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Janitors and dead peasants: The story of leveraged COLI

by Christian DesRochers

Corporations have purchased life insurance on their employees for many decades, often to insure against the death of a key employee or to provide a source of financing for executive benefit programs. Beginning in the mid-1980s, the purchase of life insurance on a broad group of employees was seen as one way to finance the ever-increasing cost of employee benefit programs, particularly post-retirement medical benefits, which employers were required to accrue over the working life of their employees under FAS 106.

One such product, leveraged corporate-based life insurance (COLI)—broad-based life insurance financed by policy loans—had a relatively short but controversial existence from 1986 to 1996, when Congress phased out the deduction for policy loan interest paid by corporations. During that time, many of the best-known corporations in the United States purchased leveraged COLI from a number of highly respected insurers.

The story illustrates how a product intended to solve a problem (i.e., the financing of employee benefit costs) itself became a problem. Considering that corporations and insurers had sound economic motives for initiating leveraged COLI programs, the turn of events surrounding this product provides an excellent case study—and a caveat about the damage sensational media coverage can cause. Characterized in the press as "janitor" or "dead peasant" insurance[1], COLI has been criticized as "ghoulish," "predatory" and "revolting."

Under a leveraged COLI plan, the corporation is both the owner and the beneficiary of the life insurance policies on its employees. That is, the corporation pays the premiums and receives the death benefits. Broad-based leveraged COLI plans generally operated under the following principles:

- Corporations insured the lives of employees to offset or reimburse the corporation for the cost of employee benefits. The insurance policies were designed to fund the aggregate benefit costs and did not relate the insurance to an individual's benefit cost.
- The insurance was written on a broad group of employees. The insured employees were often different from the group of employees who would receive benefits, but were generally those employees who would be eligible to receive benefits at some point. The life insurance purchased by the corporation was intended to remain a corporate asset until the death of the employee, even after the employer/employee relationship terminated.
- The corporation's obligation to provide the employee benefits was separate and distinct from the purchase of the life insurance. It was expected that the employees would have no legal interest in the insurance, although many plans did provide some death benefits to the employee. The insurance may or may not have been written with the knowledge and/or affirmative consent of the insured employees.

Financed insurance

In the early years of the modern income tax, Congress disallowed interest deductions where the indebtedness was used to purchase tax-exempt obligations or securities. However, there was no specific limitation on the deduction of interest on loans used to purchase life insurance, leading to the development of "financed" insurance programs. Leveraged COLI is a form of financed insurance. That is, the purchase of the life insurance is financed in part by debt, generally in the form of policy loans.

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Are actuaries changing their image or themselves?

by Steve Prince

Many an editorial has been written, and many a task force has studied whether, how or if the image of actuaries is changing.

We are all in favor of being part of a profession that (a) is respected and (b) has a steady demand for its services. Anything we can do to improve either of those attributes without sacrificing the other is, presumably, a good thing. Image, presumably, helps both of those things at the same time.

Are we looking for more mandated work?

Some of the debate about what actuaries should or shouldn't be doing for employment has centered on the value of requiring actuarial opinions on items where actuarial opinions are not currently required. Sales illustrations are a recent addition to the list of things requiring an actuarial opinion, and there is talk of mandatory actuarial opinions on public health care plans in some jurisdictions.

I agree there are situations where an opinion from a qualified actuary should be required. But I would also argue that looking for additional mandatory actuarial opinions does not always enhance our image. Actuarial work will increasingly be viewed as a compliance matter. Compliance is something people want to minimize. Nobody wants to fail a compliance test, but have you ever heard anyone boast about how they have twice as many people working on compliance as their competition does? Not likely.

Canadian experience with the legislated job of appointed actuary provides some relevant insights here. For those of you who are not familiar with it, Canadian insurance company actuaries have a rather unique place in the world.

The Insurance Companies Act—the law of the land, not merely professional standards—requires that the actuary report to the CEO and others any matters that "in the actuary's opinion have material adverse effects on the financial condition of the company and require rectification." Moreover, if the company fails to act on said matters to the actuary's satisfaction, "the actuary shall forthwith send a copy of the report to the Superintendent and advise the directors that the actuary has done so." There are a number of professional standards about how the actuary should make this assessment, but the point is, the requirement itself is written into law.

When these requirements were coming into force in the early 1990s, I sat through many CIA general and committee meetings listening to many senior actuaries talk about what a terrific step forward these changes were for actuaries in Canada and, by extension, actuaries everywhere. This was really exciting, they said.

My first meeting with company management put things in a rather different light. Actuaries are now "running the damn company" and "working for the regulator" and "how the hell can you be part of management if you are also the chief whistle blower?"

Actuaries have a lot to contribute to the prudent running of a company, and many companies would be better off with more actuarial discipline rather than less.

But making all this mandatory did not do much to improve our "image" outside the actuarial community. So, the next time a proposal for a mandatory actuarial opinion surfaces, we might ask ourselves if this is the best way to approach the problem.

An actuary is what an actuary does

One step we can all take toward improving the image of actuaries is to stop thinking of ourselves as actuaries. Instead of merely "thinking outside the box," why don't we ask why the box is there in the first place?

We are professionals with certain skill sets. Some of these skills were acquired from our formal training, some from our work experience and some from other training—courses, seminars and so on.

Letters to the editor

E&E: Calculus and statistics should still be tested

This is in response to the E&E system article in the April issue. The report proposes that calculus and statistics no longer be tested. There are two problems with this. First, it is unlikely that the student will be broadly tested on calculus statistics on the later exams. Granted, there is a subset of these that the student must master to pass the later exams.

Second, actuaries should have a broad mathematical background that should include the benefit of a robust education in calculus and statistics, and verification by examination that the educational opportunity has been properly utilized. Actuaries solve many problems that do not have cookbook answers sitting in text books, and focusing on only those calculus and statistics skills emphasized on the later examinations short changes the student and employers of actuaries.

The exams are objective and graded without opportunity for favoritism. Uniform standards are difficult in the university and college setting, especially in the United States with its broad diversity in its educational institutions and from professor to professor within schools. The rigor of the exam process keeps the quality of actuaries high. If university-based courses are adequate, then they will prepare the candidates to pass the examinations. This is crucial given the impact we have on the long-term financial security of the public.

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A biased estimator is a good thing?

As an exam proctor, and a supervisor of exam writers at work, I want to make a suggestion for consideration.

First, here are two issues: (1) If a student fails to erase an answer fully, the scanner sees two marks, and the candidate receives a zero even if one of the answers is correct, and (2) a student can narrow down the answers from five to two or three and then needs to guess a single answer. Some people are really bad guessers but, in any event, randomness is introduced. Students are told to guess for all questions, even if they have no idea. More randomness. We are potentially determining passers and failers based on their luck at guessing.

Now, here is my suggestion: Change the marking scheme so that if more than one answer (e.g., n) is marked, but one of those answers is correct, the score is $1/n$ instead of 1. This would give some credit to students who do not erase fully, or those who want to minimize bad luck. This should not change the expectation of total score (except for the incomplete erasing cases).

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The consulting firm I work for has a number of actuaries on staff but also a number of nonactuaries. We have underwriters, administrators, lawyers, economists, investment bankers and more.

Sometimes clients come to us and say "I need an actuary to help me with X." Often, though, they come to us and say "I have a problem (or an opportunity) with X. Can you help me?" The solution often has an actuarial component, but that's not a given going in. Clients don't usually ask. "Did an actuary do this?" The only requirement is that the staff be qualified for the tasks at hand.

The actuaries in our firm get involved in ways the client may not realize. We do stuff that is often described as "nontraditional," which is interesting work. But the point is, we developed this business by applying skills we have in situations where those skills are useful. Then, having identified those skills, further developed them through practice, textbooks or courses.

Want to be a financial engineer?

Stochastic models of various sorts are becoming commonplace in a growing number of applications in the financial world. Option pricing is one such example. A stochastic model is one where there is some sort of dispersion in the analysis. The ubiquitous Black-Scholes option-pricing model is a stochastic model, because option prices reflect the volatility of stocks. It's not a Monte Carlo model, but it is still a stochastic model.

Some actuaries see this growing use of stochastic models as a threat. Others see it as an opportunity. It's a threat because it allows some nonactuaries a chance to expand their involvement in what has traditionally been an actuarial field, namely, probability-related pricing and analysis. Comments have appeared on some e-mail discussion groups about MBAs and "mere statisticians" invading "our" territory.

It's an opportunity, of course, if you see it as chance to add value in ways we have not been able to in the past. That extra value could be some additional insights or useful information about an insurance operation. It could also be a chance to take some of our insurance insights and extend them to other fields where those insights are not being used. Financial engineering, which is rather loosely defined as the use of options or financial instruments to achieve some desired financial arrangement, is one such field.

In expanding our field of coverage in such a way, the question to ask is not "Is this something an actuary should be doing"? The question to ask is, "Have our collective skills enabled us to make a useful contribution to the matter at hand?" If your audience (or your client or your employer) answers "yes" to that question, you have improved your image and the image of actuaries generally.

Janitors and dead peasants: The story of leveraged COLI
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The key to any financed insurance plan is that, by borrowing against the cash values, and applying the money so borrowed to pay premium costs, the insurance protection may be purchased at a very low cost. Where interest is deductible, the cost of insurance and the after-tax interest charged on the indebtedness may be almost wholly offset by the interest earned on the increase in the cash value [2].

Financed insurance has often attracted the attention of the tax authorities and, over the years, Congress has imposed various restrictions on its use. For example, the Revenue Act of 1942 disallowed the deduction of interest paid on indebtedness used to purchase single premium life insurance or endowment contracts. In 1963, in response to the popularity of minimum deposit plans, the four-out-of-seven rule (now found at 264(d)(1)) was enacted, limiting the deduction of policy loan interest after Dec. 31, 1963.

Financed insurance has often attracted the attention of the tax authorities and, over the years, Congress has imposed various restrictions on its use.

Under the rule, a safe harbor was provided so that policy loan interest was deductible if no part of four of the annual premiums due during the seven-year period (starting with the first premium) was paid by means of indebtedness. Even with the enactment of the four-out-of-seven rule, minimum deposit continued to be a popular method of financing the purchase of permanent life insurance policies for both individuals and corporations.

