficient, which should lead to lower cost

and still greater access. Access and funding are also related, as different strategies to improve access will require significantly different funding. Investing in a new public health care infrastructure will have higher front-end costs, but may be cheaper in the long run. Subsidies for insurance are ongoing and increase with trend and may further insulate consumers from true cost of health care and fuel additional cost inflation.

Certainly, our division of health care reform discussions into Access, Cost & Efficiency and Funding is artificial, as they are all inextricably intertwined. However, it is helpful to break complex problems down into component parts to make the analysis manageable. Please look to future issues of *The Actuary* for our treatment of Cost & Efficiency and Funding & Financing parts.

Many voices were raised to contribute to this article, and we thank them. Certainly some may have interpreted the discussions differently than we have, or feel we left out important considerations. We encourage them to let us know and also to continue to speak up on health care reform issues. We especially want to express gratitude to Joan Ogden, FCA, MAAA (Joan Ogden Actuaries) and John Dante, FSA, FCA, MAAA (Dante Actuarial Consulting) for their tremendous assistance gathering and organizing the material as well as superb reviews of our early drafts. ▣

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BY ANNA M. RAPPAPORT

MANY PEOPLE were recently surveyed about their perception of retirement risk. The top answers are in the article below.

The Society of Actuaries has had an active program of research on retirement issues for many years. About 15 years ago, a number of SOA members became concerned that not enough attention was being focused on the post-retirement period and how resources are managed after retirement. As a result, a multifaceted approach to understanding post-retirement risks, including a series of biennial surveys focusing on public knowledge about post-retirement risk, started in 2001. This article provides perspective on the results of the 2009 survey and how the results relate to the four prior surveys.

The 2009 survey was fielded in July, 2009 and the survey instrument was developed in the spring of 2009. Dur-

ing that period, the economic crisis dominated public thinking about retirement and how it might affect planning for retirement and actions with regard to retirement. Understanding the implications of the economic crisis on risk management and perception was a major focus of the 2009 survey. The move to promote for health care reform was also an important agenda item in national public policy, and while it was not a specific focus of the survey, results need to be interpreted considering that health care is an important issue for retirees and preretirees, and that health care reform potentially will change the options available to them.

CONCLUSIONS DRAWN ABOUT THE RESULTS

The oversight group to the study work-

ing with Ruth Helman, the lead researcher on the project from Mathew Greenwald & Associates, formulated several important conclusions as they thought about the study results:

- Misperceptions still exist after more than 20 years' experience with 401(k) plans and IRAs. Employee education has not had a big impact on these misperceptions.
- It is unclear if the economic downturn will lead to better management and planning.
- Longer-term risk management is very difficult for individuals, as is longer-term planning.
- Few workers are prepared for the risk of a sudden and unplanned early retirement. Yet over the long

run more than four in 10 workers retire before they planned to.

- There is a low appetite for guaranteed income products and a persistent feeling that people can do it on their own.
- Widows and the very old will continue to be vulnerable.
- A strong retirement system must include programs that work effectively for individuals who do not have personal initiatives to build savings and use them well.
- Education is important, but it should not be the primary strategy to address misperceptions and gaps in knowledge, since there are limits on what it can accomplish.



MY OBSERVATIONS ABOUT THE RESULTS

Even though respondents indicated that the financial crisis had indeed affected how well prepared they were for retirement, the 2009 survey did not show any major changes in the way the public views and plans for retirement. This was very surprising to me. When asked about what actions they had taken to manage risk, however, a higher percentage of the retirees than in prior years indicated that they had taken actions such as reducing spending. To sum up, it seemed that the

THE 2009 SURVEY DID NOT SHOW ANY MAJOR CHANGES IN THE WAY THE PUBLIC VIEWS AND PLANS FOR RETIREMENT.

crisis had impacted and worsened the financial status of retirees; they had already tried to cut back spending and made some other changes, but their view about how to manage risk had hardly changed.

As in prior years, preretirees were much more concerned about risk than retirees. Preretiree perceptions also seem to be more subject to change based on economic circumstances than those of retirees. From 2001 to 2003, there were several adverse events including the September 11th terrorism attacks and bad market conditions. In reaction, risk perceptions of preretirees increased significantly, and then reverted back to 2001 levels. From 2007 to 2009, market conditions were very difficult, but there was not the same move in risk perceptions as in 2001 to 2003. However, both preretirees and retirees did become more concerned about inflation risk between these latest two surveys. Inflation has superseded health care risks as the top concern of both retirees and preretirees. Six in 10 retirees (58 percent *very or somewhat* concerned) and

seven in 10 preretirees (71 percent) express concern that the value of their savings and investments might not keep pace with inflation.

While paying for health care and long-term care remain in the top three concerns, overall there was some drop-off in concern about paying for health care. This may have been related to the effort to reform health care financing.

Some of the biggest concerns among the actuaries working on these surveys are that there are gaps in knowledge, not enough focus

on risk management, and too short a planning horizon. Nothing about the new results changes these concerns from my perspective.

In the last two years, I have become very concerned about focus on home equity in retirement planning and the importance of home equity. Other SOA research shows that for middle Americans nearing retirement age, nonfinancial assets, primarily home equity, account for about 70 percent of assets (excluding the value of pensions and Social Security). The new survey asks respondents about their use of home equity as part of their retirement plan. The results show that while home equity may be used to finance retirement when all other options are exhausted, few plan to use equity in their home to finance their retirement. Just one in 10 retiree (11 percent) and two in 10 preretiree (20 percent) homeowners plan to use any of their home equity to help finance their retirement. Only 6 percent of retirees report they have already tapped into their home equity.

While actuaries have often been concerned that retirement ages need to adjust to increasing life spans, and while there have been recent modest increases in labor force participation rates at higher ages, nothing in the study indicates a real change in expectations about retirement ages. As in prior years, preretirees expect to retire at much higher ages than retirees. The majority of retirees in this study report they retired before the age of 65 (80 percent), with one-third having retired before the age of 55 (28 percent). However, half of preretirees indicating that retirement applies to them say they expect to retire at age 65 or later (51 percent). As in the prior studies, a sizeable proportion of preretirees state that retirement will not really apply to them (29 percent). Many of these preretirees say they will never be financially able to retire (31 percent) or they will choose to continue working (23 percent).

Other research has indicated that many people do not focus well on the long term, so the planning horizon has become a major concern. This study indicates that retirees look a median of just five years into the future when making important financial decisions. Preretirees have a slightly longer median planning horizon of 10 years.

Defined benefit plans are in decline but they remain important to today's retirees and those people who will be retiring in the near future. While similar proportions of retirees and pre-retirees received or expect to receive income or money from defined benefit plans (61 percent of retirees, 58 percent of preretirees), significantly more preretirees receive or expect to receive money from an employer's retirement savings plan, such as a 401(k) (42 percent of retirees, 76 percent of preretirees). The percentage receiving money from defined benefit plans seems high to some people who are focused on how the retirement

system is changing, but for today's retirees, it makes sense. It is consistent with findings presented at the 2009 Social Security retirement research conference based on analysis of the Health and Retirement Survey.

