The Newsletter of the Society of Actuaries

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June 1995

The Actuary

New foundation receives first major grant

by Linda Heacox
SOA Public Relations Specialist

Lincoln National Corporation, Fort Wayne, Ind., became the first contributor to a major project of the newly formed Society of Actuaries Foundation with a $125,000 grant. On April 20, 1995, Chairman and CEO Ian Rolland, FSA, announced the grant, which will fund 50% of the development, production, and distribution costs for a major book on financial economic theory as it applies to the work of actuaries. Foundation Trustee Jim Hickman and the Foundation Advancement Committee, chaired by Walter Rugland, were instrumental in obtaining this grant.

"Lincoln National believes this grant is an investment in the future of the actuarial profession," said Rolland.

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Lincoln National CEO Ian Rolland (left) gives Walt Rugland (right), Foundation Advancement Committee chair, the grant that makes possible the SOA Foundation's first major project, a book on financial economic theory for actuaries.

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Bob Dobson
Editor responsible for this issue

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

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EDITORIAL

Regulation and public service

by Robert Dobson

As this issue goes to press, I learned that the actuarial profession was again rated the best job in the United States by the *Jobs Rated Almanac.* We are well-paid and work in stress-free environments. While many of us in consulting might dispute the latter finding, remember the alternatives. Lumberjacks, one of the lowest ranked jobs, experience a different kind of stress.

What better time to contemplate how actuaries, having the best jobs, can give back to society. Note I said society, not the Society. In keeping with this idea and this issue's theme of regulation is Dwight Bartlett's article about actuaries providing public service by working in regulation. Helping the regulatory process is another way to contribute, and it is the subject of Cande Olsen's article about participating in the risk based capital movement. A final way to contribute is to make your voice heard when you believe public interest is being hurt. Irwin Vanderhoof, Dan Case, and Robert Myers give us good examples of this approach. Vanderhoof, for example, calls FAS 115 a "stupid" and "foolish" standard. Don't hold back, Irwin, tell us what you really think!

We have news from China, where the best job in the United States is up and running in the world's most populated country.

While I was thinking about all this positive news, I recalled my mentor, Milton F. Chauner, who died this past February. This reminds us to take advantage of the time we have to help others. Milt certainly did. He helped me more than 20 years ago with my first consulting client: an insurance department. Since then I worked with many different departments and the National Association of Insurance Commissioners (NAIC). I believe th[at] working in regulation is a means of providing service to society.

Of course, regulation must be effective to protect our ultimate boss, the consumer. Toward this end, we also have a notice from the NAIC of a symposium on alternate approaches to insurance regulation. What an opportunity for those of us who think we have better ideas to make regulation effective in the public interest. What a great opportunity to give something back, because, after all, actuaries have the best job in the United States and, presumably, in Canada too.

Meeting and seminar calendar

July 16-19	**Advanced Asset Liability Management Seminar** The Wharton School of the University of Pennsylvania, Philadelphia
August 17-19	**Actuarial Research Conference** Pennsylvania State University, State College, Penn.
September 13	**Risk Transfer in Reinsurance Seminar** Chicago Hilton & Towers, Chicago
September 14-15	**Valuation Actuary Symposium** Chicago Hilton & Towers, Chicago

Ian Rolland to head Foundation's fundraising campaign

Ian Rolland, chairman and CEO of Lincoln National Corporation, recently agreed to serve as campaign chair of the Society of Actuaries Foundation's initial member fund-raising campaign. Rolland is past president of the Society of Actuaries (1988-89) and current trustee of the Foundation. The Actuary *recently spoke to Rolland about his involvement.*

Q. You began in the actuarial department of Lincoln National Life Insurance Company almost 40 years ago. How have you seen the profession change over the years?

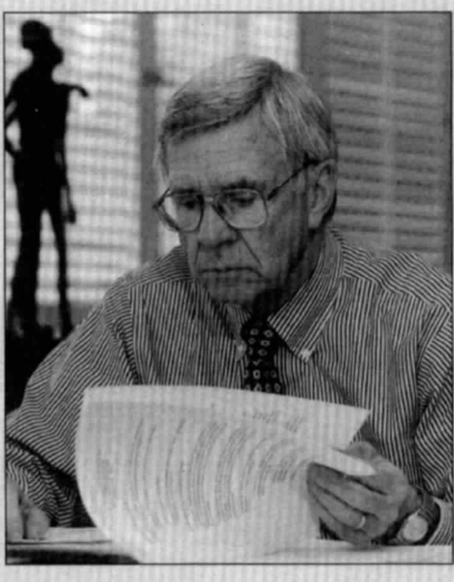
A. The profession has become a lot more sophisticated. The boundaries of actuarial practice have been pushed out significantly. Actuaries are required to apply judgment as they render actuarial opinions. The course of study for actuaries is far broader than it was 40 years ago, and the computer gives the actuary capabilities that were unheard of in the 1950s.

Q. What do you see as the future of the profession?

A. The future is bright, provided we continue to explore new areas where actuarial skills can be applied. Actuaries have prospered in the past because of their unique skills. In a rapidly changing world, it will be an increasing challenge to maintain that uniqueness. The SOA Foundation will serve the profession by exploring the expansion of actuarial practice horizons.

Q. You have a lot of demands on your time and serve on a lot of boards, such as the Hudson Institute, the Child Care Action Campaign National Advisory Panel, the Indiana Fiscal Policy Institute, the Indiana Chamber of Commerce, the Northeast Indiana Business Group on Health, De Pauw University, the Independent Colleges of Indiana Foundation, and the Indiana Natural Resources Foundation. What makes being a trustee of the SOA Foundation significant to you personally?

A. The Foundation offers the ability to influence the future of the actuarial profession. It provides the opportunity for me to contribute to the profession that has been such a positive part of my life. Also, since the Foundation is new, I have the opportunity to shape its direction to contribute to the public good.



Ian Rolland, trustee of the SOA Foundation, studies fundraising plans for the member campaign he will head.

Q. You've been assigned, with the SOA Resource Development Committee headed by Walt Rugland, the task of raising $1 million in member donations over the next three years. In today's economy, isn't this a pretty ambitious goal?

A. It may be ambitious in the sense that it has never been tried before. This is a new venture. We are asking actuaries to make gifts where they haven't considered them before. However, most actuaries are involved in satisfying and well-paying jobs, so they have the capabilities to give. I think they will feel a responsibility to the profession to give something back. Already, the Foundation trustees have personally pledged almost $100,000 in donations.

Q. What does the Foundation's fundraising campaign, "Preparing for Tomorrow's Possibilities: The Leadership Investment," mean?

A. The slogan says to actuaries that through the Foundation, they have the opportunity to invest now in building the profession's future. Fellows should have an interest in making sure that the profession is healthy. Contributing to the Foundation recognizes the success we've experienced in the past and also contributes to the future prosperity of society in general. Members who want more information should contact Kay Branz, development director, at the Society office.

Q. What kind of support is the SOA giving?

A. The Society has made quite a commitment. It gave $500,000 in start-up funds. It will match the first $500,000 the foundation raises. It also provides full staff support to the Foundation.

Q. Exactly what is the relationship between the Society and the Foundation; aren't they two separate entities?

A. They are two separate entities, but they are related. The majority of

(continued on page 4)

Rolland (continued from page 3)

the Foundation trustees are Society members. The task force to explore the possibility of a foundation was comprised of Society members. The Society will provide the initial financial base for the Foundation. In addition, the Society has provided significant resources and support in the organization of the Foundation. My expectation is that there will be a strong complementary relationship between the two organizations.

Q. What's your vision for what the Foundation could mean to the profession in the years ahead?

A. The Foundation will be important in assuring the profession remains relevant and vital. I think it will be a vehicle for sponsoring innovative and forward-thinking research that will benefit the public through actuarial expertise. It will be involved in enhancing the education of actuaries and the public in actuarial-related matters. As a result, the horizon of job opportunities for actuaries will expand.

SOCIETY OF ACTUARIES FOUNDATION
Preparing for tomorrow's possibilities

$125k grant is first to Foundation project (continued from page 1)

He added that Lincoln National was making the gift to assist the Foundation in developing a product that will help expand actuarial expertise to a broader range of businesses.

"The book will fill an important need for actuaries to better understand current paradigms in finance and to incorporate this knowledge in all practice areas and in nontraditional areas. The benefit to the financial service industries and, ultimately, the consumer makes this book a very worthy project," Rolland said.

The book, projected to be published in late 1996, will be widely distributed gratis, first to all U.S. and Canadian SOA members, then to libraries in all major business schools in the United States and Canada.

"We couldn't be more delighted at receiving funding from Lincoln National Corporation for the Foundation's first project," said Jim Tilley, FSA, chair of the Foundation's Board of Trustees. "This textbook will make new pricing and risk management theories, models, techniques, and tools readily available to all actuaries and better position actuaries to help safeguard the public's considerable stake in financial security programs."

Harry Panjer, Ph.D., FSA, FCIA, director of research for the Society of Actuaries, has been developing the book project. Panjer stated, "This project provides a vehicle to disseminate information about an area of research potentially affecting all practices within the financial services industries. Mathematical finance has been an important topic since the groundbreaking work of Black and Scholes in option pricing in 1973."

Panjer went on, "Studying the dynamics of interest and price movements has grown astronomically, especially in the past decade. Pricing and managing risks associated with these movements, such as options on stocks and bonds, has dominated the current research. This research is being conducted by an ever-expanding group of mathematicians, physicists, and others, including actuaries.

David Becker, Ph.D., FSA, vice chair of the SOA Investment Section and vice president and chief actuary at Lincoln National Life Insurance Company, also will play a role in the ongoing development of the project. He indicated that all actuaries will need to understand the financial economic paradigm.

"It applies to assets and is used in pricing complicated derivative instruments important for hedging risk. It can also be applied to liabilities and to the value of the insurance enterprise itself, since one person's liabilities are someone else's assets," he said.

Becker stressed that actuaries must develop a deep appreciation of the often restrictive assumptions used in developing financial economic theory to understand its appropriateness. "Those assumptions don't always hold for many of the cash streams we deal with," he said. "We deal with more complicated products and cash flows than those developed by theorists. This new book will address these issues for actuaries."

In addition to Panjer and Becker, a team of authors is being assembled, including experts from North America, Europe, and Australia. Becker will serve on the writing team.

The Lincoln National Corporation grant will be matched by one from the SOA, giving the book project a total budget of $250,000. This arrangement honors a commitment to match contributions that the Society of Actuaries made when that Foundation was established in 1994.

