

Actuarial Review

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From the President

Regional Affiliates



by Patrick J. Grannan

ne of the roles of the CAS president is to visit as many of the CAS Regional Affiliates as practical. From my perspective, these visits have been both enjoyable and very worthwhile. Members and candidates get a firsthand report on current CAS activities, and the president gets valuable input.

The Regional Affiliates are vibrant professional organizations. I'd strongly encourage CAS members who haven't been active in their Regional Affiliates lately to attend the next meetings and consider volunteering for some of the organizational work. I believe you will find the benefits well worth the effort.

The activities of the different Regional Affiliates vary somewhat. One function they all serve is to provide opportunities for actuaries in the same geographic area to get to know one another and share experiences. This is valuable professionally in addition to being socially enjoyable.

Most Regional Affiliates offer continuing education opportunities that are easily accessible and usually don't re-

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Nominating Committee Announces Slate

Petition Process Likely to Yield Second Candidate for President-Elect

ARLINGTON, Va.—In a letter to Fellows on July 13, the CAS Nominating Committee announced their slate of nominees for the 2002 election. The slate consists of Gail M. Ross for president-elect and for the board of directors Phillip N. Ben-Zvi, Curtis Gary Dean, Steven F. Goldberg, David G. Hartman, Thomas G. Myers, Janet R. Nelson, David J. Oakden, and Dale S. Porfilio. Also included with the slate were instructions and forms for submitting petitions to place additional candidates on the ballot for President-Elect or Board of Directors. All that is required are the signatures of 15 Fellows. The deadline for submitting additional nominations by petition is August 17. Fellows will elect four new Board members.

Sholom Feldblum, through contact with a number of CAS Fellows, has indicated his intent to be a candidate for the position of president-elect through the petition process.

Ballots for President-Elect and Board of Directors will be mailed to Fellows on August 31. Ballots must be received by October 1. Election results will be posted on the CAS Web Site when finalized and announced November 12 at the CAS Annual Meeting in Atlanta, GA.

For further details, see 2001 Election Information in the "Member Services" section of the CAS Web Site. ■

Fellows Amend Constitution

ARLINGTON, Va.—In balloting conducted from May 18 to June 29, 2001, the Fellows of the Society approved changes to Article IX (i) of the CAS Constitution as proposed by the Board of Directors.

The amendment to Article IX (Public Expression of Professional Opinion) permits the Board of Directors, by a two-thirds vote of all members of the Board, to direct the CAS's delegate to the International Actuarial Association (IAA) to vote on behalf of the CAS on a proposed public expression of professional opinion issued by the IAA. The IAA will be allowed, in these cases, to list the CAS as a supporting organization of the opinion when the vote by the CAS delegate is positive.

As still provided for under Article IX, all other opinions of the CAS shall require advance approval by an affirmative vote of at least 90 percent of the Fellows who vote in a mail ballot.

The revised Constitution became effective on June 29, 2001. It is posted on the CAS Web Site in the "About CAS" section under "CAS Policies" and will be included in the 2002 CAS *Yearbook*.

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In My Opinion

In With the New

by Paul E. Lacko

y wife and I got a new air conditioning system at home in June. I had asked our service company many times over about three years to give us a bid on a new electric heat pump system, but they kept putting me off. It wouldn't be cost-effective, they said, to replace the system; all it needed was an occasional shot of coolant and some minor repairs to keep functioning. With periodic tune-ups and occasional replacement of old or worn-out parts, a complex system can keep running for a long time. A new system would cost about the same as five to ten years' worth of maintenance and repairs on the system we have, so why bother?

At long last, to my surprise and delight, a technician who repaired our old system a couple months ago wrote on his report that we should consider replacing the

"Wouldn't it be great if we could just pick a new exam system out of a manufacturer's glossy brochure?" system. And so we did. We relied on experts to recommend a new system, and we hired professionals to install it

The new system doesn't keep the house cooler than the old one did. It probably won't keep the house warmer next winter. However, it does run more quietly than the old system, and it occupies less floor space in the basement. It has a 10-year warranty on parts and labor, so it probably won't break down

(or develop a coolant leak that half a dozen technicians could not locate).

We did not have to tear down the entire house in order to replace the air conditioning system; only minor remodeling was necessary. Some basement ductwork was redone, for example, and a nifty, multi-function, digital temperature control unit is on the wall now instead of a thermostat.

The CAS has hired outside experts to evaluate our examination system. The experts might tell us that the current system is good enough for now, and that periodic tune-ups and occasional replacement of old or worn-out parts will suffice. Or the experts might recommend we devise a new system that will run much more efficiently and won't require major repairs every couple years. My hunch is that we're in for a period of creative destruction.

Installing a new exam system is a little more complex than installing a new air conditioning system, because more people are involved. But who *designs* our new exam system? Wouldn't it be great if we could just pick a new exam system out of a manufacturer's glossy brochure? Too bad—it doesn't work that way. Even the experts we hired can only give us guidance, no off-the-shelf product.

We are the designers—well, maybe not all of us. What we all do is elect a board of directors, and system design is one of the board's responsibilities. What all of us can do before voting in the upcoming election is to become informed voters.

Campaign speeches would be counter-productive. We need thoughtful explanations of the challenges, internal and external, that confront the CAS. We need to understand the trade-offs and the consequences. We need to reflect on what system modifications, if any, the candidates might endorse in light of those challenges.

Candidates, please take advantage of the CAS Web Site to share your thoughts and concerns with us. We can't vote "yes" without your help!



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Laissez Les Bons Temps Roulez!

CLRS Set for New Orleans

There is still time to register for the 2001 Casualty Loss Reserve Seminar (CLRS) and the Limited Attendance Seminar on Asset Liability Management and Principles of Finance, to be held at The Fairmont New Orleans in New Orleans, Louisiana September 10-12.

This year's CLRS offers over fifty sessions covering a variety of topics including dynamic financial analysis and reserving as well as issues related to individual lines of business. The seminar's general session, "Management's Best Estimate," gives attendees the opportunity to

get different perspectives on what constitutes management's "best estimate" of the reserve for unpaid losses and loss adjustment expenses, in light of the National Association of Insurance Commissioners' codification of statutory accounting principles.

The limited attendance seminar, held directly after the CLRS, will cover four topics in the areas of finance and financial risk management: "Basics of Finance and Its Applications to Insurance," "Introduction to Financial Risk Management," "Hands-On Sessions: Applications," and "Advanced Topics: New Developments."

Don't miss this opportunity to participate in the 2001 CLRS and enjoy the sites and sounds of New Orleans! Please visit the CAS Web Site at www.casact.org/coneduc/clrs/2001for more information on sessions and registration.

CAS To Hold Seminar on Globalization and Technology at 2001 GIRO Meeting

by Alan Hines, Chairperson, CAS Committee on Special Interest Seminars

With the goal of exposing our members to more international issues, the CAS is pleased to present our October Special Interest seminar in Glasgow, Scotland on October 3-6, 2001 at the Faculty and Institute of Actuaries' annual general insurance (GIRO) meeting. This is the U.K.'s most important forum to discuss the latest developments in casualty actuarial research.

By cosponsoring this meeting, the CAS is offering an economical and efficient opportunity to learn about the challenges facing global insurance companies. The CAS sees this special interest seminar as a significant step toward providing international educational opportunities. Your participation will be our measure of success!

The theme of the special interest seminar is "Globalization and Technology: Issues and Solutions." The CAS has organized many sessions that will be presented during the seminar, in addition to the GIRO offerings that are listed in the online registration brochure. The listing of CAS sessions will be posted on the CAS Web Site when available. Check the "What's New" section for the latest information.

Workshops on a number of topics are planned, including Capital Allocation, Measuring Customer Value, Fair Value Accounting, DFA, Catastrophe Modeling, Weather Derivatives, Data Mining/Data Warehousing, Extreme Value Theory, Simulation Tools and Applications, Reinsurance Commutations, Underwriting Modeling, and Risk Premium. The speakers will include such luminaries as Nick Prettejohn, the chief executive officer of Lloyd's of London and Rob Jones, a director of Standard & Poor's.

Famous for its outstanding museums and art galleries, Glasgow has a rich medieval history, highlighted by its 12th century cathedral and the City Chambers in George Square.

The meeting, held at the Scottish **Exhibition and Conference Centre and** Glasgow Moat House Hotel, is packed with a fun social program and three nights of planned dinner events. We'll enjoy a gala dinner at Kelvingrove Art Gallery and Museum with entertainment by a Ceilidh (Celtic) band and Highlands dancers. The GIRO committee has also arranged a special program for accompanying persons that includes tours of Glasgow and the Edinburgh castle, a showing of the Burrell Collection of art and a sail on Loch Lomond. On the Saturday following the meeting, there will be a golf tournament and a tour of the ancient town of Stirling, home of Braveheart's monument.



A brochure on the joint CAS/GIRO convention is available on the Internet as a PDF (http://www.actuaries.org.uk/cpd/giro_cas_2001.pdf) and as a link available on the CAS Web Site under "Continuing Education." The PDF contains a registration form that can be downloaded and submitted to the Institute of Actuaries. Please fax your registration forms to 011 44 20 7632 2141 or contact lindap@actuaries.org for more information.

Although the GIRO deadline is August 3, CAS members may register without penalty until September 12. Unlike a CAS Meeting, registering for GIRO includes your hotel reservation, which is automatically made for you by the Institute of Actuaries. However, the Institute of Actuaries must give their reservation guarantees to the hotels in August. Therefore, if you wait until September 12 to register for GIRO, there may not be hotel rooms left. Please note that the Institute will offer no refunds for cancellations after August 31. Also, all payments must be received in advance.