RISK MANAGEMENT FINDINGS FROM THE 2009 STUDY

Risk management was an area of major focus for the 2009 study. Retirees and preretirees continue to try to protect themselves against financial risks by decreasing debt, increasing savings, and cutting back on spending. Eight in 10 retirees (81 percent) and nine in 10 preretirees (90 percent) indicate they have eliminated or plan to eliminate all of their consumer debt, while eight in 10 have paid off or plan to pay off their mortgage (77 percent of retirees and 80 percent of preretirees). Three-quarters of retirees (75 percent) and almost nine in 10 preretirees (85 percent) say they save or intend to save as much as they can. Large majorities also say they have or intend to cut back on spending (68 percent and 78 percent).

Most retirees and preretirees purchase products to help ensure they can pay for adequate health care. Three-quarters of retirees (76 percent) and preretirees (74 percent) indicate they have or plan to purchase health insurance to supplement Medicare or participate in an employer-provided retiree health plan. Retirees and preretirees also recognize the role their own behaviors play in managing health care risk. Virtually all (93 percent each) report they maintain or plan to maintain healthy lifestyle habits, such as a proper diet, regular exercise and preventative care. Some of the oversight group mem-

bers think that people say they are more active in maintaining health than they actually are. A special report to be issued later in 2010 will focus on risk management and the findings of the 2009 survey.

ADDING SOME PERSPECTIVE AS WE THINK ABOUT THE ECONOMIC CRISIS AND THE RESULTS

It has been well documented that the economic crisis had a significant impact on personal retiree wealth, and particularly 401(k) balances by early 2009. That does not mean the impact will be long-lasting, but for some who changed direction, it will be. In this study, two-thirds of retirees (66 percent) and eight in 10 preretirees (79 percent) report the recent stock market and economic downturn has affected their financial concerns about retirement. Similar proportions of retirees (63 percent) and preretirees (77 percent) also say their finances have been negatively impacted by the downturn. Both retirees and preretirees say the downturn has made them feel as though they need to save more money (49 percent of retirees, 72 percent of preretirees), do a better job of managing their finances or planning for retirement (51 percent, 61 percent), and go back to work or work longer (23 percent, 64 percent). Nevertheless, it is unclear if the economic downturn will lead to actual changes in behavior, or better retirement management and planning. While retirees and preretirees may feel they need to make these changes, few appear to have made plans to do so. For example, the proportions of retirees and preretirees who plan to save as much money as they can and work

... NOTHING IN THE STUDY INDICATES A REAL CHANGE IN EXPECTATIONS ABOUT RETIREMENT AGES.

longer are statistically unchanged from their 2007 levels. And despite the economic downturn, the study saw few measurable changes in attitudes and behaviors between 2007 and 2009.

One of the frequent comments made during and after the worst part of the economic crisis is that people will need to work longer, and that it will be vital for people to retire later. I also heard anecdotally from diverse sources that people who could were postponing retirement, and that companies had seen a real slowdown in retirements. As discussed above, the retirees retired quite early, and preretirees plan to retire much later than the retirees. The

ONE OF THE FREQUENT COMMENTS MADE DURING AND AFTER THE WORST PART OF THE ECONOMIC CRISIS IS THAT PEOPLE WILL NEED TO WORK LONGER. ...

2009 and 2007 surveys asked questions about what the impact of delaying retirement for three years would be/would have been. The two studies show similar results with the 2009 study showing a modestly greater impact, indicating that most people underestimate what the impact of retiring later would be. However, overall respondents strongly understand the importance of continuing employer health benefits. It is also widely believed that many people will not be able to afford to retire. Presently, over the long term, about four in 10 end up retiring before they planned to, often due to job loss, health and family issues. It is unclear whether the aftermath of the economic crisis will be later retirement, and the 2009 risk survey provides no evidence that it will be.

Unlike the 2009 Risk Survey, other studies showed big shifts in confidence with regard

to retirement issues. The 2009 EBRI Retirement Confidence, for which the fieldwork was done in January, showed a big drop in confidence. The SOA's study done with LIMRA and INFRE, "What a Difference a Year Makes," for which the field work was done in April, also showed a big difference. However, this study and the EBRI Health Confidence Study for which the field work was done mid-year, did not show such changes. How can this be explained?

The Yale University School of Management publishes a "crash confidence index," for individuals and institutions which shows "confidence that there will be no stock mar-

ket crash in the succeeding six months. ..." (<http://icf.som.yale.edu/confidence.index/CrashIndex.shtml#data>). According to this data, confidence was very low from November 2008 to May 2009, and by July, individual confidence was up a great deal.

On his Web site, Yale economist Robert Shiller offers us insights on the topic of confidence:

"Unemployment, GDP, manufacturing statistics—what's the best way to tell that we're headed into an economic recovery? According to Yale economist Robert Shiller, the answer might lie less in the metrics we use to measure economic production than it is in our own minds.

"In a *New York Times* column, Shiller says that supposedly key economic indicators

like unemployment or retail sales figures aren't causes of a recovery, but symptoms of one. 'For a fuller explanation, look beyond the traditional economic links and think of the world economy as driven by social epidemics, contagion of ideas and huge feedback loops that gradually change world views,' he writes. 'These social epidemics can travel as swiftly as swine flu: both spread from person to person and can reach every corner of the world in short order.'

"When stocks fall, he says, stories pop up in the media about the declines, 'remind[ing] people of longstanding pessimistic stories and theories. These stories, newly prominent in their minds, incline them toward gloomy intuitive assessments.' That leads to more negative news stories, which leads to further declines, and the cycle continues, he says. The same thing happens, in the opposite direction, when stocks are rising." (<http://theguruinvestor.com/2009/09/01/shiller-the-recoverys-in-our-minds-not-our-metrics/>)

I was very puzzled at first by the results of the survey, particularly when looked at together with the earlier work, but this explanation seemed to make a lot of sense to me.

The risk survey report and related reports can be found at: www.soa.org. **A**

Anna M. Rappaport, FSA, MAAA, of Anna Rappaport Consulting, chairs the Society of Actuaries Committee on Post-Retirement Needs and Risks and is a past president of the Society of Actuaries.

The Risk Survey is conducted for the Society of Actuaries by Mathew Greenwald & Associates with assistance from EBRI.



LIVING to 100

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THE CAUSE OF A Crisis

BY GORDON JARDIN

AN IN-DEPTH LOOK at the root causes of the subprime mortgage crisis and ways actuaries can eliminate the problems.

Insurance companies have traditionally emphasized prudent liability risk analysis as their primary success factor. Yet failures on the asset side of balance sheets have accounted for the majority of the damage to the financial positions of insurers. The serious and widespread crisis in securities backed by subprime mortgages, and related problems in other residential and commercial mortgages, collateralized debt obligations, and so on should make it clear to insurance organizations, the American Council of Life Insurers (ACLI), the National Association of Insurance Commissioners (NAIC), the Society of Actuaries (SOA) and the American Academy of Actuaries (the Academy), that the manner by which investment risk is measured and managed must change, for the good of insurance companies, and the national economy.

