

The Actuary

David Holland new president-elect

The Society of Actuaries (SOA) president-elect for 1995-96 is David Holland, president and chief executive officer of Munich American Reassurance Company in Atlanta. Currently serving as a director of the Actuarial Education and Research Fund, Holland previously served on the SOA Board of Governors from 1985-88. He also served as a vice president and secretary from 1990-92 and has been active on SOA committees since 1974.

In his candidate's statement, Holland said that SOA members "must never lose sight of the trust of the various publics that they service." In outlining his future vision of the actuarial profession and the SOA, he focused on continuing education and advancement of the profession.



David Holland

"The cornerstone of the SOA is its basic education and examination system," he said. "Continuing education must be provided through meetings, seminars, publications, and other means. The SOA must strive to expand economic opportunities for its members by supporting a variety of practice areas, including health and retirement benefit systems, as well as insurance programs. Emerging areas such as financial and investment management must be especially emphasized."

Holland will become president in October 1996.

New vice presidents



Yuan Chang



John Palmer



Patricia Scahill

Yuan Chang, John Palmer, and Patricia Scahill were elected vice presidents.

Chang, vice president of Metropolitan Life Insurance Company, New

York, is presently a member of the Committee for Research on Social Concerns and served on the Board of Governors from 1990-93. Palmer, senior vice president of Life Insurance Company of Virginia in Richmond, served on the Board of Governors from 1991-94. Scahill, vice president of WF Corroon-East, Baltimore, has served on the Board of Governors since 1992.

New Board members

Elected to the Board of Governors were:

- Nancy Behrens, management assistant, Northern Operations, State Farm Life Insurance Company, Bloomington, Illinois



Nancy Behrens



Sue Ann Collins

- Sue Ann Collins, principal, Tillinghast/Towers Perrin, Weatogue, Connecticut

(continued on page 3)

Inside this issue

Editorial	2
<i>by Robert Shapiro</i>	
Election results	3
Redesign of E&E	4
<i>by Cecil Bykerk & Marta Holmberg</i>	
Actuarial education & world trends ..5	
<i>by Cecil Bykerk</i>	
Australian actuarial education	6
<i>by David Knox & Richard Lyon</i>	
Teaching in China	9
<i>by Allen Wu</i>	
ANEA/ASNA	10
<i>by Curtis Huntington</i>	
On the Lighter Side	12
IFAA	13
<i>by Curtis Huntington</i>	
Letters	14
Actusearch	16

The Actuary

The Newsletter of the
Society of Actuaries

Vol. 29, No. 8 • October 1995



Robert Shapiro
Editor responsible
for this issue

Editor

Michael J. Cowell, FSA

Associate Editors

Robert H. Dobson, FSA

William C. Cutlip, FSA

76443.1471@compuserve.com

Michael B. McGuinness, FSA

email:michael.mcguinness@eckler

Robert D. Shapiro, FSA

73231.102@compuserve.com

Assistant Editors

Sue A. Collins, FSA

102714.2361@compuserve.com

Charles Habeck, FSA

Curtis E. Huntington, FSA

chunt@math.lsa.umich.edu

J. Bruce MacDonald, FSA

jbmlmac@ac.dal.ca

Puzzle Editor

Julian Ochrymowych

Society Staff Contacts

708/706-3500

Cecilia Green, APR, Staff Editor

76041.2773@compuserve.com

Kim Schwartz, APR, Managing Editor

102234.2542@compuserve.com

Linda M. Delgadillo, CAE

Director of Communications

102234.2543@compuserve.com

Correspondence should be addressed to

The Actuary

Society of Actuaries

475 North Martingale Road, Suite 800

Schaumburg, IL 60173-2226

The Actuary is published monthly

(except July and August).

Barnet N. Berin, FSA, President

Robert W. Stein, FSA, Vice President

William Carroll, FSA, Secretary and Treasurer

Robert L. Brown, FSA, Director of Publications

Nonmember subscriptions: Students, \$6; Others,

\$15. Send subscriptions to: Society of Actuaries,

P.O. Box 95668, Chicago, IL 60694.



Copyright © 1995,
Society of Actuaries.

The Society of Actuaries is not responsible for statements made or opinions expressed herein. All contributions are subject to editing. Submissions must be signed.



Printed on recycled paper in the U.S.A.

EDITORIAL

Climbing the education ladder

by Robert Shapiro

Actuarial education is the ladder we've all climbed on our way toward a successful and rewarding career. This ladder, while necessary to reach our goals, sometimes seemed endless, and when we got to the top rung of that ladder, we found out we were not really done. While the conditioning we gained from the effort helped us learn how to digest large quantities of material, much of the practice-specific material became irrelevant in the rapidly changing business environment.

Since 1988, I've been involved in Society efforts to examine how inadequately our actuarial education prepares us for future careers in a broader arena outside our usual range of traditional roles and markets — first, with the Actuary of the Future Task Force, then with the Actuary of the Future Section, and finally, as a member of the Board Task Force on Education. I believed, as did many others, that repairing a few rungs was not enough. Fewer actuaries were now

needed to perform traditional services to traditional clients and employers. The time had come to remove the old ladder and build a new one.

This issue of *The Actuary* gives more details about what is going into the new education and examination system. This new system aims to prepare actuaries to add value, beyond narrow expertise, to a number of business enterprises.

We owe it to those who will be climbing our actuarial education ladder to help the design team construct the most stable, most relevant, yet just as challenging, system possible for future actuaries. One way to help is to participate in the discussion and give us the benefit of your experience. If you haven't filled out the survey in the back of the August "Report to the Membership" book, please take the time to do that now. If you're going to the October annual meeting in Boston, sit in on Session 107. Let's give the profession's future a leg up.

Meeting and seminar calendar

- | | |
|---------------|---|
| October 13-14 | Financial Risk Management: A Case Study
The Westin Hotel/Copley Place, Boston |
| October 15-18 | Annual Meeting
Marriott Copley Place &
The Westin Hotel/Copley Place, Boston |
| October 23 | Stop Loss and Large Claims
The Dolphin, Orlando |
| December 3-5 | Critical Issues in Underwriting
Pointe Hilton at Squaw Peak, Phoenix |
| December 7-8 | Fair Value of Insurance Liabilities Conference
NYU Salomon Center, New York University
New York City |

Elections (continued from page 1)

- Cindy Forbes, Asset/Liability Management vice president, Manufacturers Life Insurance Company, Toronto
- Philip Polkinghorn, chief financial officer-chief manager Information Systems, Connecticut Mutual Life Insurance Company, Hartford
- Arnold Shapiro, professor, Pennsylvania State University, University Park



Cindy Forbes



Philip Polkinghorn



Arnold Shapiro



Mark Tullis

- Mark Tullis, chief actuary, Primerica Financial Services, Duluth, Georgia

All newly elected officers and board members begin their terms at the October 1995 annual meeting in Boston.

