

Changes in Society election procedures

by Gary Corbett

n early April. Fellows of the SOA will receive the first ballot for the 1990 election. During the past year there has been considerable dialogue on the topic of Society elections. Immediately following the 1989 election, for example, discussions were initiated at both the Executive Committee and Planning Committee about undertaking a review of the entire election process. Almost simulneously, the Board and Executive committee began receiving various suggestions from members on how to revise our election procedures.

In responding to the expressed concerns of both the leadership and membership, President Allan Affleck established a Task Force to consider these issues and recommend changes in the election process, if appropriate. I am chairing that Task Force in my capacity as Chairperson of the Committee on Elections. Other Task Force members are President-Elect Daphne Bartlett and Committee on Elections members Nick Bauer, Harper Garrett and Bill Tozer.

The results of the Task Force's initial effort will be evident with some changes introduced on the first ballot for the 1990 Society elections. Let me explain what they entail.

First Ballot

1. All officer candidates will be invited to submit 200-word position statements supporting their candidacies. These statements will be ailed to the voters along with the llot materials.

2. The list of candidates' names will appear beginning with a candidate.

by Philip J. Bieluch

tatement of Financial Accounting Standards (SFAS) 96 "Accounting for Income Taxes." issued by the Financial Accounting Standards Board in December 1987, is still a mystery to many people. With the implementation date of calendar year 1992 for quarterly financial reports of most companies, this article highlights some of the theory and proposed changes for the standard.

According to SFAS 96 and prior accounting standards, deferred taxes are required for transactions creating profit reported in different years for financial reporting and tax purposes. Under SFAS 96 however, the computation of deferred taxes is revised so that the amount of deferred taxes on the balance sheet is adjusted whenever tax rates or other provisions of the income tax law are changed. This is the "liability" method of providing deferred income taxes. Since the Tax Reform Act of 1986 significantly

lowered the federal income tax rate for many nonlife companies, the accounting community desired the opportunity to release the redundant accruals of future taxes.

FASB provided the benefit to most corporations of showing a reduced liability, thereby generating greater corporate net worth. Other accounting rules, however, were changed to revised past accounting procedure. and that concerns them. Problems evolve from "temporary timing differences," which are the differences between the recognition of an expense for accounting and tax purposes. These are typically items such as depreciation deductions, which are accelerated on a tax basis over the accounting basis. In later years, less depreciation occurs on a tax basis creating more taxable income than accounting income. Future tax losses may be offset only against these future tax gains.

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Election changes cont'd

randomly selected, with the other candidate names following in alphabetical order. For example, the candidate list may begin with the randomly selected candidate "John Davis," followed alphabetically by the names of other candidates. The list might conclude with the name "William David."

Second Ballot

1. All second-ballot candidates. including those running for Board and Officer positions, will be invited to submit 200-word statements supporting their candidacies. These will be mailed with the ballot materials.

2. All second-ballot Presidential candidates will be interviewed by The Actuary, with their comments appearing in a special July 1990 issue of The Actuary, published before voters receive the second ballot.

3. Again as on the first ballot, candidates' names will appear beginning with a randomly selected name, with the other names following in alphabetical sequence.

We hope these initial steps will help meet voter concern about knowledge of the candidates, as well as alleviate other concerns that alphabetical listings could favor those candidates with names toward the beginning of the alphabet.

These are some of the immediate changes we can introduce into the 1990 election, but the Task Force also has efforts underway to determine whether further changes should be made in our elections procedures. To assist in that effort, it's important that Society members provide their input There will be two specific opportunities to do just that.

Plans are underway to publish an elections supplement with the April *Actuary*. The supplement will discuss in detail our current elections procedures, why they exist, concerns about our process which both leaders and members have expressed, and potential alternatives which ought to be considered. Members will be asked for their comments and suggestions in the form of Letters to the Editor, which will appear in a subsequent issue of *The Actuary*, unless the writer requests otherwise.

After the second ballot has been completed, Fellows will receive a survey asking for their input on the entire elections process. The Task Force and the Committee on Elections will then review all the material and develop recommendations for elections procedures changes for Executive Committee and Board review. Any approved changes will be implemented as soon as practicable.