The elimination of the deduction for personal interest for individuals in the Tax Reform Act of 1986 eliminated policy loan interest deductions for individuals. However, the 1986 Act left in place the deduction of policy loan interest for corporations up to a loan of $50,000 per covered employee, setting the stage for the development of broad-based leveraged COLI.

The products

A variety of life insurance products were used in the broad-based leveraged COLI market. Both group and individual products were offered. Products included both interest-sensitive whole life and traditional participating products with paid-up additions riders. Some plans were limited premium plans (e.g., eight- or 10-pay), while others were ordinary life policies. Some products provided separate cash value credited interest rates for loaned and unloaned cash values, while others simply credited one rate to both. Where permitted by state law, some plans based the policy loan interest rate on Moody's Corporate Average, while others used the "second" prong of the NAIC Model Policy Loan Interest Rate Bill to provide linked credited and loaned rates.

Despite the differences, there were a number of common threads in the products offered. Policies were written on a large number of employees and were issued subject to an "actively-at-work requirement" on the date of issue. Many plans were experience-rated with respect to mortality, based on the difference between the death benefits received, and the cost of insurance charged, adjusted for pooling charges, stop-loss limitations and claim fluctuation reserves.

The policies were cost-effective from the corporate buyer's point of view, with relatively low unit expenses. A part of the policy expense structure was the difference or "spread" between the loan rate and the credited rate. As policy loans were used to finance the first three premiums (under the four-out-of-seven rule), the policies had first-year cash values.

Furthermore, if the corporate policyholder desired to do so, the premiums in years four through seven could be financed using "internal" policy funds in the form of partial withdrawals, the surrender of paid-up additions or the application of "loading dividends," which were a feature of some of the popular products on the market. After the 1986 Tax Reform Act, although deductible borrowing was limited to a loan of $50,000 per covered employee, nondeductible borrowing (i.e., in excess of $50,000) was commonly illustrated to minimize the net cash outlay of the purchaser.

The result was that leveraged COLI could be acquired by a corporate buyer with a minimum cash outlay and, in fact, could be operated so that positive after-tax cash flow to a corporate policyowner, assuming the deductibility of loan interest, would be illustrated in each year subsequent to issue. (The reality was somewhat different, as death claims did not generally occur as illustrated.)

Given the historical tension between the life insurance industry and the tax authorities over financed insurance generally, this new generation of leveraged COLI policies soon attracted their attention.

The government response

In reports to the U.S. Congress in the early 1990s, both the General Accounting Office and the Treasury noted the development of broad-based leveraged COLI and its use in the financing of "currently unfunded liabilities, such as those incurred for future health benefit costs." [3] In its March 1990 "Report to the Congress on the Taxation of Life Insurance Products," the Treasury noted that "since 1986, new types of COLI contracts have evolved which substitute a large volume of small contracts for a small volume of very large contracts" and recommended elimination of the deduction of all policy loan interest.

The Treasury report also noted that, while the Congress had eliminated the deduction of policy loan interest on more than $50,000 of loans per insured person,

"nothing in the law, however, explicitly prevents insurers from selling to companies a large package of small cash value policies, which can be used to generate significant amounts of deductible interest, generally limited only by the number of insured employees."[4]

Ironically, this actually may have encouraged the sale of leveraged COLI, as the Treasury report seemed to imply that it "worked" under then current law, and companies were encouraged to purchase coverage before the favorable tax treatment was eliminated as the Treasury had recommended.

Ultimately, the deduction for policy loan interest on broad-based leveraged COLI was phased-out by the Health Insurance Portability and Accountability Act of 1996. The deduction was scheduled to end in 1999, with transition limits placed on the number of eligible employees (20,000), the rate of loan interest assumed (Moody's Corporate Bond Average), and the percentage of loan interest deductible (100 percent in 1996, 90 percent in 1997 and 80 percent in 1998). However, to preserve the government's position in audits and litigation, the legislative history provided that "no inference is intended as to the treatment of interest paid or accrued under present law."[5]

Tax: audits and litigation

Beginning in the mid-1990s, the IRS challenged a number of broad-based leveraged COLI plans on audit. In a 1999 Technical Advice Memorandum, the IRS applied a

Beginning in the mid-1990s, the IRS challenged a number of broad-based leveraged COLI plans on audit.

"substance-over-form" analysis to leveraged COLI, arguing that although the corporation, in form, borrowed money from the insurer to pay premiums on the COLI policies, the reality was that "a substantial portion of the amounts paid were returned concurrently with their payment, creating a circular cash flow."[6] Thus, the IRS concluded that interest on the COLI policy loans, lacking economic substance, was not deductible under general tax principles.

The IRS arguments were based on what has been labeled the "economic substance doctrine," which has been applied by the IRS at various times to challenge a variety of transactions. Under that doctrine, if there is nothing of substance to be realized from a transaction but a tax deduction, the desired tax treatment is not allowed, despite the transaction's technical compliance with applicable provisions of the Internal Revenue Code.

The IRS also ruled that the COLI policies failed to satisfy the "four-out-of-seven" exception under Section 264(c)(1), arguing that the premiums payments were "paper transactions" that in reality did not occur. That is, it argued that the premiums "paid" were factual shams, with the "true" premiums being equal to the net cash paid by the taxpayer.

The IRS position resulted in litigation with taxpayers over the proper treatment of the loan interest. To date, the IRS and the Department of Justice have prevailed in cases involving *Winn Dixie, C.M. Holdings* and *American Electric Power*, although a recent case, *Dow Chemical*,[7] was decided in favor of the taxpayer.

In general, the courts have upheld the government argument that the COLI plans lacked economic substance and, therefore, the loan interest is not deductible, but have not upheld the "sham in fact" arguments. In his opinion in the *C.M. Holdings* case, District Court Judge Murray Schwartz commented:

> "One can readily appreciate that these tax advantages have invited talented actuaries to design life insurance policies which approach becoming tax driven investment vehicles and/or tax shelters… . Congress and the

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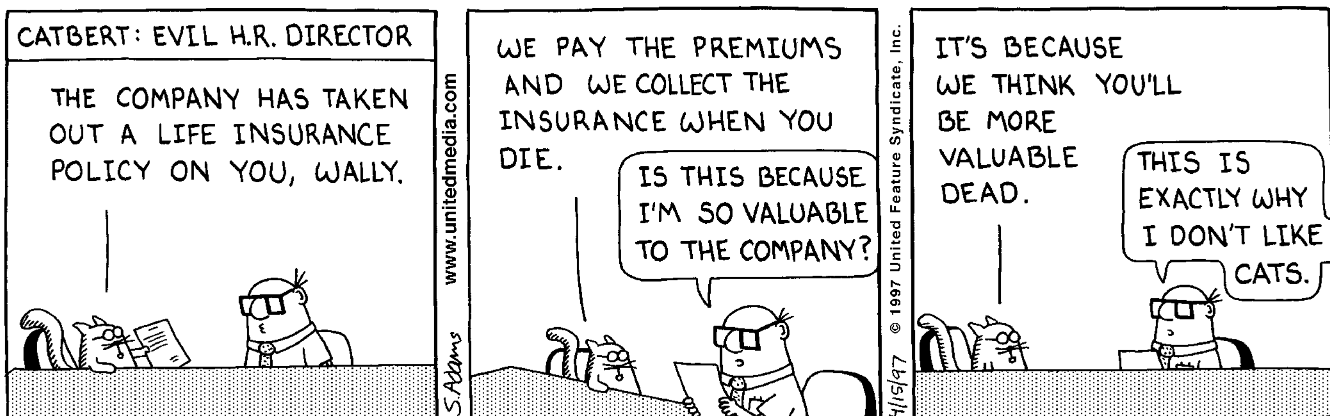

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> courts have stepped in when life insurance policies have crossed the line separating insurance against an untimely death and tax driven or tax sheltering investments."

Thus, at least in Judge Schwartz's view, leveraged COLI crossed the "invisible line" separating the acceptable from the unacceptable.

In August 2001, the IRS announced a settlement initiative permitting taxpayers to settle COLI issues if the taxpayers conceded 80 percent of the claimed interest deductions. In turn, 80 percent of the tax due on surrender of the contracts would be "forgiven" if the contracts were surrendered as part of the settlement. In late 2002, the IRS announced that it was terminating the settlement program. IRS Chief Counsel B. John Williams reported in March 2003 that all except five of the 33 COLI cases pending in IRS appeals or the courts had accepted the settlement offer before the deadline expired. As a result, many of the leveraged COLI policyowners have surrendered their policies as a part of their settlement with the IRS.

The aftermath

Not unexpectedly, the adverse tax outcome has also led to other consequences. A complaint against the underwriters, marketers and designers of leveraged COLI was filed in September 2002 by Wal-Mart in a Delaware state court. From 1993 to 1996, Wal-Mart bought policies insuring approximately 350,000 full-time employees. Wal-Mart alleges it lost money on the plans after the change in tax laws, and surrendered the policies in 2000 after settling with the IRS.

In the suit, Wal-Mart seeks to recover $235 million in damages, arguing that insurers did not sufficiently warn the company about the unexpected federal tax liabilities and the likelihood it would have to pay back the insurance proceeds it received in Texas. The suit follows a decision in Texas in August 2002 finding that Wal-Mart did not have an insurable interest in the lives of its workers in Texas and was, therefore, not entitled to receive the death benefits, which would be paid instead to the insured's estate. The court ruled that, since the employees lived, worked and died in Texas, then Texas law governed. At the time the Wal-Mart case was written, Texas law did not provide an insurable interest for employers in their employees.[8]

In general, the courts have upheld the government argument that the COLI plans lacked economic substance, but have not upheld the "sham in fact" arguments.

In part as a result of the adverse publicity over leveraged COLI, a number of states have enacted "advise and consent" laws requiring employers to inform their employees and obtain their consent when insuring their lives. In late 2002, the NAIC announced new guidelines calling for state laws requiring employers to obtain the consent of employees before the purchase of a COLI policy.