Election Results

SOA Officer/Board of Governors election

Results of the second ballot for the Society of Actuaries 1995 elections for officers and members of the Board of Governors have been tabulated and are as follows:

President-elect		Vice President vote totals		Board of Governors vote totals	
David Holland		Patricia Scahill	1,363	Cindy Forbes	1,414
First choice votes	896	Yuan Chang	1,212	Sue Ann Collins	1,254
Second choice votes	520	John Palmer	1,211	Philip Polkinghorn	1,239
total	1,416	(# of votes of next candidate	1,199)	Mark Tullis	1,166
(# of total votes of next candidate	1,288)	(# of votes of last candidate	1,051)	Arnold Shapiro	1,054
				Nancy Behrens	1,049
				(# of votes of next candidate	967)
				(# of votes of last candidate	693)

Section election

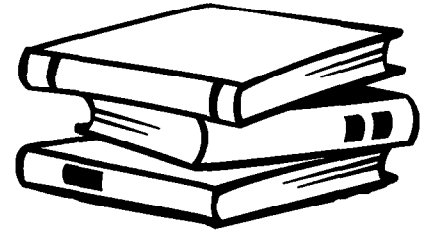
As a result of Section elections, all 13 special interest Sections have added new Council members with three-year terms:

Actuary of the Future	Financial Reporting	Investment	Product Development
Paul V. Bruce	R. Thomas Herget	Pierre Caron	Richard L. Bergstrom
William R. Horbatt	Douglas Menkes	Prakash A. Shimpi	A. Micheal McMahon
Paul M. Kahn	Lawrence J. Rae	Susan Beth Watson	Mark A. Milton
Computer Science	Futurism	Non-Traditional Mass	Reinsurance
Michael F. Davlin	Gary S. Brantz	Marketing	Kenneth Mark Mihalka
Rebecca Ann Evans	Kermitt L. Cox	Kiran Desai	Paul Nitsou
Brian S. Pollack	Peter J. Neuwirth	Charles R. Haskins	Robert J. Tiessen
Education and Research	Health	David A. Seidel	Smaller Insurance
Thomas N. Herzog*	Michael S. Abroe	Pension	Company
Curtis E. Huntington	Thomas R. Corcoran	Michel St-Germain	John W. McKee, III
Marjorie A. Rosenberg	David W. Wille	Amy C. Viener	John M. O'Sullivan
Gordon E. Willmot	International	Carolyn E. Zimmerman	John E. Wade
	Michelle P. Chong Tai-Bell		
	Kevin M. Law		
	John O. Nigh		

(*Herzog is serving a two-year term)

Redesign of E&E brings members' concerns

by Cecil Bykerk and Marta Holmberg



In early August, the Society of Actuaries (SOA) Board of Governors Task Force on Education issued a report to the membership. The report concluded that fundamental change to the SOA's education system was necessary to ensure that actuaries will have essential skills and knowledge needed to operate most effectively in the future. Steps taken to enhance the actuary's skills will better equip the actuary to meet future professional challenges that are more rewarding and valuable to the actuary and to employers. The Task Force report describes the educational changes viewed necessary. If you haven't read the report yet, we encourage you to do so.

From the input we have received so far from actuaries and employers, we can discern certain common themes. A particular area of concern is the first actuarial exam. Members are telling us that the first exam should do the following:

- Attract qualified candidates to the profession
- Introduce candidates to the nature of the profession
- Test applications of mathematical and statistical methods with a rigor consistent with current exams
- Select candidates who can meet the mathematical demands that are a critical part of what distinguishes the actuarial professional from other business professionals

When the SOA began including calculus (1909) and statistics (1925) on its syllabus, these subjects were not widely available. College students attaining math degrees would likely have had little exposure to these subjects that are at the foundation of actuarial techniques. Now it is

Sample Question

A risk averse decision-maker is faced with a random loss with a uniform distribution over the interval $0 < X < \$10$. If he/she wishes to pay a premium of \$2, then the optimal coverage requires a deductible of \$ n . Assuming no expenses, find n .

common for students to take calculus in high school and to study statistics as undergraduates. The general availability of these subjects should enable the SOA to concentrate its limited and valuable volunteer resources where the need is especially great and outside sources are much more limited. That concentration does not mean we abandon all testing of calculus or statistical concepts, but that we approach testing from a more practical perspective. What does that mean about the first exam?

Work on defining and shaping the first exam is far from complete at this point. We can expect a sharper picture to emerge as development continues. However, the following current thinking may help demonstrate that your concerns are being addressed.

The first SOA examination that a candidate takes should provide exposure to certain basic principles central to actuarial practice. A business context framing the questions asked conveys to candidates that this is an applied science; that practical applications of mathematical techniques are essential. Candidates who want to concentrate on mathematical theory but have little interest in meaningful application should not be misled.

Elementary principles of the mathematics of risk and applications of the fundamental tools for quantitatively assessing risks—tools such as calculus and probability—can be introduced at the earliest stages of the formal education process. Synthesis of ideas and critical/analytical thinking can be stressed, using practical problems that

arise in actuarial practice. Case studies or articles from general business publications can be used to frame exam questions.

Critical aspects of calculus and probability—fundamental tools for analyzing risks—would be tested in this context, as well as elementary principles of the mathematics of risk. The candidate passing a first exam of this nature demonstrates mathematical competence and has a better appreciation of what may be encountered in everyday practice. He or she approaches the following examinations with an initial framework to fit the tools and knowledge being acquired, thereby more readily acquiring the new concepts and more quickly providing work of real value to the employer.

This is clearly just a thumbnail sketch of what we might expect for the first examination.

A session is planned for the Annual Meeting in Boston (Session 107, Update on the Redesign of E&E, Tuesday, October 17, 2:30 - 4:00 pm). By then, we will know more about the proposed nature of the first exam and about the rest of the proposed structure and syllabus for the basic education system. Join us at the session to learn more and to share your views.

Cecil Bykerk is senior executive vice president and chief actuary for Mutual/United of Omaha Insurance Company and chair of the SOA Board Task Force on Education. Marta Holmberg, Ph.D., SOA education executive, can be reached at her e-mail address: 102234.2541@compuserve.com

World trends in actuarial education systems

by Cecil Bykerk

If the rest of the world heads one direction, does that mean it's the right way to go? No, but when several highly regarded examination-based actuarial education systems independently adopt a similar response to trends and forces, you can at least see that you are in good company.

The Society of Actuaries (SOA) has heard from some of our counterparts overseas about meaningful changes they have made or are making to their basic education systems. Comparing the rationale underlying the SOA redesign with these organizations and, more importantly, how the approaches differ may provide insight on what the future may hold for us as professional actuaries.

As national borders become more porous for business, education must emphasize what is central to the endeavor, using nation-specific details as examples. The focus on universal applications that go beyond a particular environment means that education acquired and examined will enable actuaries, novices or professionals, to broaden their horizons and move into new markets (geographical or industry-wise). We see this refocus in the new examination system shared by the Institute of Actuaries in the United Kingdom and the Faculty in Scotland, where the focus is on educational objectives that drive each course/examination. The Institute/Faculty perspective resembles that of the SOA in viewing the role of the actuary going beyond traditional insurance and benefit concerns to include all areas of investment and future financial environments.