For more information, contact **Alan Hines** or **Abbe Bensimon**, vice president-continuing education. We hope to see you in Scotland!

From the Readers

Curious Client

Dear Editor:

I have been an actuarial consultant for 17 years. I thought I had seen and heard clients do and say everything they could possibly do and say. But no. Today, a relatively new manager at one of my long-time clients called. He expressed fascination at the actuarial process and the report I had produced. He wanted to learn more about what is involved in putting together an actuarial report. He said that next year, while my office is putting together his report, he'd like to come by for a few days,

roam around the office or sit in a chair, and watch the work being done. I informed him that an actuarial report is like sausage. You do not want to see it being made.

Allen Hall, FCAS

Kudos for Web AR

Dear Editor:

I just read the May AR online. It is fantastic. It is very well optimised for Net reading.

I hope that other CAS members take the opportunity to review *The AR* online. I was especially impressed with the elegant simplicity of the presentation. Because of the uncluttered screen, the load time was very fast. It made reading online enticing instead of frustrating.

In general, the Web services of the CAS are spectacular. The online library is a model for every professional services organization globally. The public service provided by the CAS makes me proud to be a member.

Congrats again on the excellent success.

John Narvell, FCAS

From the President From page 1

quire an overnight trip. The presentations are similar to those one would see at a CAS seminar. In fact, some are repeats of well-received sessions at CAS seminars.

Regional Affiliates are especially valuable to actuaries who are taking the exams but are not yet CAS members. In addition to broadening their knowledge and perspectives, Regional Affiliates can facilitate study groups and, in some cases, organize exam preparation classes.

Several Regional Affiliates maintain strong links with local universities and colleges. Visits by practicing actuaries are quite helpful in attracting strong entry-level candidates to our profession and to employers in the area.

A new Regional Affiliate, the Central States Actuarial Forum, has just been created by and for actuaries in Colorado, Iowa, Kansas, Missouri, Nebraska, North Dakota, and South Dakota. You can learn more about it by contacting its president, Margaret Tiller Sherwood.

The need for Regional Affiliates also reaches beyond North America. The

CAS has, to date, three Regional Affiliates outside North America: Casualty Actuaries of Bermuda, Casualty Actuaries of Europe, and Casualty Actuaries of the Far East.

Actuaries in areas not covered by an existing Regional Affiliate are encouraged to create new Regional Affiliates. For help in doing this, just contact the CAS office or the Regional Affiliates Committee, which is chaired by Ramona C. Lee.

Tinsley Announces Retirement

CAS Starts Search for Replacement

CAS Executive Director James H. "Tim" Tinsley has announced his retirement on December 31, 2001. "Tim has done a superb job over the past ten years developing a CAS Office supportive of the increasing number and diversity of CAS activities," said CAS President **Pat Grannan**. "We will miss his leadership and support."

During his tenure, Tinsley oversaw the in-house production of CAS publications, the development of an association management software package, and the establishment of the CAS Web Site. Tinsley joined the CAS as executive director in 1991 when the national office was relocated to Arlington, Virginia.

The Board of Directors has formed a search committee chaired by Conger. JDG Associates, a recruiting firm in the Washington, D.C. area, has been engaged to conduct an executive search in support of the Search Committee.

CAS members are encouraged to submit the names of possible candidates for the executive director position to Paul Belford, JDG Associates, 1700 Research Boulevard, Rockville, MD 20850 (telephone: 301-340-2210, e-mail: Belford@jdgsearch.com).

A job announcement providing a



From left, CAS Executive Director, Tim Tinsley and CAS President Pat Grannan.

summary of the principal responsibilities and requirements for the CAS executive director position is posted on the CAS Web Site under "What's New" or "About CAS" sections.

Random Sampler

TANSTAAFL!

by Bob Conger, CAS President-Elect

hirty-some years ago, while a student in high school, I was astonished to discover that a lot of what I needed to understand about the physical sciences, life, economics, and many other human endeavors seemed to be contained in a single book. Well no, not a single book: a single phrase within a single book. Reading Robert A. Heinlein's science fiction work, The Moon is a Harsh Mistress, I first encountered an articulation of the TANSTAAFL principle, shorthand for "There ain't no such thing as a free lunch." Over the years, TANSTAAFL has become one of my oft-used, favorite, and most consistently reliable tools to understand and anticipate how things work.

At the time of my first encounter with the TANSTAAFL principle, I naturally applied this concept to my high school environment. TANSTAAFL implied, for example:

- The various "conservation" laws that I was studying in the physical sciences: I can't add mass to one part of the chemical equation without taking mass from another part of the equation.
- If I choose to play tennis with Paul this afternoon, I can't also play golf with Tom, and under either alternative I have given up other valuable uses of the same time, money, and energy.
- If I want to get an "A" in a course, I must work for it.
- A person who cheats will pay a price certain: loss of integrity and trust (and may also pay a tangible, though uncertain, price: punishment).
- The only way for a less fortunate person to *receive* a helping hand, is for someone to *offer* a helping hand.

A few years later, studying economics in college, I came to understand that the TANSTAAFL principle closely relates to a fundamental economic and social challenge. I am referring to the challenge of allocating scarce natural, financial, and human resources—

whether that allocation occurs through the mysterious workings of Adam Smith's "invisible hand" of supply and demand, or through the more visible hand of public policy decisions. A particular resource can be used to make swords or plowshares, but not both.

"Over the years,
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become one of my
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and anticipate how
things work."

Even the use of a "free" resource (using the atmosphere as a dumping ground for toxic chemicals) carries a cost for someone: loss of clean air for the folks downwind.

Oddly, Heinlein's writings never have appeared explicitly on the CAS *Syllabus*. (If they had, I would have volunteered for a longer stint on the Exam Committee!) Nonetheless, I discovered pretty early in my actuarial career that the TANSTAAFL principle is woven throughout the basics of actuarial science.

- There is a cost (premium) to transfer the uncertain financial implications of an undesired contingent event to a third party.
- A stream of income in the future may be traded for a block of resources today.
- A class of insureds that is responsible for more claims should pay higher premiums.
- If an underwriter or regulator charges an inadequate price to one group of insureds, some other group will have to pick up the difference (perhaps another group of insureds who pay an elevated price, or an in-

- vestor who receives a reduced return on investment).
- If an insurer chose to enjoy the "lunch" (premium income) of writing a block of business yesterday, the resulting claims will have to be paid tomorrow. The inevitability of paying these claims is not altered if the insurer charged an inadequate premium yesterday or establishes an inadequate loss reserve today. (My first employer, now defunct, chose the painful way to learn this application of the TANSTAAFL principle.)

As I invoked TANSTAAFL to help understand and guide my personal and professional life over the years, various subtleties and nuances emerged, like the patina of age on a treasured but well-used piece of furniture-TANSTAAFL's bi-directionality, for example. I originally perceived TANSTAAFL to mean that I could not receive a free lunch. I gradually learned that I also cannot give a free lunch—I find that I always receive some benefit from the act of giving, regardless of whether receiving such a benefit is my intent or desire. Another subtlety that has become evident over the years is that the form, amount, and timing of the price we pay (or receive) for "lunch" usually has more dimensions and complexities than we anticipated. In pricing a personal auto policy, for example, we first studied how to forecast and evaluate this year's expected claims and expenses. Later, we began to understand important pricing implications of considering the probability and profitability of future renewals, cross-sales, and referrals of new customers arising out of the customer relationship.

In my role as a member and volunteer of the CAS, I feel as though I have been rediscovering an old friend, as I have observed the TANSTAAFL principle at work within the dynamics of

The State of the Market — Part Two

by Arthur J. Schwartz

To assess the state of the employment market for actuaries, *The AR* recently held a round-table discussion with a number of prominent recruiters. Our panel includes:

K.C. Cho, from D.W. Simpson, in Chicago. His firm specializes in placing actuaries in all disciplines, including property and casualty, life, health, pension, investments, and nontraditional roles.

Margaret Resce Milkint, from Jacobson Associates in Chicago. Her firm places all types of specialties for insurers; actuaries, of course, but also underwriters and claims specialists.

Milt Dossin, from Nationwide Actuarial Search in Las Vegas. His firm

specializes in placing casualty actuaries only.

Everyone spoke from the perspective of CAS members and students only.

Schwartz: Let's talk about nontraditional positions. Is this area growing? How would an actuary best prepare for these positions?

Dossin: Yes, nontraditional opportunities are growing but it's still relatively small in relation to traditional roles. Most actuaries are still in traditional pricing and reserving positions. If you're interested, when starting out, it is best to get grounded in the basics of pricing and reserving, then you can be in a better position to branch out.

Milkint: If you start with a solid platform, you can use it and build on it. Among the three of us, nontraditional is a catch phrase, it needs some help being defined. So for how you prepare for this, you start by learning the fundamentals of actuarial science. Become well-rounded in management skills like communication, presentation, and project management. These are very critical in the nontraditional area.

Cho: It's not always necessary to start out in a traditional path. If, relatively early on in your career, you get an opportunity to pursue a nontraditional position, you may want to take advantage. The definition of what is

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A Plea for Communication About Communications!

by Ken Hartwell, Member, Actuarial Standards Board

The second exposure draft of the proposed Actuarial Standard of Practice (ASOP) on Actuarial Communications was approved by the Actuarial Standards Board (ASB) at its March 2001 meeting. The exposure draft has been distributed to CAS members for comments. The deadline for comments is September 15, 2001.