We hope you will find the 1990 changes helpful, that you will help us in determining whether further changes are desirable and, most importantly, that you'll vote on both the first and second ballots in the upcoming 1990 election.

Gary Corbett, a former SOA President, is Senior Vice President and Chief Actuary, Equitable Insurance Companies.

University seeks candidates for actuarial professorship

The University of Waterloo has a tenure track position available in actuarial science at the assistant or associate professor level, beginning September 1990 or later. A Ph.D. is required in actuarial science or closely related area. Professional qualifications in actuarial science are important and practical experience is an asset. Duties include undergraduate and graduate teaching, independent research, and Ph.D. supervision. Salary will be commensurate with qualifications and experience. The application closing date is March 31. Curriculum vitae and three reference letters should be sent to Dr. J. D. Kalbfleisch, Chairman, Department of Statistics and Actuarial Science, Waterloo, Ontario, N2L 3G1. Canada. In accordance with Canadian immigration requirements, this announcement is directed to Canadian citizens and permanent residents.

SFAS 96 cont'd

An example of future tax losses is a deferred-compensation program. these programs, an executive is romised a salary benefit in the future. up to 50 years, in advance. On an accounting basis, these future expenditures have been accrued on an aftertax basis, since these will be deductible expenses, and the assumption is made that the corporation would be able to use the deductions in the future. SFAS 96 allows these future deductions to be assumed on an aftertax basis only if offsetting income is derived from other timing differences, such as accelerated depreciation, which falls at an appropriate time to reduce the tax liability. Depreciation schedules do not run out over 50 years. Tax deductions that occur after a tax gain can be carried forward are termed "dangling debits." FASB is considering eliminating a year-by-year scheduling of tax credits and debits but has not yet developed any rules.

Other examples of "temporary timing differences" are pension contributions, where the accounting expense differs from the tax-deductible amount. Accruing for retiree alth insurance as proposed by SB also would create expenses for financial reporting well in advance of actual deductions. FASB is considering allowing companies to establish a tax asset for the expected deduction even though no offsetting income is scheduled. FASB is discussing a going-concern requirement for this treatment. This situation is called a "naked debit."

Those companies that already have adopted SFAS 96 have seen a significant increase in the work necessary to produce deferred tax liabilities. Simplification is expected by the time general implementation is required.... Stay tuned for further details. Philip J. Bieluch is with Tillinghast/ Towers Perrin.

'Meet the Board'

To increase communications between the SOA membership and leadership, Society President Allan Affleck has arranged a "Meet the Board" breakfast discussion April 6 at the Dallas meeting. Board members will answer participants' questions in an informal atmosphere.

Dallas meeting devoted to health, pension topics

The Society's Spring Meeting April 4-6 in Dallas will offer a broad range of sessions for health and pension actuaries.

Health actuaries can choose from among 30 sessions, including a special one-half day seminar April 4 on "Managing the Bottom Line."

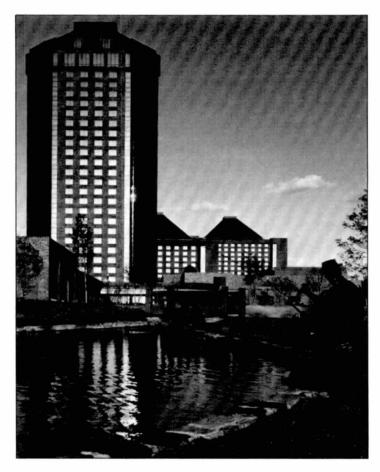
Pension actuaries can choose from among 25 sessions; 13 offer EA core credit, 10 offer noncore credit, and two offer core/noncore credit. Of special interest to pension actuaries is an April 6 open forum, "Dialogue with the Joint Board for the Enrollment of Actuaries," which will allow participants to discuss matters of concern with a Joint Board representative. An April 4 seminar, "Dialogue with the IRS," will feature a question-and-answer session with IRS representatives.

The meeting also will offer a first for all registrants – a "Meet the Board" breakfast discussion where Board members will answer questions in an informal, "off-the-record" atmosphere.