However, the SOA redesign now underway takes actuaries well beyond the recent expansion into investment-related businesses. The SOA vision is that actuaries fulfill a very valuable, though yet to be fully appreciated, function in virtually any business or endeavor subject to financial uncertainty. We won't immediately convince the world of that value, as we well

recognize that being ready to train actuaries in the fundamental principles, so they can adapt analytical tools and apply them to new situations, is a critical step in that direction.

Another major theme is educating actuaries to be grounded in all traditional areas of actuarial practice. The trend to ensure a level of mastery in life, health, investments, pensions, and property/casualty is demonstrated in the Institute/Faculty system. The Institute of Actuaries of Japan has recently begun to discuss requiring actuaries to study topics covering all practice areas. The Institute of Actuaries of Australia is discussing a syllabus that has the actuarial control cycle as an integral part (see article on page 6). It is designed to provide the actuary with "a generalized actuarial approach necessary to tackle a range of commercial problems." The actuarial control cycle is deliberately detached from a specific area of practice; examples will be drawn from a diverse range of areas.

The SOA has moved in this direction, covering major areas except for property/casualty, within the core examinations. Coverage of investment topics is considerably strengthened. Before the movement to redesign the basic education system, the SOA Board of Governors previously approved changes intended to require coverage of fundamental property/casualty topics. Grounding in all areas expands the number and nature of familiar concepts and techniques the actuary can bring to new problems that can arise in an increasingly complex and less predictable financial environment.

The SOA redesign principles reflect the trends already noted but also broaden the actuary's perspective and enhance/hone skills needed to professionally apply those skills into whole new realms. Banking, investment houses, biostatistics, manufacturing—we already are making inroads in some of these businesses, and the relevance

and applicability of our distinctive skills to others are obvious. Other possibilities are less obvious and may not even occur to us right now.

If we concentrate within the basic education system on acquiring full-range expertise in financial modeling; on working with business professionals who have other skills; and on assessing, evaluating, and managing risk and its consequences, then meaningful applications of these competencies appear almost endless.

We view the SOA redesign as going beyond the other systems mentioned. The Institute/Faculty system is intended to ground actuaries in all major traditional areas and cover investments. Applying actuarial approaches and tools to other business areas involving financial risk is not part of the plan. The Institute of Actuaries of Australia envisions a more general approach intended to transcend traditional areas of practice. The framework proposed for the actuarial control cycle fits the analysis and considerations into specific objectives that directly apply to insurance and pensions, seemingly doing little to promote insight into the application of actuarial tools outside traditional businesses. The SOA has a more ambitious vision that calls for the education system to provide exposure to a vast array of applications, promote development of financial modeling expertise to apply to risk-based situations, and hone the skills of actuaries through a focus on underlying principles. If we succeed in realizing our goals, the actuary in this brave new world will be ready to face and master the financial uncertainty of the future in several respects.

Cecil Bykerk is senior executive vice president and chief actuary for Mutual/United of Omaha Insurance Company and SOA vice president supervising Examination and Basic Education committees.

Australians make changes in actuarial education

by David Knox and Richard Lyon

As the Society of Actuaries begins its redesign of its E&E system, it may be useful to look at the Institute of Actuaries of Australia's actuarial education changes that they believe are necessary to prepare for the 21st century.

Actuarial education in the English-speaking world has been remarkably similar. Historically, it has included two major areas of study:

- 1) Mathematically based subjects such as probability and statistics, compound interest, and life contingencies
- 2) Practically based "professional" subjects such as life insurance, pensions, investment, and non-life insurance

Relatively minor changes exist among the early subjects and in the application of actuarial principles in various practice areas for Fellowship qualifications in North America, Australia, and the United Kingdom.

The broader application of actuarial principles

There also are other similarities as each actuarial organization pursues the idea that actuaries can work in a much broader field. In particular, finance is often cited as a potential area in need of actuarial expertise. However, the potential for actuarial involvement and input is, in fact, much broader. This could include areas as diverse as long-term agricultural planning, weather forecasting, casino management, and the cost-benefit analysis of any long-term government program.

Of course, it is impossible for any educational syllabus to cover all potential subjects. In addition, the rate of change is such that specialized courses required regular updates. What is the solution for providing a comprehensive and broad actuarial education while acknowledging increasing specialization?

In a 1994 paper, "Actuarial Education for the Next Century," the Education Management Committee of The Institute of Actuaries of Australia stated that actuarial skills could divide into two sets:

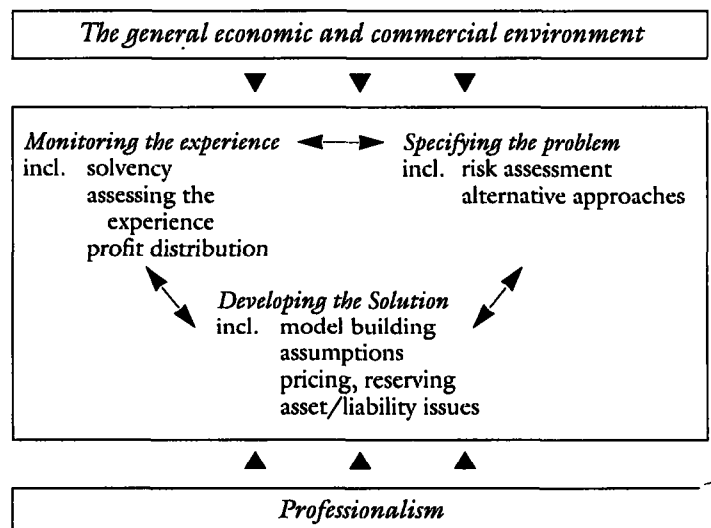
- 1) General skills that enable actuaries to adopt a scientific approach to problems
- 2) Specialist skills that take these general skills and apply them to areas where actuaries have particular expertise

It went on to suggest that general skills need to be mastered by all actuaries, whatever their specialty. General actuarial skills are illustrated in the actuarial control cycle in Figure 1.

The role of the control cycle subject

The actuarial control cycle presents a holistic approach to actuarial work without requiring the student to focus on one or two particular areas of practice. As such, this subject provides students with several important advantages:

Figure 1: The Actuarial Control Cycle



- Furnishes an actuarial framework for later subjects
- Concentrates on principles, approaches, and problem-solving without unnecessary attention to legislation and other details that are covered in later subjects
- Builds upon the mathematically based skills taught in the earlier subjects
- Applies the cycle to a wide range of problems, thereby highlighting the opportunity for actuarial expertise to be applied in the wider field
- Supplies a broad and flexible syllabus that can be easily updated with contemporary examples
- Provides for improved job opportunities as students will have better problem-solving and analytical skills in both the traditional and wider areas

As a result of this change, the Fellowship qualification for The Institute of Actuaries of Australia will now require students to pass the following three parts:

Part I: The mathematically based subjects (consistent with the UK Institute and Faculty)

Subject A: Fundamentals of Actuarial Mathematics

Subject B: Economics and Finance

Subject C: Statistics for Insurance

Subject D: Actuarial Mathematics

Part II: The Actuarial Control Cycle (1 subject)

Part III: Specialization Options

Students must pass an examination in two of the following five areas:

- Subject 1: Finance
- Subject 2: Investment Management
- Subject 3: Life Insurance
- Subject 4: Non-life Insurance
(i.e., property and casualty)
- Subject 5: Pensions

Each subject in Parts I, II, and III will require at least six hours of examination.