The General Committee of the ASB was established in 1997 to promulgate ASOPs that cut across the four practice areas of casualty, health, life, and pensions. In that same year, the committee began work on this proposed ASOP. The first exposure draft was issued in November 1998, and the committee received 23 comment letters. Many of these letters were quite long and dealt with a variety of aspects of the exposure draft. The letters were instrumental in helping the committee move forward to a second exposure draft.

This ASOP is intended to replace

Interpretive Opinion No. 3, Professional Communications of Actuaries. One of the major changes from the first

"Our goal is to promulgate ASOPs that provide useful and practical guidance for actuaries."

exposure is the inclusion of oral communications (see Appendix 2 of the second exposure draft), which are now covered explicitly by the Code of Professional Conduct.

We held back the second exposure draft while the ASB was dealing with the revisions to the Code of Professional Conduct that were subsequently adopted by the five U.S.-based actuarial organizations effective January 1, 2001.

Meanwhile, the ASB posted a revised draft of this ASOP as a discussion draft on the ASB Web Site, the first time we had done this. Quite frankly, we were disappointed that we received no comment letters at all.

Our goal is to promulgate ASOPs that provide useful and practical guidance for actuaries. Many ASOPs affect the work we do only a few times a year, but this proposed ASOP provides guidance that is relevant day in and day out to the activities of many actuaries. We have worked hard not to impose unreasonable requirements on actuaries.

Please tell us if we succeeded, and let us know what improvements should still be considered. If you mislaid your hard copy of the second exposure draft, you can get another from the American Academy of Actuaries. Call the Academy office or go to the Academy Web Site (www.actuary.org) and click on "Actuarial Standards of Practice" and then on "Exposure Drafts."

New Fellows and Associates Honored at the 2001 CAS Spring Meeting

New Fellows, first row, from left: Jeffrey Alan Courchene, John M. Pergrossi, Michael A. Pauletti, Kimberly J. Kurban, CAS President Patrick Grannan, Stephanie T. Carlson, Julie Martineau, Conni Jean Brown, Shaun S. Wang, Annmarie Schuster, Daniel Patrick Maguire. Second row, from left: Sean Evans Porreca, Mark Lee Woods, Atul Malhotra, Bryan Hartigan, Jordan J. Pitz, Joseph Gerard Evleth, Randall Allen Jacobson. Third row, from left: David R. Border, Gary Frederick Scherer, Joseph John Sacala, Michael G. Kerner, Laura Ann Esboldt. Fourth row, from left: Scott Allan Miller, Eric Millaire-Morin, Mark Alan Verheyen, Kurt D. Hines, James P. Lynch. New Fellows not pictured: Emily C. Gilde, Alastair Charles Shore.





New Associates, first row, from left: Michael R. Zarember, Matthew Allen Lillegard, Afrouz Assadian, Sharon D. Mott, CAS President Patrick Grannan, Sara T. Broadrick, Jennifer L. Richard, Jennifer Anne Vezza, James Anthony Heer. Second row, from left: Jamison Joel Ihrke, Scott Michael Woomer (above and right from Grannan), Tricia Lynne Johnson, Jayne L. Plunkett. Third row, from left: William Russell Johnson, Michael Robert Petrarca, Stephanie Anne Bruno, Stephanie C. Young, Shantelle Adrienne Johnson, Chad Michael Ott. Fourth row, from left: Edward Kofi Gyampo, Christopher Wayne Hurst, Xiangfei Zeng, Matthew R. Ostiguy, Joseph E. Kirsits. Fifth row, from left: Hugo Corbeil, Timothy James McCarthy, David Francis Dahl, Jimmy L. Wright, Ellen Marie Tierney, Gregory T. Preble.

New Associates not pictured: Feifei Ford, Suzanne Barry Holohan, Michael A. Onofrietti, Cameron Jason Vogt.

Syllabus Committee Seeks Authors for LAE Study Note

The CAS Syllabus Committee is seeking volunteers to author a study note related to loss adjustment expense reserving. The study note will need to define ALAE and ULAE, and perhaps contrast current with past definitions. It should draw from the three current Part 6 syllabus papers, and introduce new reserving methods if appropriate. The material should be suitable for self-study and lend itself to development of meaningful examination questions. Please respond to Syllabus Committee Chairperson Nancy Braithwaite at nbraithwaite@iso.com.

Note from the Editor:

At the end of May, **Sholom Feldblum** announced that he was seeking nomination as candidate for president-elect of the CAS. In a letter addressed to Fellows of the CAS, Feldblum discussed several concerns that he believes are important to the future of the CAS, and are likely to be of interest to most CAS members. Many of these concerns have been discussed in previous issues of The AR. As an aid to members, this issue provides facts and figures on two of these concerns: the property/casualty content on SOA exams and travel time, below. We expect to run an article on Exams 3 and 4 in the November issue. And, as always, we encourage readers to send us their opinions regarding the important issues facing the CAS.

Travel Time Update

Travel time has increased in recent years, according to the most recent analysis conducted by the Education Policy Committee, but is expected to begin decreasing due to "departitioning" of exams. The table below shows the average travel time, measured in "number of sittings," that it took new Associates and Fellows to reach their goal over the period from Spring 1980 through Spring 2000.

On this table the number of sittings beyond Parts 1 and 2 is measured as the number of sittings that elapsed from the time of the first sitting (other than Part 1 or 2) to the time of exam completion leading to the designation. Two more sittings are added to account for Parts 1 and 2. For example, if an ACAS took Part 3 for the first time in Spring 1990, and completed the Associateship exams with the Fall 1995 examination, then the total travel time for this ACAS would be counted as 14 sittings: 12 sittings over the period Spring 1990 through Fall 1995, plus 2 sittings to pass Parts 1 and 2. This measurement of 14 sittings would apply regardless of how

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SOA's Syllabus of Examinations

The editorial staff of *The AR* thought that members would appreciate knowing the extent to which the Society of Actuaries (SOA) includes property/casualty material on its syllabus.

The SOA and the CAS jointly sponsor the first four examinations:

- Course 1: Mathematical Foundations of Actuarial Science
- Course 2: Interest Theory, Economics, and Finance
- Course 3: Actuarial Models
- Course 4: Actuarial Modeling

The structure of the remaining SOA examinations is as follows:

- Course 5: Application of Basic Actuarial Principals
- Course 6: Finance and Investments
- Associate Professionalism Course
- Course 7: Applied Modeling
- Course 8: Advanced Specialized Actuarial Practice (Candidates must choose one of the following:

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Travel Time by ACAS/FCAS Class

Class	ACAS Class Size	FCAS Class Size	No. of Sittings for ACAS	No. of Sittings for FCAS
Spring 1980	37	13	8.6	11.7
Fall 1980	19	25	9.5	12.8
Spring 1981	37	11	8.5	14.2
Fall 1981	16	32	7.6	12.6
Spring 1982	51	12	7.8	14.6
Fall 1982	17	51	9.9	13.1
Spring 1983	60	18	9.3	14.1
Fall 1983	6	28	9.5	12.8
Spring 1984	59	18	10.4	12.3
Fall 1984	7	35	9.6	13.5
Spring 1985	67	19	10.7	13.0
Fall 1985	9	28	11.5	13.9
Spring 1986	82	19	11.2	13.0
Fall 1986	24	34	10.0	13.4
Spring 1987	66	22	11.1	15.5
Fall 1987	24	39	9.9	14.1
Spring 1988	61	19	12.3	14.8
Fall 1988	26	41	10.2	13.0
Spring 1989	77	14	12.7	16.9
Fall 1989	34	52	10.0	14.2
Spring 1990	87	16	11.3	14.8
Fall 1990	54	54	10.4	14.1

Class	ACAS Class Size	FCAS Class Size	No. of Sittings for ACAS	No. of Sittings for FCAS
Spring 1991	75	5	10.4	15.6
Fall 1991	64	59	11.3	13.4
Spring 1992	99	15	11.4	11.9
Fall 1992	41	62	12.1	14.7
Spring 1993	101	11	12.8	14.5
Fall 1993	60	85	12.2	14.7
Spring 1994	150	17	12.3	16.4
Fall 1994	75	86	12.3	16.7
Spring 1995	122	17	12.3	19.5
Fall 1995	78	97	13.0	15.9
Spring 1996	136	19	12.3	15.0
Fall 1996	83	104	12.6	16.7
Spring 1997	113	16	12.2	15.3
Fall 1997	95	109	13.5	18.3
Spring 1998	119	18	13.5	17.7
Fall 1998	58	126	14.7	17.2
Spring 1999	167	13	13.8	15.5
Fall 1999	55	124	14.2	18.3
Spring 2000	150	14	16.0	17.4
Fall 2000	33	135	11.9	17.6
Spring 2001	33	29	14.6	18.1

Travel Time is defined as the number of examination sessions it takes to achieve the CAS designation. Sittings for Parts 1 & 2 (pre-2000) are included, but only for the successful examination session.

The Premium Years

by Arthur J. Schwartz

he AR interviewed LeRoy J. Simon, who hangs his fedora at his home in northern New Jersey. Our interviewee has written 59 papers in various insurance publications, won the Dorweiler Prize, chaired or served on numerous committees, and served as president of the CAS in 1971!

