The Newsletter

of the Society

of Actuaries

Vol. 30, No. 6

June 1996

The Actuary

Our love affair with stocks: Are we about to be jilted?

by Allen Elstein

The time was 1995. The Dow Jones had just reached 4700. A number of technical analysts had gotten out their super calculators and determined that the stock market had moved too far, too fast. A minimum of a 10% correction was needed to wring out the excess.

Fast forward to February 1996. A legendary mutual fund manager troops out that prediction and points out that anyone who stayed out of the market waiting for a 10% correction would have missed out on the run up between 4700 to 5600. Score one for the pros that say that the market is too unpredictable; the long-term investor should always be fully invested.

The argument about the invincibility of stocks is the same one we have heard for home ownership and, before that, for investing in rare older United States stamps: mainly, that as long-term investments, good gains are virtually guaranteed. Certainly, the stock performance and the U.S. economy have outlived most of the doomsday books about the coming depression or the coming mutual fund crisis — or have they?

It can be argued that we are in an era of stock speculation. Speculation does not mean that prices go down, or that prices will not dramatically go up even more. After the price of a Boston condominium doubled in four short years, the experts pointed out that prices were so high that renting and waiting for a fall in prices was the obvious strategy. The public, flush with money from two family incomes and the Massachusetts miracle, did not listen. Prices went up another 30%. The $70,000 condominium was now worth $180,000. Unfortunately, two years later, it was worth $100,000.

One does not have to look to houses or rare stamps, where at one time investors outnumbered collectors. The recent history of the Japanese stock market gives some clues. Japan was a country with a high savings rate. Where could the money go? Price to earnings values and price to book values soared. When outsiders questioned this in the 1980s, the Japanese experts stated that Japanese accounting was very conservative, that real value was embedded in the prices, and that in any case, a new paradigm was in effect. Old measures were of no value. The Japanese stock market crashed, nonetheless. One also does not have to look to Japan. The mutual fund industry of 1968-1972 had money pouring in much like today. There were the nifty fifty, growth stocks, and even the go-go funds. The result was huge run-ups that went on much further than the doomsayers thought possible. Unfortunately, when the crash came, many latecomers to mutual funds had lost 40%. Dollar averaging, while it worked for some, failed for others and was abandoned by many, often at the

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Inside this issue

The Actuary

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Bob McKay
Editor responsible for this issue

Editor
Michael J. Cowell, FSA
usunm8yl@ibmmail.com
Associate Editors
Robert H. Dobson, FSA
bob.dobson@milliman.com
William C. Cutlip, FSA
76443.1471@compuserve.com
Robert J. McKay, FSA
Robert D. Shapiro, FSA
73231.102@compuserve.com
Marc Twinney, FSA
Assistant Editors
Sue A. Collins, FSA
102714.2361@compuserve.com
Curtis E. Huntington, FSA
chunt@math.lsa.umich.edu
J. Bruce MacDonald, FSA
jbmlmac@ac.dal.ca
Puzzle Editors
Louise Thiessen, FSA
L.THIESSEN@access.awinc.com
Dan Reichert
Dreicher@colybrand.com
Society Staff Contacts
847/706-3500
Cecilia Green, APR, Staff Editor
76041.2773@compuserve.com
Peter G. Potamianos, Ph.D., Managing Editor
102234.2542@compuserve.com
Linda M. Delgadillo, CAE
Director of Communications
102234.2543@compuserve.com

Correspondence should be addressed to
The Actuary
Society of Actuaries
475 North Martingale Road, Suite 800
Schaumburg, IL 60173-2226

The Actuary is published monthly (except July and August).
Sam Gutterman, FSA, President
Robert W. Stein, FSA, Vice President
William Carroll, FSA, Secretary and Treasurer
Robert L. Brown, FSA, Director of Publications

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EDITORIAL

Vote early
(but don't vote often)

by Robert McKay

Even David Letterman was baffled. He couldn't come up with 10 reasons why Fellows might not vote in the upcoming Society of Actuaries elections. So, I decided to investigate by conducting a completely non-random, non-scientific poll of actuaries. I found out why Letterman was unsuccessful—there are only 3, not 10, reasons why some Fellows fail to vote in SOA elections.

The results of my extensive research found that actuaries' voting habits can be explained in the form of a multiple choice question.

QUESTION—Do you intend to vote in this year's SOA elections?

A. No. I don't know any of the candidates or what they stand for.
B. No. I feel that the election is irrelevant to me because I passed all of my exams years ago.
C. No. I can never figure out whether the green envelope is to be sealed first or second, so I never send in my ballot.
D. No. For all of the above reasons.
E. Yes, I will vote in the elections. I intend to have my say in the future of the actuarial profession.

(See page 19 for the correct answer.)

The supplement to this issue of *The Actuary* should eliminate answer A, the first excuse for not voting. The questions and answers to the candidates for president are designed to help you differentiate among the three individuals. All three have spent many years in various volunteer and elected roles working for the Society's membership. They have all contributed significantly to the profession but have differing views on the issues, concerns, and visions of the profession. We hope that their answers, plus their formal statements in the ballot materials, will help you decide which one should lead our profession in the year 1997-98.

In an issue of *The Actuary* in late 1998 or early 1999, I'll report back to the membership on how the winning candidate met his or her promises on a grading scale of 0 to 10 (unless readers have a more appropriate measure to suggest.)

If the answers to the interview questions help you decide among the candidates, but you still feel the election is not relevant to you, I suggest that you reread the three answers to question 8, "What is the greatest threat to the profession?" If this doesn't concern you for yourself, it should concern you for the following generations of actuaries (if there are any).

And if you are one of those voting-challenged actuaries who, like me, occasionally seals the wrong voting envelope first, I have a special dispensation from the Elections Committee. Your ballot will be counted, even if

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First ballot return rates up; 2nd ballots due August 9

A 34% return of first ballots from SOA Fellows tops the rates of return for the past five years. This is the highest percentage of FSAs voting on the first ballot for officers and Board members since 1990, when the rate was 36.5%. It was 3.6% above last year's rate of 30.4%

Second ballots will be mailed July 9 to all Fellows. If you are a Fellow and do not receive this ballot by July 19, please call Lois Chinnock, 847/706-3524. Ballots must be returned to the SOA office by August 9.

OPINION

How's your technology?

by Sam Gutterman
1995-96 SOA President

The internet and the World Wide Web are this year's hottest topics. It has been no different at the Society of Actuaries. We've spent significant resources deciding what the SOA should be doing with the Internet and the whole area of technology. By the time you read this, we will have established a web site at SOA.org. Our Technology Task Force has also been exploring electronic publishing and is studying the best way to deliver an easy-to-use and powerful communications vehicle to enhance Actuaries Online.

But my main message is to urge you to get your personal technology act together, if you haven't already done so. Whether you are a "techie" or not, technology will continue to affect you. In its most obvious form, think of what word processing and spreadsheets have done to your work and that of your staff. What a revolution has occurred in only a decade with these simple tools. Just five years ago, I recall an actuary saying that spreadsheets were useless for actuarial work. Now, that actuary does all his modeling on spreadsheets.

Communications have been especially affected. In my travels to actuarial organizations outside North America, I found that up to a half of their actuarial members use the Internet. So, I recommend that you not wait for your employer to subsidize your efforts to stay up-to-date. According to a survey of 150 executives from large U.S. firms, 61% said knowing how to use the "Net" would make them more marketable in their fields, and 76% said Internet abilities will help them advance professionally five years from now.

Personal computing and electronic communications are changing the way we do business and the way we approach problem solving. One reference claims we are in the middle of a period of profound change, equivalent to a combination of the industrial revolution and printing press revolution, a period with ramifications I can only begin to guess. Some implications of this change to actuaries include:

- Significant changes in our approach to research
- Internationalization of the profession and the industries we serve
- Internationalization of accounting practices
- Alternative methods of delivering continuing education
- Easy access to national and international research and papers

So, get with it, or get passed by. If you have ideas on how the Society of Actuaries can more effectively help you technologically, I would appreciate hearing from you at 73462.27@compuserve.com or let any of the SOA staff know at their e-mail addresses listed on the back inside cover of *Yearbook*, and in the Actuaries Online directory.

Vote early (continued from page 2)

you get the envelopes mixed up, as long as you sign the outside envelope.

So, there you have it—there are no longer any valid reasons to toss out the Society's elections material. Vote early—but don't vote often.

On second thought, if you are a member of one or more Sections—vote early and vote often.