The aim of the control cycle subject

The aim of the actuarial control cycle subject is to provide the student with the generalized actuarial approach necessary for tackling a range of commercial problems, including those associated with risk-based products and others offered by financial institutions. The subject is not specific to any single area of practice but draws examples and implications from many areas of work. This includes investments, finance, life insurance, general insurance, and superannuation, as well as non-traditional areas of actuarial endeavor.

Conclusion

We believe the actuarial control cycle is consistent with underlying actuarial principles that have applied to many practice areas for a long time, perhaps without recognition. As each area becomes more specialized, it is important to recognize and to teach the basic core of the actuarial approach (as typified by the control cycle) within all actuarial

education programs. In addition, the actuarial control cycle subject will ensure all future Australian actuaries have a common core of actuarial science that goes beyond existing mathematical subjects. Finally, it is not specific to a particular practice area and has applications beyond traditional actuarial work.

We believe the new Australian actuarial education system is preparing the profession for the 21st century, as it:

- Covers the basic concepts underlying all actuarial science within the mathematical subject
- Has a compulsory course (the actuarial control cycle) that illustrates how these concepts combine the building of mathematical and statistical models to solve practical problems in a range of areas
- Will enable students to specialize in two areas built upon the foundations of the control cycle, establishing commonality and unity within the profession

In summary, we believe this education system will better prepare actuaries to meet the challenges of the 21st century that will involve a blurring of various disciplines and practice areas.

Richard Lyon is the convenor of the Education Management Committee of the Institute of Actuaries of Australia. David Knox is professor of actuarial studies at the University of Melbourne. His e-mail address is d.knox@ecomfac.unimelb.edu.au

SOA awards 1995-96 Ph.D. grants

Six Ph.D. candidates will each receive a \$10,000 Society of Actuaries' Ph.D. grant for the 1995-96 academic year. Five grants are new, and one grant is renewed for this academic year.

The grant recipients are:

- Hélène Cossette and Etienne Marceau
Université Catholique de Louvain
- Soo Hak Hong
University of Nebraska-Lincoln
- Mary Virginia Kelly
University of British Columbia
- Ken Seng Tan, ASA
University of Waterloo
(Funded by the Investment Section)

- Frédéric N. Michaud, ASA
Université of Lausanne in Switzerland
(Grant renewed for a second year)

Individuals admitted to Ph.D. candidacy by their institutions and whose thesis topics are actuarial science or a related area are eligible for the grant. Upon evidence of satisfactory progress, the grant may be renewed up to three times.

The Society of Actuaries (SOA) gives preference to students who are SOA members or who are working toward becoming SOA members.

The application deadline for the 1996-97 academic year is March 15, 1996, and applicant materials will be available in early 1996 from the SOA Research department.



Ceremonies at the National Academy of Sciences and an award dinner in Washington, D.C. this past June honored the top eight scorers on the essay/proof USA Mathematical Olympiad examination. Pictured from left to right are Bryan V. Hearshey, Society of Actuaries (SOA) liaison representative to the MAA and mathematics professor at Lebanon Valley College, Pennsylvania; student Jay H. Chyung, Iowa; student Andrei C. Gnepp, Ohio; student Christopher C. Chang, California; student Craig R. Helfgott (father is actuary Leonard K. Helfgott), New York; student Aleksandr L. Khazanov, New York; student Samit Dasgupta, Maryland; student Jacob A. Lurie, Maryland; student Josh P. Nichols-Barrer, Massachusetts; and SOA member James G. Stoltzfus, actuarial assistant with Milliman and Robertson in Radnor, Pennsylvania, who also represented the SOA at the dinner. Joe Applebaum (not pictured) represented the SOA at the Mathematical Association of America (MAA) awards ceremony. The USA team later placed 11th out of 74 teams in this year's International Mathematical Olympiad (IMO).

6 universities receive SOA grants

Six universities recently received grants from the Society of Actuaries (SOA) for each full-time faculty member achieving an SOA designation.

The following universities received a \$2,500 grant for each full-time faculty member who achieved his Associateship (ASA) status:

- University of Wisconsin-Whitewater, Department of Math and Computer Science, for Jonathan Kane, associate professor
- Université Laval, School of Actuarial Science, for Claude Nadeau, assistant professor, and Jacques Rioux, assistant professor

- State University of New York College at Brockport, Department of Mathematics, for Brad Wilson, assistant professor
- Université of Lausanne, Institut de Sciences Actuarielles, for Francois Dufresne, professor

The following universities received a \$5,000 grant for each full-time faculty member who achieved his/her Fellowship (FSA) status:

- University of Western Ontario, Department of Statistical and Actuarial Studies, for Stephen J. Kopp, actuarial associate
 - University of Iowa, Department of Statistics and Actuarial Science, for Kelley McKeating, actuarial science program coordinator
- Grants are intended to support the promotion and development of

educational and research programs in actuarial science. The schools will use the funds to finance student and faculty attendance at actuarial conferences, to purchase books and journals to enhance collections of actuarial literature, to purchase computer hardware and software of direct benefit to students and faculty, and to pay for actuarial examination fees.

In the future, the SOA will award the school of full-time faculty members achieving ASA status \$5,000, with \$7,500 awarded to the school of full-time faculty members achieving FSA status. This grant increase, approved by the SOA Board of Governors at their May 1995 meeting, is effective for full-time faculty members attaining the ASA or FSA status after August 1, 1995.

Teaching in China

by Allen Wu

How do you identify China? To some of us, China is the last existing communist empire.

To others, China's 5,000 years of continuous history has entered an unprecedented economic frontier. To a few, it's an unknown entity.

Before leaving Canada to teach at Nankai University, I thought of China as a big jigsaw puzzle. Its pieces include socialism, capitalism, authoritarianism, egalitarianism, imperialism, feudalism, repression, freedom . . . and insurance?

The idea of insurance is not new in China. More than 2,500 years ago, boats preparing to enter the treacherous currents of the Yangtze river would redistribute their cargo among smaller boats, thus reducing cargo loss. This is known as risk management. The foreign insurance professionals and insurance companies coming to China are not introducing the concept of insurance, but are introducing the tools needed for modern insurance.

From September 1994 to June 1995, I had the opportunity to teach actuarial science and risk management graduate students at Nankai University, Tianjin. When I arrived at Tianjin International Airport on August 28, 1994, I knew my thoughts, impressions and assumptions about China would change over the next 10 months.

Dr. Kailin Tuan, retired professor of insurance and international business at Temple University, has been the main force behind China's insurance and actuarial science education. With support from the Society of Actuaries (SOA), a graduate program in actuarial science was established at Nankai University beginning in 1987. Since then, many undergraduate and

graduate actuarial science programs have been established at various universities throughout China.

In 1994, with support from the Life Office Management Association (LOMA), a graduate program in risk and insurance management has been established at Nankai. Undoubtedly, many risk and insurance management programs will be established at various Chinese universities over the next few years.