What keeps you busy in retirement? Retirement is great. One thing I learned at Prudential Re was the value of exercise and weight control to stay in shape. They had an exercise room; anyone could use it on a lunch hour. After I left Prudential, I'd run outdoors. Now I have a treadmill in our home, and I use that for about 25 to 30 minutes, three times a week. I'm not training for the Olympics. After each session, I weigh myself and write it down. If it creeps up, I'll say to myself "C'mon kid!" It works! Another activity I enjoy is the time to read good books. During my career, even after work, I mostly read technical papers. Now I have a chance to read the good

books that I should have read. My list is mostly fiction. Also, I fool around with computers. I write programs in BASIC to solve mathematical puzzles.

What do you think of the actuarial career?

"As far as my career is concerned, Hollywood could not have come up with a better scenario."

The actuarial career is perfect from start to finish. You "earn as you learn." You can move around, if you're flexible, and you can go into management if you're so inclined. Upon retirement, you have a chance to do some part-time consulting. As far as my career is concerned, Hollywood could not have come up with a better scenario.

How did that scenario unfold?

Upon returning from WWII, I majored in math at the University of Minnesota. A life company, Northwestern National, was looking for someone to run a calculator in their actuarial department. It was a summer job. There I learned what an actuary was all about, and I began taking the exams. At the time, I was the only person taking the CAS exams in Minnesota. I joined INA in 1957 where I worked directly for Laurence Longley-Cook, and the technical challenges tested my abilities to the fullest. I wrote a paper in 1958, [Rate Revision Adjustment Factors, Proceedings, p. 196] and based on the favorable reception, I knew I could hold my own with other actuaries. In 1965 I became general manager of NIASA, a predecessor to ISO, which at the time was doing pioneering work in fire insurance. From there I joined Prudential as it was entering the property casualty business. I was instrumental in

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A Few Anecdotes from Simon's Illustrious Career

This is about Laurence Longley-Cook, who wrote a paper on credibility that was on the syllabus for years. He hired me at INA, gave me opportunities that really challenged me. Brilliant guy. To give you an idea how brilliant, consider that prior to being the chief property/casualty actuary at INA, he had been a life actuary in England. He came to Philadelphia, and decided to take the CAS exams, to become familiar with the work. He had to deal with the differences between life and casualty actuarial methods, differences in policy forms from the English life policies to American property and casualty

policies, and differences in accounting between the U.S. and the U.K. There were eight exams then, four to be an Associate, four to be a Fellow. He passed all eight in TWO sittings!

Now, to appreciate this story, you have to know that he did not observe most social amenities. If you were in his office and the phone rang, he'd pick up, putting you on "hold." He was also business-like in the extreme; no small talk. When a conversation was over he'd just walk away, or if the conversation was on the telephone, he'd simply hang up the phone.

One day while I was discussing something in his office, the phone rang.

He picks up, listens for five seconds, then says, "Multiply by three and divide by two." Slams the phone down.

We finished our discussion. On my way out, I asked, "By the way, what was that call about?" "Oh," he said, "inland marine. They wanted to know how to calculate the agent's commission. It's 15 percent of the premium."

I said, "If they multiply by three, and divide by two, aren't they going to be off by a factor of ten?"

He said, "Oh, that's a minor detail."

Retired Members From page 9

establishing Pru Re and spent the majority of my 17 years with Pru as Pru Re's chief operating officer. I retired at age 63 and worked part time out of my home as a consultant with Coopers and Lybrand.

What was your most challenging paper to write?

"The 1965 Table M" [1965 Proceedings, page 1]. I was responsible for the design of the project, and the formulas we'd test. At one time, I thought we'd fail. None of the formulas seemed to fit the data well, and I had taken on this aspect of the project as a personal responsibility. I was bitten by the bug and couldn't let it go. Fortunately, after some trial and error, I did discover some meaningful relationships in the data, and it worked. Even more fortunately, in spite of the hundreds of hours I had invested in Table M, my wife did not file for divorce! Other interesting articles I wrote were the "Address to New Members" in 1987 [1987 Proceedings, p. 429] and in 1999 [1999 Proceedings, p. 806]. These two speeches express some of my personal views. When you're employed, you can't always speak your mind. These speeches were fun to write and to deliver to an audience. [Editors note: These articles are articulate, funny, and as timely today as they ever were. Past Proceedings are available on the CAS Web Site.]

Are there any research topics you came across in your career that you might suggest for further exploration?

This first topic actually came from Charlie Hachemeister. His idea was on loss reserve projections. If looked at as a Markov process, one might look at other factors than only the dollar amounts. For example, the status of information, medical results, and whether there is attorney involvement. The second topic is my own. As you take a block of claims, incurred losses by accident month, draw yourself a histogram of estimated values. This will be modified as new information develops. It's going to have some distribution of losses. Instead of predicting the ultimate, try to predict the ultimate dis*tribution* of losses. You'd have to analyze individual claims; with today's computers, that's feasible.

Do you have any study tips for students?

I would give them the same advice as I give my grandchildren: Do a little bit on each subject every day. By this I mean that you should not bore in on one subject relentlessly until you knock it off. Instead, a change of subject is a

"The concept of consciously switching from one subject to another if you're a student, or from one project to another in your business life or personal life, gives you power."

welcome relief and brings all things to completion more nearly at the same time, which is exam day for the actuarial student. This advice also means that you should have a plan and stick to the plan. For example, finish the initial reading and highlighting of material nine weeks before the exam; spend five weeks reviewing all highlighting and past exam questions, and so on. The whole idea is to have a plan, continually review your progress, and keep yourself on schedule. This applies to planning your study for the exams, to planning your business activities, and to planning your life. The concept of consciously switching from one subject to another if you're a student, or from one project to another in your business life or personal life, gives you power. You may actually accomplish more by spreading your time over several priorities!

What are your thoughts on mentoring?

I believe in natural mentoring. If you're in corporate life, you do the right thing for the next person. It happens without thinking about it. If you lead by example, by your ethical and moral conduct, you naturally help others up the ladder. It's usually not overt.

You had some comments for us on international issues.

One specific area the CAS may want to look into is encouraging Hispanic U.S. students. They have pride in their origins. Over a longer time frame, they can be emissaries for the CAS in the many Spanish-speaking countries around the globe.

Do you have any more "pearls of wisdom" for us?

I'd like to give you two more axioms. First, time is one of your most valuable assets, so optimize your use. How many people let time "run," knowingly "killing time?" They let the actions of others, or the world, control the course of their lives. That's leaving things to chance, and not living your life your way. Instead, look for ways to save time and use it. It's your chief asset, so use it wisely. Second, don't procrastinate. Problems often get worse with time. If you're not going to be smarter or more capable tomorrow, or have new information tomorrow, then do it now. If you have to ask your boss or someone, fine, but if it's your decision, make it now, even if it's on the spur of the moment. This habit of making quick decisions helps others too. If they want to know whether you'll give a speech or moderate a panel, once you give them your answer, they're on the way to their next hurdle. Again, if it's your decision to make, make it now!

On that note, I'd like to thank you for sharing your wisdom and your time so generously with us all.

If you're a retired actuary who would like to be interviewed for this column, or if you know a retiree whom you would like *The AR* to feature, please call **Arthur J. Schwartz** at (919) 733-3284, x259 or send him an e-mail at aschwart@ncdoi.net

CAS Welcomes New Affiliate Member

Graham Fulcher

Cox Insurance Holdings London, England Fellow, Institute of Actuaries

CAS to Meet in Atlanta for 2001 Annual Meeting

by Martin T. King

Come join us at the world-class Marriott Marquis in Atlanta, Georgia for the CAS 2001 Annual Meeting. Mark your calendars for November 11-14, and prepare yourself for the elegance of Atlanta and the beauty of this 50-story atrium, Atlanta's largest and most architecturally intriguing hotel.

The general sessions will offer something for everyone. The first general session, "A View from the Top," showcases a panel of insurance executives who will share their views on the challenges facing the industry today. A second general session "CAS-Approaching 100," will discuss the evolving role of the actuary and the profession as a whole as we poise ourselves for our first centennial milestone. "Can We Talk" will feature a fun, and sometimes satirical, look at the "communications challenged" actuary. Finally, a panel of automobile safety experts will discuss recent advances in the auto manufacturing industry and their impact on insurance in "Safer Vehicles: What Should We Know as an Insurance Industry?"

The featured speaker will be James Mapes, author of the critically acclaimed *Quantum Leap Thinking*. With the speed of today's business environment, creativity and flexibility are no longer optional. Possibilities are limited only by our ability to see the world with "new eyes" and seize opportunities quickly. Mapes's charismatic style and presentations on the topics of change, creativity, and innovation are interactive, powerful, and fun.

Some concurrent session topics being planned include insurance data mining; developments in umbrella liability; catastrophe reserving issues; update of asbestos liability issues; fraud detection advances in workers compensation, auto, and health care; rating agencies' perspective on capital allocation; asset liability management; supply and demand of actuarial talent;

ASOP 36 and materiality; D&O insurance issues; and many others.

On Tuesday evening, members and guests



Atlanta's Marriott Marquis

are invited to join us for a buffet dinner and entertainment at the Historic Fox Theater.

The American Academy of Actuaries (AAA) will be holding its Annual Meeting in conjunction with the CAS Annual Meeting. The featured speaker at the Tuesday afternoon luncheon will be attorney Ralph Levy, a leading expert in professional responsibility litigation. The Academy's Casualty Practice Council and Professionalism Council will also be holding sessions at the conference.