The NAIC guidelines provide that employers must notify eligible employees of their proposed participation in a COLI plan, and the employees must be given an opportunity to refuse to participate. Employers should obtain written consent of each individual being insured, acknowledging that the employer may maintain the life insurance coverage even after the insured individual's employment has terminated. Further, for non-key or nonmanagerial employees, the amount of coverage should be reasonably related to the benefits provided to the employee.

Some legislators are seeking more stringent laws. During a recent session, Texas legislators attempted to pass bills that would have banned COLI policies. A California proposal, supported by organized labor, would prohibit insurers from issuing policies that designate employers as the beneficiaries for life insurance on nonexempt employees. Enactment of the California bill is expected.

Some legislators are seeking more stringent laws. During a recent session, Texas legislators attempted to pass bills that would have banned COLI policies.

On a national level, Sen. Jeff Bingaman, D-N.M., would require owners of life insurance policies on their employees to pay taxes on the benefits if the employee dies more than a year after leaving the company. The Life Insurance Employee Notification Act, introduced in the House of Representatives, would require employers to inform an employee if the company has taken out a life policy on them. It would deem the nondisclosure of employer-owned life insurance coverage of employees an unfair trade practice under the Federal Trade Commission Act. Other proposals would eliminate the favorable tax treatment of COLI on non-key employees. These provisions are strongly opposed by the life insurance industry.

Lessons

The simple answer to the question as to why life insurance companies marketed leveraged COLI is that many in the industry, as well as those advising corporate buyers, simply felt that the COLI plans worked. Despite news stories to the contrary, leveraged COLI was not about corporations seeking to benefit from the deaths of their employees. Rather, it was seen as a way of financing employee benefit costs.

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Changing our image may be more of an internal challenge than an external one

by Mark van Zanden

I am a Fellow of the Casualty Actuarial Society (FCAS), a Fellow of the Canadian Institute of Actuaries (FCIA) and a chartered financial analyst (CFA). Depending on the audience, I state these designations in different order.

Upon completing the CAS exams, I felt that it would be useful to broaden my perspective by pursuing the CFA exams. My work involves dealing with a fair number of finance professionals in banking and structured finance, and I felt that they didn't know what to make of actuaries. Being labeled "an actuary" seemed to present hurdles for me in these relationships. I needed to prove that my expertise extended beyond "number crunching" and that I could add value on broader business issues and deal structuring.

Mixed Impressions

My CFA makes me more part of the family to these finance professionals and less of an unknown, generally removing these hurdles. However, I perceive that having the CFA does not change my image at all to other actuaries. Any perceived change that does exist relates to my being an actuary who went on to do "something else." I think that doing an MBA would have had the same impact from my fellow actuaries' viewpoint.

I am very glad that I obtained the CFA designation (see "My journey to the CFA" on page 8). From a technical standpoint, I have a broader perspective on the vocabulary of assets and a better sense of where other financial engineers and professionals are coming from. Also, my impression is that it makes me more accessible to potential clients and customers than being just an actuary.

For some reason, actuaries are perceived to have some mystical power when it comes to assessing insurance liabilities.

However, in terms of changing the image of the actuary, the issue comes down to perception versus reality. Once the vocabulary has been learned, from a technical-training perspective, an actuary, a technical structured finance professional and a "mathematical" financial analyst ("financial engineer") all are equally competent at assessing the impact of contingent future financial events, whether they relate to insurance liabilities, corporate cash flows or structured finance transactions.

(I want to emphasize that this is true only from a technical training standpoint; there is no question that experience weighs heavily in the competence of assessing specialized risks.)

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Changing our image

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For some reason, actuaries are perceived to have some mystical power when it comes to assessing insurance liabilities. Within the insurance world, nonactuaries view actuaries with a certain reverence when it comes to technical issues (sometimes it's the opposite on business issues). In reality, any financial engineer has the same technical skill set (given the right vocabulary and experience). But our mystique is not portable outside the insurance world where, as I stated earlier, we may have some baggage when leaving our home turf.

Losing our mystique

Widening the actuarial role outside of insurance liabilities could be a double-edged sword, as our financial engineering colleagues may realize that there is no magic to our technical process. Actuaries may become extinct as the more abundant general category of financial engineers moves into the insurance world and delivers the same value that we do but with less cost and more transparency.

Perhaps our first order of business when it comes to changing the image of the actuary is to convince our nonactuarial insurance colleagues that we're really just normal people trying to solve business issues as efficiently as possible with as much information as possible.

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My journey to the CFA

For anyone interested in obtaining a CFA designation, it requires completing two key milestones: (1) passing three six-hour exams and (2) having at least three years of acceptable professional experience working in the investment decision-making process.

The Association for Investment Management and Research (AIMR) accepted my roughly eight-year actuarial career as appropriate professional working experience. My presentation to them stated that I had been analyzing contingent future financial events and, while my focus may have been on liabilities, the process is equally applicable to assets. I felt that this experience related to an investment decision, and the AIMR agreed.

My recollections from the CFA examination process are:

- Each examination covered roughly 2,000 pages of material.
- The exams' levels were incremental. By this I mean that each level was covering roughly the same material but in greater depth with each pass over.
- There was significant emphasis on ethics and standardized performance measurement presentation.
- I spent about seventy-five hours studying for each exam, about one-third the time that I spent studying for an actuarial examination. At least two factors contributed to this: (1) by the time I was writing CFA exams, I was a professional exam-taker (thanks to five years of CAS training) and (2) some of the material on various CAS exams was repeated for the CFA.
- I was successful in passing each of the three CFA exams the first time through.

One key differentiator between the organizations is the ease of consumption of the material that I receive as a CFA versus as a FCAS/FCIA. I find that the AIMR sends me high-quality publications that summarize and provide details of recent articles and research in a format that is very useful and digestible. I refer specifically to "CFA Magazine" and the "The CFA Digest" (see *www.aimrpubs.org*).

—Mark van Zanden

Changing Image or changing jobs?

Actuaries in nontraditional roles discuss how they got there.

Whether the image of actuaries is changing or not, some actuaries are winding up in what we would call "nontraditional" jobs in investments or even sales.

Of course, the definition of "traditional" changes over time. Actuaries have long held senior management jobs of various sorts in insurance companies. Once in management, the actuarial training hasn't prevented actuaries from serving in senior positions in marketing, systems, administration or investment management.

More recently, actuarial involvement in investments and asset/liability management was considered to be nontraditional. It has since become mainstream, with investment sections in most major actuarial organizations.

To get some views on nontraditional work, *The Actuary* spoke to three actuaries who recently had or have nonactuarial jobs:

- Murray Taylor is executive vice president of Investors Group, a financial planning and mutual fund company that is part of a financial services conglomerate. Previously, he was in management of an insurance company in that conglomerate.
- Daniel Dessureault is vice president of national sales and distribution for Maritime Life, a large Canadian insurance company.
- Dave Bennett is currently vice president of risk management in the reinsurance division of Manulife, a multinational life insurer. For several years, he worked as a generalist consultant for McKinsey & Company, a nonactuarial consulting firm. He often worked on insurance assignments.

The Actuary: How did your actuarial background help or hinder you getting into this job?

Taylor: … having the analytical business approach that actuarial training provides is helpful in any senior business job.

Taylor: I find that having the analytical business approach that actuarial training provides is helpful in any senior business job. As well, my prior insurance experience in asset allocation and related investment planning skills/experience, of course, carried over into the mutual fund industry. Besides, actuarial forecasting skills aren't limited to death claims. I find that a careful interpretation of my distribution data (surveys, actual activity, etc.) allows me to spot trends and changes before they occur.

Dessureault: I was originally hired as a marketing actuary (advanced marketing consultant in the field) with my current company. I got promoted to regional marketing director (distribution management in a territory) and then to my current position four years ago. My actuarial background gave me instant credibility and better understanding of the insurance business when dealing with much older and more experienced sales people.

Dessureault: … Marketing knowledge with an actuarial background is a very powerful combination.

Bennett: My actuarial background helped immensely both directly and indirectly. From a direct point of view, the consulting firm that I previously worked for likes to hire actuaries (as well as engineers and MBAs), although there are a lot fewer of us actuaries to "mine." They recognize that actuaries are a good fit with their preferred hiring profile—typically clever and numerate problem solvers with financial backgrounds and substantial real-life experience. Of course, for insurance-related projects, actuarial expertise is a "must have."

Being part of the actuarial profession helped indirectly as well—the relative smallness of the profession has afforded me opportunities I might not otherwise have had. For example, I was editor of the London-based Staple Inn Actuarial Society's *The Actuary*. Where else could someone with no prior experience manage a glossy magazine with a circulation of 12,000? This kind of experience enabled me to demonstrate leadership, communication and teamwork—other traits that the firm I worked for tends to look for in new hires.

The Actuary: Does the fact that you are an actuary get mentioned much in meetings or introductions?

Dessureault: Yes, but in a constructive way. Marketing knowledge with an actuarial background is a very powerful combination.

Bennett: Only where relevant. When it was a banking- or insurance-related engagement, then, yes, most definitely. It afforded me almost instant credibility. Of

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Changing image or changing jobs

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course, when it was in a bank, it was a whole new audience for all those self-deprecating actuarial jokes that we've grown tired of! "How can you tell an extroverted actuary?"[1]

The Actuary: Do you think you'll ever go back to a more traditional actuarial job?

Taylor: Not to a traditional job. But as I use the basic actuarial skills in this job, I do not feel I have stopped doing the work of an actuary.

Dessureault: No, I chose a different path 15 years ago.

The Actuary: Given where you are now, do you think there is some other career path that might have gotten you there sooner or with less grief (i.e., fewer exams)?

Bennett: In other industries, yes. In insurance, no. I sometimes wonder how much richer my life might have been had I spent the effort that I put into writing the exams into starting up my own business. On the other hand, I have been fortunate to have had an enriched life, afforded on the back of an actuarial career (I've done tons of traveling!). Coming out of university, I wasn't sure what I wanted to do and an actuarial path had the comfort of sureness of direction—a very reputable profession with a well-defined progression path to qualification.