The SOA and LOMA have helped ease the burden of expenses for these graduate students by providing textbooks and waiving exam fees. Many foreign insurance corporations also are contributing to China's insurance education by providing grants, training current insurance professionals in China, and setting up internships for insurance students.

On my first day of teaching, I began class by asking these future actuaries and risk managers why they chose their main field of study. The response was unequivocal. They all wanted to contribute to China's growing insurance market.

Chinese students are similar to American students, believing that investing in their education will provide a better future. I was very impressed by how dedicated these students are to their studies. To describe them as studious would be an understatement; they yearn for knowledge.

Although English is their second language, the students do not see this as a barrier to passing their actuarial and risk management exams. Since January 1994, 19 individuals have received their associate designations of the Society of Actuaries. I am confident we will see mainland China's first Fellow of the Society of Actuaries

(FSA) and a Fellow of the Life Management Institute (FLMI) before the turn of the century.

I am convinced these young students will be at the helm of China's future insurance industry. However, like any other commercial industry, a professional code of conduct must be instituted to serve the public's interest. As established insurance professionals, we should offer guidance, education, and support to these young actuaries and risk managers as they seek their own professional code of conduct.

Like any developing country, China needs time to mature. However, China needs all socioeconomic walks of life to nurture its growth. This includes insurance, banking, securities, education, manufacturing, agriculture, and technology.

On a personal note, my experience in China was very rewarding, considering that I grew up as a Chinese American/Canadian. I absorbed some of my Chinese heritage and culture and also had the opportunity to share my American/Canadian traditions with students. My students can now add "knowledge of insurance" to their curriculum vitae and I can now proudly add "knowledge of China" to my resume. I would like to thank many people for this experience: Dr. Kailin Tuan, Dr. William Rabel, Barnet Berin, Luo Yu, Liu Mao Shan, Li Xiu Feng, and Wu Hong Bao. A special thank you to all my actuarial and risk management students who gave me insights about China, and congratulations for passing all their actuarial and LOMA exams.

Allen Wu is currently in Taipei studying Chinese.

Student organization young, yet effective

by Curtis E. Huntington

Most practicing actuaries in North America are aware that several actuarial organizations exist. Few actuaries, particularly in the United States, are aware of ANEA/ASNA, which is celebrating its eighth birthday this year. Yet, ANEA/ASNA is an organization that represents an important sector of the profession — our students.

Founded by students at Laval University in Quebec City in 1987, the initials ANEA are French for Association Nationale des Étudiants en Actuariat. In English, it is the Actuarial Students National Association or ASNA. The organization has spread to other colleges and universities in French Canada, then to schools in Ontario. Current plans are to extend membership to other campuses throughout Canada and to establish relationships with U.S. schools offering actuarial science programs.

The Canadian Institute of Actuaries (CIA) has extended significant recognition to ANEA/ASNA. They have invited ANEA/ASNA delegates to attend meetings and special receptions, to have representatives at the head tables of special dinners, and to participate fully in their meetings.

Kevin Reimer, a recent ANEA/ASNA president, is currently serving on the editorial board for *The Future Actuary*, the Society of Actuaries (SOA)/Casualty Actuarial Society (CAS) newsletter for students taking beginning exams.

Besides coordinating information on the usual actuarial club activities on various Canadian campuses, ANEA/ASNA organizes an annual convention, usually held in January. It is entirely organized by students, from making hotel arrangements to arranging for guest speakers.

At the 1995 convention in Montreal, I was invited to discuss the role of the North American Free Trade Agreement on future employment prospects. With a theme of "Aspiring to Become an Actuary," more than 230 students attended formal sessions and enjoyed the camaraderie of students from member schools. The organizing committee's professionalism and the scope and breadth of activities offered to delegates was very impressive.

The January 1996 convention site is the University of Waterloo.

Many activities were tape recorded during the 1995 convention. The resulting promotional videotape, shown at the recent CIA meeting in Vancouver, is available to schools and other organizations interested in the ANEA/ASNA.

university actuarial programs, usually written by a member of the local actuarial student organization. Reflecting the organization's outreach to some of the western provinces, the latest issue contains program descriptions of the University of Calgary; Simon Fraser University, Vancouver; and the University of Manitoba.

In this issue, Reimer described his participation in recent CIA meetings and thanked the CIA for their continued support. He said, "Through this means of communication and understanding, we can learn from each others' organization and better serve the actuarial profession and its students as a whole."

As the Society of Actuaries continues to discuss implications of the recent Education Task Force report,

ANEA ASNA

The organization also prints a magazine twice a year. Reflecting its Canadian origins, all articles are in French and English. The most recent issue, Volume 7, Number 1, contains several interesting articles. Andrea Phelps, FSA, FCIA, wrote an article, "The Fall of Confederation Life and the Impacts on the Industry," and Mary Millard, FSA, FCIA, has one on "Academia and Industry — One Actuary's Perspective." There also is a brief discussion on "The Ontario Conference of Casualty Actuaries" and a longer review on the "CIA Investment Seminar" held last November in Montreal.

A highlight of other recent issues have been profiles of various Canadian

the views and input of students, those most immediately impacted by some of the proposed changes, will be very interesting. ANEA/ASNA provides a formal link to access many of our Canadian students. As the organization continues to expand, hopefully more U.S. schools will participate in its activities.

Curtis E. Huntington is a professor of mathematics at the University of Michigan and chair of the SOA Committee on Knowledge Extension Research. He can be reached at his e-mail address chunt@math.lsa.umich.edu

SOA staff changes in Communications and Library

The Society of Actuaries (SOA) recently added staff to continue and expand membership services and support.

Library

The new research librarian, Ellen Bull, has experience in special libraries in the legal and medical field. Most recently head librarian for the Jackson County Law Library in Kansas City, Missouri, she also was head medical librarian for Providence-St. Margaret Health Center in Kansas City, Kansas, and Western Missouri Mental Health Center in Kansas City, Missouri. Bull holds a master's degree in library and information management and is fluent

in English and Chinese.

Communications

Two public relations specialists have joined the Communications staff to assume some of the duties previously held by Public Relations Manager Cecilia Green. Linda Heacox has become editor of *The Future Actuary* and has media relations responsibilities. Kimberly Schwartz is managing editor of *The Actuary* and will concentrate on member communications. Green, a five-year staff member, will assume duties for public relations planning and implementation connected with research, education, and the SOA Foundation.



Kimberly Schwartz, APR, PR specialist

Heacox has a bachelor's degree in journalism/political science from Ball State University of Indiana. A newspaper reporter in Indiana and press secretary for two Indiana congressional campaigns, she also was communications director for Indiana's 3rd District Representative John Hiler in Washington, D.C. Her most recent position was with internal communications for American Red Cross-Biomedical Services in Washington, D.C.

Schwartz also previously worked for the American Red Cross in California and Iowa. Originally from Illinois, she has a communications degree from Wartburg College in Iowa, where she also worked as a broadcast journalist.

Schwartz and Green are Accredited in Public Relations (APR) by the Public Relations Society of America.