Editor's Note: *This is the first issue [of] our new associate editor, Bob McKay, who manages the Canadian pension and benefits practice at Hewitt Associates in Toronto, where he is a principal. He succeeds Mike McGuinness, with Eckler Partners in Don Mills, Ontario, who began his second stint as associate editor with the June 1992 issue, previously serving from 1979-83. McGuinness was well versed on professional issues as a past SOA vice president. He filled a special role in keeping members informed of education and examination issues and expressing the Canadian perspective on pension and other issues. We thank him for his long service and for his commitment to balanced editorial space to serve members, no matter where they practice.*

McKay will carry on in the same tradition. He was on the SOA Board of Governors from 1992-94 and also spent 14 years on the E&E Committee. He is an experienced editor, having edited the Canadian Handbook of Flexible Benefits *for John Wiley and Sons.*

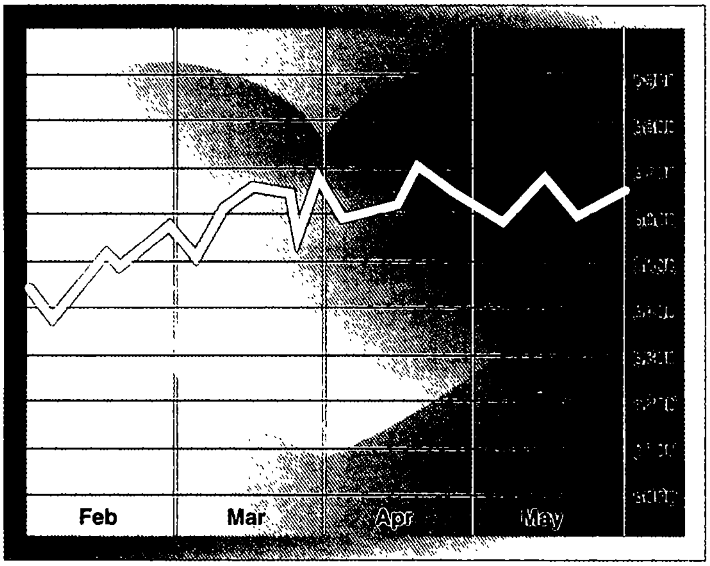
Our love affair with stocks (continued from page 1)

wrong time. Despite good future promise, growth stocks had become too expensive for the pyramid scheme to continue.

It could be argued that the 1968-1972 period was an anomaly that would be buried if a long-term perspective were taken. But were you aware that the 870 level that the Dow reached in 1964 was the same level seen in 1981? To be sure, stock investors who put their money into the market in 1964 and left it there did well, but their long run was 20 years, even when dividends are considered.

What does all of this mean in today's world? There have been a lot of paper winners in the stock and mutual fund markets. Many believe that they have found the Holy Grail. Never mind that a widget factory is only worth the widgets it sells; its stock value has gone up 30%. More generally, did the underlying value of American business really go up last year? Did the decline in interest rates really make future stock dividends so much more valuable? Did downsizing and reengineering really get rid of overpaid employees with the wrong skills and seamlessly substitute a more cost-efficient combination of trained workers and technology? Did the accountants see real gains or a fronting of profits when assets — human and business — were sold and recombined?

Stocks are a hot commodity. Insurance companies are getting into the act by rapidly adding mutual funds to their products, often managed by third parties with little ongoing oversight by the company. Mutual fund prospectuses give broad powers to the fund. Fund managers often go out on the risk curve to make the "top quartile." Who can blame them when recognition and bonuses are based on very recent relative performance. Mutual fund expense levels are going up when economies of scale suggest they should go down. Rollover ratios are often over 100%, where formerly they were under 50%. Some small company funds are so large that they cannot effectively invest in small companies. What would a visitor from another planet say?



Stocks are being touted as a major part of the solution to Social Security. However, no one is pointing out that with the growth of 401(k)s and the decline of defined pension plans, we are already seeing a shift away from retirement guarantees. The fortunes of retirees could all be riding the same roller coaster at the same time if the retirement strategy of many retirees is concentrated in the same set of volatile assets. Betting the ranch takes on a whole new meaning.

The long run needs to be considered. It takes no genius to recognize that if Social Security is partially privatized and $400 billion of extra cash is chasing the same stocks as now, stock prices in the early years of such a program will have a strong upward bias, as has happened in part in Chile. But at some point, the world stabilizes. In fixing the Social Security underfunding, it is important that we not forget that Social Security guarantees a definite amount of income. It is not the time to place too heavy a bet on stocks that are today's darlings but were so cursed not so long ago that half of a generation of stock brokers left the profession. It may be better to moderately reduce Social Security's promises than to aggressively try to make up the shortfall.

As George Santanya stated, "Those who cannot remember the past are condemned to repeat it." However, the lessons of history, under the myopic circumstances of living one day at a time, are difficult to see. Are we in a period where it is wise to "look before you leap," or are we in a period where "the one who hesitates is lost"? It's hard to tell. And if one could, maybe tomorrow would be different. In such a world, where growth is more glamourous than slow and steady, it may be time for actuaries to get back to the basics of managing risk and testing the outer limits of plausible events.

Allen Elstein is a life and health actuary at the Department of Insurance, State of Connecticut, Hartford. The views expressed in this article are solely those of the author and do not represent the express or implied opinion of the Connecticut Insurance Department.

New ideas emerge from convening of Finance Practice Area

by Yuan Chang, SOA Vice President
and Judy Strachan, SOA Education Actuary

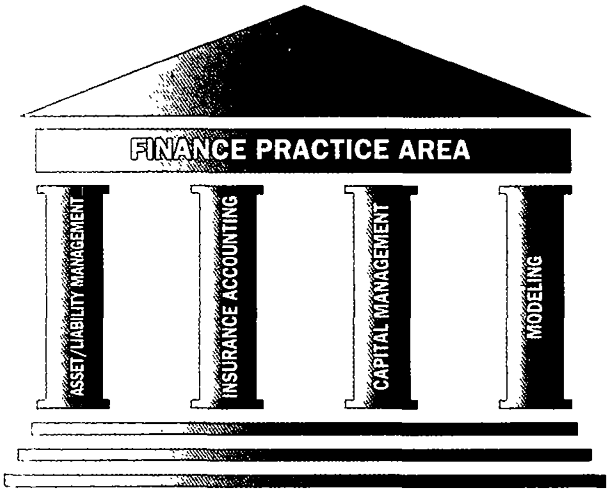
On April 10, 1996, the Financial, Investment Management and Emerging Practices Practice Area committee members, task force members, and members of related Section councils convened near Chicago. The Practice Education and Professional Development committees met separately in the morning. The afternoon joint meeting with all practice area participants was an opportunity to exchange ideas with others active in this area. The Practice Advancement Committee met afterward for follow-up discussions of the issues. The exchange of information from these sessions — the first of its kind — was invaluable in increasing coordination and stimulating new ideas.

One result of the discussions was the conclusion that the name of the practice area was too long. We agreed on a new name: the Finance Practice Area. Strategic issues and initiatives remain the same. The most important ones were discussed during the meetings and in this article in the following sections. They will continue to provide a focus for practice area activities.

Support of emerging practice areas

Many groups are working on emerging practice issues, including the Finance Practice Area, the Actuary of the Future Section and the SOA Foundation. Two Finance Practice Area task forces, Banking and Financial Institutions and Capital Projects, are investigating ways actuaries can contribute in these fields.

The October 1988 Actuary of the Future Report to the Board recommended several actions. As a result, The Actuary of the Future Section was formed. Joe Rafson, the Actuary of the Future liaison to the Finance Practice area, gave an overview of SOA activities. These activities include expanding the focus of SOA seminars and annual meeting sessions to cover topics of interest to actuaries in nontraditional careers. We have been actively contacting employment recruiters, both actuarial and nonactuarial, seeking information about what skills are desired of candidates for nonactuarial financial positions. The results will eventually be used to develop a marketing plan for the profession. New ways to use education and research to expand the role of the actuary are also being explored.



The practice area resolves issues requiring the allocation of SOA staff or budget resources. Phil Polkinghorn coordinates the practice area activities, working with Joe Rafson and other interested parties to develop a plan of action. Please call Phil Polkinghorn at 804/948-5979 with any ideas.

Asset/liability management principles

The effort to develop actuarial principles began in the 1980s with the establishment of the Actuarial Standards Board. The role of the Society of Actuaries and the Casualty Actuarial Society is to articulate the basic tenets that underlay actuarial science. A set of general principles was published in the 1992 *Transactions of the Society of Actuaries* (Vol XLIV, pp. 565-628). A set of principles regarding provisions for life risks was presented to the SOA Board in October 1995. The CAS and the SOA are beginning discussions on developing a set of general principles that will apply to both life and casualty.

To stimulate discussions, Cindy Forbes and Yuan Chang independently developed sample drafts of ALM principles and distributed them at the meeting. After a lively and enlightening discussion, we created an ALM Principles Task Force, chaired by Mike Hughes. Anyone interested in volunteering for this task force is urged to contact him at 312/879-2122.

Insurance accounting

Many believe that statutory accounting, tax accounting, and even GAAP do not provide the best benchmarks for evaluating an ongoing operation's financial position. Solutions, such as market value accounting, focus even more on the terminal value of a company. Accounting systems, by looking at the asset and liability sides of the balance sheet separately, are inadequate models for measuring progress toward goals such as maximizing return or controlling risks.

Activities addressing this issue include the *Dynamic Financial Conditional Analysis Handbook* published in 1995, a seminar on DFCA in October 1995, and sessions on

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New ideas emerge (continued from page 5)

DFCA at SOA meetings. Other activities include a call for papers on the fair value of liabilities and a related seminar in December 1995 at New York University, where these papers were presented. More than 120 people attended the seminar, including members of the Financial Accounting Standards Board (FASB). Proceedings from the seminar will be published as a text by Irwin Publishing in late 1996. A follow-up session will be held at the Marco Island spring meeting (Session 35, May 30, 1996). Many issues remain to be resolved in this area. We need help to form a consensus, so please call with your ideas.