Bennett: ***I have been fortunate to have had an enriched life, afforded on the back of an actuarial career***

Taylor: That's hard to assess. Since I was able to capitalize on the skills and credibility of being an actuary, I cannot think of a faster or easier stream to get me where I am now.

Dessureault: Most likely not. As I said, the actuarial qualifications gave me instant credibility with many people.

The Actuary: Dave, you were a generalist consultant in your prior job. What led you there?

Bennett: I recognized the need to expand my "tool kit" beyond traditional actuarial expertise and decided that an MBA would be an ideal complement. Upon acceptance into several MBA programs, it occurred to me that perhaps I could get a "real-life" MBA via management consulting (and get paid while learning!). I applied for and got what was my "dream job."

The Actuary: Can you see another actuary doing the job you're in now?

Taylor: Perhaps, but by no means would the job search specifically say they were looking for an actuary.

Dessureault: My growth into this job is a combination of aptitude and attitude. I can't see why another actuary couldn't do this job, but it would not be the natural thing to have happen again. I was fortunate to have a boss and mentor that believed in my abilities and my potential for development.

Bennett: My current role involves a lot of conceptual thinking and a detailed understanding of life company financials. The person doing this doesn't necessarily need to be an actuary, but it's difficult to imagine many nonactuaries with this skill set.

The Actuary: Do you hear more actuarial jokes now than when you did actuarial work?

Taylor: Less, because my mutual find coworkers don't know the jokes.

Dessureault: I don't take these jokes as applicable to me anyway but I do enjoy them. However, I haven't been keeping count.

Bennett: Not really. I find myself having to laugh at the same old, same olds as if I have never heard them before.

The Actuary: Any other words of advice you'd like to give our readers?

Bennett: Yes. A few other key skills/traits that have helped me and lessons I've learned are:

- Relationships with other people are more important than "being right."
- Communication skills are as important as technical skills. There is no advantage in coming up with the right answer if you can't communicate it or influence others to act on it.
- Communication skills do not equate to knowing how to string a sentence together. Effective communication involves things like effective use of asking open-ended questions and listening to the answers.

[1] **Ed:** The extroverted actuary is the one who looks at *your* shoes when he's talking to you.

Direction and framework of E&E redesign approved by SOA Board of Governors

This is the fourth in a series of articles addressing potential changes to the education and examination (E&E) system. Look for follow-up articles in future issues of *The Actuary*.

At its June 2003 meeting in Vancouver, the SOA Board of Governors (BOG) reviewed and approved the direction and framework proposed by the Actuarial and Preliminary Education Working Groups.

The approved design includes the completion of eight e-learning-based interactive modules along with PE and a professionalism course in order to earn the ASA designation.

Preliminary education

The BOG approved the proposal for preliminary education (PE), including the recruitment of volunteers to staff a Preliminary Education Design Team. The PE component has three guiding principles:

1. Travel time should be reduced when compared to completing current Courses 1-4. This will not be accomplished by shifting material later in the syllabus.

2. Appropriate education and validation methods should be used.

3. While the main purpose for PE is to set the theoretical foundation for actuarial work, there should be a connection between theory and practice.

The PE proposal calls for the following components:

- *Prerequisites.* Topics that will not be directly validated include: calculus, linear algebra, introductory accounting, business law elements and mathematical statistics.
- *Validated by educational experience.* Topics for which candidates will demonstrate proficiency by submitting transcripts and course descriptions from formal courses include: economics, corporate finance and applied statistical methods. These will be reviewed to determine whether they meet stated criteria.
- *Traditional examination.* These subjects will be validated by a traditional examination: probability, mathematics of finance, models for quantifying risk, construction and evaluation of risk models.

ASA Course

The BOG approved the structure and design of the ASA Course, including the recruitment of volunteers to staff an ASA Course Design Team. The ASA Course component was designed with several goals in mind:

- Expose candidates to common situations and useful tools in all practice areas to enable an understanding of the business environment.
- Introduce practical experience earlier in the candidate's career. The premise of the control cycle served as a model for the design.
- Focus on enhancing the educational aspects of the course while making use of both formal and informal validation methods.
- Integrate the principles of effective instruction (introduction of key concepts, elaboration of key concepts, practical application of the concepts in other contexts) via a modularized, learner-centered and active and applied learning experience.

The approved design includes the completion of eight e-learning-based interactive modules along with PE and a professionalism course in order to earn the ASA designation.

Throughout the eight modules, candidates will be exposed to the themes of professionalism, result validation, applications of law and, wherever appropriate, stochas-

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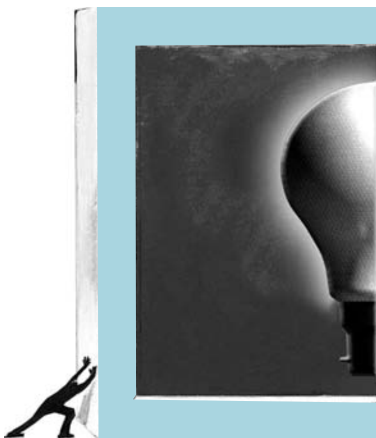

Direction and framework of E&E redesign approved by SOA Board of Governors

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tic versus point estimates. Each module will include coverage of a required body of knowledge within a practical application context; interactive segments that the candidate will use to assess his or her level of understanding and an exercise in which the candidate will demonstrate understanding of the subject matter.

The ASA Course Design Team will be charged with creating a final design, cost and implementation specification plan to be brought to the BOG for final approval at a future meeting.

FSA proposal

The BOG approved the direction of the FSA education proposal, including the recruitment of volunteers to staff an FSA Design Team.

The following principles guide the development of the requirements for Fellowship:

1. The FSA requirements should not increase travel time.

2. The FSA requirements will be specialized by practice area "tracks." The proposed tracks are: Individual Insurance; Health, Group Life and Managed Care (HGM); Retirement Benefits; Investments; and Finance/Enterprise Risk Management (F/ERM). The F/ERM specialty track may be broken out into two separate tracks. In addition, nation-specific material may necessitate dividing a track into its U.S. and Canadian counterparts.

3. All FSA tracks should have approximately the same scope with regard to number of exams/experiences and expected travel time.

4. There is a body of material that should be rigorously examined.

5. Alternate approaches, such as the interactive modules, may also be appropriate at the FSA level.

6. The FSA component should be coordinated with the ASA Course and should tie back to the control cycle.

7. The Fellowship Admissions Course (FAC) should be included in the FSA requirements.

Some of the outstanding issues to be decided by the FSA Design Team include:

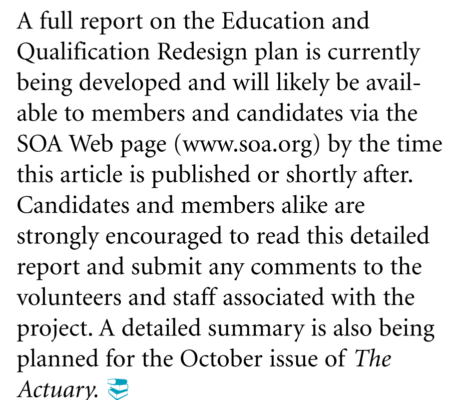
- Learning objectives need to be refined and prioritized in order to identify those that require rigorous examination.
- Certain learning objectives may be targeted for inclusion in interactive modules. The number of modules and their composition will be determined. This will include identification of modules that will cross practice areas.

The examination framework will be reviewed to determine the degree of similarity/consistency that can be achieved effectively across tracks.

Suggested topics, as applicable to the individual practice areas, to be covered via a traditional examination approach are:

1. Regulatory Considerations (including accounting, taxation).
2. Valuation.
3. ALM/Risk Management.
4. Product Design.
5. Pricing (including underwriting, selection of assumptions).

The FSA Design Team will be charged with creating a final design and implementation plan to be brought to the BOG for final approval at a future meeting.



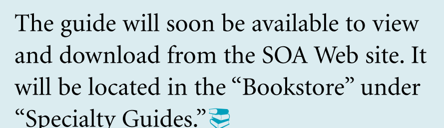
A full report on the Education and Qualification Redesign plan is currently being developed and will likely be available to members and candidates via the SOA Web page (www.soa.org) by the time this article is published or shortly after. Candidates and members alike are strongly encouraged to read this detailed report and submit any comments to the volunteers and staff associated with the project. A detailed summary is also being planned for the October issue of *The Actuary.*

What's so special about ALM?

The SOA's new ALM Specialty Guide answers that question and offers a roadmap for practitioners seeking to enhance their knowledge of asset/liability management (ALM).

This soon-to-be-released publication was developed by the SOA Finance Practice Area's ALM Specialty Guide Task Force. Tapping into the expertise of this seasoned group of ALM professionals, the guide provides direction to anyone in search of new or updated knowledge of ALM, especially its differing applications to financial security systems, such as life or health insurance, property and casualty insurance or pensions.

Each section of the guide provides an introduction and commentary on a specific subtopic of ALM and its related issues, and includes a variety of additional references on the topic. The guide is designed to help users tackle current issues related to managing assets and liabilities, including recent discussions regarding pension plan funding.



The guide will soon be available to view and download from the SOA Web site. It will be located in the "Bookstore" under "Specialty Guides."

Civilian actuary finds transition to "military analyst" smooth sailing

by J. Bruce MacDonald

I've always had an interest in military history and theory, as well as strategic studies, but my career in the military was limited to serving in the high school cadet corps during World War II. Nonetheless, in 1996, the president of the Royal United Services Institute of Nova Scotia (RUSI)—who had been the CEO of a client—thought I would be interested in becoming a member, and I joined them.

RUSI is an organization primarily made up of serving and retired members of the Canadian forces, the Royal Canadian Mounted Police (RCMP), other security services and interested individuals. It is a nonpartisan educational and informational forum that seeks to educate its members and the public about security issues, and to influence government policy in security matters.

In 1999, I was asked to become a director and eventually became the first RUSI president who had never served in the Canadian forces, though I often said my chief qualification was not having my remarks dismissed as the maunderings of a retired colonel!

Port security in question

In the heightened security awareness after 9/11, a member of our Security Affairs Committee suggested the possibility of a rocket or artillery attack on HMCS Stadacona, our naval base in Halifax, via a container ship sailing up Halifax Harbour.