NAIC risk based capital: Where is it headed?

by Cande Olsen

In late 1990, when the original industry advisory committee was formed to advise the NAIC on setting risk based capital (RBC) standards, the National Association of Insurance Commissioners (NAIC) stated that it wanted "a simple formula to distinguish weakly capitalized companies from others, based on annual statement data wherever possible."

The final formula was approved by the NAIC in 1992. It was made clear to the industry that the formula was to be used only to distinguish weakly capitalized companies from others, but the NAIC was still concerned that people would use RBC as an index to compare adequately capitalized companies. Therefore, the NAIC included a statement in the model law to prohibit such use.

Even with the law's protection, however, companies are concerned that: 1) their RBC results will be published by the press and other entities not subject to insurance law or 2) that the published annual statement results will be used to compare companies. As a result, many companies have been looking at the RBC effects of everything that they do. Some have even developed specific plans to improve their RBC position. This behavior has been further fueled by consultants and investment bankers who assure potential clients they have the service or the product that will help the company increase or maintain its RBC ratio (in the short-term, anyway).

The introduction of the RBC formula and companies' concerns about inappropriate use of formula results also raised new questions about reporting (e.g., would a particular new asset structure be considered a bond or a mortgage?). The choice of a reporting category becomes important, because it determines what RBC factor is applicable to that asset. Regulators are concerned about agreeing that a new asset structure belongs in a low risk category because of a possible hidden risk component. The plot thickens when investment bankers "promise" companies that some new asset structure will be treated as a low risk bond (it appears that all the normal NAIC approval steps would lead to that), but then the regulators have second thoughts about proper asset classification when they must formally approve the new asset structure.

When the RBC formula was developed, future changes were expected to better discriminate weakly capitalized companies from others. Very few changes have been made, but the NAIC exposed four recommendations in December, potentially effective for 1995, that have not yet been approved. The changes add extra categories and adjust the factors for mortgages, derivatives, joint venture real estate, and common stock. The introduction of health organizations' risk based capital in 1996 also is likely to change the format and level of many health terms in the life RBC formula. If changes are made, will they help identify weakly capitalized companies?

Many people in the industry and in regulation believe that using the formula to compare companies can't be avoided, so the formula should be as exact as possible. It may not be possible to develop a formula that could be used to effectively compare companies. It would have to be extremely detailed and almost custom-made to properly account for all the different assets, products, and practices of different companies. This becomes more difficult because of the almost two-year lag in getting changes approved through the NAIC. Refining the formula to better compare adequately capitalized companies would add credibility to the belief that it can and should be used for this purpose. Companies will then demand further changes, and this would result in a never-ending spiral of changes.

If the NAIC adds more terms to the formula, adjusts the factors, introduces additional non-annual statement information, or does some combination of these, will the formula better meet its goals? Or will it just become more complex, and misunderstood or manipulated? Won't adding more risk categories increase the chances that the current category in which an asset is classified becomes questionable? Are the regulators and the industry putting too much effort into refining the formula, with the concerns of adequately capitalized companies in mind, while some flaw in the formula allows weakly capitalized companies to avoid regulatory action?

As we consider potential changes to the formula, it may be worth remembering that the original goal, as stated at the beginning of this article, was to develop "a simple formula to distinguish weakly capitalized companies from others, based on annual statement data wherever possible."

Cande Olsen is chair of the American Academy of Actuaries Life Risk Based Capital Task Force. The opinion expressed in this article is the opinion of the author and does not necessarily represent the opinion of the American Academy of Actuaries or the Life Risk Based Capital Task Force.

Actuaries in regulation influencing future of industry

by Dwight K. Bartlett, III

Historically, actuarial service in state insurance regulatory agencies has not been a career option well-regarded by actuaries. The perception has been that insurance department actuaries were usually poorly qualified individuals with low ambition, who did very routine work, checking reserve calculations or reviewing policy form and rate filings. Furthermore, surveys from the American Academy of Actuaries' Committee on Actuarial Public Service have documented the low compensation of these actuaries compared with what the private sector offered.

These perceptions have always been exaggerated. Insurance departments have employed actuaries of great talent and enormous influence, beginning with Elizur Wright in the 19th century, and more recently exemplified by John Montgomery, retired chief actuary of the California Department of Insurance. Nevertheless, one must acknowledge some degree of validity in general perceptions.

The picture has changed dramatically over the last few years. The number of actuaries employed by state governments and their level of qualification has sharply increased, as evidenced in the following table that compares the profession's 1995 *Directory of Actuarial Memberships* to the SOA 1985 *Yearbook*.

What has made insurance department employment more attractive to actuaries? The Academy committee's survey shows diminished salary differentials between the private sector and state employment.

The National Association of Insurance Commissioners (NAIC) Accreditation Program to regulate the solvency condition of domestic insurance industries requires insurance companies to hire competent staff, including actuaries, to receive accreditation. In Maryland, for example, I am free to offer competitive salaries to attract competent actuaries to the agency. I believe commissioners of other states have equal latitude.

State Insurance Department Employment*

	1985	1995
FSA	20	48
ASA	25	42
FCAS	**	18
ACAS	**	29

* *These numbers do not include MAAAs who are not members of the SOA or CAS.*
** *figures not available, but 1985-1995 growth presumably comparable to FSA/ASA*

Nevertheless, salary differentials still exist. Thus, one must look to the non-monetary rewards of public service. I believe those rewards were always there but have been enormously enhanced in the past few years for those who value the opportunity to influence significant public policy decisions. At the beginning of 1993, not one commissioner was an actuary. Currently, commissioners in Iowa, Maryland, Oklahoma, and Utah are actuaries. This does not count Bob Hunter, FCAS, recently departed Texas commissioner. Clearly, governors, legislatures, and the electorate are placing greater value on the skills actuaries offer in public policy debates.

Actuaries in state regulation have great influence on the following public policy issues:

- Because the federal government failed to undertake meaningful health care reform, the focus has returned to state initiatives. Model legislation has been adopted by the NAIC for small group and individual policy reform. While many state regulatory actuaries have been involved in crafting these models, Tom Foley of the Florida Insurance Department has played a particularly prominent role.
- Development of risk based capital standards for insurers has involved substantive actuarial input. Models have now been adopted for life and health insurers and property and casualty insurers. Currently, a working group has completed its work in developing a model standard for health organizations with the help of an Academy committee. The NAIC's working group, of which I have been a member, has been chaired by Utah Commissioner Bob Wilcox.
- I am attempting to lead development of proposed reforms for the state-based life and health insurers guaranty association system. These proposals are outlined in my article in the January/February 1994 issue of *Contingencies*. The NAIC has recently charged its Insolvency (Ex5) Subcommittee with considering the need for reforms.
- The life and health and property and casualty actuarial task forces, comprised primarily of actuaries in state regulation, will have extensive agendas. The Life and Health Actuarial Task Force, for example, which John Montgomery and I co-chaired in 1994, completed work on major revisions to the model standard nonforfeiture law for annuity policies. It also will study the need for reform of the standard nonforfeiture law for life insurance policies in light of changes in product design, technology, and economic conditions since the Guertin legislation in the early 1940s.

The model regulation on life insurance policy illustrations is being rewritten by an NAIC group that Bob Wilcox chairs. This model regulation not only has enormous impact on how such products are marketed but also may affect their design.

This is only a small sampling of activities in which actuaries in state regulation are participating, frequently in leadership positions. They undoubtedly have profound influence on what the insurance industry and its products will look like in the 21st century. I am proud to participate in a small way, but I am even prouder of the major contributions of my actuarial colleagues in state regulation.

Dwight K. Bartlett, III, is insurance commissioner for the State of Maryland's Insurance Administration. Bartlett was the initial chairman (1990) for the American Academy of Actuaries Committee on Actuarial Public Service.

Reexamination of SOA's Mission Statement

by Sam Gutterman

An effective mission statement must drive both an organization's everyday activities and its policy directions. As a result, it is important to reexamine a mission statement periodically to ensure its continued vitality. For the past six months, the Society of Actuaries Committee on Planning has been reviewing the SOA's Mission Statement in light of current trends and possible future policy initiatives. I am seeking members' thoughts on the significant issues we are examining and the Mission Statement itself.

To provide perspective, here is our current Mission Statement:

> The Society of Actuaries is an educational, research, and professional membership organization whose purposes are to promote high standards of competence and conduct between its members and to advance the state of actuarial science. Members of the Society of Actuaries, who currently practice primarily in life insurance, health and retirement systems, and investments in the United States and Canada, are skilled in evaluation of contingent events, in structuring models to describe and measure risk, and reporting the resulting implications. Representing its members, the Society of Actuaries is a part of the worldwide actuarial profession.

A few of the significant aspects we have been intensively examining include:

- **The role that the public interest should play in SOA activities.** To be a professional, an actuary should reflect the public interest in her or his work; this is properly an integral part of our Code of Professional Conduct. Much effort is directed at the promotion of professionalism and education of our members and our relevance to the public. As a 501 (c) (3) education organization, our U.S. income tax position assumes this emphasis. We are gradually beginning to place more emphasis on the importance of the public, as shown in part by our Actuarial Circles program and efforts at consumer education with a Social Security information piece. Should we emphasize or expand these efforts?
- **The growing internationalization of our membership.** For some Associateship exams, more than 11% of the candidates are residents outside North America, mostly concentrated in East and Southeast Asia. Even more surprising, more than 8% of some Fellowship exams are being taken at centers overseas. This is a natural trend that has occurred without any promotion by the SOA. At this point, we have not taken any action to support this growing minority of our membership. In addition, as our traditional fields of practice have become increasingly globalized, Canadian and U.S. members may find it relevant to be more aware of international issues and practices. Although providing the same level of membership services in each country may not be necessary, we may need to give increased attention to our foreign members and students. Our current review of a revised examination system provides an opportunity to think beyond our historic geographical roots.
- **Increased efforts to expand the scope of employment for our profession beyond the traditional.** Many blue ribbon task forces over the last decade point us in the direction of expanding the scope of our profession's employment opportunities. Some believe that expansion opportunities may be limited within our traditional practice areas. Indeed, one objective in our new educational proposal is to broaden our practice horizon. References in our current Mission Statement to specific areas of practice, while not contradictory to expansion, may not be consistent with these efforts.

In an era of limited resources, we should be sure our organization's efforts are focused in the right direction. I welcome your ideas on these or related issues relevant to our organization. Please send your comments to my *Directory* address, to the SOA office, or through Actuaries Online (73462,27).

Sam Gutterman is director and consulting actuary for Price Waterhouse LLP in Chicago and president-elect of the Society of Actuaries.

Social Security and the federal budget: Another instance of the emperor's new clothes

by Robert J. Myers

General agreement exists throughout the country that the United States has a very serious problem with regard to its mammoth federal budget deficits in the past decade and those projected for years to come. Unfortunately, little agreement exists as to what should be done.