Capital management

The capital management strategic initiative is not fully defined. Companies are beginning to look at and use their capital with new intensity and insight. Because skill at managing capital is needed for companies in all industries, this area holds promise for expanding actuarial roles. We need your help to formulate the issues and the activities.

Modeling

Modeling is becoming an increasingly important part of an actuary's work. However, as a profession, we tend to use a few tried and true approaches as universal tools. We need to reexamine both our modeling process and its application.

The target for the first modeling symposium is fall 1996. The goal of the symposium is to provide members with a broader perspective on models. We plan to invite speakers working in areas such as neural networks and banks. Future conferences may include presentations of invited papers as well as calls for papers. We need your help in identifying the issues a modeling symposium should address.

Delivery of new exam materials to the general membership

Many changes have been made in the study material for E&E recently. Significant knowledge of finance and investments is needed to become an ASA, much of it overlapping with material on the Certified Financial Analyst (CFA) examinations. In addition, since 1992, two new tracks have been added: a finance track and an investment track. Many members of the SOA do not know about the changes in the E&E system and are unfamiliar with the new syllabus material.

The professional development committee held sessions on the new syllabus material at all recent SOA meetings. In fall 1995, the committee experimented with a new format for continuing education. A course called "Introduction to Investments" was offered one evening a week for six weeks in Hartford, Conn. The committee is considering expanding the concept to other cities and other topics. If you have ideas about how to make the new material accessible to the membership, please contact Marty Klein, the chair of the Professional Development Committee, at 212/989-5488.

Stimulating new ideas

Convening the practice area was successful. We were able to discuss all the varied activities we are undertaking to improve our practice and to promote the profession. The discussion generated many new ideas and suggestions. We hope this article will have the same effect. I think you will agree that these are important issues for all of us, so let us hear from you.

Yuan Chang is a vice president at Metropolitan Life Insurance Company. He can be reached at 212/578-3228.

Judy Strachan is an education actuary with the Society of Actuaries. She can be reached at 847/706-3576 or at 74507.2236@compuserve.com.

Attention job seekers

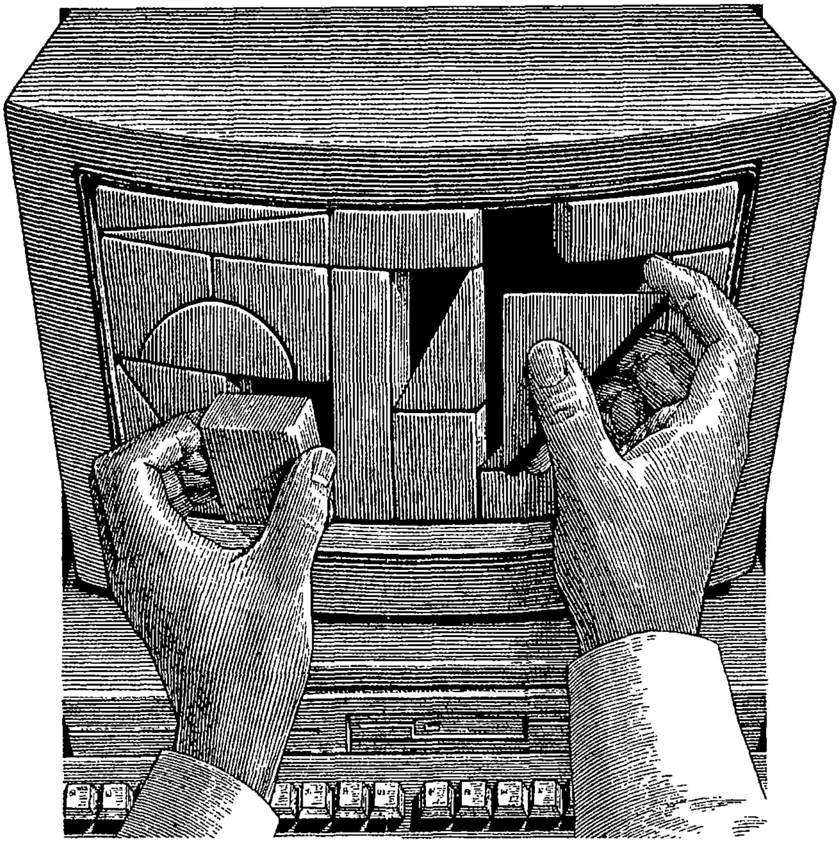
For job hunters who've ever considered filing a resume with the SOA's resume matching service, now is the time. Currently, the service is experiencing a resume shortfall, with more jobs than resumes to match them.

Unemployed members and students with at least 100 actuarial exam credits are welcome to use the service at no charge. Here's how it works. Employers submit applications listing qualifications for available positions. The SOA ombudsperson matches actuaries' resumés to the appropriate positions based on qualifications. Candidates are categorized by education, professional level, area of practice, and experience. It is then up to the employer to make any follow-up contacts.

To request a candidate application or an employer job listing application, contact Pat Holmberg, Education and Examination Ombudsperson, Society of Actuaries, 475 N. Martingale Road, Suite 800, Schaumburg, IL 60173-2226; phone: 847/706-3527, fax: 847/706-3599, e-mail: 76225,3424@compuserve.com, or in Actuaries Online in the Education and Examination message section.

Ad hoc group seeking modeling research questions

by Allan Brender



Building models is becoming an important component of actuarial practice. Some actuarial tasks that now require use of computer models include cash flow testing and dynamic solvency testing (known as dynamic financial condition analysis in the United States and dynamic capital adequacy testing in Canada). Some actuaries find models useful in pricing and in setting policyholder dividend scales. Asset/liability matching is usually done with heavy reliance on cash flow modeling.

The detail and sophistication found in an actuarial corporate model will depend on the purpose of the model and on the skill of the modeler. Although the use of models is growing rapidly, the actuarial profession has not yet taken an organized approach toward developing our skills in this area. Hopefully, this is about to change.

Individuals from the SOA's Committee on Knowledge Extension Research, the Finance Practice Area, and the Life Insurance Practice Area have formed an ad hoc group to investigate and stimulate research on modeling. The members are Allan Brender, Shane Chalke, Curtis Huntington, Roger Smith, and Irwin Vanderhoof. SOA staff members Warren Luckner and Judy Strachan provide support to the group.

To begin, the group wants to collect a list of modeling issues or questions that actuaries would like to have investigated. A key question is, "Can we expect one model to serve the needs of the profession?" The obvious answer is "no," but to a great extent, the actuarial profession has been built on the use of one model: the Asset Share. This model has been elaborated to include multiple decrements, which allows for modeling of disability and pensions. In recent years, the model has further been elaborated to include multiple scenarios for cash flow testing and option adjusted pricing.

The group has concluded that sponsoring regular symposia or conferences on modeling issues is desirable. Thus, it has asked Warren Luckner, SOA director of research; Steve Strommen; Barb Choyke, SOA director of continuing education; and Allan Brender to design the first one in late fall. The focus is to be on raising the questions, so the general format might include a few invited speakers, but will emphasize small group discussions. The event is intended to attract speakers and attendees from both the actuarial and non-actuarial communities and from all parts of the world. The objectives are to stimulate discussion and to motivate writing of papers for subsequent symposia or conferences, with the anticipation that ultimately the practice of actuarial science will be enhanced.

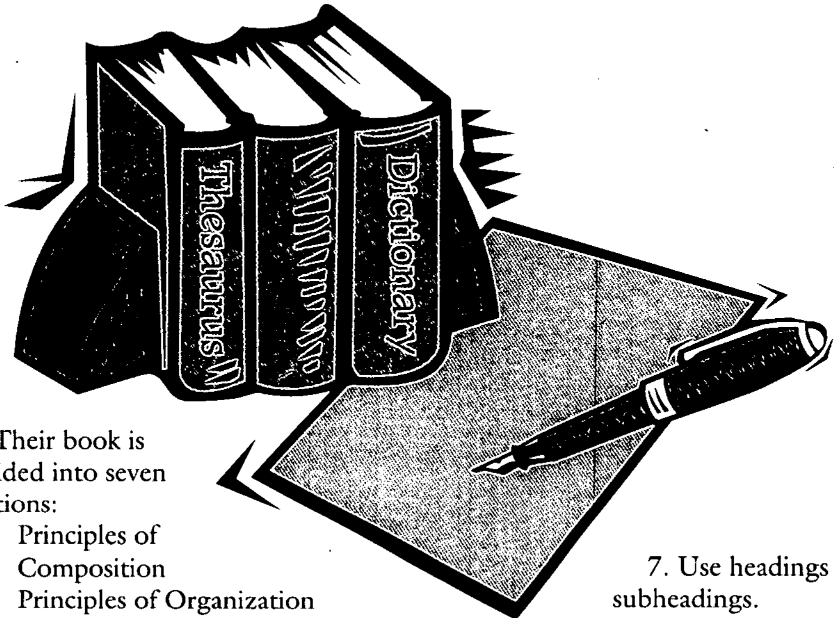
More details will be communicated as they are available. In the meantime, we welcome your suggestions for structure and content of the event and for keynote speakers. Please direct your suggestions to Warren Luckner at the SOA office: phone: 847/706-3572; e-mail: 73462.21@compuserve.com

Allan Brender is a principal with William A. Mercer, Ltd. in Toronto. His e-mail address is allan_brender@ mercer.ca

THE COMPLETE ACTUARY

Improving your business writing skills

by Alan Finkelstein



Compare the two sentences below:

(1) *To effect any change in telephone instrumentation or lines, a memorandum of justification should be submitted by the respective program telephone liaison or office manager to the supervisor of building management and planning.*

(2) *To add a phone line or make any other changes in your phone system, send your request to the supervisor of building management.*

The author of the first sentence may have intended to impress the reader, either because of his or her position, technical knowledge, or mastery of big words and fancy phrases. Unfortunately, his or her writing style is likely to confuse the reader, because of wordiness and sentence length. A better approach is to simplify the language, using words such as those in the second sentence and, if necessary, breaking up the sentence into smaller parts.