The fact that the NAIC has hired a third party to help value residential mortgage backed securities (RMBS) is an indication that the insurance industry has not developed this expertise despite committing trillions of dollars to this investment. A large part of the difficulty with RMBS is the fact that investors do not have access to the basic investment asset—the individual residential mortgage. This would be analogous to insuring a portfolio of risks only knowing the average risk factors, and having no mechanism to audit the performance of the individual risks.

Having spent the better part of the last four years in the subprime mortgage industry, I analyze below what I see as the root causes of the subprime mortgage crisis, and offer a risk assessment approach specifically focused on

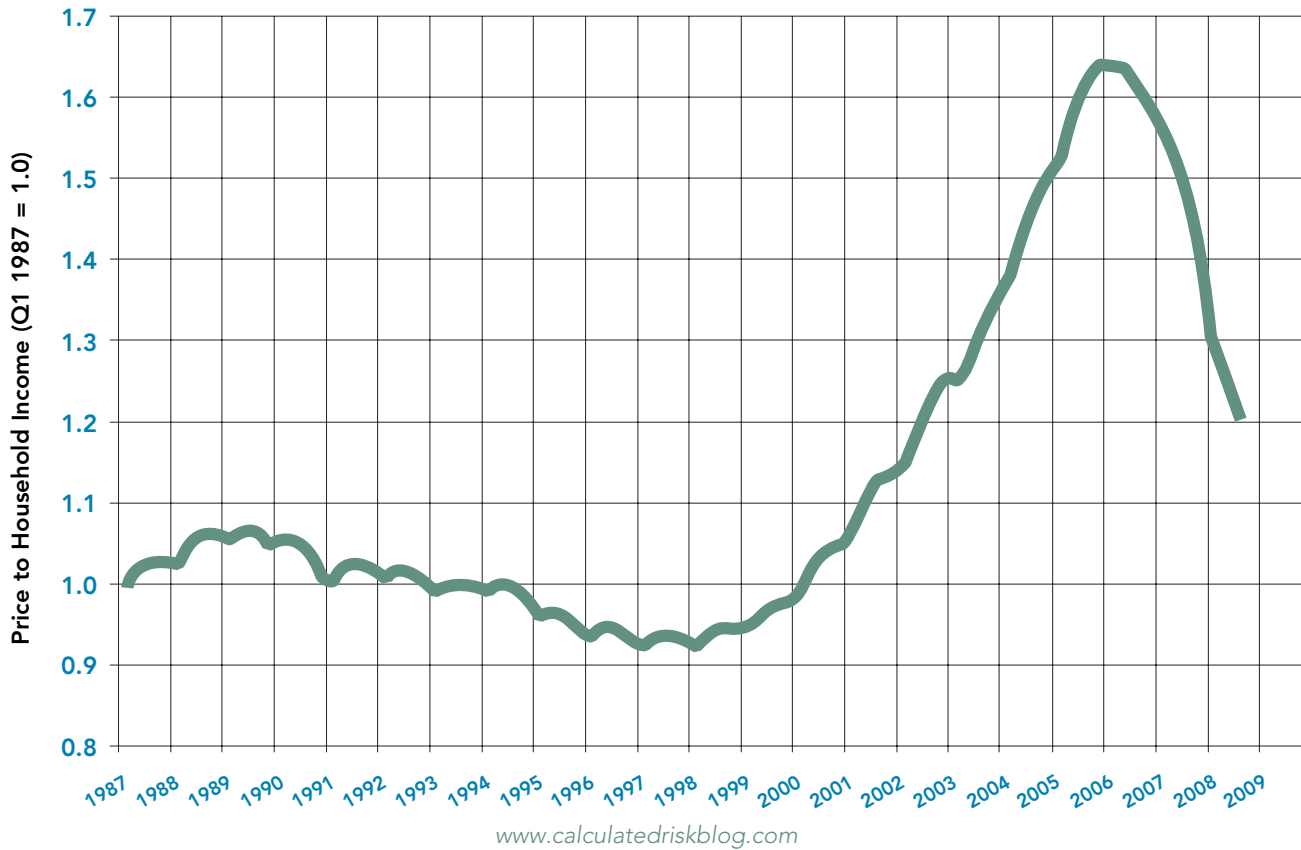
subprime mortgages, in response to the SOA's Request for Proposals (RFP). I also encourage the actuarial profession to lead the development of new investment risk assessment and valuation methodologies based upon transparency, observation, knowledge and experience, and recommend that this be started now.

PERSPECTIVES

ROOT CAUSES OF THE SUBPRIME MORTGAGE CRISIS

In insurance parlance, subprime mortgages would be more accurately described as impaired mortgages. In its RFP, the SOA accurately recognized that subprime borrowers are impaired to the extent that they could not qualify for prime or conforming mortgages under the same terms as subprime mortgages. Suffice to say that a very large

Price to Household Income (Q1 1987 = 1.0)



driver of the financial crisis was the vast expansion of impaired mortgages.

While home prices played a central role, it was the widespread ignorance of the risks associated with the impaired mortgages, unsustainable home price appreciation and codependent risks that laid the groundwork for the crisis. The frequently published graph (above), reflecting the relationship between average housing prices and average household income, clearly indicates that the rise in the housing index could not be sustained indefinitely. The precipitous decline beginning in 2006 confirms that this was indeed the case.

Home price appreciation was first fueled by a historic drop in prime interest rates in response to the economic slowdown immediately following 9-11. Low interest rates by themselves may not have caused such a large unsustainable housing bubble. The introduction of various subprime mortgage vehicles, compounded by the complete relaxation

of prudent underwriting (all driven by a securitization model wherein originators hold no liability for their underwriting decisions) feverishly stoked housing demand (and thus prices) to unsustainable heights.

To create the perfect storm, a massive and continuous supply of funds was needed to meet this demand for all mortgage forms. Insurers and other institutional investors readily supplied these funds, because, historically, mortgages had been considered almost as safe and predictable as U.S. Treasuries but with higher returns. When returns on U.S. Treasuries fell to historic lows, these higher returns caused the demand for mortgage securities to skyrocket—further fueling the supply. For a while this looked like a good bet, because investors, as a whole, did not have the data needed to understand the true risks they were assuming.

In my opinion the root causes of the subprime mortgage crisis were:

- Historically low secular interest rates.
- Lax underwriting of subprime borrowers with respect to their ability and willingness to meet their mortgage obligation, due to the incentives to maximize product for the securitization market.
- No consideration of the effect the inevitable correction in unsustainable housing prices would have on the performance of subprime borrowers.
- Originators paid as brokers rather than stakeholders, with no single party responsible for the performance of the securitized portfolio.
- Little if any analysis by investors, rather there was reliance upon the tranching and ratings of the securitized cash flows.

Once impaired mortgages were allowed to influence home prices, the contagion impact caused an artificial economic stimulus from:

- Employment growth from increasing housing demand fostered record hous-

ing starts, home-related industries, as well as commercial real estate development which masked traditional manufacturing employment weakness.