Ellen Bull, research librarian



Linda Heacox, PR specialist

SOA thanks volunteers

by Martha Abel

SOA Examination Services Supervisor

Preparation for administration of the November 1995 examination session is in full gear. Nearly 300 examination center locations worldwide are confirmed, with more than 1,000 volunteers participating as exam supervisors. This voluntary effort is quite impressive in today's business world and is a tribute to the actuarial profession.

The Society of Actuaries (SOA) is grateful to the individuals who

willingly provide time and resources to administer examinations. This includes the actuaries and academics who supervise the examination session, clerical personnel who assist with administration, and CEOs who not only allocate space, but also support employees who volunteer. Their cooperation is critical to the SOA examination process.

We would like to encourage others to participate in future examination

sessions. A widespread distribution of these responsibilities creates less hardship for those individuals who generously contribute their time, space, and personnel to the exams.

It is in the best interest of all Society members to foster the examination program. Your cooperation is vital to the continued success of not only the examinations, but also the actuarial profession.

Organization + creativity = movie success

by Linda Heacox, SOA PR Specialist



on the lighter side

This article on movie producer Bill Ryan and his father, Allan Ryan, FSA, is the second on entertainment personalities who are the children of Society of Actuaries (SOA) members.

A popular maxim teaches that early risers get ahead in life. With that in mind, maybe Allan Ryan should have foreseen success for his son Bill from childhood.

"But no matter how early I got up," Allan, a director at Deloitte and Touche, New York said, "I'd find Bill, dressed, having done his homework, ready for the day."

It was the family joke that Bill never had a childhood. "He's been like an adult since he was eight years old," according to Allan, who described his son as driven.

Allan said Bill was a member of the local Audubon Society as a child. "Just him and all these much older people. He would go out bird watching, and he had to keep a log of the birds he saw. It really helped refine his natural organizational skills."

Bill was 12 when movie passion hit full force. He was taken to see "Star Wars." When he got accepted into a program for high school students at UCLA film school, the die was cast.

After high school, he enrolled in the University of Southern California film school. He had completed his sophomore year and was giving tours at Universal Studios when he landed a part-time job as an intern with Steven Spielberg's Amblin Entertainment.

Another employee mentioned that film-maker John Hughes was looking for an assistant. Bill got the job and put his education on hold.

Now 26, Bill has enjoyed a rapid rise from office assistant to head of Great Oaks Entertainment, a Chicago-based production company formed by Hughes and Walt Disney Studios. He has worked for Hughes, creator of the "Home Alone" movies, "Sixteen Candles," "Pretty in Pink," and the "Breakfast Club," for five years.

When the company is filming, Bill wears a producer's hat. He was executive producer on "Baby's Day Out," the remake of "Miracle on 34th Street," and associate producer on "Dennis the Menace." He described the job as "overseeing the production of the film, the quality control, and the work of the line producer."

To be successful, Bill said, you have to be able to handle the stress, work very hard, and keep sight of the big picture. "You have to be able to maintain the project unity in your mind. John Hughes pretty much writes all the films we do, and so, creatively, it's taking his words and script and getting them onto the screen in a way that works."

"Home Alone" remains Bill's favorite Hughes' project. "It was the first movie I worked on with John. I was his assistant from start to finish. No one knew at the time how big it was going to be."

Allan feels Bill's success hinges, at least in part, on his phenomenal organizational ability. Bill disagreed, "Not really. I certainly can do that part of it. Coordination is important, but I'm more interested in the creative side." It's that side he hopes to fulfill someday as a director.

Allan claims no credit for his four children's creativity. Bill described his mother, Ellen, a great lover of movies, as "very imaginative. She's the right brain to my father's left brain. All three of my siblings are more artistic than I am," he claimed, referring to his brother Kevin, 24, and sisters Katie, 17, and Tara, 11. "They're all into the visual arts."

Before fixing on a movie career, Bill considered several career choices according to his father, but not, apparently, the actuarial profession. Though good at math, Bill said he is "still a little boggled" by his father's job. Asked whether he understood what his father did when he was little, he replied, "You could say I understood it as well then as I do now."

When he asked if it is possible for a producer to watch a movie as any other audience member would, he said, "I try to be an innocent audience member, but it's tough when you know what's going into it. I'm a tough critic. But I still love to go into a dark theater and just be entertained."



The Ryan family enjoys a Christmas gathering including (back row, l-r) Ellen and Bill (front row, l-r) Tara, Katie, Allan and Kevin.

IFAA approved in Brussels

by Curtis E. Huntington

As a result of actions taken on September 9, 1995, in Brussels, Belgium, the International Actuarial Association (IAA) has a new section — the International Forum of Actuarial Associations. The Society of Actuaries (SOA) is one of the full founding members of the IFAA. Robert Collett, president and chief executive officer of Milliman & Robertson and current chair of the Committee on International Relations, will serve as the Society's first IFAA delegate.

The IFAA came into being after receiving a unanimous vote of endorsement from the IAA Council in Brussels, held in conjunction with the recent International Congress of Actuaries. As Article 2 of the IFAA regulations explains, "Recognizing the important and increasing role of actuaries throughout the world, the IFAA has as its principal objective the promotion, across international boundaries, of high standards of professionalism and education within the world's actuarial associations."

Article 3 details some specific actions that fall within this broad objective, including "a forum for discussion among actuarial associations of matters relating to the initial and continuing education of actuaries, professional conduct and discipline, the role of actuaries in relation to matters of government regulation and public policy, and the setting of standards of practice in relation to particular national and international jurisdictions."

In addition, the IFAA is empowered to "accredit those actuarial associations which meet agreed requirements in relation to the education and professionalism of their members" and "suggest, where appropriate, international standards of practice." The IFAA is specifically directed to "avoid overlap or duplication with the activities of regional groups of actuarial

associations." This last provision recognizes some of the existing regional cooperative agreements existing in Europe and North America.

To become a full member, an organization has to have in place a code of professional conduct that "includes the common principles accepted in November 1992 by the actuarial associations affiliated to the Groupe Consultatif des Associations d'Actuaries des Pays des Communautés Européennes, or which substantially conforms to these principles." This is the group of actuarial associations from countries in the European Union. Organizations must also have a formal, professional discipline process in place, as well as a formal process for adopting standards of practice if appropriate.

The IFAA will be directed by a committee of delegates composed of a chair, a deputy chair, the immediate past chair, one delegate from each full member and associate member, and two persons appointed by the IAA council. The president of the IAA will serve as the immediate past chair during the first full term of the IFAA. Paul McCrossan, currently a member of the SOA Board of Governors and head of the working group that developed the regulations, will serve as the initial chair. Walter Rugland, former SOA president, will serve as one of the two council appointees.

The IFAA committee itself will use a weighted voting system. Associations with up to 75 fully qualified actuaries will be eligible for one vote, grading up to four votes for associations with 1,501 or more fully qualified actuaries. The Society of Actuaries, as one of the largest actuarial associations in the world, will qualify for four votes.

Initially, the IFAA intends to establish three subcommittees. The accreditation subcommittee will be charged with examining applications for full membership or associate

membership and for bringing recommendations forward to the IFAA committee on a timely basis. The education subcommittee will be charged with recommending the minimum endorsed educational requirements for all new fully qualified actuaries of full member associations of the IFAA after the year 2005.