The budget deficit widely quoted for the fiscal year ended September 30, 1994, is $203 billion — a horrendously high figure, especially because since 1983 it has never been less than $150 billion per year; for eight years, it has exceeded $200 billion. To make matters even worse, perhaps the greatest hoax — even fraud — that has been imposed on the public is the information that the federal government gives about the relationship between the general budget and the various trust fund programs, such as Social Security and Medicare. Few "little boys" are present in political circles to point out that "the emperor really doesn't have any clothes on!"

Under the so-called unified budget procedure, the operations of these programs are included within the general operations of the federal government. Thus, any excess of income over outgo from sources outside the federal government is shown as reducing the general budget deficit. This does not really happen, because such excesses are invested in government bonds and other obligations that are part of the national debt. If the trust funds had not had such excesses to invest in government obligations, the general public would have had to purchase obligations of similar amount, and the national debt would have been exactly the same size. Thus, in reality, in fiscal year 1994, the real general budget deficit was $292 billion, or $89 billion higher than the deficit shown under the unified budget procedure.

This deceptive unified budget procedure was first effective for fiscal year 1969, and it showed a surplus of $3 billion, which was the last year when a surplus occurred. The immediately preceding years of surplus were 1956 and 1957, when equally small surpluses occurred. Actually, the real deficit in 1969 was about $300 million higher, but for the next year, it was $12 billion higher than the $3 billion reported on the unified budget basis.

Further, under the unified budget procedure, the interest paid to the trust funds on their investments is not counted as interest but rather as an intergovernmental transaction. However, such interest is real interest and adds to both the general budget deficit and the national debt in just the same manner as any other interest paid on obligations of the federal government. The interest on the national debt is now running at about $300 billion per year, rather than the horrendous $200 billion quoted under the unified budget procedure.

The operations of the Social Security trust funds with respect to self-supporting payroll-tax-financed programs should not be considered in connection with the great deficit problems of the general budget. In fact, if all other government programs and activities were equally self-supporting, we would not have the budget deficit problems that we now have. Further, the unified budget procedure causes many people to believe, quite understandably, that the trust fund monies have been "stolen" and used for the general expenses of the federal government. This is, of course, not true, because the government obligations held by the trust funds are just as valid and valuable as those held by private investors.

For about the next 15 to 20 years, the excess of income over outgo of the Social Security program will, under present law, be quite large each year. This, under the unified budget procedure, will hide the real extent of the true general budget deficit. However, thereafter the tide will turn, and the inclusion of the operations of the Social Security program in the unified budget procedure will result in larger figures for the general budget deficit than the true ones being shown. As a result, some are now advocating that Social Security benefits should be cut back, more or less immediately, to remedy this situation and to even go beyond it and reduce the deficit more and sooner.

It is almost certain that some changes will need to be made to the Social Security program over the long run to keep it fiscally viable, i.e., self-supporting. However, such changes can and should be done on a deferred, gradual basis. The changes should be made solely for the sake of the Social Security program and not at all for the sake of the general budget deficit. At the same time, policymakers and the general public should recognize the grossly misleading nature of the budget deficit figures that arise for the next few years (and even decades) under the unified budget procedure. Then, action should be taken to solve this problem, which is much larger than the mammoth one that is currently reported under that procedure.

Robert J. Myers was chief actuary of the Social Security Administration from 1947 through 1970 and deputy commissioner of Social Security from 1981 to 1982. He is a past president of the Society of Actuaries and lives in Silver Spring, Maryland.

E&E CORNER

More time given for 10-credit written-answer exams

Beginning with the November 1995 examination session, all 10-credit written-answer examinations will be increased in length from one hour to one and one-half hours. The amount of study material, the examination format, and the number of questions will remain the same. This change is in response to the concerns of candidates expressed in letters, phone calls, and in forums like the New Associates Workshop. Many candidates believe they were unable to demonstrate the knowledge obtained through many hours of study because of time constraints. On examinations with more than 10 credits, the number of written-answer questions was reduced in many cases to allow more time per question.

Solutions provide study aid

Solutions are now included in the study note sets for all courses. Study notes for all the Core and Fellowship courses have already included solutions to the sample exams, and now all mathematical examinations are covered as well. The solutions should prove an effective educational aid for candidates.

New investment track begins

The Education and Examination Management Committee has approved an Investment Track. Please see the article by Judy Strachan on page 15 in this issue for more information.

Health topics added

With the elimination of Course I-445 after November 1995, individual health topics are being added to two of the required U.S. Group and Health Benefits courses: G-421U (Group Financial Management and Regulation - U.S.) and G-422 (Group Insurance Pricing). Credits earned for these courses will increase in 1996 to reflect the enhanced syllabus coverage. A new Individual Disability Income course also will be added, appearing on the ILA Track as an elective, effective for the fall 1996 session.

FSA exams test practical skills

Progress continues to be made in increasing the number of questions on the Fellowship exams that ask candidates to demonstrate cognitive and practical skills beyond simple memorization of the material. Candidates are adapting effectively to the challenge of these types of questions.

ALM added to tracks

Course F-595 (Applied Asset/Liability Management) has been added to the Finance and Investment tracks beginning in fall 1995. Interested FSAs may order the study material and even write the examination if they wish.

Catalog on-line

The Fall 1995 Associateship and Fellowship Catalog is available through Actuaries Online, along with study note order forms.

C'est la fete! — Does it help to speak French to have a good time? These francophones from Canada are experts at both as they celebrate getting their FSA certificates at the Fellowship Admission Course in Dallas in March.

Papers Committee changes procedures

by Sam Cox

The Board of Governors has approved new operating procedures for the Committee on Papers. They are effective immediately, although some papers currently under review will be processed under the old procedures. The new procedures for reviewing and selecting papers for the *Transactions of the Society of Actuaries* will appear in revisions of the *Reviewers' Manual* and the *Authors' Manual.*

The goal of the new procedures is to improve the quality of the papers published in the *Transactions.* Authors will be encouraged to write for the *Transactions,* reviews will be more complete, and decisions on publishing papers will be reached more quickly. These procedures also will formalize the Society's intent to actively seek good papers, rather than merely reviewing papers as they are submitted.

New roles

Under the new procedure, the chair of the Committee on Papers serves in a role similar to that of an editor for other academic journals. The chair is responsible for selecting papers for publication from those submitted and for encouraging authors to submit their papers.

The chair's new role encompasses more responsibility and is now a Board of Governors appointed position for a two-year term. That term could be renewed one time, subject to Board approval, for another two years.

The chair also is responsible for recruiting and training associate editors and for recruiting additional reviewers, both members and non-members, as needed. The chair also is responsible for encouraging or inviting authors to write for the *Transactions* by contacting Society Sections, monitoring Section newsletters and presentations from seminars and meetings, and contacting potential authors directly and inviting them to submit a paper.

The vice chairs of the Committee on Papers now serve as associate editors of the *Transactions,* and each is assigned a subject area. Currently, these assignments are:

- Esther Portnoy — Mathematics and Statistics
- Bud Friedstat — Financial Reporting
- Elias Shiu — Finance
- Chuck Fuhrer — Health
- Bryn Douds — Life Insurance Products
- Marc Twinney — Pension

Reviewers, now called referees, will continue to review papers, but they will recommend, rather than vote on, whether a paper should be published. The chair, based on these recommendations, will decide on the publication of a paper.

Procedures

As a paper is submitted, the chair assigns it to a vice chair/associate editor, based on its subject. The associate editor then selects three individuals to write referees' reports, or reviews, on the submitted paper. The referees will be selected for their knowledge of the material. If necessary, the referees can be selected from outside the Committee on Papers and the Society of Actuaries.

The referees' responsibility will differ from the work reviewers perform now. For example, instead of making a decision and voting on a paper's acceptance, the referees will make independent recommendations regarding the publication of a paper. Their reports will be submitted to the associate editor assigned to the paper. The associate editor will recommend to the chair whether the paper is acceptable, acceptable with either minor or major revision, or rejected for publication. The decision categories and the criteria used to support them are the same as outlined in the *Authors' Manual* and *Reviewers' Manual.* The chair then will make the decision on the paper by attempting to build a consensus based on the referees' recommendations. Once a decision has been made on a paper, the associate editor will prepare a cover letter to convey the publication decision to the author.

An exception to the chair's authority on the publication of a paper would be in the rare case when the chair disagrees with the majority of the referees' reports. In such a case, the chair would notify the director of publications, who would decide the issue. The director of publications may ask for additional reviews of a paper or simply direct the chair regarding its publication. The author would not be involved at this point.

The appeals process for authors who disagree with the decision to reject their paper would not change. Authors currently can appeal a decision to the vic president in charge of publications. These procedures, as outlined in the current *Authors' Manual,* would be followed.

The duties regarding the judging of the Annual and Triennial Prizes have not changed. The Committee on Papers retains the responsibility for selecting these prize winners.

Result of new procedures

These new procedures will allow more flexibility in reviewing papers. Because referees can be selected from outside the profession, the Committee on Papers will be able to handle papers in subject areas where only a few Society members are expert. In addition, the image of the profession will be enhanced by exposing individuals from other disciplines to the work of actuaries. Finally, the new procedures will allow the committee to serve the profession better by improving both the number and quality of papers published in the *Transactions.*

Sam Cox is professor of actuarial science at Georgia State University in Atlanta and chair of the SOA Committee on Papers.

The view from the top

by Linda Heacox
SOA Public Relations Specialist

For the second time since 1988, "actuary" has been rated the best job in America by the *Jobs Rated Almanac*. Since this is only the third edition of the reference book, pride in your profession is appropriate.

Edited by Les Krantz and published by *World Almanac,* the book ranks 250 professions on the basis of:

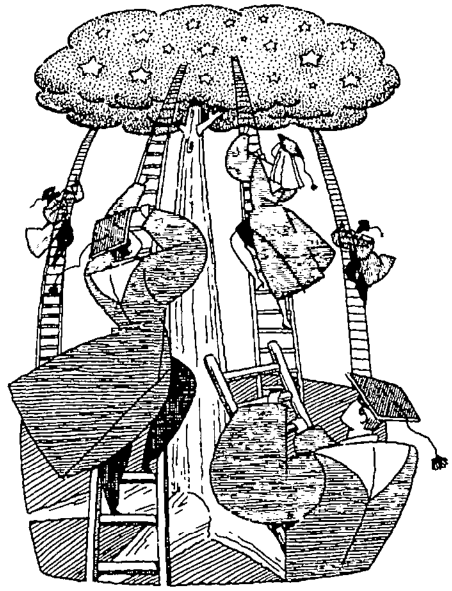
- Income
- Work environment
- Stress level
- Outlook for the future
- Physical demands
- Perks and benefits
- Travel requirements
- Geographic availability of jobs
- Security

Using these criteria, the actuarial profession was rated higher than other well-regarded careers, such as physician (96) and attorney (58). Insurance underwriters, by the way, are ranked 28.