- Home equity stripping fueled the economy for several years, and delayed the recession or economic slowdown.
- Using home equity to cosmetically improve the performance of other credit vehicles (e.g., auto loans and credit cards, etc.). This increased the value of securitizations comprised of these assets. These securities are now under pressure to find their proper value.
- Excess cash was invested in the stock market, artificially pushing up those values.

The resultant market-correction has proven atypical, with stocks and bonds falling in unison, resulting in a funding crisis that needs to be resolved before the economy can right itself again.

THE NEED FOR A RISK ASSESSMENT METHODOLOGY

In retrospect, we should have found it disturbing, if not shocking, that no risk assessment and justification process of any import was implemented or required in the origination and acquisition of mortgage loans. The intellectual thought and risk analysis used as justification to spend \$100 million to acquire a subprime mortgage loan portfolio paled in comparison to the diligence and stress testing that was the norm in the decision making process involved to acquire a reinsurance portfolio of \$1 million in premium.

An insurance company would never move forward with a product that, on a risk-adjusted basis, would produce a negative return. Had risk-adjusted investment returns been calculated for subprime mortgages, these would have been negative, and the terms would have been adjusted. Yet investors were prepared to risk billions of their capital without doing so.

This practice will not change unless mandated. There is already the sentiment that this crisis will pass, that the government has provided the bail out, that liquidity will come back to this market and soon it will be business as usual. If this happens, we have not learned our lessons, despite the cost.

HAD RISK-ADJUSTED INVESTMENT RETURNS BEEN CALCULATED FOR SUBPRIME MORTGAGES, THESE WOULD HAVE BEEN NEGATIVE. ...

The need for a risk-adjusted system for income producing assets is now. The events of the last few years have shown that an efficient, transparent and regulated system of risk management is the only way to ensure this problem will not happen again.

Development of this system will be a substantial undertaking, and no shortcuts should be tolerated. The actuarial profession should take on this responsibility. There is no substitute for proper due diligence and valuation techniques in assessing the risk of any asset or liability portfolio. Had this been required before, this crisis may have been averted.

The lesson that actuaries and insurers should learn is that assessing and analyzing risk in investment portfolios is no less important than assessing and analyzing liability risk. The insurance industry can no longer afford to transfer this responsibility to outside entities such as rating agencies. This should be embraced internally via prudent and relentless risk management.

The actuarial profession should encourage banking regulators to adopt these standards and guidelines.

APPROPRIATE UNDERWRITING OF RISKS

The vast expansion of subprime mortgages from 2002 to 2007 was both a response to and a driver of home price appreciation in several areas of the country. A large number of borrowers could not qualify for a prime loan and would have been effectively cut out of the

housing market without subprime mortgages. Interestingly, the availability of mortgages for subprime borrowers was viewed as a positive social initiative for a while. However, providing such mortgages without underwriting controls and risk recognition vastly expanded the demand for homes, a major contributor to the resultant unsustainable home price appreciation and the subprime crisis.

As an analogy, a disability insurer would never agree to cover the loss of a stated income without proof of income, and it would likely never agree to cover close to 100 percent of income, verified or not. Yet, many subprime loans were originated based upon nonverifiable income, and at a value approaching or exceeding 100 percent of the true value of the collateral. A further analogy is that there is a strong personal incentive to game the system for disability plans and subprime loans, especially when they entail cash out options. Finally, incent the underwriter to approve as many risks as possible, and you would have described the subprime mortgage origination problem.

Insurance companies have a strong heritage of underwriting risks well, and would never enter a new field of insurance risk without first understanding the risks involved, and

how to mitigate and manage such risks. Asset risk must be treated no differently.

THE RELIANCE ON RATINGS MUST END

Using ratings to assess risk is no longer necessary when companies have access to enormous computing power and talent, actuarial and other. Insurers cannot abdicate their responsibility to continually assess their asset risk by relying upon single factory-inspected ratings, the relevance, accuracy and value of which decline precipitously over the life of the security. Ratings agencies have now uniformly proclaimed to regulators and the public that ratings are hardly a suitable substitute for ongoing dynamic valuations.

The results of abdicating this responsibility are obvious now, and considering that proper asset valuation could be accomplished at a cost equivalent to a few basis points on assets, there is no excuse.

A RISK MANAGEMENT STRATEGY FOR MITIGATING RISK IN THE FUTURE

A rule-based or principle-based risk assessment and reserving system will bring control over the

income producing assets of banks, insurance companies and other regulated entities. The actuarial profession is uniquely qualified to develop, recommend, implement and monitor a risk-adjusted investment return system. Ideally the results would be reflected in the financial statements of all regulated fiduciary organizations. This system will come at a cost, but that cost is minuscule compared to the current cost of the bailout of financial institutions, accelerating unemployment, and the devastating results of overbuilding, overspending and home equity stripping. These far-reaching implications must lead to a change in behavior for all.

The following is a proposal for subprime mortgages. Similar analytical work should be done for other asset classes, and the actuarial profession can address these in time.

A RISK-ADJUSTED RETURN PROCESS FOR SUBPRIME MORTGAGES

Specifically, the calculation of a risk-adjusted return for subprime mortgages would need to incorporate at least the following facts:

- Subprime borrowers were by their very nature impaired borrowers.

- Housing prices are cyclical and will eventually revert to a mean appreciation rate, meaning prices have to fall to get back in line.
- Artificially expanding the number of qualified borrowers will exacerbate unsustainable home price appreciation by immediately increasing demand but not supply, which would eventually catch up.
- Borrowers caught in the frenzy of buying property will migrate to mortgage products that allow them to qualify for required loan amounts, usually by allowing them to overstate their ability to pay.
- Continual topping up of mortgage amounts to property value means that during a period of unsustainable housing price appreciation, eventually there will be insufficient collateral value.
- Allowing cash out refinancing via topping up meant borrowers often had taken out all their personal equity, and these borrowers have less incentive in making loan payments when prices fall.
- A significant number of subprime borrowers were investors, buying multiple homes. They had very little incentive to make payments if they had no recoverable equity.

RISK ASSESSMENT

A mortgage banker lends money to a borrower with the expectation that the borrower will repay the loan amount plus interest at an agreed schedule. The risks involved in a mortgage loan can be described as follows:

1. The risk of not receiving priced-for interest income:
 - a. Borrower not making mortgage or interest payments.
 - b. Need to reduce or not increase interest rate due to borrower inability to pay.
2. The risk of not recovering the principal borrowed:



- a. Borrower defaulting and the subsequent recovery on the asset is less than what was owed.
- b. Need to reduce the principal owed due to drop in housing collateral value.

The likelihood a borrower will default on mortgage payments varies with:

1. The borrower's ability to pay, measured by:
 - a. An expected debt-to-income ratio.
 - b. Using debt payments for the mortgage, and all debt payments.
 - c. Using verifiable income.
 - d. May include assessment of longevity in job, quality of industry.
 - e. May assess ability to stay employed.
2. The borrower's willingness to pay, measured by:
 - a. How often delinquent or defaulting on mortgage debt payments.
 - b. How much equity the borrower has at risk.