In the introduction to The *Elements of Business Writing* (Collier Books, 1991), authors Gary Blake and Robert W. Bly state, "All across the United States, several million business letters, memos, reports, manuals, proposals, brochures, press releases, and advertisements will be written today. Practically every one of them will contain errors. Many of those business documents will be wordy and disorganized. Some will be poorly punctuated, poorly subordinated, and filled with errors in grammar. Others will be vague, too abrupt, or simply slow to get to the point at all." The authors' stated purpose for writing this book is to help the reader "write better and faster."

Their book is divided into seven sections:

i. Principles of Composition
ii. Principles of Organization
iii. Principles of Wording and Phrasing
iv. Principles of Tone
v. Principles of Persuasion
vi. Principles of Punctuation, Grammar, Abbreviation, Capitalization and Spelling
vii. Principles of Format

While the entire book merits review, sections two and five stand out as critical to effective business writing. In Principles of Organization, the authors state, "Most business people are busy and will not read documents that do not hold their attention. To gain and keep your readers' attention, you'll need to put what they want to hear above what you want to say."

Their recommendations include:

1. Organize your material according to the way your reader thinks about the subject.
2. Organize your material logically.
3. Delete the warmup paragraph, if it does not add meaning to the main body of your work.
4. Use an executive summary.
5. Separate fact from opinion.
6. Delete unnecessary closings.
7. Use headings and subheadings.

The authors recommend dividing a business report into the following sections: executive summary, background, findings, conclusions, and recommendations. The executive summary is a short paragraph or section, preceding the main body and summarizing the major points of your document. It helps those who don't have time to read a lengthy document get a quick summary of the critical points. It also helps give added direction to those who do read the entire document, highlighting critical points. Your facts should be contained in the background and findings sections, and your conclusions and recommendations should be based on the opinions you've formed after considering the facts.

Dividing your document into sections helps the reader distinguish facts from opinions. Another chapter, "Principles of Persuasion," is particularly important in the business world. Quite often, the intent of a written communication (e.g., a report containing a set of recommendations) is to persuade, rather than inform. Written

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E&E CORNER

Catalog validity

Some candidates are confused about the need to satisfy the ASA or FSA educational requirements of a single valid catalog. We'd like to clarify the requirements and help eliminate the confusion.

The situation is straightforward for candidates who have not yet attained the ASA designation. All candidates must pass the prescribed Series 100 courses (155 credits), all four of the Series 200 Core courses (100 credits), and 45 elective credits from courses designated as eligible ASA electives (remaining Series 100 courses, including Intensive Seminars, designated CAS examinations, Fellowship courses at the 300-level only, and the Research Paper). Since August 1, 1995, candidates do not have the option of attaining Associateship by satisfying previous requirements.

Another change in requirements has affected a number of candidates pursuing the FSA designation. The Series 200 (Core) requirements were changed in May 1994. The most significant aspect of the change in Core requirements was the addition of Course 230, Principles of Asset/Liability Management. All 1994 and later catalogs require the candidate to pass Course 230 to attain Fellowship. To honor the published "vitality" of the 1993 catalog, the E&E Committee determined that candidates who passed Courses 200 and 210 prior to 1994 have the option of satisfying Core requirements without passing Course 230, as long as they complete all educational requirements prescribed in the 1993 catalog by the end of 1998. Candidates in the Finance and Investment tracks are expected to pass Course 230.

Course 230 is viewed as strengthening the candidate's foundation in investment topics. To encourage candidates to pass Course 230, when they could avoid it by satisfying the 1993 catalog requirements, an incentive has been introduced. Candidates writing under the 1993 catalog are restricted to obtaining their Fellowship elective credits through the Research Paper, CAS Parts 3B, 6 and 7, and courses numbered 300 and higher that are not needed to satisfy their specialty requirement (or otherwise restricted). Fellowship candidates satisfying a 1994 or later catalog by completing the enhanced Core requirements that include Course 230 have a broader range of elective options available to them. They can also use the Intensive Seminars on Applied Statistics and Risk Theory, Courses 161 and 165 on Demography and Graduation, respectively; and CAS Part 4B on Credibility Theory; and Loss Distributions for Fellowship elective credit.

Candidates with questions about available elective options should contact Pat Holmberg, E&E ombudsperson, at 847/706-3527; fax: 847/706-3599.

Research paper examination option

The SOA encourages research in actuarial science. It provides candidates with the opportunity to earn 30 elective credits toward Associateship or Fellowship by successfully completing a research paper in lieu of passing a traditional examination. The details are outlined starting on page 92 of the *Fall 1996 Catalog*. As of this May, the SOA had received 54 Research Paper proposals. Two papers are pending, and 11 have received credit.

Send requests for an application and information regarding the Research Paper option to:

Society of Actuaries
Education Department
Attn: Cherie Harrold
475 N. Martingale Road, Suite 800
Schaumburg, IL 60173-2226

Presently, the application fee is $50 and the research paper fee is $255. Application fee is non-refundable.

Notice to V-485 and V-595 students

An error appears in the *Fall 1996 Catalog* on pages 76 and 77. Course V-485, Advanced Portfolio Management, and Course V-595, Applied Asset/Liability Management, are both **required** courses for the Investment Track, not elective courses, as listed in the catalog.

November exam readings available

The following complete sets of *TSA*, *TSA Reports* and *RSA* required readings for the November exams are now available: I-343U, I-545, and P-562U — $5.00 each; F-385, G-522, I-440C, I-441U, and I-542 — $10.00 each. To purchase, call the SOA Study Note Department, 847/ 706-3525, or fill out the order form in the *Fall 1996 Catalog*.

Actuaries are good sports too, V— the 100th Boston Marathon

by Michael J. Cowell, Editor

About 12:14, runners shuffle toward the start. The starter's box is just beyond the Marathon Way sign.

April 15, 1996

The Patriot's Day holiday punctuated Boston's cold, damp early April with a bright, blustery morning. It was great for the Marathon. At 7:30 a.m., Rick Moore and I boarded one of the hundreds of school buses taking thousands of runners from Boston Common.

The trip to the village of Hopkinton, normally 45 minutes from Boston, took us two hours. We

The Kobrine family of actuaries meet inside Athlete's Village. Ron (center) is flanked by sons Eric (left) and Steve (right).

got stuck behind a bus that broke down on the narrow road into town. There, we joined another long line of runners trying to get into "Athletes' Village." The Boston Athletic Association (BAA) set this village up in the muddy sports field behind Hopkinton High School.

No sooner had we arrived when the loudspeakers blared for us to get into the starting line in the "corrals," separating us into 38 groups of 1,000 each according to our seeded times, with the fastest runners up front. Considering its size, the crowd was remarkably orderly. Never in its 280-year history had this small village of Hopkinton seen such an army of people, more than three times the record for runners in any of the 99 prior Boston Marathons.

The Actuarial Marathoner

In the mid-1980s, before AIDS/HIV research and NAIC Risk-Based Capital responsibilities took up all my spare time, I had the luxury of publishing *The Actuarial Marathoner (TAM)*, a quarterly journal of endurance sports for the actuarial profession. More than 300 actuaries worldwide received this journal; most of them had run one or more marathons.

Then, the central theme of many *TAM* articles was why actuaries should be so heavily over-represented in marathon competitions. After all, what is a marathon run, if not a three-to four-hour test of abilities honed for months, often in solitude? And who better than veterans of actuarial exams would combine the quantitative skills to calculate splits and the discipline to train for long hours, with the masochism to even contemplate running 26 miles at a stretch?