Here's what the editors had to say about the profession:

- **Environment** (ranking: 2) - Actuaries work in offices and use computers and charts to assist in calculations. Work weeks consist of approximately 45 hours, except during busy periods. Inactivity and pressure of deadlines are common to this profession. Contacts include statisticians and insurance sales personnel.
- **Income** (ranking: 29) - Starting: $34,000. Mid-level: $70,000. Top: $132,000. Growth potential: 288%.
- **Outlook** (ranking: 51) - Promotion opportunities: Qualified workers in this occupation can move from assistant or associate to chief actuary within an insurance company or other organization. Employment opportunities for actuaries will remain good through the next decade, as the volume of insurance sales increases, and pension plans are expanded and liberalized. The rising average age of the population will contribute to a greater need for health and pension benefits. Continuing diversity among types of insurance coverage (dental or malpractice, for example) will stimulate a growing demand for actuaries. Members of this profession are not likely to be laid off during a recession.
- **Security** (ranking: 27) - Employment prospects for actuaries are projected to increase faster than the average through the next decade. This profession appears to be very stable.
- **Stress** (ranking: 6) - Hours per day: 9. Time pressure: moderate. Competition: low. Because actuaries work with statistical data, constant attention to detail is necessary. They must be precise in their calculations, and they must carefully analyze large amounts of data.

#1 JOB



Krantz said that the high showing of the profession in his survey is the result of "the information age's dependence on numbers and computers to crunch them." The number two job was "software engineer."

Though the publicity generated by the rating is viewed as positive for the profession by SOA officials, it's difficult to gauge the impact it has on those considering an actuarial career. The number of exam registrants did increase dramatically from 1987 to 1990, but that trend had already started by the time the first edition came out in 1988, according to Bern Bartels, SOA registrar. In 1987, total candidates passing the first exam were 2,693; in 1988, 3,329; in 1989, 3,996; and in 1990, 4,378.

Although it is hard to know what percentage of the increase was due to the almanac, Bartels thinks it provided a boost. So does Marta Holmberg, Ph.D., education executive. Both say awareness of the profession definitely increased because of the book. They base that assessment on the increase in phone calls inquiring about the profession immediately following the book's release.

This time around, William Cutlip and his colleagues on the Career Encouragement Committee would like to aim this information at a new group of potential actuaries — high school students. Cutlip, who is chair of the committee, said his group meets this summer to discuss ways of targeting likely high school candidates and hopes to use the book to make inroads.

"In the past, we've targeted college-level people," he said. "But we'd like to see what we can do on the high school level. Certainly, this book will help in those communications with students, teachers, and guidance counselors."

To compile the statistics in the book, the editors rely on government sources, professional associations, and unions. It is intended as a resource for job seekers, human resource professionals, and college placement personnel. The book's publicist, Chris Artis of John Wiley & Sons, said the almanac sold about 50,000 copies of its 1988 and 1992 editions.

Mutual company GAAP: Doubly different

by Daniel F. Case

Many of us are used to thinking of the difference between statutory accounting principles (SAP) and generally accepted accounting principles (GAAP), in terms of the degree of conservatism employed. In particular, we think of the mortality and interest assumptions chosen under the two approaches as producing larger SAP reserves than GAAP reserves for the same policy liabilities. The treatment of acquisition expenses may give rise to additional conservatism in SAP reports compared to GAAP. Other differences between SAP and GAAP exist, of course, such as in the valuation of assets.

Now we have GAAP for mutual life insurance companies, as prescribed by the Financial Accounting Standards Board (FASB) and the American Institute of Certified Public Accountants (AICPA). The new mutual company GAAP reports will differ from mutual company SAP reports not only in their degree of conservatism but also in presenting different items of information.

Nature of the GAAP bottom line

Where mutual company SAP balance sheets show the company's surplus, GAAP balance sheets will show something different that many actuaries consider useful for management purposes. It can be described by quoting from the 1986 report of a committee of the Society of Actuaries Task Force on Mutual Life Insurance Company conversion:

> The most useful form of mutual life insurance company financial statement for management purposes is the one that best reflects...realistic operating results. ...Future dividends on participating policies are properly treated as obligations for management accounting purposes. ...

With this approach, the FASB-AICPA mutual company reports will treat future dividends as obligations, that is, accrue them in a liability item.

This may not be immediately apparent, because the FASB-AICPA documents call for the policy liability to be calculated without reference to future annual dividends. The treatment is to be achieved, however, by employing conservative mortality and interest assumptions. The result will be something akin to what some actuaries call "asset shares" or "dividend funds." It will be somewhat as if GAAP-type mortality and interest assumptions were used and future dividends were built into the calculation. As the AICPA document says:

> This estimate of the liability is consistent with the view that the mutual life insurance enterprise is liable for the guaranteed provisions of the policies it sells and for paying dividends related to favorable experience.

The AICPA document calls for dividends to be treated as expenses when paid and for "terminal" dividends expected to be paid in the future to be explicitly accrued as part of the "liability for future policy benefits."

The above relates to "traditional" policies. For universal life policies, the prescribed treatment is similar to that under stock-company GAAP. Policy dividends are, however, likely to be negligible or nonexistent in the case of universal life policies issued by mutual companies.

Clearly, the "bottom line" item obtained when liabilities determined as above are subtracted from assets will not be a mutual company's surplus. Dividends, as described in actuarial literature and in mutual company participating policies, are not expenses; they are distributions of surplus. If they can be said to accrue, they accrue in surplus. If the bottom line were to show the surplus, future dividends could not be accrued in a liability.

Labeling the GAAP bottom line

The FASB and AICPA documents do not say how the bottom line of the balance sheet should be labeled, but "Surplus" would be an inaccurate caption. Since a portion of surplus representing the accrual of future dividends will be excluded from the bottom line, a more accurate name would be, "Surplus Not Dedicated to Existing Policyholders."

Accountants may prefer to use the phrase, "Policyholders' Equity," instead of referring to the company's surplus. However, the policyholders to whom the mutual-company GAAP bottom line will be attributable do not include the company's existing policyholders. All the existing policyholders' interests will be reflected in the liabilities. Yet in a mutual company, it seems reasonable to attribute any excess of assets over liabilities to participating policyholders of the company. Since under FASB-AICPA GAAP the bottom line will be attributable to neither existing policyholders nor past policyholders, it seems reasonable to attribute it to future policyholders.

The stockholders of a stock company (e.g., General Motors) expect dividends to be paid out of stockholders' equity. Similarly, the participating policyholders of a mutual life insurance company might reasonably expect policy dividends to be paid out of the bottom-line amount if it were captioned, "Policyholders' Equity." As explained earlier, however, management will not expect to pay dividends to existing policyholders out of the GAAP bottom-line amount. Accordingly, "Future Policyholders' Equity" would be a misleading caption.

Similar considerations apply when labeling other related items in mutual-company GAAP reports.

Daniel F. Case is an actuary with the American Council of Life Insurance in Washington, D.C. This article reflects the views of the author and not those of his employer or any other organization.

SECTION CORNER

Computer Science

A proposal to create an electronic database of mortality tables, discussed in the September 1994 issue of *CompAct*, generated so much interest that the Computer Science Section Council approved development of the project at its October meeting. Now a reality through Actuaries Online, the file has been accessed 79 times.

Based on a prototype version of an actuarial table, these compressed archive tables can be extracted by either ASCII or WKI format and then added to the database using files in that format. The title is "Prototype Mortality Table Database," and the keys for searching are "Mortality Tables Software Spreadsheets." This prototype is designed to foster comment and to encourage participation in developing a standard means of distributing actuarial tables through an electronic medium.

Questions and comments about the program can be directed to Stephen J. Strommen at his CompuServe e-mail address: 74017,2177. Strommen is treasurer of the Computer Science Section Council.

The spring meeting in Vancouver, British Columbia (June 26-28) offers several sessions planned by the Computer Science Section:

• **Technology News Flash**
How are actuaries using new technology? Hear panel members discuss actual experiences, successes, and challenges.

• **Actuarial Surfing on the Internet**
What can the Internet offer actuaries? See and hear what services are offered, and what companies are doing to utilize this technology of the future today.

• **Successfully Managing Systems Development**
Having a problem with project management tools? Discover what makes systems methodology and its expectations different from actuarial work and how to utilize this valuable technical discipline.

• **Successfully Managing Systems Development** (follow-up)
Who can solve systems development problems? Find creative solutions to systems development challenges by brainstorming with fellow actuaries.

Financial Reporting

The National Association of Insurance Commissioners (NAIC) Life and Health Actuarial Task Force (LHATF) gave final approval of the Valuation of Life Insurance Policies—Special Rules—Model Regulation (Guideline XXX), and Guideline GGG during their March meeting. The task force also began work on a draft statement of principles and objectives to underlie the Second Standard Nonforfeiture Law for Life Insurance.

An update of the NAIC Model Law for Minimum Reserve Standards for Individuals and Group Health Insurance contracts can be found in the March 1995 issue of *The Financial Reporter*. Two laws that directly impact reserving for health products are examined: the Model Law for Minimum Reserves Standards for Individual and Group Health Insurance Contracts (A&H Model) and the Standard Valuation Law (SVL). Included with the article are tables that list the major provisions of the current NAIC A&H Model, the states that passed the A&H Model Law, and which of those states passed the valuation actuary provisions of the NAIC SVL.

Also in the March issue of the *Financial Reporter* is an article on new cost views. The report identifies the audiences needing better cost information, lists the issues and objectives each audience must face, and concludes with a review of the evolution, techniques, and deficiencies of costing.

Five projects were discussed at the NAIC Life and Health Actuarial Task Force meeting last December. The Actuarial Opinion and Memorandum Regulation was listed as a priority one project.

Pension

The March 1995 issue of *Pension Section News* carries a partial reprint from the policy paper, "Troubled Tomorrows—The Report of the Canadian Institute of Actuaries Task Force on Retirement Savings." Citing a similar situation with the United States (where the working population that supports social security funding is expected to go from "boom" to "bust"), the study examines the impact retirement savings plans could have in keeping Social Security viable. Copies of the full report are available from the Canadian Institute of Actuaries, 613/236-8196.