The more we considered it, the more we became convinced that it was quite possible for terrorists to use containers for this purpose, to launch an attack on the port or to smuggle weapons or terrorists into the country to be used here or elsewhere in North America. So we formed a small subcommittee to study the matter, of which I was the chairman.

For budgetary reasons we concentrated on the Port of Halifax, one of Canada's three major ports, the others being Montreal and Vancouver. Other members of the committee, who were mounties, arranged interviews with the various security services, while I, using business connections, arranged interviews with key people at the Port Authority and the Longshoremen's Union.

Maritime ports are not as secure as airports, simply because they are so much larger. We rapidly learned that everyone involved in the Port of Halifax was well aware of the potential problems and had procedures in place. Not surprisingly, they all felt hampered by lack of funding for more staff and equipment.

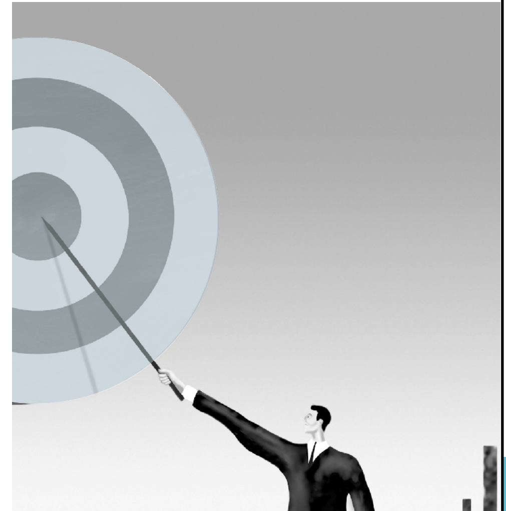
More sophisticated equipment was already on the way. It was agreed that Canada was a potential target for terrorists and that terrorists and weapons—either conventional or those of mass destruction, such as radiological, chemical or biological—could be introduced into the Port of Halifax via containers. An attack on any port, or the perception that our ports are not secure, could bring the transport of goods to their final destinations to a standstill, with dire results for the North American economy.

Raising the maritime bar

We learned that the Canada Customs and Revenue Agency inspects about 3 percent of the half million or so containers that arrive each year. While this appears to be a small number, it is comparable to ports around the world. Inspectors have a profiling system that enables them to choose which containers to inspect. Based on results, this system has worked quite well, but, of course, we don't know how much has been missed.

... it was quite possible for terrorists to use containers for this purpose, to launch an attack on the port or to smuggle weapons or terrorists into the country...

More sophisticated equipment, such as gamma ray machines and radiological detection devices, which have now arrived, will enable more containers to be checked without physically opening them. It is quite possible for the seals on containers to be broken, material inserted en route, and the seal replaced as apparently intact. This actually happened in a recent seizure where drugs had been inserted in Panama into a container of Chilean wines. Tamper-proof seals do exist, but not all shippers use them yet. There is no evidence that any material related to terrorism has actually been imported through Halifax.



Our recommendations were that (1) the government increase funding to the various security agencies involved, (2) the federal government give more vigorous support to the security services by allowing them to take full advantage of the various counter-terrorism and anticrime measures recently enacted, (3) steps be taken to intercept ships with questionable cargo at sea through more effective use of the Canadian Coast Guard. (Unlike its U.S. counterpart, the Canadian Coast Guard is unarmed and has no power of arrest.) Finally, we recommended that the additional costs of security not be assessed in such a way

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New club celebrates three generations of actuaries

by Megan Potter

There are many instances in North America of multigenerational lawyers, doctors, even actors, but you don't often hear of three generations of actuaries in the same family. More remarkable yet is that the two known families who can claim this distinction—the Chambers and the Breretons—both hail from Ontario, Canada.

To celebrate this anomaly, the families recently founded the Three Generation Club, an organization consisting of families in which three generations have attained Fellowship in the SOA or the CAS. The club held its inaugural meeting March 14, 2003, at a private ski club in Collingwood, Ont., in a rather unusual venue. (See the minutes of the meeting in the sidebar story.)

The Chambers family actuaries are:

- Wilfrid Chambers (FSA 1945, FCIA 1965, deceased).
- Morris (Mo) Chambers (FSA, FCIA 1969), Wilfrid's son.
- Dean Chambers (FSA, FCIA 1998), Mo's son.
- Julie Wheeler Chambers (FSA, FCIA 1997), Dean's wife.

Mo Chambers' other son, Brent (ASA 2001), is expected to be a member of the club in the near future, as he is close to receiving his FSA and FCIA.

Actuaries in the Brereton family include:

- Ross Brereton (FSA 1945, FCIA 1965, deceased).
- Alan Brereton (FSA, FCIA 1971), Ross's son.
- Ian Brereton (FSA, FCIA 2002), Alan's son.

Mo Chambers and Alan Brereton are not aware of any other families who currently meet the criteria for membership. However, Mo does note that there are many instances of two-generation actuarial families.

"I know of many cases of two generations of actuaries here in Canada (I can identify more than 20), and there are several two-generation actuarial families in the United States (I can think of 12, at least)," says Mo. "There is, of course, the Hoskins family in the United States that had three generations of actuaries," he adds, "but it is my understanding that one of its three generations was an ASA rather than a FSA."

And there are instances of three-generation actuarial families abroad. "I understand that there is a three-generation family in Britain in the Institute of Actuaries," Mo says. "Also, my friend, Alf Guldberg, from Sweden, is the fourth generation of a family of actuaries in Norway and Sweden."

Alan Brereton is hopeful that there will be new members of the Three Generation Club in years to come: "There are a number of two-generation FSA families so there's potential for growth of the Three Generation Club," he says.

"As odd as it sounds, it really never occurred to me to follow a path other than that of becoming an actuary." — Dean Chambers

So what was it about the actuarial profession that inspired three generations of loyalty? Mo recalls that the profession was the logical choice for a son who inherited his father's talent for numbers: "I think mathematical aptitude is often a hereditary characteristic and that I inherited my mathematics bent from my father," he says. "My sons probably got theirs the same way. I wasn't interested in teaching, so that left little else for the mathematics-inclined individual except actuarial science."

Dean cites his grandfather's and father's love of their profession as a major influence in his career choice. "As I was growing up, I recognized that both my father and grandfather very much enjoyed their work, took great pride in the profession and had the opportunity to develop many friendships throughout their careers. As odd as it sounds, it really never occurred to me to follow a path other than that of becoming an actuary."

Alan recalls the security and mutual respect evident in his father's profession.

"My father got his first permanent job after university in the dirty thirties, and I was likely affected by his stated desire to have his children seek a field of employment that was relatively secure," he says. "Dad spent his whole career with the Canadian federal department of insurance (in those days one was very loyal to one's employer—a result of one's gratitude for obtaining employment). In that position, he came to know many senior life insurance actuaries across Canada, and I was influenced by the mutual respect that I observed existed amongst these actuaries."

So what is it about Ontario that has led to its distinction of producing all the members of the Three Generation Club? Mo can't think of a reason, except maybe to point to a high concentration of actuaries in general in Ontario, and that "Canada contributes more than its proportional share to the membership of the SOA." Alan believes that the all-Ontario constitution of the Three Generation Club is not significant. "I would conclude that this small sample of two can only be a statistical fluctuation."

The actuarial profession has changed quite a bit over the three generations. Alan sees tremendous differences in "work details." He explains: "If I take one area of my father's responsibility—that of reviewing life insurance companies' actuarial liabilities—the basis used today is so completely changed as to be unrecognizable to past generations. Then add to that the items computers have enabled us to embrace, such as embedded value calculations, daily annuity pricing changes, dynamic capital adequacy testing, asset-liability matching, use of stochastic processes, minimum continuing capital and surplus requirements and more."

Mo also acknowledges the impact new technology has had on the profession. "My dad and I used to discuss the elegance of commutation functions. My sons and I discuss the neat functions available on our laptops," he observes.

Both Mo and Alan agree that the actuarial profession enjoys a higher profile today than it has in the past.

What does the future hold for the younger members of the Three Generation Club? “The most significant future change that I expect will affect my children’s careers is the globalization of the profession,” Mo says. “I expect actuarial education and practice to become much more unified with the globalization of the industries we serve. At the same time, I expect actuarial practice to be applied in much more diversified fields in the future.”

Alan also looks into the actuarial crystal ball. “When my son got his first permanent job, actuarial positions were scarce. Nowadays, in spite of a number of mergers of life companies, actuarial students are in great demand by the life industry in Canada. What we have seen in so many disciplines over the years is a steady increase in details and complexities required to meet either competition or regulation.

“Educated, thoughtful people like to keep busy,” Alan says. “And, as we solve one problem after another in any discipline having fewer and fewer new broad frontiers available to be pursued, we focus more on the details, refine the processes and add complexities. I see no end to this.”

Megan Potter is a freelance writer based in Hanover Park, Ill. She can be reached at marty.potter@comcast.net.

Minutes of the inaugural meeting of the Three Generation Club

The meeting was held March 14, 2003, at the only suitable place given the great winter weather—a private ski club in Collingwood, Ont. All five surviving members were present Mo, Dean, Julie, Alan and Ian.

Brent, who is one partial exam away from his FSA, was also present so we found it appropriate to simply round his exam accomplishments to date and included him as a full FSA for purposes of the meeting. That meant the total was six—just enough to exactly fit into the six-pack high-speed chair lift—a location we all deemed perfect for the inaugural meeting.

The meeting commenced when all six were loaded (into the chair lift, that is) and the bar was lowered (see accompanying photo). The members fully recognized that the meeting had to terminate at the end of the chair lift ride. Since the mountains in Ontario don't quite measure up to those our western friends enjoy, we had just a little over three minutes of meeting time. That too was most appropriate—given the ideal temperature, good snow conditions, sunlight and uncrowded slopes.

We quickly concluded there would be no call to order, no election of officers, no committees, indeed, not even an agenda. At this point, the self-appointed recording secretary was unsure where the discussion went, but it is believed that it was decided, at least implicitly, that we would avoid any topic that might be considered appropriate for a topic at any SOA, CAS, IAA, CIA or AAA meeting. So, for example, a discussion of the measure of the concentration risk of having six actuaries in a single chair lift would be debatable.