More detailed information on the CAS 2001 Annual Meeting will be mailed to members soon. From all indications, this meeting looks like a real peach!

Mathematical Olympiad Winners Honored

Winners of the 30th USA Mathematical Olympiad were honored during a ceremony at the National Academy of Sciences on June 4, 2001. Selected from a pool of over 300,000, these high school students received the top scores in a series of four rigorous exams, making them among the brightest young mathematicians in the world. Six students will continue on to represent

Photo Coddi. Robert Allen Stewn

Posed around the Albert Einstein Memorial on the Academy grounds are: 1. David Shin, 2. Liaison Representative to the Mathematical Association of America **John Robertson**, 3. Po-Ru Loh, 4. Luke A. Gustafson, 5. Gabriel D. Carroll, 6. Reid W. Barton (first place), 7. Tiankai Liu, 8. Stephen Guo, 9. Ian T. Le, 10. Oaz Nir, 11. Gregory Price, 12. Ricky Ini Liu, 13. Daniel Kane, 14. Michael Hamburg (Clay Mathematics Institute Mathematics Olympiad Scholar).

Actuarial Career Video Available

the United States in the International Mathematical Olympiad at George Mason University in Fairfax, Virginia.

The Casualty Actuarial Society and Society of Actuaries have collaborated to produce a new recruiting video for the actuarial career. The fast-paced, nine-minute video features eight actuaries who describe the benefits and opportunities of an actuarial career. The video is ideal for high school and young college students who are undecided on their career path. A companion brochure is also being produced. If you are interested in using the video for recruiting potential actuaries, contact Mike Boa at the CAS Office at mboa@casact.org.

Random Sampler From page 5

our organization and in the profession more broadly.

- Our predecessors invested their individual and collective time, energy, careers, and reputations building the CAS into a highly respected organization within a highly respected profession. Each of us gains a certain amount of credibility each time we append the initials FCAS or ACAS to our name. These gains that we enjoy are the "lunch" that was paid for, in large part, by the investments of our predecessors.
- Of course, the right to append these initials to our names is hardly "free" to us as individuals. Each of us invested many hours, days, nights, and weekends qualifying for that right. And we continue to pay for that right through the time and money invested in continuing education, and by going the extra mile and maintaining the extra vigilance to be sure that ethics and professionalism are guiding our actions. But what a banquet (never mind lunch!) is available to us as a result. I cannot imagine an alternative career that would have presented the same array of personal and professional opportunities.
- TANSTAAFL is evident in many of the issues surrounding Exams 3 and 4, about which there has been much discussion over the past year or so. With hindsight, we may have put too many topics, with too much theoretical detail, on these exams without paying for that "lunch" by pruning other topics or preparing sufficient study materials. TANSTAAFL demanded that a price be paid: in this case, unacceptably low initial success rates on the exams and adverse reactions to these exams. Having deemed that to be an unacceptable price, the CAS and SOA are in the process of substituting a much more acceptable price: eliminating some topics and materials, preparing better study materials, and reviewing other aspects of these exams for improvement opportunities. But remember, whatever your personal favorite solution to improving

- the educational system, TANSTAAFL always insists that there be trade-offs.
- We have made many explicit decisions over the years to maintain a volunteer-driven organization and culture. The price we pay is that we individually (and with the support of our employers) must be willing

"Just as our predecessors prepared much of our lunch, so too will we affect the richness of the CAS banquet for our successors."

to sustain this organization and culture with our own contributed time and effort. And sometimes we pay a price collectively: if one part of a volunteer organization is not working as well as it should, corrective action may be a bit slower (and kinder and gentler) than in some other types of organizations. The lunch we gain is an organization that is us, that is ours, that goes where we collectively take it; that does not change direction violently with the whims, preferences, biases, and personalities of each new leadership team. One leader, no matter how energetic or opinionated, cannot accomplish much of anything if unable or unwilling to work in a collaborative fashion with the entire volunteer structure. There is no "they" in the CAS.

• The TANSTAAFL principle applies to us individually in our volunteerism efforts as well. Yes, I have contributed my time and energy to the CAS over the years, and I like to think I would have done so without the prospect of any specific personal benefits, simply because it was the right thing to do. But I have in fact reaped benefits: learning new skills; gaining new opportunities; and, most importantly, having the opportunity to meet, know, and work with some wonderful people.

Just as our predecessors prepared much of our lunch, so too will we af-

fect the richness of the CAS banquet for our successors. If we choose negative words and actions; if we spend our energy destroying and criticizing; if we fail to maintain through our own personal and collective actions high standards of expertise, quality, professionalism, and collegiality; then we are choosing to leave some slim pickings for those who follow. But we have a choice. If we choose to build on what we have; to work both individually and together as a team to make it better; to be constructive rather than destructive; and to travel the high road of quality and professionalism in all that we do personally and as a profession—then we are choosing to prepare a truly extraordinary lunch for ourselves and for successive generations of actuaries. I look forward to seeing you in the kitchen, as together we work hard and conscientiously to prepare a bounteous banquet for those who follow. TANSTAAFL!

SOA Syllabus From page 8

Finance; Health, Group Life and Managed Care; Individual Insurance; Investments; Retirement Benefits.)

- Professional Development Requirement
- Fellowship Admissions Course

The SOA Course 5, Application of Basic Actuarial Principals, covers basic actuarial principals related to life, health, property and casualty insurance, annuities, and retirement systems. The property and casualty material consists of *Introduction to Ratemaking and Loss Reserving for Property and Casualty Insurance*, 1993, by R. L. Brown. This edition of the book has four chapters: "Why Insurance?"; "Coverages"; "Ratemaking"; and "Loss Reserving".

The information shown above, with the exception of the chapter names from the book by R. L. Brown, is extracted directly from the SOA's syllabus. You can find the syllabus by going to the SOA's Web Site, www.soa.org, clicking on "Education & Examinations," and then clicking on "Fall 2001 Basic Education Catalog."

Ethical Issues Forum



Antitrust Exemption?

Editor's Note: This article is part of a series written by members of the CAS Committee on Professionalism Education (COPE) and the Actuarial Board of Counseling and Discipline (ABCD). The opinions expressed by readers and authors are for discussion purposes only and should not be used to prejudge the disposition of any actual case.

t a California ratemaking seminar cosponsored by the XYZ actuarial club and the CAS, a panel of actuaries from the five largest workers compensation insurers discussed the workers compensation environment. The particular focus of the discussion was a highly publicized article that predicted a rating downgrade to most workers compensation insurers in California due to rising costs and inadequate rates. Bob, from Low-Ball Insurance, started off the session by stating that his company was planning to increase its rates 25 percent. Phil, representing Even-Steven Insurance, suggested that Low-Ball Insurance raise rates by at least 50 percent "because their rates are always too low" and the higher increase would make their rates more comparable to the rates his company plans to charge. Phil argued that the industry is not profitable because all of the other carriers are trying to match Low-Ball Insurance Company's rates. If Low-Ball Insurance raised rates by 50 percent, Phil asserted that most other insurers would increase rates accordingly. This action would diminish the threat of a rating downgrade to his company, Even-Steven Insurance, and to the industry at large.

While the other panelists were agreeing with Phil, an actuary from the crowd interrupted the panel and requested that they refrain from this particular topic since it is in violation of federal antitrust laws and CAS policy. The panel disagreed that this discussion violated antitrust laws because they argued that the "business of insur-

ance" is exempt from antitrust laws under the McCarran-Ferguson Act. Also, the panel said that the CAS does not have an official policy that addresses antitrust.

Do you agree with the panel's response?

Actuaries, like all other professionals, need to understand the antitrust statutes and their implications. Since most actuaries perform work relating to the "business of insurance," it is also important to understand the McCarran-Ferguson Act. In the hypothetical situation discussed above, the panel's attempt to convince Low-Ball Insurance to raise rates would assuredly not fall under protection of the McCarran-Ferguson Act. However, actuaries may encounter other situations where the potential for antitrust violations is not as obvious.

Information about antitrust and the McCarran-Ferguson Act can be found in the CAS policy regarding antitrust. The CAS has adopted an "Antitrust Compliance Policy" and an accompanying four-page discussion called "Guidelines for Antitrust Compliance" which can be found in the CAS *Yearbook*.

According to the CAS "Antitrust Compliance Policy:" "It is the long-standing and undeviating policy of the Casualty Actuarial Society to comply in all respects with the letter and spirit of the antitrust laws." Since the rationale for antitrust legislation is the promotion of competition, the CAS prohibits not only activities in violation of antitrust laws, but also activities that could be considered anticompetitive.

The panel of actuaries should have reviewed the CAS policy and accompanying guidelines prior to their discussion. Here is a brief summary about antitrust:

- The antitrust laws were first created nearly a century ago to preserve and promote free and fair competition.
- There are four basic federal antitrust

- statutes: the Sherman Act; the Clayton Act; the Federal Trade Commission Act; and the Robinson-Patman Act. Each of these Acts is described in the CAS "Guidelines for Antitrust Compliance."
- Associations such as the Casualty Actuarial Society, by bringing together actuarial professionals and facilitating the exchange of ideas and information among those professionals, have the potential to undermine competition and violate antitrust laws.
- Any association, such as the Casualty Actuarial Society, that is adjudged to be in violation of the antitrust laws can be dissolved by court order.
- Each party found liable, no matter how small a role that party played, can be held liable for all damages caused by all participants in the antitrust conspiracy.
- Violations of antitrust laws can be criminal as well as civil, and can result in criminal conviction and sentencing.
- Under the Federal Trade Commission Act, individuals or firms can be held liable for antitrust even though they did not act in concert with others.
- The McCarran-Ferguson Act provides an exemption from federal antitrust laws for specific actions performed within the "business of insurance" only to the extent that it is regulated by the states. Because of the various interpretations of this Act, it is the policy of the CAS not to rely exclusively on the McCarran-Ferguson exemption, but also to carefully undertake all efforts to avoid anticompetitive activities.
- The CAS provides a list of guidelines as well as important questions that should be addressed when analyzing whether information to be exchanged at any CAS meeting or seminar is acceptable under antitrust laws.