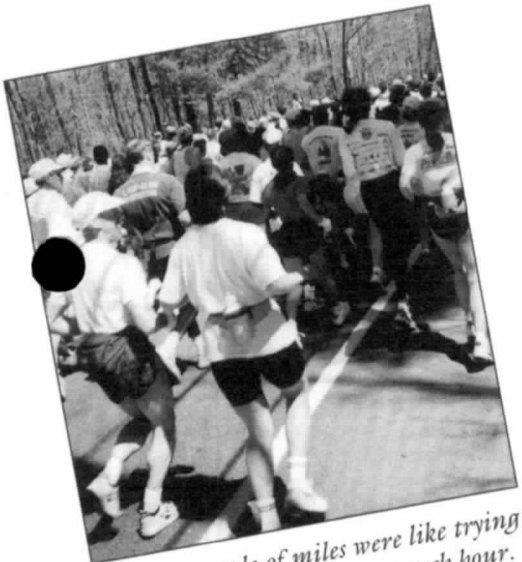
How else to explain why actuaries all 18,000 in Canada and the United States, representing about one in 8,000 workers, participate in large marathons at an average above one per 1,000 runners? I had observed this 8-10:1 ratio back when the popularity of distance running in North America was in its heyday. So I was pleased, after a ten-year hiatus from studying this phenomenon, that actuaries were still showing up in such large numbers.

The starting lineup for the "19,000 corral." Author Mike Cowell was another 4,000 back (#23536), with more than 15,000 behind him.

Finding the runners

Like many other thousands of 100th Boston "wannabes," actuaries had trained hard during 1995 just to qualify for this historic race. For unlike most other popular running events, the BAA requires applicants to adhere to strict qualifying standards, in a prior marathon, before being admitted to run Boston.

In the March issue of *The Actuary*, when I asked registered runners to contact me, the BAA had already announced that the ranks of officially qualified runners would exceed 27,000, rivaling such mega marathons as New York and London. To further complicate matters, in an unprecedented move during 1995, the BAA had awarded an additional 10,000 slots through a lottery system, without regard to running experience. So, by the time registration closed, more than 38,000 had been awarded a coveted spot in this historic event.



The first couple of miles were like trying to run in the NY subway at rush hour.

By early April, about 30 registered actuaries had responded to my request. Allowing for a few late reporters, it looked as though the traditional ratio of about 1:1,000 was holding. We even had three runners from the same family: the Kobrines, featured, coincidentally, in the March issue of *The Actuary*. Ron knew that his son Steve would be running. He was surprised, however, when his son Eric, who accompanied him to Boston, announced at the last minute that he, too, had qualified to run.

Cathy Shires (#21190) looking strong at the 9-mile mark.

We're off

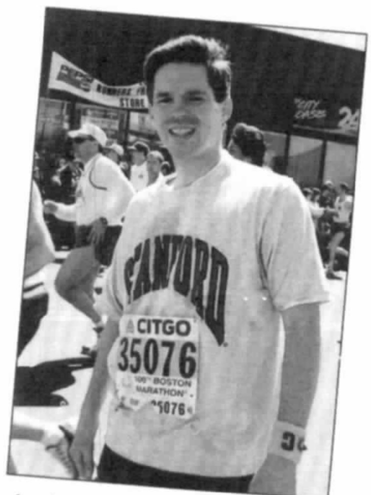
As the noon start approached, the cool early morning gave way to a warm spring day. For the spectators lining the course, it couldn't have been better. At the lineup with the other runners in the "23,000 corral," I barely heard the starting cannon. When I did, I stood still for almost 10 minutes before shuffling, ever so slowly, toward the start. The transponder chips attached to our shoelaces activated a continuous stream of beeps registering our start. My watch showed 12:15 p.m.

Except for fast runners in the front, for most of us, the first two miles were like trying to run in the New York subway at rush hour. By the time we reached Framingham, the unofficial runners, who had been kept out of Hopkinton, started to jump in. But they were well behaved, and I observed none of the pushing and shoving that race officials had feared. The spectators grew thicker as we passed through Natick and the halfway mark. There, the perennial cheering gantlet formed by the Wellesley College women was two or three times its normal size and sounded 10 times its normal decibel level.

By the time many of us reached the infamous "Heartbreak Hill" in Newton, a sequence of four ascents spaced over more than three miles, it was well into the afternoon. As we reached the summit to begin the last long stretch down Beacon Street into Boston, we were battling a moderate off-ocean breeze. However, the sight of the CITGO sign at Kenmore Square

Finishing times for 30 actuaries in the 100th Boston Marathon

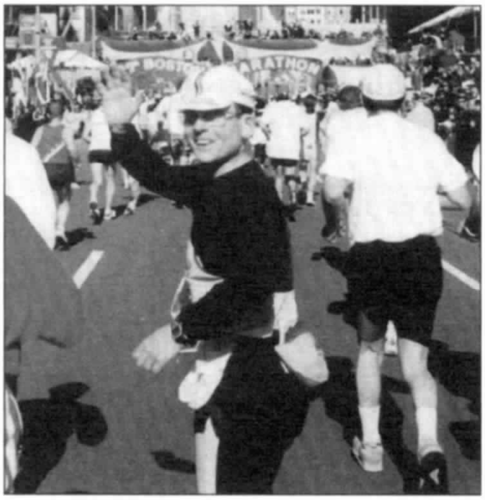
2:37 Bruce Holmes	3:38 Brian Stricker
3:11 Mike Betts	3:50 Cathy Shires
3:16 Bob Johnson	3:53 Tom Ghezzi
3:17 Jerry Dubner	3:54 Deb Cunningham
3:20 Dave Buddington	3:58 Bill Whitmore
3:27 Tony Belisle	4:08 Bill Buchanan
3:27 Steve Schoen	4:09 Drew Kudera
3:30 Rawson Chaplin	4:13 Andres Vilms
3:30 Rick Moore	4:15 Jack Donnelly
3:33 Sid Bone	4:16 Mike Cowell
3:34 Eric Kobrine	4:19 Tom Boldt
3:34 Ron Kobrine	4:20 Gene Wickes
3:36 Ed Groden	4:26 Flick Fornia
3:37 Steve Kobrine	4:47 Bob Thompson
3:38 Bill Masterson	4:49 Matt White



Andres Vilms pauses for a photo opportunity on the last stretch down Beacon Street.

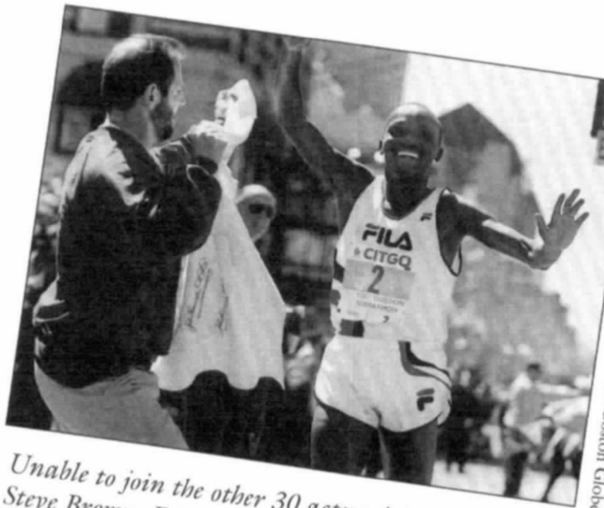
(continued on page 12)

Boston Marathon (continued from page 11)



A friendly runner takes Mike Cowell's picture as he comes to the finish.

All told, it was a great day for Actuarial Marathoners. All 30 of us reached the finish line and collected our prized medals. So, if we missed anyone, please call, write, fax or e-mail me with your story. Time permitting, after I turn the editorial reins of *The Actuary* over to Bill Cutlip this summer, I may be able to come out with a special 100th Boston souvenir issue of *The Actuarial Marathoner*.



Photograph printed with permission from The Boston Globe

*Unable to join the other 30 actuarial contestants, Steve Brown, FSA, chairman and CEO of John Hancock (wearing sunglasses), holds tape for winner Moses Tanui. (Photo by Jim Davis/*The Boston Globe*)*

was encouraging. Despite the horror stories about the last two or three miles, I found myself actually passing a few dying stragglers as I rounded the turn onto Commonwealth Avenue, up Hereford Street and onto Boylston Street, where the finish line came mercifully into view at about 4:15.

The first actuary to cross the finish line, Bruce Holmes, gives high sign on his way to a 2:37 finish.

Improving your business writing skills (continued from page 8)

information without a clearly stated request for action is not persuasive. So, in order to elicit the response you want from your reader, the authors recommend the following:

1. Gain your readers' attention in an appropriate manner.
2. Awaken a need for an idea before presenting the idea.
3. Stress benefits, not features.
4. Use facts, opinions, and statistics to prove your case.
5. Don't get bogged down in unnecessary details or arguments.
6. Tell the reader what to do next.
7. Before making a request, give the reader a reason to respond.
8. Do not assume the reader has been persuaded by your argument.

The 140-page book is concise and well written. The authors' suggestions help the reader become a more effective writer. It is an excellent resource for those wishing to improve their business writing skills.

Alan Finkelstein is an Assistant Group Actuary with Swiss Re America. He previously served three years on the SOA Committee on Management and Personal Development. He authored a previous article in the Complete Actuary series, "The Life Styles Inventory," which appeared in the May 1993 issue of *The Actuary*.