In addition, registrants will get a taste of Texas food and music at an informal, down-home reception. And they'll get food for thought from two special guest speakers, Stanford University Professor Alain C. Enthoven. who'll speak on "Employee Benefits: Where Should Public Policy Take Us?" and Dr. Tony Alessandra, who'll tell how to get a competitive edge in business through marketing.

The meeting will take place at the Loews Anatole Hotel, the Southwest's largest, with 19 restaurants and lounges, three swimming pools, and a private 7-acre park.

Send in your registration form today, or call the SOA Meetings Department for a preliminary program and registration information at 708-706-3540.



The Loews Anatole Hotel. Dallas

Significant actions – Board of Governors meeting

January 23, 1990 – Rosemont, IL

1. The Board approved the resumption in April 1990 of the Society's participation in the Nankai University Actuarial Science Program, subject to review by the Executive Committee if there are any unfavorable events in China.

2. In connection with the Society's attempt to strengthen relationships between universities and the actuarial profession. the Board endorsed the following concepts:

- The primary objective of any program should be to encourage university-based actuarial research.
- Financial support should be provided to a limited number of universities selected from proposals submitted by the universities for developing or enhancing actuarial programs. The support would be granted for a limited period.

3. The Board recognized the importance of the changing nature of demographics and the economic. social. political. and physical environments in which actuaries operate. It directed each Board member to communicate with the committees and sections in his or her area of responsibility to ensure that these issues are considered in the Society's educational and research activities and meeting programs.

4. The Board authorized expenditure for three Professional Actuarial Specialty Guides in 1990. Each guide relates to a specific subject and primarily contains a selected bibliography of material available on the subject.

5. The Board authorized establishment of a committee to develop a new group annuity mortality table to be used for valuation.

6. The Board authorized the Pension Section Council to express an opinion on matters relating to proposed changes in international pension notation.

7. The Board approved a recommendation from the Committee on Elections that two Board seats be reserved for individuals in the pension area in the 1990 elections.

Anthony T. Spano, Secretary

Seminars on exams

The University of Washington will conduct review seminars for the following courses:

- Course 100 Mondays, March 5 -April 30, 5-7:30 p.m.
- Course 110 Thursdays, March 8 -May 3, 5-7:30 p.m.
- Course 135 Wednesdays, March 14 -May 9, 5-7:30 p.m.

All courses will be held on the UW campus. For more information, contact Dr. David Szatmary, Assistant Director, UW Extension, GH- 21, University of Washington, Seattle, WA 98195, 206-543-2300, ext. 407.

* * *

Drake University will offer review seminars for Courses 160 and 165 in Des Moines. Iowa. The Course 160 seminar will be held April 6, and Course 165 will be held April 7.

For further information, contact Linda Hanson at 515-271-2525 or at 800-443-7253, ext. 2525.

Georgia State University will sponsor examination preparation seminars between April 9 and May 11 on the following courses:

110	140	162	EA1,B
120	150	165	
130	151	200	
135	160	EA1.A	

For further information, contact Robert W. Batten at 404-651-2736.

The University of Toronto will conduct exam preparation seminars in April for Courses 120, 130, 135, 140 and 150. For details please contact Prof. S. Broverman of the University of Toronto at his *Yearbook* address, or call 416-978-4453.

Temple University and the Actuaries Club of Philadelphia will offer intensive review seminars for the following courses:

Course 151 – Friday, Saturday, March 30, 31; 8:30 a.m.-4:30 p.m.

- Course 160 Thursday, Friday, April 26, 27; 8:30 a.m.-4:30 p.m.
- Course 161 Friday, April 13,

8:30 a.m. 4:30 p.m.

- Course 162 Saturday, April 28, 8:30 a.m.-4:30 p.m.
- Course 165 Saturday, April 14, 8:30 a.m.-4:30 p.m.

For information write to Bonnie Averbach, Program in Actuarial Science, Ritter Hall Annex 475, Temple University, Philadelphia, PA 19122, or call 215-787-8153.

The College of Insurance will conduct intensive day-long review seminars in April in preparation for Associateshiplevel SOA May 1990 examinations.