Some of the sessions prepared by members of the Pension Section for the upcoming spring meeting, June 26-28 in Vancouver, are:

• **Pension Provisions of GATT: Funding Issues and the Deficit Reduction Contribution**
What funding issues are associated with the changes brought about by the Retirement Protection Act of 1994? This seminar outlines changes to the full-funding limitation, provides details on figuring deficit reduction contributions, and outlines continuing needs.

(continued on page 14)

Section Corner
(continued from page 13)

• **Pension Provisions of GATT: Non-Funding issues**
What are the non-funded issues of the Retirement Protection Act of 1994? Premium changes, the effect on excise taxes, and the calculation of lump sums are some of the seminar topics.
• **Balancing Defined Benefit and Defined Contribution Plans**
How should these pension plans be handled? Seminar attendees can expect to find a fresh approach on this important subject.
• **Social Security Programs in Canada and the United States**
Will Social Security be there for future retirees? Alternative funding prospects and benefit stipulations on the financial security of participants are going to be explored.

Reinsurance
The March 1995 issue of *Reinsurance Section News* contains a regulatory update. The report discusses reinsurance tax, federal and state regulations, NAIC regulatory activity, industry group activity, and financial news.

Smaller Insurance Company
Smaller Insurance Company Section Chairman John M. O'Sullivan, now vice president of Protective Life Insurance Company, Birmingham, Ala., outlines his goals as Section chair in the December 1994 issue of *Small Talk*. Sullivan stresses the need to build on work accomplished during the Section's first year and his desire to explore new areas. One proposal emphasizes building a resource manual of organizations, service bureaus, or software vendors able to assist Section members with getting their jobs done more efficiently. Another idea is to share previous project outlines from Section members so others may benefit from previous experience.

Society member reprimanded

The Society of Actuaries Committee on Discipline has voted for a public reprimand of William B. Dandy, FSA. This action was taken following an investigation and hearing by the Actuarial Board for Counseling and Discipline (ABCD) and evaluation of their findings by the Society's Committee on Discipline.

The ABCD found that Mr. Dandy violated Precepts 2, 3, and 4 of the Code of Professional Conduct. He agreed to undertake an assignment to calculate the unpaid claim liability and provide a Statement of Actuarial Opinion for the 1991 annual statement of a small life insurance company. His work was completed in six days, and he issued a "clean" statement of Actuarial Opinion, although:

a) He did not obtain the Statement of Actuarial Opinion for the 1990 annual statement.
b) He did not obtain information about the adequacy of the unpaid claim liability reported in the 1990 annual statement, and he did not analyze the relationship of that liability to the liability he calculated for the 1991 annual statement.
c) He made no effort to determine why the assignment was requested so close to the filing deadline.
d) He stated in his opinion that reserves "are computed on the basis of assumptions consistent with those used in computing the corresponding items in the annual statement of the previous year-end," when he had no information as to how items had been computed at the previous year-end.
e) He exhibited an inadequate understanding of his professional obligation with respect to the appropriate Qualification Standards and his need to maintain personal records of his compliance with these Standards.

The Committee believes that the deficiencies in the approach to the assignment that Mr. Dandy undertook are especially serious when considered in the context of the public trust placed in the resulting Actuarial Opinion.

Thesis supervisor needed in Nankai

Nankai University in China needs another volunteer thesis supervisor for the 1996 fall semester. During the three-week stay on the Nankai campus, supervisors hold seminars on contemporary issues in insurance and social security and on applying actuarial techniques to solve problems. They help guide students in selecting topics, preparing research, and writing theses.

The supervisor needs to be a senior SOA member who has practical experience in the insurance business or academic experience in supervising graduate students' theses.

Interested persons should contact Dr. Kailin Tuan, Program Coordinator, 212 South View Drive, Cherry Hill, NJ 08034; telephone: 609/429-7997; fax: 609/429-4053.

Investment track approved

by Judy Strachan
SOA Education Actuary

The SOA Education and Examination Management Committee has approved a new Fellowship Track in investments, effective November 1995. For the first time, the track offers candidates a path to Fellowship with an investment focus. First envisioned in 1989 by the Task Force on Investment Education, the decision was to develop the track slowly through the introduction of elective courses over time as actuarial expertise in these areas increased. With the introduction of Course F-595, Applied Asset-Liability Management, the vision has become reality.

The Investment Track has elements of both portfolio management and asset-liability management (ALM), with an emphasis on ALM. Required courses for the track are:

- F-385, Financial Management
- F-480, Derivative Securities: Theory and Practice
- F-485, Advanced Portfolio Management
- F-585, Applied Corporate Finance
- F-595, Applied Asset-Liability Management

In addition to Course F-595, required courses for the new curriculum consist of two current electives and two required courses from the Finance Track. Despite the overlap, the focus of each track is distinct and emphasizes different skills and knowledge. The Finance Track focuses on financial issues facing banks, insurance companies, investment houses, and other institutions.

An emphasis on asset-liability management is a natural extension of the actuary's traditional strengths, quantitative skills, and understanding of liabilities. Investment principles require an understanding of contingencies other than life contingencies. ALM uses both extensions of traditional modeling and new modeling techniques.

An increasing number of SOA members have found roles in the investment operations of financial institutions and benefit programs. As investment vehicles become more complicated and less predictable, actuaries who have additional training in ALM, portfolio management, and other topics that relate directly to investments become more valuable. The Investment Track provides recognition for this career direction and greater opportunity to develop the skills necessary to pursue employment in these areas. Creation of the Investment Track is a public statement that actuaries' skills can play a major role in investment operations.

Applied asset-liability management course created

A new 20-credit course, F-595, on applied asset-liability (ALM) will be offered for the first time in fall 1995. This course complements the theoretical investment concepts covered in courses F-480, Derivatives Securities: Theory and Application; and F-485, Advanced Portfolio Management. While the material further explores some theoretical concepts, this course is intended to develop the student's knowledge of asset-liability matching strategies with an emphasis on practical applications.

Completion of this course will enhance skills necessary for work in areas such as risk management for financial institutions, product design for products with substantial saving components, liaison roles between investment and product areas, pension asset consulting, and, perhaps, direct responsibilities with investment operations. The course provides an overview of ALM techniques, covers applicable modeling techniques, explores ALM applications in the area of pension investment management, looks at the uses of swaps and other derivative securities as ALM tools, and discusses the ethical issues that may arise in practice.

A complete list of study notes for this course is as follows:

595-21-95	Strategies and Techniques for Asset-Liability Management: An Overview
595-22-95	A Numerical Examination of Asset-Liability Management Strategies
595-23-95	CIA Measurement of Exposure to Interest Rate Risk, including Appendices
595-24-95	A Guide to Buying Convexity
595-25-95	Strategies and Tools for Managing Interest Rate Risk
595-26-95	Non-Parallel Yield Curve Shifts and Durational Leverage
595-27-95	Non-Parallel Yield Curve Shifts and Immunization
595-28-95	Managing Illiquid Bonds and the Linear Path Space
595-29-95	Key Rate Durations: Measures of Interest Rate Risks
595-30-95	Applying Ethics in the Real World
595-31-95	The Role of Ethics in the U.S. Capital Markets
595-32-95	Managing Pension Fund Investments, Chapters 10 and 11 (omit paragraph 11.06)
595-33-95	Asset Performance and Surplus Control: A Dual Shortfall Approach
595-34-95	Funding Ratio Return

OPINION

The regulated road to ruin

by Irwin T. Vanderhoof

The investing community will soon start to recognize that the accounting profession, as goaded by the Securities and Exchange Commission (SEC), has developed a set of regulations for the insurance industry that might have severe adverse effects on U.S. capital markets.

It is possible for investors to find three companies with identical business and investments that report strikingly different results. The first shows good earnings and growth of capital; the second shows good earnings but a reduction in capital; the third shows poor earnings passed through to a comparable reduction in capital. What may not be easily evident is that the third company might be the best managed one. This situation is created by FAS 115, in which financial statements provide less information about companies than in the past, where comparability of statements between companies is reduced and, finally, where management is encouraged by accounting to do the wrong thing.

Why does this matter to the capital markets? Because the bond market is dominated by insurance companies. Fixed-rate, long-term borrowing by business and industry is dependent on the existence of $2 trillion of assets in the insurance industry. If insurance companies no longer lend at fixed rates, then the nature of business expansion in the low-savings-rate United States must disintegrate. These various distortions in reporting financial results could adversely affect growth of insurance business and its willingness to make long-term, fixed-rate loans.

How did FAS 115 go so wrong? It began with the dirty little secret of the insurance industry, which periodically goes underwater: market value of assets less than book value of liabilities. It

happened during the Great Depression. When bonds had big drops in market price, the insurance commissioners said that companies could ignore the market prices and use values that showed they were solvent. Since none of the big companies actually went under, the industry sailed through the '30s with a pretty good record.

It happened again during the '80s. The market values of all life insurance company assets were well below the values that would be paid if all policies were surrendered. However, this was as irrelevant as worrying about the Verranzano Bridge collapsing if all the New York marathoners went across it all in step. Runners go over the bridge at their individual paces. Similarly, policyholders don't surrender their policies en masse. Since companies did not report the market value of their assets had fallen, no one was concerned, and the "run on the bank" did not occur.

However, the companies realized how close that barely dodgeable bullet came. They worked with regulators to clean up their act. High-tech computers became available that could model the group behavior of various policyholders over possible patterns of future interest rate movement. Actual company assets also could be modeled, assuming bonds were called en masse and collateralized mortgage obligations (CMOs) were paid off in conformance with historic norms. Using hundreds of projections based on different assumed interest rate scenarios, companies could determine asset structures that would allow them to pay off all legitimate policyholder claims as they came due under all plausible possibilities. State regulators set up requirements that company actuaries certify if actual company assets were adequate to pay off liabilities under some specified sets of interest rate scenarios. In addition, new industry standards were set for relating the capital a company needed to the riskiness of the assets. The Executive Life situation would not be repeated.

However, the SEC thought market values were needed to help investors judge a company's value. The values of both the assets and liabilities change with fluctuations in interest rates, but nobody could come up with a generally acceptable way to obtain the market values of an insurance company's liabilities. So, the Financial Accounting Standards Board (FASB) came up with FAS 115. It failed to pass on the first vote. The SEC was rumored to have lobbied vigorously, and the next day the Standards Board barely passed the standard. I haven't met an accounting firm working with insurance companies that will defend it.

This stupid standard attempts to adjust the balance sheet of insurance companies the easy way by simply adjusting the values of the assets without adjusting the value of new liabilities. Since the net worth of a company is the assets less the liabilities when interest rates go up 300 bp, as they did in 1994, we say the value of the companies' capital goes down about $200 billion. This wipes out the industry's capital.