Finally, a third subcommittee will be organized to develop a due process to be followed in making representations on behalf of the profession.

Curtis E. Huntington is professor of mathematics at the University of Michigan and will serve on the new committee as the delegate representing the American Society of Pension Actuaries (ASPA). He can be reached at his e-mail address chunt@math.lsa.umich.edu

Fair Value of Insurance Liabilities Conference

A conference based on the papers submitted in response to the call for papers on "Market Valuation of Insurance Liabilities" will be held December 7 and 8 at New York University. Irwin Vanderhoof, editor of the hardbound publication that will be based on the papers, is organizing the conference's content. Formal discussions from the accounting profession, Wall Street, the SEC, and the academic community are being invited. Copies of accepted papers will be available immediately after the conference, and the hardbound publication will include accepted papers and discussions presented at the conference. Comments or questions should be directed to Warren Luckner at the Society of Actuaries' Research Department, phone: 708/706-3572; fax: 708/706-3599; or e-mail at 73462.21@compuserve.com

DEAR EDITOR

An actuarial role in deficit debate

Bob Myers states that the country has a "very serious problem with regard to mammoth federal budget deficits" (June 1995, "Social Security and the federal budget"). However, I don't know what the deficit is or the level that will be economically damaging.

For instance, starting with 1994's official deficit of \$264 billion, I come up with \$126 billion instead, by adding back in the \$89 billion Social Security surplus Myers discussed, deducting the gain of \$61 billion the General Accounting Office arrived at (estimated deficit less actual), and deducting \$166 billion to reflect capital expenditures using normal accounting.

Budget entries are also soft; i.e., they are estimated at the beginning of the year using various assumptions as to the economy's growth rate, inflation, unemployment, and interest. There is a very wide range of potential deficits.

Should we be alarmed by even a \$264 billion deficit? This is about 4% of the GDP, the average it has been since 1980, and it's expected to average less than 3% over the next 10 years. These levels have had no serious negative effect on the economy.

Actuaries could provide a valuable public service by doing an extensive analysis of the assumptions and methods now in use and investigating the impact of varying deficit sizes on the economy.

David Langer

GAAP equity: not really so different

In my opinion, Dan Case's views on the nature of both GAAP equity and statutory surplus of mutual companies, as expressed in his article, "Mutual Company GAAP: Doubly Different" in the June issue of *The Actuary*, are mistaken.

GAAP equity, whether it is the equity of a mutual or a stock company,

is simply the excess of assets over liabilities. Those liabilities include provision for future policyholder dividends. This has always been true under FASB Statement 60 for participating business in a stock company. It continues to be true, at least in principle, under AICPA Statement of Position 95-1 ("the SOP") for "traditional" par business in a mutual company or in a stock company that elects to apply the accounting specified in the SOP to its par business. Provision for future policyholder dividends is entirely consistent with the GAAP concept of a liability as defined in FASB Concepts Statement 6, *Elements of Financial Statements*. GAAP equity, on the other hand, is simply a residual amount after all obligations have been provided for.

GAAP equity does not represent the amount that the owners of the enterprise can expect to receive as dividends. Consider, for example, a stock company with an NAIC risk-based capital ratio of 100%. Such a company could have very substantial GAAP equity, but the owners of the company can expect to receive none of that GAAP equity as stockholder dividends. Dividends will arise from future earnings or possibly from a wind down of business that could release risk capital.

What then does GAAP equity represent? One useful way to think of GAAP equity is that it represents the outstanding total investment of the owners of the enterprise in the enterprise. That investment is never completely "liquid" in that most cannot be dividended to owners.

Who owns GAAP equity? The straightforward answer is that the owners of the company own GAAP equity. For a stock company, it is clear who the owners are. For a mutual company, the answer is perhaps less definitive, but clearly the participating policyholders have ownership rights, as any company that has gone through a demutualization can attest. Many believe that the enterprise itself is the

functional equivalent of the owner of a mutual company. In any case, GAAP equity is owners' equity. For a stock company, this is stockholders' equity. A mutual company can legitimately call GAAP equity policyholders' equity or perhaps, more accurately, participating policyholders' equity. This is true whether or not such policyholders will ever receive any portion of that equity as future policyholder dividends. An alternative characterization would simply be enterprise equity.

Mr. Case fails to separate the role participating policyholders have as owners from their role as policyholders. As policyholders, their dividends are both probable and estimable and represent policy benefits that need to be reserved for. GAAP does not account the policyholder dividend as an ownership dividend. In fact, the AICPA's Mutual Life Task Force explicitly rejected this option as unworkable during early deliberations. To consider some or all of the policyholder dividend as an ownership dividend would require accounting for an appropriate portion of the premium as a capital contribution, an exercise that soon leads to an excursion into "Never-Never Land."

Turning to statutory accounting, Mr. Case evidently believes that future policyholder dividends (beyond those already apportioned for payment in the coming calendar year) are not reserved for, but paid out of surplus. This is consistent with the notion of divisible surplus and with the language of many participating policies. However, I believe that the vast majority of mutual companies' actions are consistent with the payment of dividends out of current earnings. The residual after-dividend gain from operations is really a permanent contribution to surplus. This view is consistent with the Society's Task Force on Mutual Life Insurance Company Conversion finding in 1987 that states U.S. mutual companies generally operate on the

entity theory" of surplus, where after-dividend earnings accumulate permanently in surplus.

Just as after-dividend earnings are usually expected to be permanent contributions to surplus, statutory liabilities are sufficient, with future earnings, to provide for anticipated future dividends. In fact, the valuation actuary's asset adequacy analysis must assure that this is the case (ignoring issues of aggregation with other lines of business). Therefore, in a very practical sense, statutory liabilities do provide for future dividends, at least to the extent of moderately adverse deviation.

Peter Duran

Dan Case's response to Peter Duran

I thank Mr. Duran for writing. I am responding solely on my own behalf.

A stock life company's GAAP report tells what portion of the assets is expected to go to existing policyholders and others (e.g., creditors) and what portion (the residual) represents the stockholders' interest. A mutual life company's FASB/AICPA report will tell what portion of the assets is expected to go to existing policyholders and others and what portion (the residual) represents the interest of whom.

FASB Concepts Statement No. 6 does, indeed, define "equity" as "the residual interest in the assets of an entity that remains after deducting its liabilities." It also states, "An entity's ... liabilities are claims to the entity's assets by other entities" In a stock

life company's report the stockholders are the "entity" and "other entities" include the existing policyholders. In a mutual life company's FASB/AICPA report in which the residual amount is called someone's "equity," the existing policyholders will be among the "other entities," but who is the "entity?" Per FASB #6 (as well as general reasoning), it can't be the existing policyholders. Hence my suggestion of the caption, "Future Policyholders' Equity."

Of course, there could be a note explaining that some or all of the future policyholders' equity would be allocated to existing participating policyholders in the event of liquidation or conversion to a stock company. I believe, however, that unless liquidation or conversion is imminent, the residual amount should be captioned from the perspective of ongoing operation as a mutual company. It must be made clear that dividends to existing policyholders will not come from the residual amount in the normal course of events.