Anyone interested should contact The College of Insurance, Actuarial Division, 101 Murray Street, New York, NY 10007-2132, or call 212-962-4111, ext. 390 (Fax: 212-964-3381).

'The Adventure of Change' to be discussed at Hartford meeting

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The Society's Hartford Spring Meeting April 30-May 1 will feature John Amatt, a motivational speaker, who will discuss "The Adventure of Change: A Challenge and an Opportunity."

Amatt will speak on how meeting participants can increase their ability to adapt to change, which he says is the major challenge facing leaders today. He plans to help participants review and relearn the heritage of risktaking and entrepreneurship.

With research on the experiences of the early explorers and pioneers of North America. Amatt will review the concepts of vision, courage, commitment, endurance, resourcefulness and teamwork, and their importance.

The meeting, to be conducted at the Hartford Sheraton Hotel and Hartford Civic Center, also will offer more than 40 sessions with an emphasis on financial reporting, product development and reinsurance. Topics will include surplus management, risk classification trends, reserving for AIDS and regulation of mass-marketed products.

For a preliminary program and registration information, call the SOA Meetings Department at 708-706-3540.

Editorial

The Actuarial Standards Board: The editor's jottings about a meeting

by Mary Hardiman Adams

t the most recent meeting of the Actuarial Standards Board (ASB) in January a broad spectrum of the Board's activities, along with the cares and concerns of its members, were evidenced in the 12-hour session spread over two days.

The ASB has been established to promulgate Actuarial Standards of Practice and Actuarial Compliance Guidelines in the United States. While the ASB is an independent group, its administration is carried out by the American Academy of Actuaries. Academy members automatically receive any Actuarial Standards and Compliance Guidelines, as well as new

the ASB.

At this meeting, led by Chairperson Walter Miller, 100% of ASB members attended. Vice Chairs George Swick and Jack Turnquist, along with members Paul Barnhart, Gary Corbett. Willard Hartman. James Hickman, Frederick Kilbourne and P. Adger Williams were present. The Presidents of the Society of Actuaries and the American Academy of Actuaries, Allan Affleck and Harold J. Brownlee: the Standards Program Staff, Christine Nickerson, Director, and Alan Kennedy, Technical Writer; along with AAA's James Murphy, Executive Vice President, and Gary Simms, Counsel, also attended.

Plans for 1990

Each Operating Committee reported that it has one or more Standards or Guidelines planned for 1990. In addition, two committees presented proposed exposure drafts at the meeting. Of special note was the thorough examination the board gave to an exposure draft of a proposed Standard

"Benefits Upon Involuntary Termition of an Employee Group" presented by Richard Roeder, Chairperson of the ASB's Pension Committee. Even more detailed attention was given to a proposed Standard on actuarial expert testimony, presented by Steven Harrold on behalf of a task force of the ASB's Specialty Committee. Exposure was agreed upon in both cases.

Another large project, covering all areas of practice, is the reformatting of all original Recommendations and Interpretations, where there are no changes in substance, into the new ASB Standards format. Where there is any needed change in substance, the project is larger in scope; not only reformatting, but redrafting, are needed. Then there will be an exposure of the revised Standard. Perhaps the completion will extend well beyond 1990.

Concerns about compliance The ASB spent considerable time discussing the need to express to the actuarial community the importance of compliance with the Standards and Guidelines. Cases in point were the informal communication by regulators from two state insurance departments. referring in one situation to the lack of reports in insurance filings, and in the other that filings were "woefully inadequate." The ASB does not deal with compliance of any individual actuary – this is the concern of the Discipline Committees of the actuarial organizations. Nevertheless, the entire purpose of establishing Standards of Practice is to make use of them.

Some bright notes, however,...the inquiry from the chairperson of a large Practice Section of the Society as to whether that group could, or should, be doing something now to stimulate compliance...the information that at least one multiline insurance company uses the Standards of Practice as its audit guide...the observation at the Enrolled Actuaries Meetings that the Standards and Compliance Guidelines were accepted as the way to practice.

A glossary

ASB member Fred Kilbourne is in charge of preparing a glossary of terms used in the Standards, Guidelines, and other actuarial publications. Of particular note is the different use in various actuarial disciplines of a single word. (As an example, think of the word "reserve;" it can be an asset or a liability, depending on usage. Another example is the word "cost.") This longrange project may not see publication for a year or more.