Early release copies of *TSA* papers available

These two papers have been accepted for publication in Volume 47 of the *Transactions*. Members who would like a copy of these papers should contact the SOA Books and Publications Department.

"Operations Research in Insurance: A Review"

by Patrick L. Brockett and Xiaohua Xia

Operations research methods have been applied to modeling and solving many problems in insurance and actuarial science. This paper presents a review of the applications of these operations research methods in the insurance industry. The paper is organized according to the categorization of operations research methods rather than sub-fields or subjects in actuarial science and insurance, as in some previous review papers. Specifically, the paper introduces various mathematical programming models and their applications. A discussion on game theory and some newly emerging operations research approaches and their applications in insurance and actuarial science follows. The paper ends with a general discussion on developments and trends in operations research and insurance.

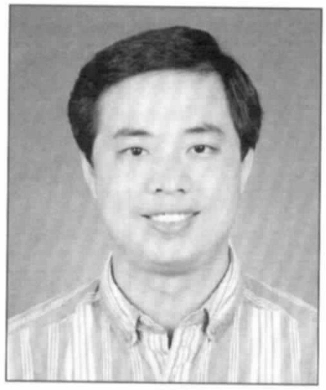
For the student who studied specific operations research techniques mandated by SOA exam systems, this paper provides a set of examples of the techniques pertinent to actuaries and shows how the expanding field of general quantitative reasoning in risk management can positively affect the insurance industry. For research actuaries, we finally present an updated bibliography of operations research applications in insurance, cross-classified by authors, operations research methodologies, and insurance areas of application.

Patrick L. Brockett, Ph.D., is the director of the risk management and insurance program at the University of Texas at Austin. He also holds the Gus S. Wortham Memorial Chair in Risk Management and Insurance in the College and Graduate School of Business. He is the director of the Center for Cybernetic Studies and holds joint appointments in the departments of Management Science and

Patrick L. Brockett

Information Systems, Finance and Mathematics. In addition, he is the former Director of the Actuarial Science Program in the Graduate School of Business. He is a Fellow in the following organizations: the Institute of Mathematical Statistics, the American Statistical Association, the Royal Statistical Society, and the American Association for the Advancement of Science. He is a Chartered Statistician by the Royal Statistical Society, and a Full Member of the Operations Research Society (now INFORMS). He has published two books and more than 100 journal articles. He is an associate editor of the journal, *Insurance: Mathematics and Economics*, and of the new SOA publication, *North American Actuarial Journal*. His articles in actuarial science, risk management, and insurance have won numerous awards.

Xiaohua Xia is a Ph.D. candidate in Management Science and Information Systems and research associate with the Center for Cybernetic Studies at the University of Texas at Austin. He is the manager of Management Information



Xiaohua Xia

Systems for AutoBond Acceptance Corporation, a consumer finance company in Austin. He has coauthored two other papers that will appear in *Insurance: Mathematics and Economics* and in *IMPACT*. He is a member of the American Risk and Insurance Association and a 1983 graduate, with a B.S. in computer science, from Zhejiang University, Hangzhou, People's Republic of China.

"Analysis of Health Carrier Insolvencies"

by James B. Ross and Criss Woodruff

A grant from the Society of Actuaries, under the direction of William J. Bugg, chairperson of the Project Oversight Group, made this study possible. This research had its genesis when the Health Financial Issues Task Force identified "...the need to quantify the number of financial impairments that have occurred among health carriers and to identify the reasons for such situations."

(continued on page 14)

TSA papers (continued from page 13)

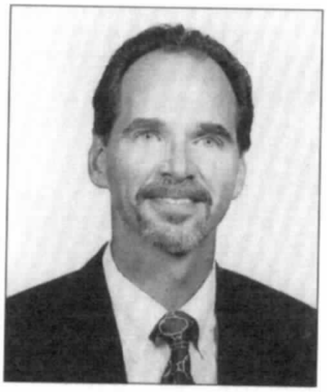
Research objectives were, 1) to identify health carriers that became financially impaired because of the operations of their health business during a relatively long time, and 2) to identify the reason(s) that each company became financially impaired. Health carriers specifically included were commercial insurance companies, Blue Cross/Blue Shield plans, and health maintenance organizations (HMOs).

Research included developing a meaningful definition of "financial impairment" (which might differ by type of health carrier), reviewing relevant studies, conducting necessary additional research, and presenting a written report of results and analysis.

The report is organized as follows:

- Section II explores relevant definitions of "financial distress" and allied terms. It looked at other studies, textbooks in insurance and finance, and articles in academic journals.
- Section III details the methodologies used in the research and gives the findings.
- Section IV comments on problems of definition, difficulties in data collection and findings. It also contains recommendations to the Oversight Group on how additional research in this area might be carried forward.

Criss G. Woodruff, D.B.A., is assistant professor of finance at Texas A&M University in Corpus Christi, Texas. He earned a B.A. from Centenary College of Louisiana and M.ED., M.B.A. and D.B.A. degrees from Mississippi State University. Prior to joining the Texas A&M faculty, he was assistant professor of finance at Radford University in Radford, Virginia. He has also worked in retail management and state government. His research recently appeared in the *Journal of Economics and Finance* and the *Journal of Actuarial Practice.* He is a member of several professional organizations including the International Financial Management Association and Decision Sciences International.



Criss G. Woodruff

James B. Ross, Ph.D., FSA 1954, MAAA 1965, is associate professor of finance in the College of Business and Economics at Radford University in Radford, Virginia. His business experience includes service with Connecticut General Life, CIGNA, and Continental Insurance and as a senior officer of Metropolitan Life and Insurance Company of North America. He received an A.B. in mathematics from Harvard College, an M.B.A. from the University of Rhode Island, and a doctorate in finance from the University of Connecticut. His papers have appeared in the *Transactions, Journal of Actuarial Practice, Journal of Economics and Finance,* and *Journal of Financial Services Research.*

James B. Ross

Experience studies survey gets outstanding response

In April, the Experience Studies Oversight Subcommittee sent surveys on the value of the various experience studies to users and committee members and put the survey on Actuaries Online. The response was good. By the first week in May, respondents returned more than 300 surveys. The Experience Studies Oversight Committee thanks all who responded. After the results are tabulated, they will be used to improve the Experience Studies process. Those interested in a summary of the survey results should contact Judy Yore in the SOA Research Department at 847/706-3573 or e-mail at 76041.2336@compuserve.com.

on the lighter side

The wonders of being an actuary

by Peter Potamianos
SOA Public Relations Specialist

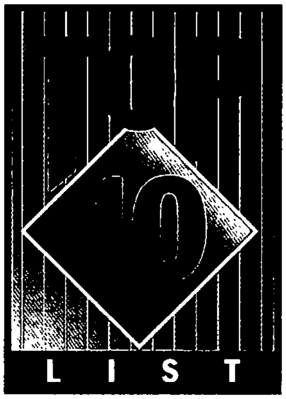
Wayne Stuenkel, an actuary with Protective Life Corporation in Birmingham, Ala., sent us the following list of "Reasons Why It Is Wonderful to Be an Actuary." Protective Life actuaries Kevin Borie, Mary Hartsoch, Jim Helton, John O'Sullivan, Stephen Peeples, LeeAnn Peyton, and Mike Presley contributed to it. Wayne Stuenkel presented the list, David Letterman top 10 list style, to about 200 appreciative managers from Protective Life. "Maybe other actuaries can use this material for presentation where they get a chance to poke fun at themselves," Stuenkel said.

Top 10 reasons why it is wonderful to be an actuary

10) You have a ready-made excuse if you get caught parking in a reserved spot: "Oh, you see, I'm an actuary...."

9) Knowing your life expectancy to such precision is wonderfully stress relieving.

8) Always have a magnetic reply when asked, "And what do you do?" by the opposite sex.



7) Family vacations are memorable because average distance per tank of gas is recalculated at every fill-up.

6) How many other people get excited about what's new in mortality?

5) Get to say, "Sorry, dear, I'm studying," when diapers need changing.

4) Don't have to spend those long, hot hours on the golf course like the marketing folks.

3) Most mistakes can be explained away immediately.

2) Agents refer to you as a "home office specimen."

And the **Number 1** reason it's wonderful to be an actuary:

Interaction with all areas of the company make it possible to annoy everyone at once.

Update on the *North American Actuarial Journal*

The Society of Actuaries' new premiere publication, the *North American Actuarial Journal*, is well underway and will debut in January 1997. It will be distributed to all Society members as a membership benefit and will also be available to non-members, companies, universities, and libraries on a subscription basis. A marketing plan is being developed to reach potential subscribers and authors outside of the actuarial profession.

New guidelines for publishing in the *NAAJ* are now available. These replace the Author's Manual and Reviewers' Manual used for the *Transactions*. Some papers have already been accepted for publication; many others are in the review process; and new papers are being submitted for possible publication. If you are interested in submitting a paper, please request "Submission Guidelines for Authors" from Cheryl Enderlein, communications coordinator, at the SOA office (847/706-3563 or 103424.3556@compuserve.com). Be sure to include your name, address, phone, and fax with your request.

In the meantime, watch for featured updates on the *NAAJ* in future issues of *The Actuary*. If you have any questions or need more information now, contact Enderlein or editor Sam Cox at his *Directory* address.