The State of the Market From page 6

nontraditional is evolving. The definition from three-to-five years ago is different from today. Back then, finite risk, catastrophe modeling, DFA, and alternative risk transfers, would have been considered nontraditional. Now they have become more and more mainstream. However, there is a distinction "nontraditional" between "nonactuarial." For example, we're seeing more positions for personal lines actuaries in roles that once would've been reserved exclusively for an underwriter or a claims person, like product management. Previously, companies were reluctant to hire actuaries for these roles; now they see how an actuary can better leverage their skills. You can pursue these opportunities both internally (rotations, different departments/divisions, sister companies, etc.) or perhaps externally. If you have had exposure beyond a primary insurance environment, like a reinsurer, a broker, or a consulting firm, you are able to bring a broader perspective to the table. Candidates with more diverse experience may be more attractive to potential employers versus those with only personal lines pricing experience in their background. Ultimately, having a broader and more diverse background may equate to higher compensation packages.

Milkint: It's important to keep that distinction in mind, "nontraditional" versus "nonactuarial." Being a chief underwriter is bit of both. You are using your actuarial knowledge as a platform, and bringing in your big picture skills. Actuaries can do a much more in-depth analysis of an issue. They have a richer perspective. To some extent, a nontraditional role requires actuaries to market themselves more aggressively. "I can do that" has to be their attitude, because they may be competing for a position with JDs or MBAs. Try to segue into this in your own company first.

Dossin: It's easier to look for opportunities in your own company.

Cho: Opportunities may not exist within your own organization, depending on the company. You may need to

seek a different employer.

Milkint: A new employer means a fresh start, and their people will look at you with fresh eyes. They can see how you can add value in this new role.

Schwartz: Let's talk about international opportunities. Is this area growing? Does it help to be bilingual? What countries are most interested in hiring CAS members? How do the salaries and cost of living compare to the U.S.? Also, how hard is it for foreign actuaries to be hired in the U.S.?

"Ultimately, having a broader and more diverse background may equate to higher compensation packages."

-K.C. Cho

Dossin: International positions are growing but again, like nontraditional roles, it's relatively small. About 150 CAS members (FCAS and ACAS) are employed outside of North America. Because it's a smaller group, it's also growing faster. Being bilingual helps. The countries with the largest numbers of CAS members are Bermuda, Switzerland, and England. Salaries generally are about the same, but the cost of living outside the U.S. is often higher. In addition to salaries, many employers will pay housing allowances to make up for the difference. From an employer's perspective, it can be expensive to hire someone from abroad.

Milkint: For many employers, it can be costly. They may offer a housing allowance; trips to stateside; and pay for a driver, household help, and school allowance. Salary alone is not the key thing in attracting someone; it's the whole compensation package. The cost of living abroad can be much higher in certain places: in Bermuda, a gallon of milk can sell for \$10! Also you have to think about whether you want to raise a family abroad. However, companies who want you, know that they have to be competitive; they want to make you

whole.

Dossin: The cost to an employer, beyond a salary, can be significant.

Cho: An increasing number of U.S.based actuaries want to pursue international opportunities now. Although the percentage of ex-pats may be down, the compensation packages remain attractive. For example, in the Far East, employers are discovering that they need to be extremely competitive in order to attract actuaries with U.S. experience and training. The volume of interest in international opportunities from the candidate side is much greater than four or five years ago. For example, the number of Fellows in Bermuda is actually about half that in the entire Canadian province of Ontario. In Southeast Asia and Latin America, the SOA actuaries are far ahead of CAS actuaries. Being bilingual and knowing the local customs of the country certainly helps. Having the actuarial designation and the right type experience can be more important than being bilingual. People who go abroad assume greater risks. They see this as a career advancement strategy and are willing to make more sacrifices or compromises. Also, for a foreign actuary coming here, it's slowly becoming easier. The lowering of the barriers of entry reflects the current U.S. job market, which has a tremendous demand for actuaries, and the willingness of foreign candidates to be more accessible. Some candidates are even willing to incur the travel costs to interview.

Dossin: For Canadians, coming here is easy and vice versa. The 1991 U.S. and Canada Fair Trade Agreement made it easier for goods and services to cross the border. The result has been far more Canadian actuaries coming here. It's not as easy for actuaries from other countries. It's harder to get a visa.

Milkint: The H-1B visa issue is hard to overcome. We see more actuaries coming in to the U.S. from Canada, and not as many from Mexico. The Canadian actuaries have enriched the U.S. market. They are well schooled. Due to the fall in high tech stocks, more H-1B visas may be available for foreign actuaries. It's my understanding these visas are allocated by country.

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Nonactuarial Pursuits of Casualty Actuaries

A Challenge on Stage

by Marty Adler

sometimes wonder how many thespians or would-be thespians are among our membership. We certainly have no dearth of Fellows and Associates who speak in public professionally, as panelists or in giving testimony. Early in my career I tried my hand at amateur theatrics, partly for the practice of performing in public. I thought that experience might help avoid butterflies when I would later need to testify in a rate filing. I subsequently learned that Toastmasters would have provided a much better stage for that preparation.

But one of our Fellows has shown courage well beyond what is needed to portray a character convincingly on the stage. For some time he participated in improvisational work in a Chicago club called "Comedy Sportz." The organization originated in Milwaukee and now exists in most major cities around the country. It features competitive improvisation. Two teams compete, with the winner judged by the audience. There are usually about five rounds, each one with a different theme. Somehow the total scores always seem to be close enough to depend on the final round. The culminating event is a national competition by city.

Games are selected in one of three ways: the audience can choose the game (usually by picking the game out of a hat, so to speak), the referee can choose, or the opposing team can. One kind of event is called "Rap Line" where the audience picks the subject, and then each team member sings a couplet, which must be immediately followed by another couplet by an opposing team member, who must rhyme the couplet with the preceding couplet. All this is done in the style of a rap song about the subject selected by the audience.

Another favorite game is called "Five Things," where, only through mime and gibberish, four teammates must convey to their fifth teammate a certain type of activity. For example, through audience interaction the activ-

ity would be something crazy like "Bungee jumping off a curb on Fifth Avenue in New York with spaghetti as bungee cords alongside Elvis Presley." Four other such types of "twisted" activities are added to the list and the team

"Babies will fall a lot, but will not care, since they have not yet learned concepts like embarrassment."

must see how well their fifth member can guess the activity in five minutes. Most of the time a team can get four out of five pretty easily, which astounds the audience. Other games are more simplistic, such as acting a scene out three times, but in different genres (for example, washing one's clothes as an opera, as a western, and as a horror movie).

Before moving on to this type of challenge, our Fellow had more conventional theatrical experience. He played supporting roles in high school plays. In The Importance of Being Earnest he played the roles of both butlers, which was a challenge, as one role (Lane) had the last line in Act 1 and the other role (Merriman) had one of the first lines in Act 2. This required massive clothing and makeup changes in a very short period of time. Many who hadn't read the program carefully were surprised to learn that one actor played both parts. Another time he served as assistant director for The Dining Room, which had eight players for over 40 characters.

While in college he took part in independent plays. But after going to work for Allstate, he attended a performance at "Comedy Sportz" and was intrigued by the challenge. At first this seemed rather daunting. He was advised, "If you goof up, do not dwell on the failure—learn from your mistake and immediately move on." This was likened to toddlers learning to walk. Babies will fall a lot, but will not care, since they have not yet learned concepts like embarrassment. They will just get up and try again until they succeed. Understanding this advice was a valuable life lesson.

He started participating on weekends, usually Fridays. After a while, however, he tired of the commute from the suburbs into the city. He also says modestly that the new people were more talented. Ironically, he now lives in Chicago, but is working on an MBA in marketing at the University of Illinois at Chicago, with classes on the Allstate campus.

Perhaps one day **Steve Armstrong** will return to the fascinating challenge of improvisation.

CAS Continuing Education Calendar

Bookmark the online calendar at www.casact.org/calendar/calendar.cfm

September 10–11—CAS/AAA/ CCA Casualty Loss Reserve Seminar, The Fairmont New Orleans, New Orleans, LA

September 11–12—Seminar on Asset Liability Management and the Principles of Finance,* The Fairmont New Orleans, New Orleans, LA

September 20—Seminar on Reinsurance,* Downtown Association, New York, NY

September 20–21—CAS/CIA Appointed Actuary Seminar, Wyndham Hotel, Montréal, Canada

October 3–5—Seminar on Globalization and Technology at the Faculty and Institute of Actuaries GIRO 2001 Meeting, Scottish Exhibition and Conference Centre, Glasgow, Scotland

November 11–14—CAS Annual Meeting, Marriott Marquis, Atlanta, GA

* Limited Attendance

The State of the Market From page 14

Dossin: It's easier for a Canadian actuary to work anywhere in the U.K.'s commonwealth than in the U.S. Years ago there were very few casualty actuaries in Canada, but not any longer. They have their own society and they're producing enough casualty actuaries to keep up with demand.