New binders and reprinted standards

Since July 1988, seven Standards have been published through the action of the ASB. These, along with Standards issued by the Interim Actuarial Standards Board and reformatted by the ASB, are being reprinted. This spring, three-ring binders along with the reprints will be mailed to Academy members. Nonmembers may obtain copies from the Academy's office for a yetundetermined cost, which this editor guesses will be about \$40 or \$50.

And finally, do actuaries care? Starting from the compliance question noted earlier, discussion was conducted about whether actuaries, in general, take an interest in the content of the Standards. Why sometimes do only a dozen or so actuaries comment on an exposure draft? Is it that other actuaries are too busy or do not care about the content or about compliance? Or is it because the exposure drafts are so well prepared, no comment is necessary?

Conclusion

Yes, actuaries care. Although the comments received may be few, they are thoughtful ideas from knowledgeable actuaries. Of primary importance is that the quality of the exposure material is excellent. The members of the ASB Specialty Committees have been selected on the basis of their experience and breadth of knowledge. As a result, caring actuaries who carefully study new exposure drafts have no compelling reason to prepare comments. They can comply. They do care.

When the next exposure draft arrives, will you study it and comment on it?

The tuition actuary

by Thomas M. Zavist

he following proposal, which addresses the problems of lowquality public education and unemployment, also provides a special opportunity for actuaries. While the proposal may seem somewhat bizarre, it nevertheless is feasible: many practices common today, such as the income tax, once were considered extraordinary.

Education is an unusual economic good in that it is most frequently of value to those unable to pay for it at the time. Consequently, it is financed indirectly through parents, charity and the government. Because the student provides no economic benefit to the educator, educators have no direct incentive to provide education that is valuable and pertinent to every student. In fact, most often a school's budget is related solely to attendance, without regard to the effectiveness of the teaching.

Therefore, the proposal is to have a portion of a student's future earnings encumbered and assigned as tuition for primary, secondary, and college education. The intent is to eliminate taxes as a means of financing public education. To prevent abuse by guardians or educators who may try to exploit the economic vulnerability of students, the proposal limits the encumbrance to a half-percent of pay per year.

In other words, if a student's parents elect a maximum encumbrance to pay for eight years of primary education and four years of high school, then the primary school is entitled to 4% of the student's future pay, and the high school is entitled to 2% of future pay. If the student elects a maximum encumbrance to pay for six years of college, then the college is entitled to 3% of pay.

Pay already is defined for those who file singly or separately for income tax purposes, and for those who file jointly, the pay can be defined as half of the aggregate amount for the two individuals.

This proposal creates a direct incentive for schools to maximize the economic value of their students and has the potential to turn around the sad state of public education. By placing a premium on employability, the proposal also helps to reduce unemployment, both through better education and through better job placement programs.

Actuaries come into play in calculating the present value of a claim to a portion of future pay and in arranging for lump sum payments that a school can use to defray expenses. Hence the term "tuition actuary" evolves into a specialty.

Tuition actuaries find investors who are willing to purchase claims to a portion of future pay. A new investment vehicle is created, by which investors can invest in human capital. The investment vehicle differs from a student loan in the same way that a stock differs from a bond. A creditor is entitled to a fixed amount, whereas an investor shares in the risk of a venture.

The proposal is eminently feasible because it follows the old "get now and pay later" scheme that has been tried so successfully in other public endeavors. It helps to solve two grave social problems at absolutely no cost to those who implement it and also eliminates the need for taxes to pay for education.

The following are four examples of how the present value of a claim to a portion of future pay might be calculated. All of the examples assume interest of 8%, a salary scale of 8%, and a retirement age of 65.

In example A, an individual attends eight years of primary school and finds a minimum-wage job starting at \$7,500 per year.

In example B, an individual attends 12 years of school and finds work as a secretary starting at \$15,000 per year.

In example C, an individual attends 16 years of school and begins a professional career starting at \$30,000 per year.

In example D, an individual attends 20 years of school and is employed as a lawyer starting at \$60,000 per year.