The likelihood that the collateral is less than the principal varies with:

1. The loan to value (LTV) of the mortgage:
 - a. An increasing LTV is an indication of declining borrower equity in the property and an increased risk of loss.
2. The risk that housing prices will drop prior to a recovery is measured by:
 - a. Developing a sustainable housing price trend line (national, regional?).
 - b. Using as the recovery value the value determined by the lower of the trend line or the actual property value.

APPLICATION OF RISK-ADJUSTED RETURN METHODOLOGY

Each mortgage loan in a portfolio is assessed independently. The expectation of recovery

of principal, and payment and timing of interest owed, will be used to calculate a risk-adjusted return then for each loan. Each loan should be periodically revalued and reserved, monthly, quarterly or annually.

The fact that the portfolio is cut up, securitized or borrowed against does not change the overall risk-adjusted return, but would affect the relative return for each piece.

Application of this methodology gives the best estimate of the portfolio value under the risk assumptions used. Every measurement period this value will be updated and adjusted as experience dictates, including adjusting the risk assumptions to reflect expected future experience. As loans pay off, or are settled, those amounts would be directly reflected in the financial statements with an offsetting release of whatever reserve amounts had been held.

While it is easy to describe how this risk-adjusted return and reserving system should work, the details need to be agreed on. It makes sense to tackle this challenge now though, while home values are falling back towards equilibrium and the government is assisting banks and insurance organizations financially because of the lack of such a system.

CONCLUSION

The need for comprehensive risk management is widespread, far exceeding the scope of merely residential mortgages. The concepts outlined above apply effectively across a wide spectrum of income producing assets. Still, securities created from subprime residential mortgages provide an unfortunate-yet-interesting example of the danger of investors being (and continuing to be) unable to drill down to analyze the granular performance of individual loans in the portfolio. In recent years, the vast majority of subprime originations focused

on packaging subprime assets into securities in a manner designed to maximize their selling price (rather than their yield to investors), even to the extent of including wholesale assignments of portions of those subprime portfolios to AAA credit pools.

This dichotomy of insurance risk management practices between income producing assets and the liabilities they fund must change. We have experienced the folly that the current fair value of an asset is best measured by its last trade price, when it is evident that such trade price was not based upon an open and objective valuation. A market price determined by the anonymous interaction of a variety of independent value-assessors, having access to all necessary valuation information, would much more accurately reflect true value.

In fact, this is essentially the implementation of the Delphi Method, described in an October 2005 report published by the SOA, in this case specifically with respect to asset value. Actuaries are well practiced in futures forecasting using experience and expectation, so there is no reason why we as actuaries and insurers cannot execute this method. Open access to data and objective valuations by insurers and actuaries who are striving to find the most accurate risk-adjusted value will serve us all well.

If we do this in the future, we will have learned our lesson well. **A**

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CPD

STANDARD COMPLIANCE

It's 2010, the second year of the 2009–2010 SOA CPD Requirement cycle. Hopefully you've remembered to record your CPD hours over the past year and a half. Our first attestation cycle is approaching at the end of this year, so it's important to make sure you're on track.

✓STEP 1: Know your CPD compliance path. Most SOA members will follow an alternative compliance standard: the U.S. Qualification Standard, the Canadian Institute of Actuaries (CIA) Qualification Standard, Category 1 or 2 of the U.K. Actuarial Profession (UKAP) CPD Scheme, or the Institute of Actuaries of Australia (IAAust) CPD Standard. If you aren't able to follow one of the alternative compliance standards, you can always use the Basic Requirement Provisions of Section B. The chart below can help you figure out which is the best method for you to comply with CPD. You're only required to meet the provisions of one CPD standard.

TIP: If you are a member of the SOA, you are likely subject to the U.S. Qualification Standard if you practice in the United States (by issuing Statements of Actuarial Opinion).

TIP: You are NOT exempt from earning CPD credits to meet the SOA CPD Requirement if you are exempt from an alternative compliance standard. For example, if you are exempt from the CIA Qualification Standard, you must either voluntarily elect to fulfill the provisions of the CIA Qualification Standard, meet Sec-

tion B of the SOA CPD Standard, or meet the requirements of another alternative compliance standard for which you are eligible.

✓STEP 2: Track and earn CPD credits. You must track your credits earned to meet the SOA CPD Requirement. Your records should be able to show how you've met the requirement, based on your chosen compliance method:

- If you are following the U.S. Qualification Standard, you would show the number of units (50-minute units) for each activity, whether it was self-study or organized, and whether it was a relevant, professionalism or business course.
- If you are following the CIA Qualification Standard, you would record the number of hours, whether the activity was structured or unstructured, and whether it qualified as technical skills, professionalism or other.
- If you are following Section B of the SOA Standard, your records should show the number of units (in 50-minute units) as self-study or structured credit (with structured credit broken into employer and non-employer provided credit) and whether it was

job-relevant, business and management or professionalism.

- If you are following the UKAP CPD Scheme or the IAAust CPD Standard, make sure your documentation follows the provisions of those standards.

The American Academy of Actuaries offers TRACE as a free resource to all actuaries in tracking their CE requirements. Note: the tracker was built for the U.S. Qualification Standard. The CIA also has CPD tracking software available to members. You aren't required to use any particular CPD tracking system, as long as your records clearly show the date of activity, time elapsed, and what type of credit it meets (based on the requirements of Section B or the provisions of the alternative compliance standard you've elected to follow).

TIP: You don't have to retain slides, notes or meeting registration as proof of attendance. You also are not required to keep any notes of self-study activities.

TIP: Be sure your documentation is descriptive. If you attended a multi-session meeting, be sure you know the title of the sessions you attended and how long they lasted. If you spent 90 minutes in self-study, describe what you read.

TIP: You are not required to attend SOA sponsored events, or events sponsored by another actuarial organization, to earn credit to meet any CPD requirement (including the alternative compliance standards). Just make sure the event you attend can meet the definition of “relevant” CPD according to the standard you’re following.

□ STEP 3: Attest at year-end. CPD attestation will be opened approximately Nov. 1, 2010. You’ll be able to attest between the opening date and Feb. 28, 2011. You will attest electronically, by logging onto the SOA Web site. At that time you’ll be asked which method of compliance you used. (See list of methods in Step 1)

The advantages of online attestation are it’s fast, it’s easy and it gives you a verifiable record—you’ll be able to log in and see when and to what you attested. You can also print a record of your attestation.

TIP: You can combine compliance standards for any two-year period. If a member was working outside Canada in 2009 and then returned to Canada in 2010, the member could use (1/2 of) Section B for 2009 and the CIA Qualification Standard for 2010. Or, more simply, the member could just use the CIA Qualification Standard for the entire period—see similar examples in FAQ AC1 on the SOA Web site. Go to <http://www.soa.org/professional-development/cpd-requirement/>

[cpd-faqs-toc.aspx](#), click on “Alternative Compliance” and look for FAQ AC1.

TIP: Remember, if you are eligible for reduced dues on account of retirement, you need not attest! The SOA membership directory will show your CPD compliance standard as Retired. You don’t need to do anything else!