Milkint: The world is getting smaller. To be a part of the globalization trend, the actuary has to take some risks. Years ago, when an actuary went to a foreign country they would join the colony of English speaking ex-pats. Now, they want to immerse themselves in the other country. They want their kids to know what it's like to live there.

Cho: Partially due to the growth in the number of multinational companies, employers are more open to consider a foreign-born actuary. Although it is still difficult to obtain an H-1B visa, the recent passing of the Portability Act has allowed the foreign-born actuaries to have the option to change employers within the first six years of employment. As for Canadian actuaries, NAFTA has made it easier for them to obtain a work permit (TN Visa), which is renewable every year. This has had a significant impact on the U.S. market with regard to the actuarial pool.

Milkint: Previously, if the employer had been the sponsor getting the H-1B visa, they also would have helped the foreign actuary in getting a green card. Because of the portability act, this is no longer a selling point. After two years, the employer is at risk to lose the foreign actuary; that actuary is eligible to go to a new employer.

Schwartz: I've heard that becoming a citizen in Bermuda is very attractive with much lower taxes. Is this true?

Dossin: It's hard to become a citizen of Bermuda. In perspective, Bermuda is a small island, 20 miles across and 3.0 miles at the widest. It's an independent country of 60,000 people.

Cho: Some Bermuda employers may require you to sign a three-year contract.

Milkint: Being overseas enriches your experience of life. It's like a company rotation. You go abroad for three

years and then you come home. Of course, some folks fall in love with being abroad. They say the weather is lovely; it's paradise; and the only downside is leaving. There are some career ex-pats; they make a career out of being abroad and they don't want to come back!

Dossin: They see it as career development.

"...even if you stay
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employer, your job a
few years from now
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different than
today."

-Milt Dossin

Schwartz: What things should an actuary do if concerned about becoming unemployed? Suppose it actually happens; what's their smartest course of action?

Cho: The actuary should be proactive. If they can foresee it coming, it's important to make themselves marketable and keep their skills current. Keep evolving. Become as well rounded as possible. Or develop an expertise in a specific field. If it does happen, the actuary should rely on a) recruiter(s) with whom they have established relationships and b) personal/professional contacts. Actuaries should also consider advanced degrees or other designations (such as MBA and CFA).

Milkint: No one is indispensable or irreplaceable. They'll be in demand especially if they have done a quality job on each project and their technical skills are state of the art. It's important how they see themselves. If you see yourself as a business person, don't be concerned. Again, emphasize the value you've added to projects. You need a strong network, including recruiters. Don't be afraid to use recruiters even if you're not actively looking. And you can use recruiters as a sounding board, a resource. Use your past colleagues on previous jobs, use actuaries you meet in other professional circles, to build networks. You don't want to have to

cold call someone: "Hi, I'm Jane Smith, and I need your help..." If you do lose your position, you need to explore the job market through a multifaceted approach. My caution is not to get crazy; don't oversaturate the market with news that you're looking. With the demand we have for actuaries today, if you lose a job this week, we can get you another next week!

Possin: It's important to keep your résumé up to date. Jobs open and close all the time. Looking at reinsurers, for example, many of them from ten years ago don't exist today. There's been tremendous consolidation. You have to recognize that even if you stay with the same employer, your job a few years from now may be quite different than today. The world is constantly changing and the employer you start with may not be the one you retire from. So, my advice is, keep up your contacts, and use recruiters. If you are laid off, though, don't use too many recruiters.

Milkint: Have a plan for your career. Your career should not be at the whim of an employer. Your plan can include some short-term objectives and some long-term goals. How you build your résumé is more up to you than it seems. Have a contingency plan in case your current job ends. And pick your recruiters wisely.

Cho: These are all good points. My advice is to have an overall, broader approach. Your career should not be defined as stages but as a work in progress.

Schwartz: Are there any types of actuaries that face special challenges in getting hired or promoted? Specifically, women actuaries, actuaries with minority backgrounds, and actuaries with physical handicaps? Is there a glass ceiling for these actuaries?

Dossin: Here are some interesting statistics on women actuaries. If you look at the 1991-1995 period, women getting their Associate or Fellow designations were about 27 percent of the total. For 1996 to the present, it's 34 percent. The percent is growing, and that's true for previous periods as well.

Milkint: It's great to see more women in the field.

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Reserves Papers Focus on Changing Environment

Papers to be Presented at 2001 CLRS

by Jon W. Michelson, 2001 Reserves Call Paper Program Chairperson

The landscape for valuing insurance liabilities continues to change rapidly. Financial services reform, the NAIC codification of statutory accounting, and fair value accounting are only a few of the events influencing this change. This changing reserving environment is the subject of the CAS Committee on Reserves' 2001 Call for Papers. The papers submitted in response are now undergoing finishing touches in preparation for their publication and presentation in September, at the New Orleans Casualty Loss Reserve Seminar (CLRS).

The changing claim environment is a critical area for reserving actuaries. Three papers deal with this subject in different ways. One paper deals with the same type of development-pattern changes addressed almost 25 years ago by Berquist and Sherman, but presents new techniques for handling such situations. A second paper describes numerous types of claims department initiatives, reviews their impact from actuarial and claims personnel perspectives, and presents some adjustments to traditional actuarial techniques when such initiatives are implemented. Still another discusses the importance of regular and ongoing interaction between casualty actuaries and claim department personnel. Such interaction would include not only the pre-reservereview interviews, but also the development of tools and diagnostics that can benefit both the actuary and claims department management.

Several papers deal with approaches and product lines with which many actuaries are relatively unfamiliar. Using bond insurance as an example, one paper shows how some property and casualty insurance products can be priced and reserved using techniques from life insurance and the capital markets. Another provides an actuarial primer on construction defects coverage. The paper includes background information, thoughts on current trends, and items that should be considered in actuarial analyses of construction defect data. Financial guaranty products are the focus of yet another call paper, which describes types of financial guaranty products, current market characteristics, and reserving procedures.

One author discusses the need for an estimated loss reserve range rather than a point estimate and describes an approach incorporating a random fluctuation component within a more traditional actuarial technique to yield a distribution of loss reserve results.

Two papers deal with the workers compensation line. One presents and applies a model for projecting losses based on the number and average size of open claims, and then discusses how California-specific assumptions can be input into the model. The second paper focuses on the distorting impact that catastrophic workers compensation claims can have on reserve projections and introduces techniques for eliminating that distortion.

One author presents a dynamic method to estimate fair value insurance liabilities based on a stochastic model of individual losses. The paper makes comparisons with the proposed method and existing methods.

Papers will be included in the CAS 2001 Fall *Forum* and will be available on the CAS Web Site under "Publications."

Authors are vying for their share of \$2,500 in prize money to be announced and awarded at the opening session of the CLRS on Monday morning, September 10.

AERF Awards Grants

The Actuarial Education and Research Fund (AERF), affiliated with The Actuarial Foundation, has awarded three grants in conjunction with its 2001 Individual Grants Competition.

- Some Nonlinear Time Series Models for Actuarial Use—Wai Sum Chan and Albert C. S. Wong, University of Hong Kong, have been awarded a grant to study advanced nonlinear time series techniques that might be useful in building stochastic models for pricing and reserving. The techniques will be illustrated so that they are applicable to practicing actuaries.
- The Bayesian Implementation and Analysis of Various Chain Ladder Models Using Markov Chain Monte Carlo Simulation Methods via WinBUGS—David Scollnik, University of Calgary, will examine how a number of existing and new models for outstanding liabilities (i.e., loss development triangle models) can be implemented in accordance with the principles of Bayesian statistics using Markov Chain Monte Carlo simulation methods via the WinBUGS software program.
- Calculating Insurance Premiums Using Dependent Risk Models and Catastrophe Databases—Thierry Duchesne, University of Toronto, and Etienne Marceau and Helene Cossette, Laval University, will study the calculation of insurance premiums using dependent risk models and catastrophe databases. The purpose of this project is to derive systematic methods for calculating insurance premiums when natural disasters induce dependence in the risks. The researchers plan to develop individual and collective risk models, incorporating simulation results and catastrophe archive data. The Actuarial Education and Research Fund and the Casualty Actuarial Society are jointly funding this project.

Academic Relations Committee Activates E-mail List

To facilitate sharing ideas and disseminating information among members of the academic community and practitioners, the Committee on Academic Relations has activated an e-mail distribution list, designed to serve as a forum for discussing issues related to actuarial education. The e-mail distribution list will be a vehicle for connecting individuals in the academic community with each other and with members of the actuarial profession.

A joint committee of the Casualty Actuarial Society, Canadian Institute of Actuaries, and the Society of Actuaries, the Committee on Academic Relations encourages and facilitates the evolving relationship between the actuarial profession and the academic community in order to achieve partnership on key initiatives.

The Committee is currently concentrating on defining the aspects of the relationship between academia and the profession in five areas, including actuarial education, actuarial research, actuarial work, professional activities, and communication. Individuals are encouraged to join the e-mail discussion list to share their thoughts and ideas on these topics. To join the e-mail list, visit the Academic Community section of the CAS Web Site at www.casact.org/academ/index.htm and click on "Academic Relations E-mail List."

25 Years Ago in The Actuarial Review

by Walter C. Wright

A brief article, in its entirety:

"Bet You Didn't Know

That the youngest actuarial student passed Part I at the age of 14...with a score of 10. The young man, now 15, is Carl Woll, son of Carol and **Richard Woll**, F.C.A.S. (Utica Mutual). He has been accepted at the University of Rochester as a Wilson Scholar majoring in mathematics, physics, and chemistry. Apparently he is not taking any chances and is covering all the bases.