The recording secretary does remember that we briefly discussed the following: (a) which family might be the source of a fourth generation actuary and (b) whether we depart to the left or right when the chair drops us off.

The club would like to hear from any other current third generation families and future ones as they develop. As we grow, our future meeting locations will be held in resorts sporting gondolas and trams.

Civilian actuary finds transition to “military analyst” smooth sailing

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that would hurt the competitive position of Canadian ports compared with U.S. ports.

Unanticipated Image change

By good fortune our report was released at the same time as the federal government held a major news conference in Halifax announcing various measures to enhance port security. Consequently, we got much press coverage from coast to coast, and I had several TV interviews.

Subsequently, other members of RUSI and myself have been asked to comment on various security issues in which the media was interested.

The media made a lot of our recommendation about the Coast Guard, which wasn’t, in our view, our major recommendation, but it happened to coincide with a parliamentary review of the Coast Guard.

I can’t say that I used any actuarial principles in preparing the report, other than being organized and proceeding logically, though I can give as much credit for that to my degree in mathematics as to my actuarial training. However, as a result of this effort, the profile of RUSI has certainly been enhanced, and I have been introduced on TV as a “military analyst.”

J. Bruce MacDonald, FSA, FCA, FCIA, is located in Halifax, N.S. He can be reached at jbmlmac@ns.sympatico.ca.

LOMA launches new designation for financial services professionals

LOMA and its member companies have developed a new FFSI (Fellow, Financial Services Institute) program to meet the financial services education needs of insurance companies that have evolved into multifaceted financial services institutions.

"As a financial services association, we've seen our members and the role they play in the world economy change significantly over the past decade," said Thomas P. Donaldson, president & CEO of Atlanta-based LOMA. "We are proud that we have been able to grow with them, and the FFSI program reflects our mission to help them as they evolve."

The FFSI is designed for employees who need to know about the full array of financial services products—including wealth accumulation products, retirement plans, employee benefits, mutual funds and banking products. The program is especially beneficial to employees who serve as a primary contact for internal and external customers.

The FFSI provides a broad base of knowledge and enables employees to focus on the products of most relevance to their company or job. The core courses cover everything from financial intermediaries and risk to marketing to businesses to tax sheltered asset accumulation plans. A unique feature of the FFSI program is the professional achievement credits (PACs), which allow employees to customize their product knowledge and recognize the specific industry credentials they have earned.

Beyond enhanced job knowledge and the potential to perform better and excel within the company, students may discover additional rewards for obtaining the FFSI designation. Completed FFSI courses can result in college credit, continuing education credit in other programs and CE credit hours for state agent license renewal where available.

For more information, contact LOMA's Office of the Registrar at 800-ASK-LOMA or visit LOMA's Web site at *www.loma.org.*

Research uncovers emerging area for actuarial work

by Teresa Russ Winer

Actuarial services are needed and welcome in the secondary insurance marketplace, according to a recent study funded by the SOA Finance Practice Area's Committee on Finance Research.

The survey, entitled "The Viatical and Life Settlement Industry: New Perspectives for Actuaries," found that professionals currently working in the viatical and life settlement industry highly regard actuaries and believe that actuarial skills could improve their industry in several ways. Secondary insurance professionals responded to the survey by indicating that more actuaries are needed in many areas.

Actuaries can bring unique skills to the bargaining table. Some areas where actuaries could provide services in the viatical and life settlement industry include:

- Regulatory expertise and NAIC experience.
- Assessment of the value of policies.
- Appropriate mortality rates, especially for senior citizens.
- Understanding of the risks involved.
- Valuation of blocks of secondary insurance business.
- Public education for investors and potential viators.
- Reinsurance for investors.
- Cost-benefit analysis of policy benefits such as loans vs. cash settlements.
- Education for those in the industry.

Currently a few actuaries are already working in the viatical and life settlement industry, but more are needed. For actuaries to be able to apply their skills in a new arena is good news, and it's encouraging to know that we have a reputation for integrity and professionalism among other professionals. The full report can be found at *www.soa.org/research/life_settlement.html.*

Teresa Russ Winer, FSA, MAAA, is an actuary with Chastain Financial Services in Atlanta. She can be reached at twiner@att.net.

Committee takes proactive approach to career encouragement

by Dale R. Hall

The Joint CAS/SOA Career Encouragement Committee is busy continuing to spread the word about the benefits of becoming an actuary. One of the key projects over the past year has been updating the BeAnActuary Web site (*www.beanactuary.org*). If you haven't checked out the site lately, you're missing out on these exciting new changes:

An updated look and feel to impart a more professional image and easier navigation to the Web site.

- A 10-minute streaming video featuring real actuaries talking about their jobs, their lives and what it means to be an actuary.
- A new article to help answer the question, "What is an Actuary?"
- New sections geared to career changers, educators and career counselors.

These features are in addition to the wealth of information already available on the site, such as testimonial sound bites from real-life actuaries, explanations of the examination process and tips on finding an actuarial job.

In addition, the Career Encouragement Committee is taking a proactive approach to get information about the profession directly into the hands of the biggest influencers of top high school mathematics students. Earlier this year, posters about the profession were distributed to over 4,000 high school math teachers in conjunction with the administration of the National High School Math Exam contest that the CAS and SOA help to sponsor. These posters encouraged teachers, counselors and students to learn more about the profession and heavily publicized the BeAnActuary Web site.

The committee continues to sponsor events at places where "actuarial influencers" gather, such as meetings of the National Council of Teachers of Mathematics and meetings of different career and guidance counselor organizations. We continue to receive very positive feedback for helping these groups educate their students about the benefits of pursuing the actuarial profession.

The future holds some exciting new initiatives as well. The committee plans to translate some of the main pages on the BeAnActuary Web site into different languages, such as French and Spanish.

We are also planning to convert our annual Actuarial Career Fairs into more frequent events that are international in scope by setting up a process for actuarial clubs or universities to get involved. The first two fairs will occur this fall at Blue Cross/Blue Shield of Illinois in Chicago (Sept. 26) and on the campus of Illinois State University in Normal, Ill. (Oct. 3).

Finally, we're investigating different ways to measure student awareness and perception of the actuarial profession to track our progress over the long term. It's an exciting time to talk about the actuarial profession, especially to the bright students all around the world who will make up the base of our future actuaries.

Much of our efforts would not be possible without the support of corporate contributors to the Career Encouragement Employer Sponsorship Program. I would like to recognize several companies for their contributions in 2003 to help promote the profession:

Platinum Sponsors ($10,000)

- Cigna Corporation
- D.W. Simpson & Company Actuarial Search

Silver Sponsors ($2,500)

- Erie Insurance Group
- Swiss Re
- WellPoint Health Networks

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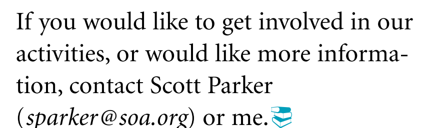

If you would like to get involved in our activities, or would like more information, contact Scott Parker (*sparker@soa.org*) or me.

Dale R. Hall, FSA, is chief life and annuity actuary of Country Financial, Bloomington, Ill., and chairperson of the CAS/SOA Career Encouragement Committee. He can be reached at dale.hall@countryfinancial.com.

The Actuarial Foundation teams with WISER on new post-retirement initiative

The Consumer Education Committee of The Actuarial Foundation just released "Life-Defining Decisions," a paper dealing with lifetime decisions and their link to security in retirement. The research and background paper is available at: *www.actuarialfoundation.org/active/coned/wiser051503.pdf.*

Later this year, the Washington, D.C.-based Women's Institute for a Secure Retirement (WISER) will be issuing a consumer booklet on this issue. "Through our partnership with WISER, we are able to help many women take important steps towards financial security," said Eileen Streu, director of The Actuarial Foundation in Schaumburg, Ill.

The Consumer Education Committee's previous initiative with WISER produced a background paper and consumer booklet with materials that are helpful for dealing with post-retirement risk. Both of these projects address issues surrounding annuitization and making retirement savings last a lifetime.

The consumer booklet, entitled "Making Your Money Last for a Lifetime: Why You Need to Know About Annuities," is available by calling The Actuarial Foundation.at 847.706.3535 or WISER at 202.393.5452. "Individuals have repeatedly claimed they have never understood annuities until they read our booklet," said Cindy Hounsell, executive director of WISER.

A background paper, entitled "Getting Ready to Retire: What You Need to Know About Annuities," includes more extensive information supporting this issue and is available at *www.actuarialfoundation.org/active/coned/wiser.pdf.*

Foundation announces inaugural O'Connor Scholarship winners

The Actuarial Foundation recently announced that four outstanding high school graduates have been awarded the John E. O'Connor, Jr. Scholarship in its inaugural year.

"Our first year offering the John E. O'Connor, Jr. Scholarships was a resounding success," said Eileen Streu, director of the Schaumburg, Ill.-based Foundation. "We feel these students are greatly deserving of the Foundation's award of $2,500 each for their freshman year in college."

The scholarship winners, selected from among nearly 500 high school seniors in the United States and Canada, are:

- Eve Drucker of Fair Lawn, N.J., who will major in mathematics at Harvard University.
- Evgenia M. Raikh of Salt Lake City, who will major in mathematics at Princeton University.
- Raymond B. Shum of Chicago, who will major in actuarial science at the University of Illinois at Urbana-Champaign.
- Bao H. Truong of Quincy, Mass., who will major in mathematics at the Massachusetts Institute of Technology.

The scholarship program was established in honor of John E. O'Connor, Jr., who served as executive director of the Society of Actuaries for 20 years. The program recognizes his years of dedication and commitment to the actuarial profession and his desire to help high school students continue their higher education journey in math, with the possibility of selecting a career in one of the several math-based professions.

O'Connor was instrumental in the creation and development of The Actuarial Foundation in 1994. Additional information about the scholarship program can be found at: www.actuarialfoundation.org/active/pubed/oconnor_scholarship.html.

research**corner**

Life Insurance Update

A contract has been signed with the Georgia State University Research Foundation to complete the "Effects of Environmental Tobacco Smoke" project.