Repeat for next cycle (2010-2011): Start preparing for CPD attestation for the 2010–2011 cycle: know your compliance path for 2010–2011, track and earn credits for 2010–2011 and prepare to attest, at year end 2011.

How Most* SOA Members will Meet the SOA CPD Requirement

Practicing in the United States?	Practicing in Canada?	Member of the Faculty or Institute of Actuaries (UK) or the Institute of Actuaries of Australia?	Retired?
If yes , then meet the U.S. (Academy) Qualification Standard.	If yes , then meet the CIA Qualification Standard.	If yes , then meet the Category 1 or 2 of UKAP CPD Scheme or the IAAust CPD Standard (respectively).	If yes , then the membership directory will show your status as “Retired.”
Annually notify the SOA you fulfilled the SOA CPD Requirement by meeting U.S. Qualification Standard, beginning Dec. 31, 2010.	Annually notify the SOA you fulfilled the SOA CPD Requirement by meeting CIA Qualification Standard, beginning Dec. 31, 2010.	Annually notify the SOA you fulfilled the SOA CPD Requirement by meeting the UK or Australian CPD requirements, beginning Dec. 31, 2010.	You may voluntarily comply, and attest compliance, with the SOA CPD Requirement if you wish, beginning Dec. 31, 2010.

If **none of the above** (e.g., practicing in Asia), then meet the **Basic Requirement Provisions of Section B.** Annually notify the SOA you fulfilled the SOA CPD Requirement by meeting the Basic Requirement Provisions, beginning Dec. 31, 2010.

* All SOA members may use Section B to comply, and individuals may have more than one route available, based on their individual circumstances. Please see the SOA CPD Requirement document and the Frequently Asked Questions at www.soa.org for more information.

ACCREDITATION PROVIDES FOCUS FOR MYRIAD OF ACTIVITIES

BY PETER HAYES

"IT'S ALL ABOUT THE ____." Depending on who you ask you might get a wide variety of conclusions to that sentence. One of the Society of Actuaries' main focuses is to educate and credential actuaries, the delivery of which falls to the SOA's Education Executive Group and Education Committee. For Education at the SOA, "It's all about the *accreditation*."

The goods they ultimately deliver is the validation that a candidate has demonstrated sufficient mastery of a syllabus to be credentialed an actuary. I was often reminded during my time on various exam committees, that our purpose wasn't just to create an exam; our purpose was to have the exam answer the question: "Does this person deserve to be called an actuary?" This was the line of sight!

The enormous range of initiatives presently being undertaken by the Education Committee ultimately has, as its focal point, validation: is the candidate deserving of the credential? But there's an important tangential consideration in all this, and that's the integrity of the credential itself. Education plays a critical role in maintaining the credential's integrity, by delivering an educa-

tion and assessment process that is current and cutting edge. The process delivers content that is fresh, current and relevant to practice, to employers, and to the public that uses actuarial products, services and advice. As the profession continues to evolve, so must the way we structure our educational materials, instructional methods and assessment methods. An exploration of what's currently on the go (and there is lots of it!) will confirm that Education is doing just that.

CONTINUOUS IMPROVEMENT

The punch line to all of this activity is that just shy of 50,000 exams were administered in 2009 (and over 3,100 assessments graded, which is a remarkable feat unto itself). Within that delivery, however, is a cycle of continuous improvement that includes:

- Expanding computer-based testing (CBT), allowing for more frequent delivery of preliminary exams, along with instant results. The SOA moved Exam C to CBT delivery in 2009, joining Exams P and FM, and perpetuating the strides the SOA is taking to increase the efficiency of the education system, *without sacrificing quality or rigor*.
- Enlisting Section liaisons to improve the

quality of FSA-level exams by consulting on syllabus decisions and reviewing questions to ensure they are practice-appropriate.

- Implementing a pretesting process, ensuring exams are thoroughly reviewed with an independent critical, objective eye.
- Restructuring the FSA module requirements so as to address issues that had emerged within the fellowship part of the education structure, including, in particular, the delivery of education in Financial Economics across the various tracks.
- Projects to enhance the delivery of education on the e-Learning front, including the launch of an Enterprise Risk Management (ERM) Professional Development module, and working collaboratively with the Australian Institute of Actuaries to create a second edition of the control cycle textbook for the FAP (Fundamentals of Actuarial Practice) course.
- Checking and monitoring plagiarism and other forms of cheating on e-Learning module exercises and assessments using a variety of software applications, as well as improving processes and communications to reduce cheating,

and developing a 30-minute integrity and responsibility course.

- Working toward implementing the SOA Board approval of twice-a-year administration of the FSA exams.

MOVING FORWARD

All of these initiatives are geared toward the objectives cited above—delivering an education and assessment process that is current, relevant, and that focuses on credentialing actuaries. CBT, for instance, is something that will continue to march on: next in line is likely to be exam MFE, and don't be surprised when the fellowship exams evolve to the point of allowing candidates to use computers and spreadsheets and ... well, all the tools actuaries use every day. The questions we are able to ask will be far more robust than those we are able to ask today, enhancing further our ability to confirm (validate) the knowledge and skills of a deserving candidate.

Section liaisons and pretesting were also initiatives whose seeds sprang to fruition in 2009. The desire with the former was to be able to access specific expertise when it came to differentiating between the theoretical and the practical, and to have a third-party expert resource to whom exam-style questions could be exposed for comment. The latter—pretesting—originated with the preliminary exams and has now been extended to the fellowship exams, where a recent FSA is asked to take the exam under pseudo-exam conditions and comment in a variety of areas, with the objective of optimizing the final version administered to candidates.

The delivery of Education is often ultimately a function of the caliber of volunteers that make up the system, and other recent

initiatives have been oriented their way. Extensive training for item writers and graders is now an entrenched part of the process used for examination committee volunteers at Central Grading meetings and for e-Learning committee volunteers at specific training and grading sessions held three times last year. In addition, Central Review meetings have commenced for several years now with training on subjects such as statistical differentiation among (candidate) cohorts, and considerations in pass mark setting.

OUTSIDE EDUCATION

Educating actuaries is not solely the domain of the SOA, and 2009 saw the launch (or expansion) of several initiatives that sought to strengthen the role of the academic branch of the profession. These included:

- **University Outreach**—Many young actuaries decide to pursue the profession prior to or during their college years. That is why it is so important to build our

relationship with the academic community. To that end, the SOA developed the University Outreach program. Under this program, SOA staff and members visit universities and colleges in the United States and Canada to meet actuarial science faculty and students, to share information on new opportunities for actuaries (e.g., ERM and the CERA credential), to discuss the SOA's exam system, and to answer questions. Since the program's inception in 2008 we have met many enthusiastic students who truly appreciate the chance to meet SOA leaders, those who have gone through the program and those who manage the Education system. We also use these visits to meet students outside the actuarial science program who may be a good fit for the profession, and encourage them to consider becoming actuaries.



Peter Hayes



In 2009, the SOA met with almost 1,000 students and 120 advisors at 16 universities. To learn more about the program, visit www.riskisopportunity.net.