It would look bad for the SEC and the accountants to wipe out the bond market so quickly, so they needed a way to blame the industry for the problem. This follows the pattern of blaming the George Baileys of the savings and loan industry for being unable to cope with interest rate problems in the '80s. The SEC and accountants thus decided to allow companies to determine how they wished to die.

Companies are therefore allowed to classify their bond holdings into three groups. Group I is hold to maturity. Holdings in this class are not marked to market at all. Group II is available for sale. Holdings in this group are marked to market, but the changes in value don't go through earnings. They are marked directly to the capital account. Group III is the trading account. Holdings in this group have changes in value posted to earnings.

Under the old system of book values for assets and liabilities, the stockholder had some confidence that, since the assets were adequate to cover demands of the liabilities, the value of capital was about as stated. That assurance no longer exists. Because companies may decide how many bonds go into each group, comparability between company statements is reduced. Since the balance sheet and earnings are protected by classifying all bonds as hold to maturity, companies are encouraged to limit their ability to adjust to changes in the economy and to invest in illiquid assets.

The three companies in the opening illustration were assumed to have had identical assets and businesses. The first company had elected to make its assets illiquid by calling the hold to maturity. It had protected its earnings and net worth. The second company had said its assets were available for sale. Assets can be sold, but the number of transactions seems limited. It had protected its earnings. The last company had called its bonds a trading account. It had preserved its flexibility to adjust assets, as was required by safety considerations. It would show an operating loss adequate to eliminate its net worth. The resulting run on the company by frightened policyholders would be used by the federal government as reason for more regulation and by the FASB as a reason for more accounting standards.

The situation is even stranger when you consider the preceding applies only to generally accepted accounting principle (GAAP) statements. Statutory statements, the ones regulators use, stick to book values and are at least consistent over the years. Mutual companies, owned by their policyholders, won't have to be involved in FAS 115 until next year and then only if they want a clean audit opinion. The strongest companies may elect to refuse to follow FAS 115. Obedience to the SEC dictum would then be a sign of company weakness, and the additional weakness conferred by a foolish standard.

The adherence to the inappropriate market standard is another example of the damage that can be done by regulators preferring orthodoxy to understanding the business they regulate.

Stay tuned for the results of the Market Valuation of Liabilities call for papers, sponsored by the Society of Actuaries.

Irwin T. Vanderhoof is a clinical professor with the Stern School of New York University and chair of the SOA Committee on Life Insurance Research.

Upcoming conferences

A. C. Aitken conference call for papers

The A. C. Aitken conference will be in Dunedin, New Zealand, from August 28 to September 1. Honoring the centenary of the birth of actuary A. C. Aitken, mathematician and statistician, the meeting will examine both the academics of actuarial science and its practice. For information on attending or presenting a paper, fax Leigh Roberts at 64-4-495-5118, or e-mail: leigh.roberts@vuw.ac.nz

Issues in Insurance Regulation Symposium

Jointly sponsored by the National Association of Insurance Commissioners (NAIC) and the American Risk and Insurance Association (ARIA), this symposium will be held December 1-2, 1995, at the Marriott Riverwalk in San Antonio, Texas. The theme of this first insurance regulation symposium is "Alternative Approaches to Insurance Regulation." Queries about this meeting should be addressed to Dr. Robert W. Klein, director of research for the NAIC. E-mail: sso!naicp01!rwk@naicgate.attmail.com or fax: 816/889-4446.

Derivatives and Financial Mathematics call for papers

The American Mathematical Society meeting March 22-23, 1996, at the University of Iowa in Iowa City, will include a special session on "Derivatives and Financial Mathematics." Those interested in attending or presenting a paper should write John Price, Department of Mathematics, DB 1127, Maharishi International University, 1000 North Fourth Street, Fairfield, Iowa 52557-1127, phone: 515/472-7000, ext. 3335; or e-mail: jprice@miu.edu, or 75444,1465@compuserve.com. The deadline for paper abstracts is September 30.

THE COMPLETE ACTUARY

Coming to a neighborhood actuarial club near you

by Alan Finkelstein

The Michigan Actuarial Society had the dubious distinction of being the first actuarial club to invite a member of the SOA Committee on Management and Personal Development as a guest speaker last November. I was there to present the purposes and activities of the committee.

Leonard Tandul, a past member of the committee, sent a questionnaire in 1993 to all actuarial clubs in North America. Sixty-five percent of the clubs responded, with information on membership size, number of meetings a year, average attendance, and the titles of any management seminars or presentations at prior club meetings. Ten clubs indicated they had meetings with management topics.

My presentation included a history of the committee, which dates back to 1988; its mission, which is to plan, implement, and actively promote management and business skill development for members; and plans for 1995.

Our theme, chosen by Chair Chuck Haskins, is "Positioning Yourself for Management and Leadership in the Year 2000." Workshops planned for spring and annual meetings focus on:

- Identifying means to maximize managerial skills
- Getting results through leadership
- Managing diversity
- Resolving conflict
- Career planning

In addition, current activities include articles in The Complete Actuary series in *The Actuary,* a Professional Actuarial Specialty Guide (PASG) on communications, and contributions to Actuaries Online, the Society's bulletin board system.

In a nutshell, the committee is here to serve members' needs. Please let us know if we can assist you in any way. We'll be delighted to visit your club and serve as speakers or make arrangements for a guest speaker.

Alan Finkelstein is assistant actuary, group, for the North American Reassurance Company in New York and a member of the SOA Committee on Management and Personal Development.

Exam seminars

SOA course 150 preparation

An intensive seminar to prepare candidates for the Society of Actuaries Course 150 exam will be September 30-October 7 at the Radisson Hotel on Town Lake in Austin, Texas. To register, contact Dr. James W. Daniel, 4212 Cat Hollow Drive, Austin, TX 78731-2004; telephone/fax: 512/343-8788. Registrants will receive materials to help assess their readiness to take the examination.

Waterloo actuarial seminars

Seminars for most of the Society of Actuaries' courses will be offered by professors from the Department of Actuarial Science at the University of Waterloo during the month of October. Professor F. G. Reynolds will teach the following seminars: courses 151, 160, 161, 165, 220, I-342C, P-361C, P-362U, P-364C, F-385, I-440C, I-445, F-485, G-522, P-562, P-566U, F-590 and F-595 in Waterloo. He will teach courses 220, G-320, I-343U, I-441U, and I-542 in St. Louis.

Professor K. P. Sharp will teach Course 210 in Hartford and St. Louis. Professor G. E. Willmot will.teach Course 150 in St. Louis. Call Reynolds at 519/886-5232 or Willmot at 519/888-4567, ext. 5550. Messages for Sharp can be left with Professor Rob Brown at 519/888-4567, ext. 5503.

A.S.M. workshop

Actuarial Study Materials (A.S.M.) will have an intensive workshop for the EA-2 examination on October 20-22. Consult your Society study note package or call Harold Cherry at 516/868-2924.

A.S.M. study materials

Actuarial study manuals and textbooks for the November 1995 SOA exams can be ordered by calling A.S.M.'s new toll-free number: 800/4545-ASM. For details, see the Society study note package or write to A.S.M., P.O. Box 522, Merrick, NY 11566.

SOA member invited to Malaysia

by Stuart Klugman

Last December, I was invited to spend a week in Malaysia by the Malaysian Insurance Institute (MII) and the Malaysia National Insurance Company (MNI). I met informally with the actuarial staff of MNI and the professional staff of MII and presented a lecture on "New Developments in Actuarial Theory" at University Science Malaysia on the island of Penang.

I also spoke at an all-day seminar entitled, "Actuaries Make a Difference," at MII at Kuala Lumpur. The seminar began with an overview of the Society of Actuaries and the Casualty Actuarial Society education and examination systems. This sparked a lot of discussion, because Bank Negara, the organization that regulates insurance, has decreed that all insurance companies have a least one Associate and one Fellow on staff by December 1995. In recognition of the need for exam-qualified actuaries, MII has supported the SOA system by offering review courses for exams 100-165. This training is becoming more essential as the variety of insurance products being allowed continues to increase (for example, life annuities will be allowed beginning this year). Obtaining the needed quantity of actuaries will be difficult. There are 18 companies and currently 36 Associates and 10 Fellows. Salaries and other benefits such as study time are not at the same level as in North America. As a result, some Malaysians have preferred to remain in North America rather than bring their expertise home.

Stuart Klugman (center) spends time in Malaysia as a guest of Dato' Annuar Senawi (left), executive chairman of Malaysia National Insurance (MNI), and Hassan Kamil (right), deputy general manager of MNI.

The second part of the program was on professionalism. Many in the audience of 120 were unaware of what it means to be a professional actuary or that a code of conduct, standards of practice, and disciplinary procedures exist. Some were surprised to learn that practicing outside North America does not free an SOA member from these obligations.

The morning concluded with a panel discussion on the role of actuaries. Joining me were four senior management officers from insurance and asset management companies and the deputy general manager of MII, Hassan Kamil.

The afternoon concluded with a technical presentation on insurance modeling using stochastic models, the collective risk model, and maximum likelihood estimation, closing with an example from Intensive Seminar 152.

The profession in Malaysia and in North America both share the search for respect. In North America, we are looking for ways to have actuarial expertise respected by noninsurance, risk-taking/measuring enterprises. In Malaysia, actuaries are still looking for respect within the insurance industry. In both cases, it is difficult to show what we can do unless someone gives us the chance to do it.

The requirement that companies have an exam-qualified staff is a good start. However, after completing exams, Malaysian actuaries may need more help in learning to apply the concepts to the particular problems of Malaysia (for example, the Takaful, an insurance scheme based on Islamic principles). The MII is hoping to assist by providing education opportunities and may turn to the SOA for help.

Stuart Klugman is the Principal Financial Group professor of actuarial science in the College of Business and Public Administration at Drake University.

Actuarial education makes the grade in China

by Yu Luo

Less than a decade ago, actuarial science was new to the People's Republic of China. No program curricula existed at educational institutions. But with dramatic growth in the insurance industry, the need for training became apparent.

A master's degree program in actuarial science was established in 1988 at Nankai University in Tianjin under the leadership of Dr. Kailin Tuan, with support from the Society of Actuaries. Program goals were to train and provide qualified actuaries for insurance companies and the government and to train qualified teachers of actuarial science for Nankai, as well as other Chinese universities.

In the first three years, courses were taught by Chinese professors and members of the Casualty Actuarial Society and the Society of Actuaries, and continued support was also provided throughout the second three-year cycle. The SOA currently supports the program in the third cycle with textbooks and with tutors, preparing two experienced actuaries to be advisors for thesis development. Students taking actuarial exams at four Chinese exam centers have an average passing rate of 80%, nearly twice the global passing rate.