NEWS BRIEFS

Assistant editors needed

The Actuary has three openings for assistant editors. Duties include assisting an associate editor with two issues a year, setting a focus for the issue and writing or soliciting articles. Also, it is highly recommended, but not mandatory, that assistant editors attend the annual editorial board meeting near Chicago. This year, the meeting is at the Hilton at O'Hare on July 18. Assistant editors in all areas of practice and geographic locations will be considered.

For more details, contact Cecilia Green, public relations manager, at the Society, 847/706-3561, or Mike Cowell, editor, at UNUM, 207/770-4579.

IA honors 2 SOA members

The Institute of Actuaries in the United Kingdom recently named two Fellows of the Society of Actuaries as Honorary Overseas Members of the Institute. W. Paul McCrossan and Walter S. Rugland were elected by members at the February 26 Ordinary General Meeting following a recommendation by Council.

Honorary Overseas Members are selected on the basis of being preeminent in their local actuarial community, and having developed a close and lasting relationship with the Institute, according to J. M. Henty, secretary of the International Joint Committee. "Walt and Paul are past presidents of their professional associations, the Society of Actuaries and the Canadian Institute of Actuaries, respectively," Henty said. "Both have been closely associated with the establishment of the International Forum of Actuarial Associations, which the Institute fully supports. In recent years, they have both been frequent and welcome visitors to the Institute at Staple Inn in London."

Although the Institute has 22 Honorary Overseas Members from 12 countries, Rugland and McCrossan are only the third and fourth North Americans to receive this honor, joining past SOA presidents Walter Klem and Edward Lew.

Study helps and exam seminars available

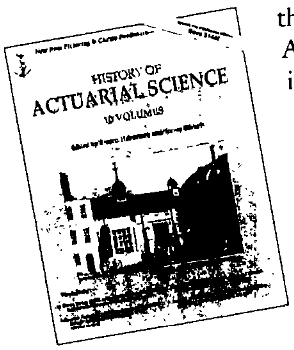
A.S.M. now has access to the Worldwide Web for information on A.S.M. study helps. The Web site is http://www.webcentre.com/asm/ or e-mail: asm@webcentre.com or phone (tollfree): 888/ASK 4 ASM or fax: 516/868-6595, or see your study notes package

A.S.M. will also sponsor an intensive 3-day problem-solving workshop for the EA-2 exam on October 11-13 in New York City. For details, consult your study notes package or call Harold Cherry at 516/868-2924.

Those interested in the Fall 1996 Austin 150 Seminar, scheduled for September 28 through October 5, should contact Dr. James W. Daniel, phone and fax: 512/343-8788, for a registration form.

10 volume set of actuarial history available

The History of Actuarial Science, a 10-volume collection with 110 articles, is now available from Pickering & Chatto in association with the Institute of Actuaries (IA) in the United Kingdom. Trevor Sibbett, actuary international with the Guardian Royal Exchange, and Steven Haberman, professor of actuarial science at City University in London, compiled and edited the collection. The writings range from the year 220 AD with Roman Emperor Ulpian's life table to those written in the early 20th century.



The collection includes an introductory essay that traces the history of actuarial science and highlights key texts. It reprints most of the important treatises, pamphlets, tables and writings tracing the development of the actuarial profession.

For ordering information call the U.S. distributor at 1-800-433-1528 or fax 410-539-7348. The price for the set is $895.

New Correspondent status offered in SOA

The SOA Board of Governors has approved a "Correspondent" status for actuaries who are not members of the SOA. The purpose of establishing the Correspondent status is to allow actuaries from other countries the privilege of participating in Society meetings, seminars, symposia, and Section activities and to receive SOA publications.

It is not a membership category and carries no letter designation. Correspondents cannot vote or hold office. Becoming a Correspondent does not qualify an actuary to practice, and Correspondents will not be listed in the *Directory of Actuarial Memberships*. They will, however, be listed in the SOA *Yearbook*, showing the organization of which the Correspondent is a member.

The SOA intends to establish reciprocal arrangements with actuarial organizations in other countries. When an SOA member is posted overseas for a few years or is involved with clients in a country, it is hoped that country's actuarial organization will recognize the need for the actuary to participate in its activities and receive its publications.

The annual fee to be an SOA Correspondent is $150 in 1996, which just covers costs. Those who apply in June or after pay only $75.

Requirements are that the applicant is a fully qualified member of another actuarial organization that offers similar status to SOA members, is a member of the International Actuarial Association, and is approved by the SOA executive director or his designee.

Applications are available from Linden Cole, SOA managing director. Requests may be faxed to him at 847/706-3561, by e-mail at 73462.20@compuserve.com or mailed to him at the SOA office.

Reporting change for Social Security actuary

As a result of recent legislation, the chief actuary of the Social Security Administration (SSA) now reports directly to the commissioner of Social Security. Before the enactment of the Senior Citizens' Right to Work Act of 1996 (Title I of Public Law 104-121, approved March 29, 1996), SSA's chief actuary reported to the deputy commissioner for Programs, Policy, Evaluation and Communications.

The legislation provides that the chief actuary shall be appointed by, and in direct line of authority to, the commissioner and may be removed only for cause. It also provides that the chief actuary shall be compensated at the highest rate of basic pay for the Senior Executive Service of the Federal Government.

The change signifies the high regard held by both the Congress and the Administration for the important role of SSA's Office of the Actuary in assessing the financial condition of the Social Security program and in developing actuarial estimates of the financial effects of potential legislative and administrative changes in the program. This role had previously been emphasized in the 1994 House-Senate Conference Report on H.R. 4277, which established the Social Security Administration as an independent agency. The Conference Report expressed the view that the Office of the Actuary has a unique role within the agency in that it serves both the Administration and Congress. It further recognized that, while the conferees expected that the chief actuary would report to the commissioner, the office often must work with the committees of jurisdiction in the development of legislation.

The new legislation fulfills the conferees' expectation, in 1994, that in the independent SSA, the Office of the Actuary would be permitted to function with a high degree of independence and professionalism.

1996 Meeting and Seminar Schedule

June 26-28	Spring Meeting (Health & Pension)	The Broadmoor *Colorado Springs*
July 14-17	Asset Liability Management	Wharton School *Philadelphia*
July 25-26	Immunization Theory	MIT *Boston, Massachusetts*
August 15-17	31st Actuarial Research Conference	Ball State University *Muncie, Indiana*
August 25-27	Fellowship Admissions Course	McLean Hilton *McLean, Virginia*
September 4	Executive Committee Meeting	Royal York Hotel *Toronto, Ontario*
September 4	Using ALM & the Pricing Process	Hilton Hotel *Reno, Nevada*
September 4-6	Fellowship Admissions Course	Sheraton Parkway *Toronto, Ontario*
September 5-6	Valuation Actuary Symposium	Hilton Hotel *Reno, Nevada*
September 26-27	Investment Boot Camp for Pension Actuaries	TBD *Toronto, Ontario*
September 26-27	Advanced Managed Care	Buena Vista Palace *Orlando, Florida*
October 3-4	Advanced GAAP	TBD *Florida*
October 25	Team Disney	Dolphin Hotel *Orlando, Florida*
October 27-30	SOA Annual Meeting	Dolphin/Swan Hotel *Orlando, Florida*
November 18-19	Critical Issues in Underwriting	Marriott Beach Resort *Key West, Florida*

Correction to puzzle contest rules

The April issue of *The Actuary* incorrectly stated the deadline for entries in a contest for puzzle solvers. The correct deadline is for solutions to be received by the 15th of the second month following the month that the puzzle was published. For example, the solution to the June puzzle must be received by August 15.

IN MEMORIAM

Frank A. Brooks, Jr.
FSA 1956, MAAA 1965

Nathan A. Moscovitch
FSA 1955, MAAA 1965, FCA 1951

Walter J. Rupert
FSA 1941, MAAA 1965

DEAR EDITOR

Winners vs. losers not relevant in Social Security

Bob Dobson's editorial in the February issue asks if retired actuaries should get "the same benefits at the same price as less financially fortunate retirees." He refers to generational inequity and to the fact that "the level of payout relative to taxes paid in during their working lifetimes will never be equaled by any future generation."

In a social insurance plan, it's not relevant to see if each individual or class is getting their money's worth. Rather, the adequacy of the system is the paramount goal. It should also be remembered that the Old Age benefit formula is loaded in favor of lower-paid people.

Would it be appropriate to say that the true winners (as far as return on taxes paid in is concerned) are those with dependents who die or become disabled at a very early age just after qualifying for benefits?

Social Security has been an effective, popular program. As actuaries, I think we should discourage intergenerational strife and encourage the financial security of our citizens by emphasizing that Social Security is flexible and can be amended to meet changing circumstances.

Gerald G. Toy

April issue brings comments on Social Security

I agree with much of Robert Brown's article ("The Canadian social security solution: pre-funding the baby boom with bonds" April 1996 *The Actuary*) but I think he occasionally overstates his case and at one point, I think I caught him assuming his own conclusion.