FASB/AICPA could have avoided the need for an odd-looking caption by prescribing liabilities that, as in statutory reporting, would not reflect future policyholder dividends. A mutual life company's statutory balance sheet simply shows the excess of the company's assets over those needed to meet its obligations (obligations other than dividends, if you will). In statutory reporting, there is no attempt to identify a portion of the company's assets of which none is expected to be paid out as dividends to existing

policyholders. There is also no need to wonder who "owns" any particular part of the company assets.

Any suggestion that the liabilities in a statutory report do reflect future policyholder dividends ignores the fact that statutory reports have always aimed for a significant degree of conservatism. Use of conservative assumptions for statutory policy reserves is not intended to make them a proxy for best-estimate reserves that reflect future dividends, as will be the case with FASB/AICPA policy liabilities.

Further, regarding the nature of mutual company surplus, let us not be confused by the NAIC annual statement blank. The NAIC blank portrays policyholder dividends as being paid directly out of earnings. Since mutual company policies refer to dividends as coming from surplus, however, that is where they come from, isn't it? To make that possible, all of the earnings must go into surplus. Perhaps this aspect of the NAIC blank can be corrected in the current recodification project.

The flaw in statutory reporting referred to above is relatively minor, since the residual balance-sheet amount is correctly captioned. By contrast, captioning the residual amount in a FASB/AICPA balance sheet, either as "Surplus" or as "Policyholders' Equity" would, in my view, be a major mislabeling.

I am glad Mr. Duran is interested in this matter. I hope that other actuaries, too, are interested.

U. of Manitoba position available

Position: Tenure-track position as an assistant/associate professor in the actuarial science program, Faculty of Management, to begin July 1, 1996. The salary range is \$60,000 to \$75,000 (Canadian) annually (the appointment is subject to fund availability).

Duties: Teaching, supervising students, university and professional service, and research.

Qualifications: Professional accreditation in an actuarial association and Fellowship in the Canadian Institute of Actuaries is highly desirable. Assistant professor candidates must have a Ph.D. in actuarial science or a closely related area. Associate professor candidates must have an extensive research record in actuarial science.

Evidence of teaching proficiency is required and industrial experience also is an asset.

Applications: For all positions, submit a curriculum vitae and arrange for three letters of reference to be sent by October 30, 1995, to Dr. Jerry Gray, Associate Dean, Faculty of Management, University of Manitoba, 181 Freedman Crescent, Winnipeg, Manitoba, Canada R3T 5V4.

ACTUSEARCH

PUZZLE 2

by **ANTHONY T. BATORY**

ACADEMY	LIFE	SIX	M A O T U A O W T N E M T S E V N I
AUTO	LOSS	SOCIETY	O A S I G N Y T R E P O R P A F O C
AVERAGE	MALPRACTICE	SOLD	R N T R E N D R E B M U N R I S I X
CASUALTY	MATHEMATICS	STATISTICS	B T O H U A O E R O N L Y V Y N T L
CLAIMS	MEAN	SYSTEMS	I H T I E N V I R O N M E N T E A I
COMPENSATION	MEDIAN	TABLE	D E A O T M P T T W M O D E L V L A
COST	MEMO	TALLY	I A L R I A A A S A R I N E A E F B
DEMOGRAPHY	MODEL	TAX	T L A A R L S T V G U I E R U S N I
EARNINGS	MONEY	THREE	Y T S T I P A N I E N L T R S N I L
ENVIRONMENT	MORBIDITY	TOIL	E H S T H R E E E C R I A E A E I I
EXAM	MORTALITY	TOTAL	N S Y L L A T X U P S A N V C O S T
FIVE	NINE	TREND	Y M E D A C A A D E M O G R A P H Y
HEALTH	NUMBER	TRIAL	M I S Y S T E M S M H O M E A B E E
HOME	ONLY	TWO	T A B L E I R O Y T E I C O S E N N
INFLATION	PARTS	UNDERWRITE	D L O S S C I T S I T A T S M E M O
INSURE	PROPERTY	UNIT	E C I N T E G R A T I O N A I D E M
INTEGRATION	RATE	VALUATION	
INVESTMENT	SEVEN	VARY	
LIABILITY	SIGN		

100% Actucrossword Solvers — February 1995 (January 1994): J&L Abraham & J Hentschel, J&M Accardo, B Alexander, W Allison, A Amodeo, D Apps, A Atrubin, J Beaton, D Benbow, B Bims, A Brosseau, J Brownlee, G Cameron, L Cappellano, R Carson, J Darnton, B&B Dreyer, K Elder, R Fleckenstein & P McEvoy, B Fortier, K Friedman, F Funder, R Fulep & A Rothberg & K Kenefick, C Galloway, J Gold, P Gollance, J Grantier, S&M Grover, T&M Gustafson, G Hansen et al, A&K Hanson, R Harder, P Hepokoski, J Hess, G Horrocks, C Joyner, O Karsten, S Knull & T Merz, R&J Koch, D Kocher, G Konowitch, D Leapman, J Lenis, W Lumsden, M Lykins & J O'Connor, M MacKinnon, R Maguire, D&S Magnusson, R Martin, G Mazaitis, N McCaughan, J McIntosh, R Miller III, M Mills, A&F Mohammed, C Monroe, W Moody, B Mowrey, K O'Sullivan & A Leung & D Bache, J Palmer, D&C Promislow, F Rathgeber, J Ripps, J Roszkowski, I Schaeffer, C Schmid, S Segall, G Sherritt, E&E Silversmith, H Tate, E Thompson, E Tittley, B&J Uzzell, M Vandesteeg & A White, C Velasquez, P Watkin, M Whitman, M&D Williams, S Winch-Furness, V Young, F Zaret

The Puzzle Editor apologizes for the error in the June Actucrossword, which occurred during typesetting.

IN MEMORIAM

Thomas C. Harding ASA 1978 MAAA 1979	Keith L. McComb FSA 1976 FCIA 1977	Allen Paryzer ASA 1977 MAAA 1979	Awastase E. Status ASA 1936 MAAA 1965 FCA 1963	Edward (Ted) B. Tuck ASA 1934 FCIA 1966
William W. Keffer FSA 1950 MAAA 1965 MSPA 1976 EA 1976	L. Harding Migotti ASA 1957 Zehmann I. Mosesson FSA 1948 MAAA 1965	Philip D. Slater FSA 1948 MAAA 1965 EA 1976	Terence N. Towry FSA 1973 MAAA 1971 EA 1976	Paul F. Weber FSA 1976 MAAA 1978

Morton D. Miller, FSA 1941, MAAA 1965, the 1967-68 president of the Society of Actuaries, died in July. One of his accomplishments during his term was to change the SOA continuing education meeting formats to offer several sessions simultaneously to address the many different interests of the members. He also initiated recruiting an outside speaker for the annual meeting and increasing the number of members serving as panelists and workshop chairpersons. These improvements continue to this day. Miller was also the organizer of the 25th SOA anniversary celebration in New Orleans in 1974.