- **Centers of Actuarial Excellence**—The SOA launched a program in June 2009 to identify Centers of Actuarial Excellence (CAE) within the academic community.

Communication was another initiative that received a heightened profile within Education in 2009.

The program allows U.S. or Canadian universities and colleges with outstanding actuarial programs the opportunity to be recognized for that achievement and to compete for substantial grants for education and research. A school is designated a CAE if it meets the following criteria:

- Offers a program with an identifiable degree or track in actuarial science.
- Provides a curriculum with approved courses in all Validation by Educational Experience (VEE) subjects and which covers 80 percent of the material in at least four of the five preliminary examinations (currently P, FM, MFE, MLC and C).
- Produces at least 10 graduates per year from the actuarial science program.
- Maintains a responsible faculty of sufficient quantity and quality (with at least one credentialed actuary on faculty).
- Produces high quality graduates who are in demand by employers.
- Offers a curriculum that integrates with other relevant fields, partic-

ularly those developing business acumen and communication.

- Connects to industry (e.g., advisory board, campus speakers).
- Produces appropriate research and other scholarship.

The first recipients of the CAE status were announced by the SOA in December 2009. There are now 13 schools in total.

- **Doctoral Stipends**—Strong actuarial science programs produce students deeply committed to the profession, who understand its history, and who are primed to become actuarial leaders. The academic community produces important new research, often developing concepts and methods that will generate breakthrough practice applications. The SOA established the Doctoral Stipend program to increase the number of academic actuaries who hold both a Ph.D. and an actuarial designation, and who intend to pursue academic careers in the United States or Canada. An ongoing program awarded annually, the stipends provide support for up to five years of study and encourage bright students to enter teaching and research for the profession. Five stipends were awarded in 2009.

COMMUNICATING

Communication was another initiative that received a heightened profile within Education in 2009. In addition to five Education-specific articles in *The Actuary* last year, and the University Outreach program described above, there were significant candidate-oriented achievements. These

included Pathway to Membership, a new interactive Web tool intended to clearly display the requirements for attaining a designation (it also offers suggestions about the order in which the requirements might be approached—you can check it out at <http://www.soa.org/education/exam-req/>); candidate surveys that were administered after both the May and November fellowship exams (the results of the November survey were presented to the Education Executive Group in January of this year, and determinations are being made with respect to potential changes in response to candidate feedback); and the opportunity, as part of the Balanced Scorecard initiative, for Education volunteers, Section liaisons, pretesters and candidates to provide feedback on the Education syllabus. The information collected with the above surveys will not only help to make effective changes, but also help us to determine those areas where better communication is needed to advise of programs or policies that have already been implemented.

IN THE MIX

The activity level associated with all of the above is enormous, particularly in a professional organization that relies heavily on its member volunteers. In addition to all of this, however, the Education group had less direct, but nonetheless important involvement with several other initiatives underway within the SOA. These included:

- **Professional Development Redesign**—While not a direct responsibility of the Education Executive Group, several group members brought an education perspective to the redesign project;
- **Global CERA**—The SOA entered into a worldwide treaty with 13 other actuarial associations to establish the CERA credential as the recognized

Enterprise Risk Management credential worldwide. The Education group is now working towards implementation of the treaty provisions. At the end of December 2009, there were 599 CERA credential holders. This number is set to increase substantially once some of the other associations are approved to offer the education and assessments to credential CERAs.

- **Principles for Education**—This project was undertaken by the Transfer Knowledge Team (TKT). The TKT has

delivered a set of principles that were approved by the Board in February. You will receive more information on this topic in an article planned for the next *The Actuary* magazine.

In conclusion, these are incredibly busy times for Education at the SOA. Many hours have been spent by your volunteers and SOA staff on these very important initiatives. We encourage you to take time to discover who these volunteers and staff members are. Talk to them when you have

a chance. Offer up your ideas and your encouragements. Better yet, become an Education volunteer yourself. We have opportunities for actuaries in all stages of their careers. Education is our responsibility: "It's all about the accreditation." ■

Peter Hayes, FSA, FCIA, is a principal with Eckler Ltd. He can be contacted at phayes@eckler.ca.

Financial illiteracy hurts

That's why the Foundation developed ***Building Your Future***, an engaging and relevant high school financial literacy curriculum resource. Now, more than ever, today's teachers thirst for resources to teach their students how to manage money wisely for a secure financial future. The ***Building Your Future*** series is designed to quench that thirst.

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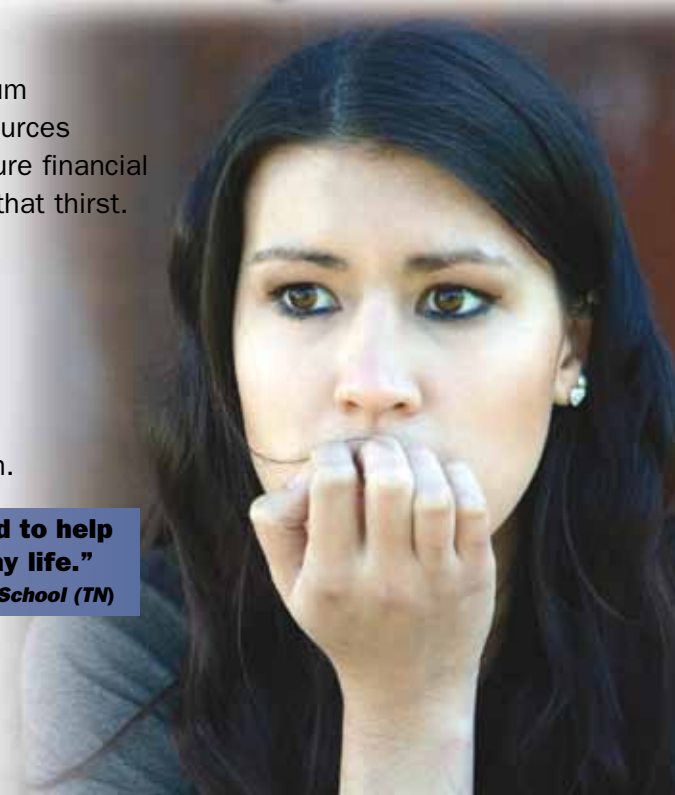
Hundreds of teachers have requested and are waiting for these valuable resources. Your gift of \$250 provides one high school classroom with the ***Building Your Future*** curriculum.

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CERA CREDENTIAL NOW INTERNATIONAL

THIS MONTH'S COLUMN highlights our continued focus on risk management issues. There's almost no issue of greater importance to the profession; we've just signed a global treaty to extend the CERA credential to other countries; employers continue to tell us that having employees with serious risk management skills is critical to their success; and we believe some of the greatest new opportunities (and growth) for the profession lie in expanding the profession's role in enterprise risk management.