The Individual Life Insurance and Annuity Product Development Section has issued a Request for Proposals (RFP) on the "Analysis of Product Guarantees." The goal of the project is to produce a report describing individual life and annuity product guarantee features, their associated risks, the methodologies used to analyze, quantify and manage these risks and their impact on policyholder behavior. The RFP can be found on the SOA Web site at *www.soa.org/research/aopg_rfp.html*.

Experience Studies

The Preferred Underwriting Reinsurance Subcommittee of the SOA Committee on Life Insurance Mortality & Underwriting Surveys has completed its report. Its purpose was to get the opinions of the reinsurance market on preferred risk underwriting and make comparisons with the results of the direct writer's survey (which currently are being compiled for distribution in the next few months). The report can be found on the SOA Web site (*www.soa.org*) under "Research."

If you have any questions, please contact Jack Luff, SOA experience studies actuary, at 847.706.3571 or *jluff@soa.org*.

Finance Update

Teresa Winer examines a potential emerging role for actuaries in "The Viatical and Life Settlement Industry: New Perspectives for Actuaries," a survey sponsored by the SOA Committee on Finance Research. The complete report and survey can be found on the SOA Web site at *www.soa.org/research/life_settlement.html*, and a more detailed summary can be found on page 16 in this issue.

Retirement Update

Bolton Partners Inc. has concluded a study entitled "Design and Actuarial Aspects of Deferred Retirement Option Programs." The research is an informational tool for actuaries to gain an understanding of the issues encountered in designing and estimating costs for these programs. The report is available on the SOA Web site at *www.soa.org/library/monographs/retirement_systems/m-rs03-2/m-rs03-2_tableofcontents.pdf.*

AERF Update

Completed Research Projects

The Actuarial Education and Research Fund (AERF) sponsored research by Mary R. Hardy, ASA, FCIA, Ph.D., into stock return models for financial guarantees with applications to investment guarantees in insurance products. Published as a hardcover and e-book by Wiley Canada, *Investment Guarantees: Modeling and Risk Management for Equity-Linked Life Insurance* is an educational text intended to assist actuaries with risk management of investment guarantees. A description of the book can be found at *www.wiley.ca/WileyCDA/WileyTitle/productCd-0471460125.html.*

Grants/Awards Update

Individual Grants Competition

Eight projects won grants in the 2003 Individual Grants Competition, sponsored by the AERF, affiliated with the Actuarial Foundation and the SOA's Committee on Knowledge Extension Research (CKER). Grants are funded through AERF (or its sponsoring organizations) and CKER to support the advancement of knowledge in actuarial science.

This year's competition committee awarded grants to the following individuals:

- Philippe Artzner of the University of Louis Pasteur will attempt to examine the possibility and/or necessity of having a component for future acceptability into the current capital requirement dictated by a general risk measure. This project is being jointly funded by AERF and CKER.
- Robert L. Brown of the University of Waterloo received a grant from the SOA and AERF to create two distance education courses for use by SOA/CAS actuarial students. The SOA's Education and Examination Committee is managing the project.
- Louis Doray of the University of Montreal and Andrew Luong of Laval University will develop appropriate quadratic distance methods for estimating the parameters of the positive stable laws, based in the empirical Laplace transform or empirical probability generating function. They also will study the asymptotic properties of this estimator, such as consistency and efficiency, and the numerical implementation of the proposed techniques.
- Sholom Feldblum of Liberty Mutual received a grant from AERF and CAS to create a textbook covering worker's compensation classification ratemaking, experience rating and retrospective rating geared to two groups: practicing actuaries for workers' compensation carriers and actuarial candidates for CAS Exams 5 and 9.
- William Leslie of ING will develop a model that conveys the risks and rewards of various strategies concerning asset performance and longevity. The outcome of the project is to be an Excel-based model that will enable the user to enter data correctly and completely, calibrate the model and analyze the results. The SOA's Committee on Finance Research will manage this CKER grant.

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Research Corner

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- Jin Ma of Purdue University will research pricing insurance products and assessing ruin probabilities to determine optimal strategies as part of risk management. Starting from the premise that more and more insurance products involve both death benefits and investments, general risk models should involve two types of uncertainties: one from traditional claims and the other from investment returns.
- Krzysztof Ostaszewski and Catherine Konsky of the Illinois State University received an AERF grant to assess whether there is a communication skills shortfall among actuaries. They will study the perceptions of the communication skills of actuaries, as well as their nonactuarial clients, and evaluate their responses in order to establish a firm scientific basis for the perceived phenomenon of the actuarial communication gap.
- Emiliano Valdez and Andrew Chernih of the University of New South Wales will investigate the presence of "dependencies" in individual claims in a portfolio of insurance policies. AERF and CAS are jointly funding this project.

Edward A. Lew Awards

The CKER has presented two Edward A. Lew Awards for modeling. One went to Russell Gerrard, Steven Haberman and Elena Vigna (a Visiting Fellow) of City University, London, who are aiming to provide a tool for finding the optimal investment and/or consumption choices in defined contribution pension schemes in the decumulation phase, when the income drawdown option is taken by the pensioner.

The second award went to Mike Wadsworth and Michalis Ioannides of Watson Wyatt Worldwide in the United Kingdom, who will explore the impact of age of commencement, asset allocation, withdrawal rule(s) and the extent of annuitization (i.e., pooling of life risk in managing the risks associated with decumulation of assets from an asset pool to provide a retirement income).

Ph.D. Grants Competition

The CAS/SOA Ph.D. Grants Task Force awarded three initial grants and three renewal grants for the 2003-2004 academic year.

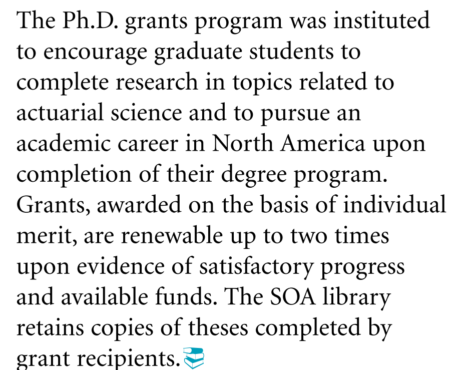
Initial grant recipients are:

- Patrice Gaillardetz of the University of Toronto for "Equity-Linked Annuities and Insurances."
- Shuanming Li of Concordia University for "On Experience Rating, Inflation and Interest in Risk Models."

Bonnie-Jeanne MacDonald of Heriot-Watt University for "Risks Inherent in Defined Contribution Pension Plans."

Renewal grant recipients are:

- Alain Desgagne of Université de Montreal for "Location-Scale Parameter Inference with P-Credence."
- Jerome Pansera of the University of Iowa for "Local Risk-Minimizing Hedging Strategies in Life Insurance."
- Min-Ming Wen of the University of Connecticut for "Pricing of Insurance Risks and Estimating the Cost of Insurance Company Equity with the Rubenstein-Leland Model."

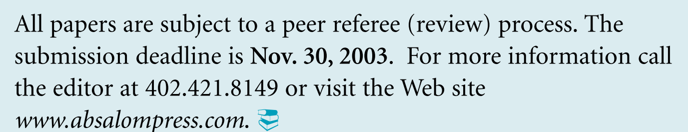


The Ph.D. grants program was instituted to encourage graduate students to complete research in topics related to actuarial science and to pursue an academic career in North America upon completion of their degree program. Grants, awarded on the basis of individual merit, are renewable up to two times upon evidence of satisfactory progress and available funds. The SOA library retains copies of theses completed by grant recipients.

Journal of Actuarial Practice seeks papers

The *Journal of Actuarial Practice* (*JoAP*) is seeking papers on any subject related to actuarial science or insurance. Preference will be given to practical or pedagogical papers that explain some aspect of current actuarial practice.

As an international journal, *JoAP* welcomes papers pertaining to actuarial practice outside North America. *JoAP* also accepts technical papers, commentaries and book reviews. Papers may be submitted via e-mail in PDF format to *absalompress@neb.rr.com*. Or send five copies via postal mail to Colin M. Ramsay, Editor, *Journal of Actuarial Practice*, P.O. Box 22098, Lincoln, NE 8542-2098, USA.



All papers are subject to a peer referee (review) process. The submission deadline is **Nov. 30, 2003.** For more information call the editor at 402.421.8149 or visit the Web site *www.absalompress.com.*

Janitors and dead peasants: The story of leveraged COLI

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Many of the corporate purchasers of broad-based leveraged COLI policies accepted the views of brokers that not only would the policy loan interest deductions be allowed under current law, but also that future interest deductions on existing loans probably would likely be grandfathered if Congress changed the tax laws.

Despite news stories to the contrary, leveraged COLI was not about corporations seeking to benefit from the deaths of their employees.

Clearly, both corporations and insurers failed to anticipate the reaction of the media to the broad-based programs, although in fairness it should be noted that some key facts have often been lost in the debate:

- The challenge by the IRS and the Justice Department in the courts was based on the manner in which the policies were financed and whether the policy loan interest was properly deductible—not on the validity of the policies themselves. Through its Office of the Comptroller of the Currency, the Treasury actually provides guidelines under which national banks can purchase broad-based COLI.
- Many states, through an NAIC Model Regulation, provide a regulatory framework under which corporations can purchase life insurance on their employees.
- In many cases, the employees either gave affirmative consent or were notified that coverage was in effect. In fact, participation in COLI plans was often limited to management employees. Moreover, a number of the COLI plans provided an additional death benefit to covered employees.

Perhaps the designers and marketers of leveraged COLI can be faulted for failing to see Judge Schwartz's "invisible line," or simply for anticipating a better outcome. Whatever the case, leveraged COLI had a short but interesting life, the consequences of which are still being felt today.

Chris DesRochers, FSA, MAAA, is senior vice president of AON Consulting in Avon, Conn. He can be reached at chris_desrochers@aoncons.com.

End notes

[1]The term "janitor insurance" originally referred to insurance that was taken out on the lives of employees to pay executive benefits. There is no credible evidence that such coverage ever existed. The term "dead peasants" is attributed by the *Wall Street Journa*l (April 19, 2002) to a consultant who referred to "dead peasants" in a projection of employee deaths in an illustration.