To date, 13 graduates have become Associates of the Society of Actuaries. A total of 26 graduates now work in government, commodities, education, finance, insurance, and real estate.

The success of the Nankai actuarial program has led other Chinese colleges and universities to offer undergraduate courses or undergraduate degrees with one other, the Central Institute of Finance and Economics in Beijing (in cooperation with the British Institute of Actuaries), offering a master's degree.

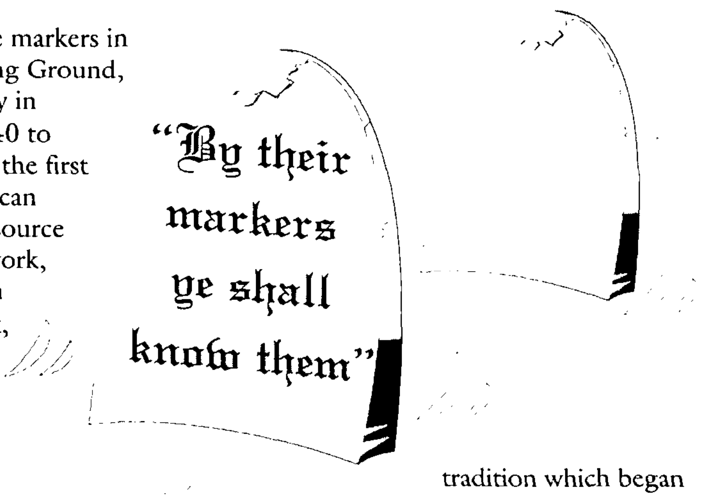
The future for the profession in the People's Republic of China appears bright, even though it faces some difficulties. These include managers' lack of awareness of the importance of actuarial science and graduates' lack of apprenticeships to gain practical experience in actuarial work. A provision of the upcoming insurance law requires a company to have an actuary to obtain a business license for handling life insurance. In addition, the Chinese Actuarial Association has been organized to promote recognition of the actuarial profession and to exchange information.

Yu Luo is with the Finance Department of Nankai University in Tianji People's Republic of China, and is an ambassador to China in the Society of Actuaries Ambassador program.

RETIREE CORNER

Gravestones are a record of mortality, so it's not surprising that a retired actuary is involved in helping restore a cemetery. Shepherd M. Holcombe, former president and chairman of Hooker & Holcombe, Inc., of West Hartford, Conn., has even written a book, "By Their Markers Ye Shall Know Them," about the Ancient Burying Ground's 10-year, $1.1 million restoration. His co-author is William Hosley, American decorative arts curator with the Wadsworth Atheneum.

These gravestones are more than basic information about a person's life and death. The markers in the Ancient Burying Ground, the major cemetery in Hartford from 1640 to 1815, are some of the first examples of American colonial art and a source for history, stonework, and a lifestyle from long ago. This spot, with only 600 of the 6,000 graves identified with markers, is the resting place for governors and pastors, women tavernkeepers and a woman financier, Irish immigrants and African Americans, as well as the executioner of 17th-century Hartford witches.



Holcombe is carrying on a family tradition which began in the 1890s when his grandmother first worked to restore the cemetery. He serves as the chair of the Ancient Burying Ground Association, publisher of the book, which is available from the Connecticut Historical Society.

Factuaries

This is another in a series of profiles of members of the Society's Board of Governors.

Name: Peter Hepokoski

Current hometown: Golden Valley, Minnesota

Current position and employer: Assistant Vice President and Investment Actuary, Northwestern National Life Insurance Company, Inc.

Marital status: Married to wife Mary 26 years

Children's names and ages: Dan (a.k.a. Dog Boy) 17, Karl 14, and about 50 foster children over the past six years ranging in age from newborn to 7

Birthday: June 22, 1947 (same as the late Pete Maravich)

Birthplace: Wadena, Minnesota

My first job was: Delivering the *Minneapolis Morning Tribune* to all subscribers in the northwest quadrant of Wadena (about 30 square blocks)

With experience, I've learned: Attitude is the most important ingredient in how you feel and what you accomplish

I completed my FSA in: Five years

I'd give anything to have met: Jackie Robinson

The movie I'd most like to own the tape of: "Airport," because I was in it

Nobody would believe it if they saw me: Singing along with '50s/'60s folk, gospel, and Johnny Cash songs on the radio

The TV show(s) I stay home to watch: Post-season baseball games—I even take vacation time to stay home and watch them

When I'm feeling sorry for myself, I: Seek out chocolate

If I could do anything, I'd: Solve some of America's core problems, such as poverty, homelessness, and illiteracy

If I could do it over, I'd: Probably still be a lousy golfer

I care most about: People

My proudest actuarial moment: A dinner the E&E Committee held in my honor in Montreal in 1987 upon completion of 13 years with E&E

I may be the only actuary who: Has attended games at 33 major league baseball parks

3 universities receive SOA grants

Three universities recently received grants from the Society of Actuaries for full-time faculty members achieving SOA designations. The Society of Actuaries awarded the University of Connecticut at Hartford's Center for Actuarial Studies a $2,500 grant in recognition of the Associateship status achieved by faculty member Dr. Ning Zhong, assistant professor of mathematics. The School of Mathematical Science and Computing at Mara Institute of Technology in Selangor, Malaysia, also received a $2,500 SOA grant, recognizing lecturer Mohd Hanafi Tumin's ASA achievement. The Department of Economics and Statistics at the National University of Singapore received a $5,000 grant when a senior lecturer, Dr. Wai Sum Chan, achieved Fellowship status. The schools will use the funds for students or faculty to attend actuarial conferences, to purchase books, journals and software, and for actuarial exam fees.

At the May 1995 SOA Board of Governor's meeting, the Board voted to increase university grant amounts. Beginning August 1, 1995, $5,000 will be awarded to the school of a full-time faculty member achieving ASA status, and $7,500 will be awarded to the school of a full-time faculty member achieving FSA status.

IN MEMORIAM

Larry Lang
FSA 1977, MAAA 1979,
FCA 1981, EA 1981

Alexander Marshall
FSA 1958

Alexander C.M. Robertson
ASA 1954, FCIA 1965,
MAAA 1968, FFA 1954

on the lighter side

What are the odds?

By Linden Cole

Someone on the SOA staff pointed out that when Bob Berin gives his presidential address at the Boston annual meeting in October, he also will be honored at the meeting as a 35-year Fellow. The person asked one of the staff actuaries the probability of that happening. We are appealing to our members to help answer that question.

Bob Berin is the 46th president of the SOA. Of his 45 predecessors, two were celebrating their 35th year as a Fellow when they gave their presidential addresses. Perhaps the probability is 2/45. On the other hand, Bob likes to stand up and be counted, so perhaps the probability used to be 2/45, but is now 3/46.

The distribution of SOA presidents by years since Fellowship at the time of their respective presidential addresses is shown on the chart below.

Does this chart shed any light on the situation? It would if we used the formula:

[total living members of Class of 1960]/[total living Fellows] = ________________

That formula will give too small an answer, since it is clear from the distribution that the likelihood of anyone being elected president before his or her 21st year as a Fellow is very small. This suggests the formula:

[total living members of Class of 1960]/[total living Fellows through FSA 1975] = ____

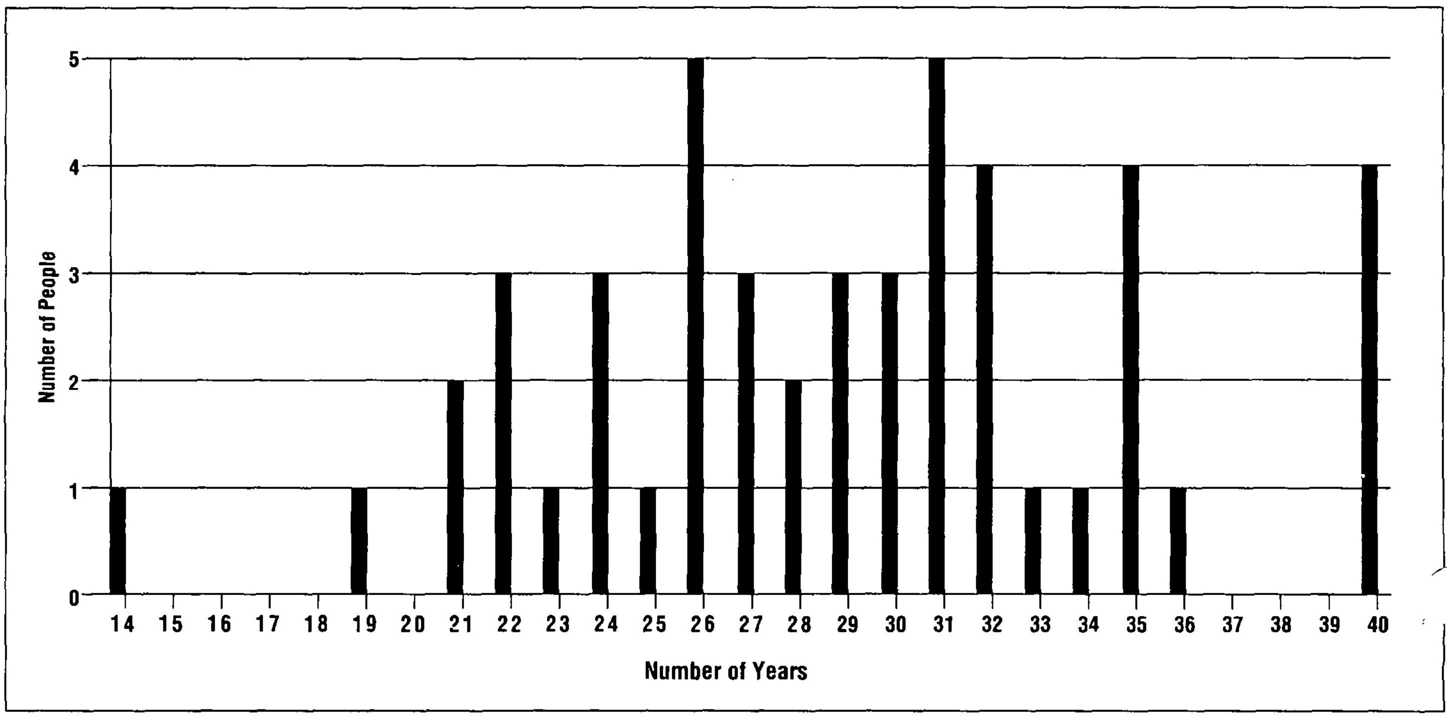
This is probably closer to the truth than the simple fractions shown previously. In the modern world, after all, actuaries have finally realized that they deal with distributions, and their work has become more sophisticated.