It is certainly true that there is something wrong with a picture of 5.6% contributions today rising to 14.4% by 2031 for essentially the same benefits. It is not obvious, however, that the solution has to be benefit cutbacks in the future to knock the second rate down. Wouldn't it make more sense to move quickly toward level funding as a percentage of payroll to give a realistic picture of the cost of benefits for budgeting purposes? If that level of contributions is excessive, now is the time to start trimming, not decades from now.

Such a move would obviously imply some significant pre-funding, not as a matter of dogma (a dogma that Bob Myers has shot down so often, most recently in a letter in the same issue of *The Actuary*) but simply as a byproduct of honest funding. Brown demonstrates that advance funding can degenerate into a shell game if, but only if: (a) the contributions find their way into government bonds; (b) these are then applied to reduce current taxation (at the provincial level in this case); and the major effect is to free income for current consumption. I think that can be true, especially if the program is run at the federal level by a government that can, if push comes to shove, monetize its own debt while forgiving (restructuring) the provinces' debts to it.

If, however, these increased contributions found their way into productive investment, the objection would not hold. Why assume we cannot achieve that result? If we did, the current generation really would be partially pre-funding its own benefits.

There is simply more to be considered than the allocation of each year's GNP among claimants in that year. Higher savings and investment today—public or private—could increase future GNP, thus reducing the problems flowing from the inevitable retiree bulge. They could also cut down the lost production and permanent loss of national wealth flowing from the levels of unemployment that we now tolerate so casually.

Brian A. Jones

* * *

The debate on privatization of Social Security is marked by false dichotomy: pay-as-you-go or pre-funding? Rob Brown proposes that proponents of privatization want pre-funding. Not so. Pay-as-you-go is a clever scheme to mask actual prefunding of future benefits with future tax collections. It is pre-funded just the same as a plan holding a large government bonds portfolio. Opponents of the status quo, like me, argue for privatization. This means that off-balance sheet bonds, issued within social security systems, should be transferred explicitly to balance sheets and then made marketable and participants can invest any way they want.

Brown says that the method of financing an enterprise does not matter, because cash flows in and out the same way whether the enterprise is owned by the state or by private individuals. Then, why did socialism fail so dramatically in the 20th century? I propose two reasons for this failure:

1) Prices of capital assets were invisible to economic decision makers.
2) The state nationalized the market for the control of productive assets.

Both resulted in the repeated funding of negative present value projects. We are now repeating this trend with the U.S. and Canadian social security systems. These are massive negative present value projects. However, we are behaving like a carpenter who cut three times and the piece of wood is still too short.

Private retirement systems produce the cash and resource flows that social security systems produce. The key difference is that social security systems force negative present value projects, i.e., value losers, on society. Private retirement systems can't do that or they won't survive.

If we truly care about the future of our society, we must examine the proposition: efficient allocation of capital is the only way we can achieve economic growth already programmed into entitlement growth. Or is it time we start studying the origin of national poverty?

Krzysztof M. Ostaszewksi

* * *

Some argue that Social Security pays generously to current beneficiaries relative to the taxes they paid during their working lifetime, unlikely to be equaled by future generations. They fail to understand that Social Security is a defined benefit plan. It plays an important, but not exclusive, role in dividing economic values produced today between working and retiree generations.

In many countries, funds set aside for retirement security accumulate with interest and are available to beneficiaries on retirement. U.S. Social Security never operated that way and to change it now to a defined contribution type would be an enormously complex process. It would not be feasible unless our society is willing to distort the legitimate retirement expectations of a vast number of people during the transitional period.

Any working generation makes two kinds of outlays. It pays for the support of retirees and invests in the education of the younger generation. When the younger generation becomes a working generation, it, in turn, supports persons who were yesterday's working generation. In this sense, the outlays made for the education of the younger generation can be called "social security investments" and economic values consumed by retirees, "dividends" on the investments they made during their formative working years.

If we could recast the debate concerning retirement security systems in these terms — of which Social Security is an important part — not only would it be easier for the public to understand the issues involved, but it would also make it possible to develop social consensus to put the financing of retirement security systems on a sound basis.

I would like to remind readers that the rapid development of global economies, uneven population growth in some countries, and the movement of working age populations and enterprises across national boundaries are bound to complicate problems facing national retirement systems. Actuaries should anticipate and try to address these problems.

Dinkar B. Koppikar

The professionalism chain

Robert Heitzman, in the April 1996 issue of *The Actuary*, published his opinion of professionalism as a chain reaction with four links. In response, I propose four sequential steps of response by pension actuaries to enforcement activities or negative publicity.

1) Denial (didn't do it)
2) Trivial procedural matter (not important)
3) A unique and extraordinary event which has never occurred prior to or subsequent to the event (unreasonably persecuted)
4) Serving the interests of my client in the best possible way (everybody does it)

Regulation and enforcement from your peers tend to encourage these excuses. Outside regulators do not have the same self-interest and are less likely to accept them.

Theodore Konshak

Licensing actuarial counsellors

My article in the March 1996 issue of *The Actuary* dealt with actuarial counsellors. In it, I said, "Licensing may even be needed." In a first general exposure of the actuarial counselling subject itself, I had no intention (or space) to get into details of this issue of licensing.

I'm being flooded from all over the place with positive reactions to the article and requests for information. Faye Albert, FSA, who works closely with me, is putting on a presentation about actuarial counselling at the Marco Island meeting. A follow-up story in *The Actuary* may be in order.

Jack Bragg

Answer to the question on page 2

The correct answer to the elections question on page 2 is E. If you answered A, B, C, or D, please reread the 11 questions and answers posed to the presidential candidates in the special supplement. You may then answer the question on page 2 again. Unlike regular Society exams, you don't have to wait six months for your next attempt.

Contest Puzzle # 3

ACTUSORTMENT

by Dan Reichert

(1) Below is an alphabetical list of 32 words that can be arranged into sequences that will sound out the names of eight celebrities. For example, TONE + EAR + AND + DULL = Tony Randall. Each celebrity's name is made up of four words and each word will be used exactly once.

ACT	DEEM	HOW	KNEEL	LESS	OWL	SHACK	USE
ALOE	EELS	INN	LAW	LOAN	PURR	SIN	WALL
AND	FEE	KEY	LEAN	MATH	SAY	TERM	WIT
DEAL	FUR	KNEE	LEASE	MORE	SEW	TIN	WREN

(2) The letters below will spell out a quote and its speaker reading from left to right, line by line. To solve, drop the letters from each vertical column into the empty squares below them. The letters are not necessarily in the order that they appear. Black squares mark the ends of words. Words continue on from one line to the next.

T	S	H	E	A	N	V	I	L	E	B	D	F	E	A	N	K	A	U	O
U	L	E	I	N	E	C	O	M	S	N	T	F	R	T	O	F	S	I	N
P	T	D	N	N	L	F	R	I	E	N	L	F	M	A	N		L	E	L
N		B	I	A		L	O	W		E		S		I	N		C	H	U
A				S		H	E			A				W			K	O	E
	■											■				■			
			■						■		■				■				
		■			■								■			■			
	■				■								■			■			
								■	■		■								

(3) In the grid below are hidden the names of 12 Nobel Prize winners for Literature. Circle their names in the grid.

G	N	I	D	L	O	G	L
O	C	Z	S	I	W	E	L
R	E	A	X	W	M	A	L
D	L	P	M	A	D	L	I
I	I	K	C	U	B	E	E
M	O	R	R	I	S	O	N
E	T	E	S	S	E	H	O
R	N	W	O	L	L	E	B

(4) If you sort the celebrities in Puzzle 1 in alphabetical order by actual last name, what is the first name of the fifth celebrity? ________

What is the first name of the speaker of the quote in Puzzle 2? ________

Scramble the unused letters in Puzzle 3 to get a man's first name. What is it? ________

What television sitcom had characters with the 3 first names above? ________

April's Solution

C	H	R	I	S	E	V	E	R	T	■	S	C	O	W
H	■	A	■	O	■	E	■	E	■	■	■	A	■	E
E	N	D	U	R	E	S	■	L	I	C	E	N	S	E
F	■	I	■	E	■	T	■	E	■	A	■	N	■	K
■	■	A	R	R	A	I	G	N	■	B	R	O	W	N
S	■	T	■	■	■	G	■	T	■	B	■	L	■	I
P	R	E	C	I	S	E	■	S	L	I	D	I	N	G
E	■	■	■	S	■	■	■	■	■	E	■	■	■	H
A	R	I	Z	O	N	A	■	M	I	S	C	A	S	T
R	■	L	■	T	■	R	■	I	■	■	■	V	■	S
H	E	L	L	O	■	T	O	R	N	A	D	O	■	■
E	■	E	■	P	■	I	■	A	■	M	■	C	■	H
A	N	G	L	E	R	S	■	C	H	A	R	A	D	E
D	■	A	■	■	■	A	■	L	■	S	■	D	■	R
S	E	L	A	■	U	N	D	E	R	S	C	O	R	E

Send solutions to: Puzzle Editor, 753 Revell Crescent, Edmonton, Alberta Canada T6R 2E8
e-mail: L.THIESSEN@access.awinc.com