[2] The use of leveraged life insurance was discussed in a paper by Fisher Black entitled, "How I Got Free Life Insurance from TIAA" (unpublished paper, Graduate School Of Business, University Of Chicago, August 1974).

[3] *Tax Policy: Treatment of Life Insurance and Annuity Accrued Interest*, General Accounting Office, January 1990, 37.

[4] *Report to the Congress on the Taxation of Life Insurance Company Products*, Department of the Treasury, March 1990, 3, p. 28.

[5] Conference Report, Health Insurance Portability and Accountability Act of 1996, 104th Congress, 2nd Session, Report 104-736, p. 322.

[6] TAM 199901005

[7] See *In re C.M. Holdings* 301 F.3d 96 (3rd Cir. 2002), 254 B.R. 578 (D.C. Del. 2000) *Am. Elec. Power v. United States*, 326 F.3d 737 (6th Cir. 2003), 136 F. Supp. 762 (S.D. Ohio 2001), *Winn Dixie Stores v. United States* 254 F.3d 1313 (11th Cir. 2001), 113 T. C. 254 *cert den.* 535 U.S. 986, *Dow Chemical Co. v. United States*, 250 F Supp. 2d 748 (E.D. Mich. 2003)

[8] See *Mayo v. Hartford Life* 220 F. Supp 2d 794, 214 F.R.D 455 (S.D. Texas 2002). In the Mayo case, the court ruled that the interest of the insured was in the death benefit, preserving the right of a corporate policy owner to surrender the policies. Thus, the policies at issue are those that were previously paid as death claims.

Update information for 2004 Membership Directory by Oct. 17

Work has already begun on the print edition of the *2004 Directory of Actuarial Memberships*. Please update your SOA membership information so that it is reflected accurately in the upcoming edition. You can do so by logging in at *http://directory.soa.org/CGI-BIN/LANSAWEB?PROCFUN+mdweb3+mdx000+prd*. All information must be updated by Oct. 17, 2003, to be included in the 2004 print edition.

Volunteers sought to help recruit minorities to the profession

by Valerie Lopez

When I first learned about the actuarial profession during college, two simple things lured me in: money and exams. Money is easy to explain—I was financing my college education by working two jobs and looking for financial stability—but exams? In hindsight, exams weren't exactly "attractive," but they were fair (and race-neutral), and that's something a Hispanic female who had faced discrimination can really latch onto.

When I completed my ASA, I wanted to find a way to promote my beloved profession to minority communities. I learned about the Joint CAS/SOA Committee on Minority Recruiting and, after making some inquiries, became a member of the committee.

The committee was created in 1977 and its mission is to facilitate the evolution of a multidimensional actuarial profession by recruiting quality mathematical and analytical talent from the minority communities. The committee does this through several programs that support education and provide monetary assistance to groups that are underrepresented in the actuarial profession.

Currently the committee supports African-Americans, Hispanics and Native North Americans. We provide monetary assistance in the form of student scholarships and summer program funding.

As the recently appointed chair of the committee, I must ensure that the efforts of the past 26 years continue to serve the underrepresented groups in the profession. It is also my duty to continue exploring new avenues for promoting the profession to minorities.

Through our scholarships and mentoring programs, we can affect the lives of individuals who are interested in the profession. Through our support of summer programs, college career fairs, meetings of mathematical associations and presentations at local high schools, we can introduce the profession to minority groups who might not otherwise have a chance to learn about it.

We receive support for our activities through the monetary contributions provided by donors, but receive logistical support from the CAS and SOA staff and committed member volunteers. Without volunteer committee members, we could not accomplish our mission.

The committee is now seeking new volunteers. I hope some readers of *The Actuary* share the same excitement about the profession and eagerness to promote it to underrepresented communities our current committee members feel and decide to join us.

Over the years, I have learned that this profession has so much more to offer than money and exams. It is those other rewards that our committee must convey to the minority community. With additional volunteers, we can continue to reach underrepresented communities and ensure that our vibrant actuarial profession becomes more diverse. If you are interested in joining the committee, please contact SOA staff member Scott Parker (sparker@soa.org) or me.

Valerie Lopez, ASA, is a consultant with Watson Wyatt Worldwide in Chicago and chairperson of the Joint CAS/SOA Committee on Minority Recruiting. She can be reached at valerie.lopez@watsonwyatt.com.

Foundation seeks consumer advocates

Are you one of the many actuaries who care about educating the general public about our products? If so, The Actuarial Foundation's Consumer Education Committee is seeking volunteers who can contribute a minimal amount of time over the next 12 months.

To expand the focus of current initiatives, the Committee wants to develop four subcommittees in the following practice areas: retirement, property & casualty, life/finance and health. Each subcommittee will identify needed consumer education initiatives within its area of expertise.

The suggested goal is to have each subcommittee produce two to three projects per year. Members are needed to help run projects, make connections with partners, review applications for programs and generate ideas.

Please contact The Actuarial Foundation at 847.706.3535 to volunteer or obtain more information about the activities of the Foundation or the Consumer Education Committee.

Notice of Disciplinary Determination

This notice is published pursuant to Article XIII of the By-Laws of the Society of Actuaries ("Article XIII").

The Committee on Discipline of the Society of Actuaries ("Committee") has determined that Mr. C. David Williams will be indefinitely suspended from membership in the Society of Actuaries ("SOA"). On or after June 9, 2005, Mr. Williams may apply for reinstatement of membership and reinstatement will be subject to meeting the membership requirements of the SOA.

The Committee found Mr. Williams to be in violation of Precept 15 (now 14) of the Code of Professional Conduct ("Code") by failing to respond in a timely manner, in writing, to letters from the Actuarial Board for Counseling and Discipline regarding possible violations of the Code by Mr. Williams.

Pursuant to Article XIII, Mr. Williams appealed to the Appellate Tribunal of the SOA. This Tribunal upheld the Committee's disciplinary determination.

Whither the Big Tent?

At the end of July, I attended (and was a speaker at) the Enterprise Risk Management Symposium in Washington, D.C., sponsored by the SOA and the Casualty Actuarial Society (CAS). Around 200 actuaries and other risk professionals attended, and speakers were from all facets of risk management in banking, insurance and other industries such as energy. It was a great success that brought many risk professionals together. Thanks are due especially to Dave Ingram, who's heading the SOA's Risk Management Task Force, and Valentina Isakina, staff actuary, who worked hard to put the symposium together in less than six months.

The Society's own activities in the risk management area are moving at lightning (in relative terms) speed. The new Risk Management Section was official in July with over 200 persons having paid the $20 membership fee in the first month of solicitation. In June, the SOA Board of Governors requested a recommendation on the potential development of an FSA track in risk management. Meanwhile the CAS is also hitching its wagon to the fast-moving risk management train. We've agreed to work together in the risk management initiative as we did in putting this symposium together. I expect the CAS and the SOA to repeat joint sponsorship of an annual Enterprise Risk Management Symposium.

The symposium, the section and the inclusion of risk management topics into our examination syllabus will expand the horizon of the actuarial profession into the broader aspects of risk management—namely, *enterprise* risk management moving beyond the current main focus on insurance company risk management. This will stake the actuarial profession's claim in this rapidly developing field.

Others have done so as well. The Global Association of Risk Professionals (GARP) already has 31,000 members of various types, mostly free Internet signups. It has a one-examination certification process that confers the title "financial risk manager" (FRM). The Professional Risk Managers' International Association (PRMIA) has over 7,000 members and offers the one-exam (four topics) certificate "professional risk manager" (PRM). PRMIA offers a waiver of 3.5 hours of the six-hour examination for FSAs, leaving only a 2.5 hour exam.

The SOA has a lot of work to do to ensure actuaries get training in the ERM area. One possibility is to give corresponding credit for the FRM and/or the PRM designation in our exams so that candidates can complete the FSA with an additional designation at minimal cost. We already give some credit for the CFA and EA designations. Alternatively, we could create our own competing designation. This was the idea behind the "quantitative risk analyst" proposal of a couple of years ago.

We are already conducting a joint survey with GARP on the skills that a financial risk manager needs. It is available at *www.garp.com*, so take a look. In 2004, the SOA will be cosponsoring a two-day track on asset/liability management as well as a one-day workshop on capital allocation and management at GARP's annual convention.

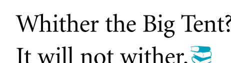
The areas where the actuarial profession have been largely absent are credit risk, market risk and operational risk, except to the extent that market and credit risk affected insurance company operations. These are the main topics of GARP and PRMIA and are the additional key areas needed to broaden the scope to cover the "enterprise" part or ERM. The interaction with other experts, the new track and our own seminars should allow members to become conversant, and indeed experts, in these fields.

Just before the symposium, I attended a SOA-organized discussion forum on the role of the "chief risk officer" (CRO). The forum included six leaders in the risk management field, including two actuaries. We wanted to elicit from these leaders their views on the skills required of risk professionals by CROs in order to plan future SOA programs and services better, including educational services, both basic and continuing.

A significant topic was the role of the CRO within an organization. To whom should the CRO report? Currently it's most frequently to the CEO or CFO. In insurance companies, it's also to the chief actuary. It was generally agreed that, for the risk management program within an organization to have teeth, the CRO should be high enough in the organization to be able to get the attention of the CEO. It was also pointed out that the job of the CRO is not to ensure that all risks are mitigated. Rather it's to make sure that senior management understands the risks the company is taking, understands the drivers of those risks and has a comprehensive plan in place for managing the totality of risk.

Would actuaries make good risk managers? The consensus was yes, very good ones, as long as they also understand the business of the company, have great communications skills and leadership abilities and can take decisive action. What type of businesses need CROs? As might be expected, the list was headed by banking, asset management and insurance followed by energy, telecommunications, health care and governments.

On Oct. 9-10, the SOA is sponsoring a Risk Management Essentials seminar based on the wildly successful similar seminar held late last year. If you are interested in expanding your personal horizons into ERM, this is a good place to start.

Whither the Big Tent?
It will not wither. 

Harry Panjer