The column describes a new SOA research report on operational risk management and its use by insurance companies. This report investigates a new approach to risk management, based on issues underlying the 2008 financial crisis. The report answers the natural question of whether there is a better approach to managing operational risk—one that might have either prevented or mitigated many of these events. This joint research effort by the Society of Actuaries, Canadian Institute of Actuaries (CIA) and Casualty Actuarial Society (CAS) is a forward-looking approach and suggests effective strategies for risk management, showcasing the actuarial profession as a leader in risk management techniques and practices.

In addition, the column covers an important new research project reviewing retirement planning software. This report has already received wide media coverage and, undoubtedly, has helped many consumers. The SOA is leading efforts to understand and create solutions to retirement issues. The SOA and the Actuarial Foundation recently released a study on retirement planning software. The study revealed that these programs need improvement

in helping users accurately plan for retirement by better understanding risks. The study recommends vendors focus efforts on providing better treatment of certain aspects of their programs, such as longevity assumptions, rates of return and Social Security benefits, among others.

In an effort to better communicate these types of research, the SOA has created a new research e-newsletter, *Research News & Opportunities*, which is sent to our more than 20,000 members. This e-newsletter covers the wide range of ongoing research coming out of the SOA research department—from experience studies and research projects to key trends and findings. The SOA is regularly looking for ways to communicate more effectively with our members, and we believe this e-newsletter will offer you a broader view of all research, while reducing the number of communications you receive.

Also in this issue, you'll see that our new Social Insurance & Public Finance Section is off to a great start. Members expressed a need for a professional interest group that would focus on these important issues, so the SOA responded with the development of this Section. Membership has quickly grown and the Section has plans to explore some very important social issues including public pension plans, government-funded health plans, workers' compensation insurance and unemployment insurance. Read the sidebar on page 45 to learn how to join. **A**

— SOA Executive Director Greg Heidrich

NEW RISK MANAGEMENT REPORT: INSURANCE COMPANIES SHOULD CONSIDER DEVELOPING FORMAL OPERATIONAL RISK MANAGEMENT PROGRAMS

A recently released SOA, CIA and CAS study encourages North American insurance companies to create operational risk management programs. The study examined approaches to operational risk management (ORM) and considerations for establishing formal operational risk programs. A key goal of the study was to determine whether the management of operational risk is feasible,

and, if so, what issues need to be addressed in order to effectively implement ORM within a broader ERM context. The study shows that programs would benefit from the principles of modern ORM. Traditional ORM, the audit-based approach, has many useful aspects; some of these program features should be retained as well. View the entire report at www.soa.org by clicking on Research. **A**

SOA STUDY: IMPROVEMENTS NEEDED FOR RETIREMENT PLANNING TOOLS

This new study shows tools fall short in providing adequate analysis of post-retirement risks. The study, sponsored by the Society of Actuaries and the Actuarial Foundation, assesses the extent to which retirement planning programs help users understand post-retirement risks. The packages, in particular the consumer packages, need to do

a better job of helping the user focus on and understand key issues such as rates of return, life expectancy and the length of the planning period, timing of Social Security benefits receipt, use of home equity in retirement and survivor's benefits. Read the full study at www.soa.org by clicking on Research. **A**

SOA ESTABLISHES NEW SOCIAL INSURANCE & PUBLIC FINANCE SECTION

After hearing from members interested in forming this Section, the SOA put out feelers last year to see how many people would pledge to join. We quickly found out: lots of you! The newest SOA Section, Social Insurance & Public Finance is also the fastest growing. Since its inception in April 2009, it has attracted more than 500 members. The first newsletter, *In the Public Interest*, rolled out this January. Sessions are planned for both the SOA '10 Health Meeting and SOA '10 Annual Meeting & Exhibit. It needs members and volunteers to continue the momentum.

The Section, made up of professionals working in enterprise risk management, economics, research, health, pension or academia, will explore topics and trends related to social insurance and public finance. It aims to develop consistent, high quality continuing education opportunities and sponsor fundamental research on evaluating and managing social insurance programs, including public pension plans, government-funded health plans, workers' compensation insurance and unemployment insurance. Join the SIPF section at www.soa.org—just click on Professional Interests, About Professional Interests and then the Join a Section link on the lower left side of the page. **A**

SOA EDUCATIONAL OPPORTUNITIES

RETIREMENT INDUSTRY CONFERENCE

April 11–13
Washington, D.C.

ERM SYMPOSIUM

April 12–14
Chicago, IL

THE LIFE INSURANCE CONFERENCE

April 13–15
Washington, D.C.

LIFE AND ANNUITY SYMPOSIUM

May 17–18
Tampa, FL

LIFE AND ANNUITY SEMINARS

May 19
Tampa, FL

EQUITY-BASED INSURANCE GUARANTEES CONFERENCE


May 31–June 1
Tokyo, Japan

SOA '10 HEALTH MEETING

June 28–30
Orlando, FL

View all Professional Development opportunities by visiting www.soa.org and clicking on Event Calendar.

SOA ROLLS OUT NEW RESEARCH E-NEWSLETTER

The Society of Actuaries, in an effort to better communicate its research findings and opportunities and to streamline the number of communications to members, began sending in December a new e-newsletter, *Research News & Opportunities*. This newsletter is sent to all SOA members at least monthly and includes information on everything from recently released experience studies and research project results to opportunities to participate in calls for papers, Requests for Proposals and data requests. Keep an eye on your inbox and take advantage of this new, easy way to view the latest information from the SOA Research Department. The *Research News & Opportunities* e-newsletter is just one more way the SOA is working to create solutions to address member and customer needs. Past issues of the e-newsletter can be viewed at www.soa.org, by clicking on Research. 

THE ACTUARIAL PROFESSION IN THE NEWS

Insurance Newscast Names Six Actuaries to "100 Most Powerful People in Insurance Industry" "Insurance Dream Team" included SOA President S. Michael McLaughlin.


Wall Street Journal Posts Article on "Job Rated Report" and Actuary Top Position *The Journal* featured an article on the annual ranking and why the job of actuary landed in the top spot.

Foxbusiness.com Lists SOA Risk Management Survey Results Results showed that risk managers have implemented or plan to implement risk management programs.

National Mortgage News Features Article on SOA Financial Crisis Report The piece covered the "Financial Crisis and Lessons for Insurers" report.

Producersweb.com Posts Column by FSA Mike Boot wrote a column on the results of a call for essays on the future of the life insurance industry.

Consumeraffairs.com Quotes FSA The site interviewed Anna Rappaport for an article on reverse mortgages.

To view all of these articles, visit www.imageoftheactuary.org and click on Actuaries in the News. 

VIEW ALL PROFESSIONAL DEVELOPMENT OPPORTUNITIES AT SOA.ORG

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Pricing in 2010 and Beyond: The New Frontier

Predictive Modeling for Life Insurance: How Actuaries can Participate in the Business Intelligence Revolution

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JUNE 28-30

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Learn more at <http://HealthMeeting.soa.org>.



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Equity-Based Insurance Guarantees Conference

May 31-June 1, 2010
Tokyo, Japan

This seminar is designed to give professionals with limited-to-moderate experience an understanding of how to better quantify, monitor and manage the risks underlying the VA and EIA products.

Learn more at www.soa.org.