It has not been possible to confirm his level of interest in the actuarial discipline (beyond Part I, that is), but the decision is still to be made. His father is expected to counsel him well in this regard."

We don't know what Richard told his son, but after Carl graduated from the University of Rochester, with his triple major, he took an engineering job with United Technologies Corporation. During the course of his career he obtained a masters degree in computer science and a masters rating in chess, as well as a wife (Ph.D. in chemistry) and three children. He recently plunged full time into a Ph.D. program in physics at the University of Washington. Congratulations, Carl, on your accomplishments.

The following, from an article by **Chuck McClenahan**, may be of interest to all of us old-timers who took part in the technologic leap to pocket calculators:

"I have, in my department, a rotary calculator. This calculator is every bit as accurate as it was when it came off the assembly line in the early '60's. If I manage to push the right combination of the hundred-plus buttons and wait for a short time, I am rewarded with an answer which is correct to the sixteenth place. All in all, this calculator is an amazing machine. Yet, none of my actuarial students will use the damn thing.

'It's too slow,' they say, or 'it's obsolete.' They all want new, fast electronic calculators with increased capabilities to match their own. And, as much as I might miss that big old rotary (a twin of the one on which I calculated my first loss ratio) my desk too sports a pocket-sized electronic. This is as it should be. Providing actuaries with up-to-date equipment increases their value. God bless you, Texas Instruments."

(This editor used to enjoy dividing by zero on the mechanical calculator used by branch office underwriting staff, and letting the machine whirl away.)

Travel Time From page 8

many sittings the candidate actually used to pass Parts 1 and 2, and regardless of whether the candidate actually sat for exams during each test period

from Spring 1990 through Fall 1995.

If the Committee is able to obtain the appropriate data, future studies will measure travel time based on the number of times that an individual candidate actually sat for an exam.

The CAS Education Policy Commit-

tee is reviewing other measures of travel time. Anyone who would like to provide feedback to the committee on this issue can send them to Tom Downey at the CAS Office, tdowney@casact.org.

State of the Market From page 16

Dossin: To take this a step farther, from my database of actuaries, and this includes students, women are about 30 percent, men 70 percent. However, looking at actuaries I've actually placed, women have been about 25 percent, men 75 percent. My conclusion, and this is partly anecdotal, is that men have a higher propensity to change jobs.

Milkint: It's my experience also that women actuaries tend to be more loyal to their employer. It's an evolution for females to be executives. So far as women, minority, and physically handicapped actuaries go, they have a tremendous opportunity. Many companies want diversity in their workforces. They will specifically ask us for a slate of candidates with diverse backgrounds. There's no better time for these actuaries than now.

Cho: No, we see no glass ceiling within the actuarial career path. Furthermore, unlike what I've heard about professions such as accounting and engineering, there is little, if any, disparity in income between women, men, minorities, or the disabled in the actuarial profession. Professional progress is based mostly on the individual's dayto-day performance as well as other measurable performance standards such as exam progress. However, in regard to being promoted into nonactuarial senior management roles, a type of "glass ceiling" exists for all actuaries as they climb further up the corporate ladder. Although we see this changing very slowly, there are still very few actuaries who are considered for executive general management positions.

Milkint: If you've got talent and creativity, you are wanted. We have not seen a glass ceiling.

Dossin: We also do not see a glass ceiling. There is no overt discrimination.

Milkint: If an employer comes to us with a request for candidates from diverse backgrounds, we have to honor that request.

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Brainstorms

Stock Companies, Mutuals, and Risk Measures

by Stephen W. Philbrick

'm happy to see that all of the *Proceedings* of the CAS (since 1914) are now available online. I was fortunate to start my career with The Hartford, which had a complete set of *Proceedings* in its library. In one of my many breaks from studying the *Syllabus*, I would often peruse an old volume to see how our predecessors developed the profession. I noticed that we used to make more of an issue about the distinction between stock companies and mutuals.

Expense loadings were different for the two classes of companies. But I recall few other references to stocks versus mutuals in the quarter century I've been in the business. That changed last week, when two people mentioned in it two different contexts.

At the DFA meeting in Boston, **Glenn Meyers** made the tongue-incheek suggestion that of two com-

"...I recall few other references to stocks versus mutuals in the quarter century I've been in the business. That changed last week...."

peting algorithms for capital allocation, perhaps one would appeal to stock companies and the other to mutual companies.

Shortly thereafter, I was startled to hear another stock versus mutual comparison. Several of us in my office were discussing measures of risk, such as variance, semi-variance, expected policyholder deficit, and the newest measure, tail value at risk (TVaR). We were trying to decide which measure was best. **John Burkett** suggested that perhaps measures such as variance are best suited for stock companies, and measures such as TVaR are best suited for mutual companies. He elaborated by saying that stock companies tend to be more interested in the variability of their entire results because they are concerned with quarterly earnings reports to stockholders. Mutual companies are free from the pressure of quarterly results, but might be more concerned about threats to capital since they are less able to raise capital in the marketplace.

I'm still not convinced that the demarcation between the business planning of stocks and mutuals is that dramatic, but I wonder if the distinction could be viewed another way. Companies have to plan over different time horizons. For example, short-term planning must be done to decide whether to write a particular piece of business at a particular price. Long-term planning is needed to decide what lines of business the company will write. Perhaps the underwriting decision on a specific risk is based more on the potential impact on short-term earnings, so variance matters more. Perhaps decisions about the capitalization level of the company are inherently more long term, and a risk measure emphasizing the tail is more relevant.

The theoretical underpinnings of the tail measures of risk seem persuasive from a mathematical point of view. But it is difficult to explain to company management that the most extreme 1 percent of the distribution matters more than the typically experienced results. The extreme tail events may be most important to regulators and a few policyholders concerned about the company's ability to pay claims, but the variability of the rest of the distribution often matters more to the owners of the firm.

Claims Data

by John P. Robertson

Christopher Yaure reports that he was reviewing claims data on five 12-month policies. After he had completed his initial review, he was informed that the claim count on one policy was incorrect, and he was supplied with a corrected count. In the corrected claim count data, the mode was exactly the same as in the original data, the mean was exactly 1 larger than in the original data, the variance was exactly 2 larger, and the median was exactly 3 larger. Additionally, the final counts satisfied what Christopher calls the "Rule of 3s":

- The number of claims for each policy was a multiple of 3.
- The ratio of high to low number of claims was 3.
- Exactly 3 policies had an average of more than 3 claims per month. What was the final claims frequency distribution?

Self-Referential Aptitude Test

For space reasons, we will not repeat the puzzlement from the last issue. The solution is: 1. D 2. A 3. D 4. B 5. E 6. D 7. D 8. E 9. D 10. A 11. B 12. A 13. D 14. B 15. A 16. D 17. B 18. A 19. B 20. E

This can be derived in an orderly fashion from the clues given.

Solutions were submitted by Oscar Chow, Francis J. Dooley, John Hinton, Ruth A. Howald, Daniel B. Isaac, E. Nicholl Marshall, Thomas Passante, Stephen Pulis, Daniel G. Roth, Jean-Denis Roy, Jason R. Santos, Mark R. Shapland, David V. Uhland, Gary G. Venter, Christopher H. Yaure, and Joshua A. Youdovin.

State of the Market From page 19

Cho: It's an exception to the rule when an employer specifically requests minority candidates. Most employers simply seek highly qualified candidates. For both female and male actuaries, there is a growing trend among employers to create a work environment that offers more of a work-life balance. This includes flexible hours and telecommuting. More employers use this as a selling tool in the recruitment of actuaries. Thus, career advancement opportunities depend more on individual performance, professional qualifications and personal choices. The willingness to travel and to work extra hours can make the difference in receiving promotions.

"When a company reaches out with a human touch, when it shows there's a corporate heart, it goes a long way toward attracting talent and keeping them."

-Margaret Resce Milkint

Milkint: The actuarial world is open. It's a great time to be an actuary if you're a woman, minority, or physically handicapped. There's nothing holding you back. The key is to develop a strong track record of success. As the female on this roundtable discussion, I have to get on my soap box for a minute. Telecommuting attracts female candidates. It greatly assists in maintaining a work/family balance, for women with children. Some organizations even offer benefits for working fathers! We see a more sensitive corporate America. When a company

reaches out with a human touch, when it shows there's a corporate heart, it goes a long way toward attracting talent and keeping them.

Dossin: As long as we have a shortage of qualified actuaries, companies will bend over backwards to attract and retain people.

Milkint: It's a win-win. If it's good for the person, then it's good for the company. It will be rewarded with better performance. There's a three-fold return to the corporation.

Cho: Speaking of actuaries with physical handicaps, we recently placed an actuary who was sight impaired. The employer bought them a computer that literally talks.

Milkint: People with physical handicaps are becoming more mainstream in the workplace. There's more openness and willingness to hire them as actuaries. Many schools though, push them towards computer programming.

Dossin: Having a physical handicap can be a disadvantage. It can be a major chore getting to work. Most employers overlook this though.

If you have any questions or comments on this article, please feel free to send them to Elizabeth Smith at esmith@casact.org.

In Memoriam

Tracey Lynn Matthew

(ACAS 1995) March 28, 2001

Lewis H. Roberts

(FCAS 1958) April 22, 2001