On the other hand, maybe retired people have more time for things like being SOA president than nonretired actuaries, which makes them more likely to be willing to run. Or, perhaps they have gone on to other things and aren't interested at all. It's all very complicated.

If anyone would like to calculate this probability scientifically, it would certainly impress the SOA office staff. Meanwhile, the probability of this happening next year is awfully close to zero, since no one on the list of presidential candidates meeting the requirements is from the Class of 1961.

In both 1960 and 1961, the presidential address was given by someone in his 40th year as a Fellow. What is the probability of that happening again?

Linden Cole is managing director for the Society of Actuaries in Schaumburg, Ill.



Number of Years Between Achieving FSA & Serving as President

DEAR EDITOR

Regulation XXX commentary

I've seen many articles recently about the term insurance "fire sale" that exists as we await states' adoption of Regulation XXX. Industry experts openly point out that once the new reserving rules become effective, level premium term insurance rates will substantially increase (or at least they won't be guaranteed). None of these experts comment on the adequacy of current term reserves, nor do they seem inhibited to admit (in fact, they almost brag) that reserves are currently held well below the Guideline XXX levels.

I've been away from valuation work for a while, but I do remember that a level benefit of increasing mortality funded by a level premium should build up a significant reserve. Perhaps there are some legitimate arguments against Regulation XXX's requirements, but I haven't seen any of these in the popular press. Instead, we simply read that until the rules change, opportunity abounds. I find this disturbing. Is the solvency crisis over?

Thomas M. Marra

Actucrostic puzzle offers relief

I particularly enjoyed the April issue of *The Actuary*, both for its content and the fact that the Actucrostic was back. I have been suffering withdrawal symptoms since October.

John L. Wybrew

Let potential employers know about actuaries

Jay Jaffe and Bob Shapiro are to be commended for encouraging the actuarial profession to take a risk by dramatically changing its educational system ["Dear Editor," April 1995]. The proposed changes are a necessary component of our survival as a viable profession. But they aren't sufficient. The current focus is too narrow. An even greater risk must be taken.

Almost five years ago, the Task Force on the Actuary of the Future was charged with developing an externally directed program for the Society and its members to market the skills of actuaries to nontraditional employers. It didn't happen because it was argued that until actuaries are properly educated on how to work in those potential nontraditional areas, they won't be successful. There was no demonstration to substantiate that impression, and nothing has been done since.

Actuaries could be helping just about every business in every industry to identify and manage their future risks. What risks? A few examples are: the risk that a product (in any industry) will suddenly cease to be competitive; the risk that international events will impact sales or profits; the risk that a workforce may not be available at reasonable cost to support growth plans. Actuaries can't solve these problems, but they can help anticipate and manage them.

There is absolutely no point in yet another revision of our syllabus to prepare actuaries for new types of employment if we aren't telling potential employers what we can do to help them. Nontraditional jobs aren't going to be there in sufficient quantity unless we make it happen. We must start identifying the most promising areas and marketing ourselves to them now.

I challenge our leadership to invest in the profession's future by immediately devoting significant human and financial resources to develop and implement a program to identify potential new employers far beyond the obvious (such as banks) and to let them know what we can do. This should be done concurrently with the efforts to revise the syllabus.

There is a risk that this program won't succeed. There's an even greater risk, however, that by doing nothing, more than an idea will die, and a great opportunity will be missed.

Daphne D. Bartlett

Mail alert

SOA officer election

Second ballots for the Society of Actuaries 1995 elections for officers and members of the Board of Governors are mailed July 11 to all Fellows. If you are a Fellow and do not receive the second ballot mailing by July 21, please call Lois Chinnock at the Society office, 708/706-3524. Ballots must be returned to the Society office by August 11.

Section election changes

This year, all 13 Section ballots will appear on one scannable form. A Section member will receive one packet with complete election materials. The new ballot will identify the Sections to which the member belongs. A random number on each ballot will be used for log-in purposes but will not link the ballot to an individual. Members will complete the ballot, detach the bottom portion that identifies them and their section(s), and return the ballot to the SOA office. Consolidating this election process could save more than 50% in materials and postage, as well as save the time previously spent manually logging in ballot results.

Voting packets will be mailed the week of July 10. If you are a Section member and do not receive the election mailing by July 21, please call Joyce Lewis at the Society office, 708/706-3503. Ballots must be returned to the Society office by August 11.

Note from the editor

For the first time in recent history, or maybe ever, *The Actuary* is 24 pages long. This volume is due to the contributions of our readers and to the work of our associate editors, our assistant editors, and the authors they solicit. We also wanted to use as much of the material we had on hand as possible before our two-month hiatus. Thanks to all of you for your continued support and have a good summer. We'll see you in September.

—Mike Cowell, Editor

ACTUCROSSWORD

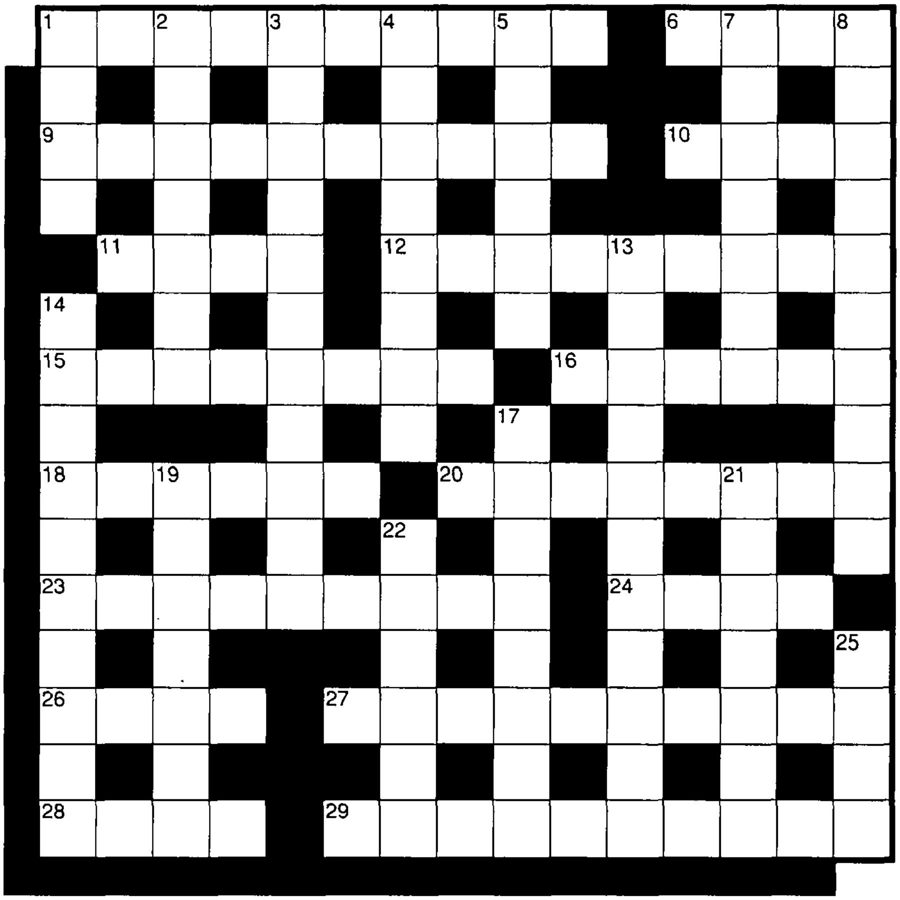
by Bob Maguire

Across

1. Lads' lines describing curled lip (10)
6. Reading charts backwards leads to can of meat (4)
9. Free, he's in rundown Houston by mid-September (2,3,5)
10. Russian brother is *enfant terrible*? (4)
11. Mail missorted in African country (4)
12. All, I state, to right leather type (9)
15. Gag on Wallach, directions right (3-5)
16. Poems of praise to South America city (6)
18. Wherein Diana embraces former British subject (6)
20. Monkey at top of deciduous tree (8)
23. Weird Nell rattled one who lives inside (9)
24. Buck returns for channels (4)
26. The Spanish manuscript appears in trees (4)
27. As tensions give way to feelings of excitement (10)
28. Affirmative reply to operator in New Mexico town (4)
29. Bewildered Texan rode east before being exonerated (10)

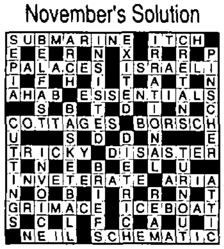
Down

1. Officeholders up to garbage (4)
2. Vestige of Sun God leads to mad scramble (3,4)
3. Sudden confusion of piece? Trap it (11)
4. One notes Kennedy is alone (8)
5. Soldiers cooked eel for Ms. Mackenzie (6)
7. Penguins' neighbors traipse tipsily (7)
8. Officers confronted Erma, "Sid went crazy" (10)
13. Strange — everything is carried by German for sponsored girl (11)
14. Oy! I've split asunder for sure (10)
17. Abolitionist uprising? No, sir, mostly rage (8)
19. Apostle Thomas did add up, following yeshiva's opening (7)
21. Nitro explodes above it, part of mass goes down (7)
22. Bunyan's Babe cut top off clue in crate (4,2)
25. Employed some of you seductresses (4)



100% Solvers - June: L Abel, J&L Abraham, J Accardo, B Alexander, W Allison, S Alpert, A Amodeo, D Apps, A Atrubin, M Avila, K Baker, D Baldwin, F&AR Bernardi, B Birns, A Brosseau, R&M Buck, G Cameron, S Colpitts, J Darnton, F&M David, M Eckman, D Elbaum & M Thompson, D Ericson, F Finkenberg, R Fleckenstein & P McEvoy, B Fortier, K Friedman, F Funder, C Galloway, P Gollance, EK Gooden, E Goral, J Grantier & S Wilson, The Great Bear, S&M Grover, O Gupta, P Haley, G Hansen, A&K Hanson, R Harder, P Hepokoski, J Hunt, AP Johnson, O Karsten, S Knull, R&J Koch, D Kocher, J Lafarga, D Leapman, P LeClair, A Lindner, W Lumsden, M Lykins & J O'Connor, M MacKinnon, R Maguire, P&D Mahoney, D McGarry, R Miller III, A&F Mohammed, C Monroe, B Mowrey, L Oxby, J Palmer, P Porvic, S Powell, J Roszkowski, I Schaeffer, J Schwartz & F Katz, K Shaw, G Sherritt, E&E Silversmith, P Skrtich, A Smith, M Swyers, H Tate, E Thompson, E Tittley, B Tomper, M Vandesteeg & A White, C Velasquez, C Wasserman, P Watkin, M Whitman, M&D Williams, V Young, F Zaret

November's Solution



Send solutions to: Puzzle Editor, 35 Smithfield Court, Basking Ridge, NJ 07920