(Ed. note: We guess then a school should turn out as many football, baseball and basketball players as possible. With starting salaries at \$1.5 million, plus a signing bonus, a few athletes would go far!)

Thomas M. Zavist is with William M. Mercer Meidinger Hansen.

Example	Α	B	С	D
Age at hire	14	18	22	26
Service at retirement	51	47	43	39
Starting pay Present value of future	\$7,500	\$15,000	\$30,000	\$60,000
pay as of date of hire	\$382,500	\$705.000	\$1,290,000	\$2,340,000
Typical present value of a half-percent of future pay:				
 in primary school 	\$1,406	\$1,904	\$2,561	\$3,415
 in high school 	N/A	\$3,022	\$4,065	\$5.419
• in college	N/A	N/A	\$5,530	\$7,373
 in graduate school 	N/A	N/A	N/A	\$10.031
 at date of hire 	\$1,913	\$3.525	\$6,450	\$11,700

In the above examples, a half-percent of future pay represents the maximum encumbrance that can be assigned as tuition in a given year.

The complete actuary Whole-brain thinking

by John Nigh

ctuaries have been accused of being left-brain dominated, very logical, non-risk takers who are not particularly adept at communication and, therefore, management. These are broad generalizations, but most of us would agree that we have developed a dominant left side because of our exam-taking background, its emphasis on mathematical principles and lack of emphasis on other disciplines.

This is not to suggest that being very logical and mathematically oriented is wrong. However, a more balanced thought process that does not sacrifice logical reasoning skills is more advantageous. If we can develop more right-brain, or creative, thinking without sacrificing any of our leftbrain. or more logical, strengths, we become "whole-brain thinkers."

Whole-brain thinking (interchangeably referred to as creative inking) can be developed. Roger von Oech, President of Creative Think, a California-based consulting firm that aims to stimulate creativity and innovation in business, is the author of two interesting books. A Kick in the Seat of the Pants¹ and A Whack on the Side of the Head². Although I have been accused of being a wholebrain or creative thinker (largely because of my avoidance of technical work and my pink running shorts), von Oech gets credit for the vast majority of the thoughts set forth in this article.

Your attitude can go a long way toward giving you the freedom to either be a creative thinker or to tuck yourself safely away from creative thinking. Probably the most common reason that some actuaries are not creative thinkers is the attitude that we already have the answer. Second is that we don't feel thinking beyond the factual parts of our discipline is terribly important. Others might say they don't have the time or, heaven orbid, think that they are simply not reative. To turn that around, you must recognize which attitude may be preventing you from being a creative thinker or, perhaps more importantly, a more creative thinker.

As von Oech explains, the hallmark of creative people is mental flexibility, i.e., the ability to shift in and out of different thinking gears. Depending upon the needs of the situation and where one is in the creativethinking process, a creative thinker will be open and probing, off-the-wall, discerning or tenacious. I have just described what von Oech has concluded are the four main roles of the creative thinking process. These roles are: (1) explorer. (2) artist, (3) judge and (4) warrior.

An explorer searches for material. A good explorer will go beyond his or her own turf to look for ideas in other fields or disciplines. He or she will pay attention to the big picture while not overlooking detail. Explorers learn not to avoid any potential source of ideas, and to assure that ideas are not forgotten, they will write them down.

Once the materials and concepts have been gathered, it becomes the artist's job to take these resources and experiment with a variety of approaches, asking "what if" questions, putting them into different contexts, looking at them from different perspectives and, of course, when necessary, sitting on them for a while.

Having forged a new idea, the artist passes the ball to the judge inside you who must evaluate whether the idea has a reasonable probability of success with the appropriate returns and whether it can be implemented. The judge needs to identify what the idea is trying to accomplish and the pros and cons. The judge needs to determine whether the timing is right and, most important, to decide whether to proceed with the idea.

Finally, we have the warrior. The warrior takes the final idea to those who will use it (marketplace? battlefield?). A warrior needs to be bold with a well thought-out strategy for implementation, the motivation to achieve a goal, and the ability to eliminate excuses and overcome obstacles. At the same time, the warrior must know which battles to avoid, using his or her ability to learn from defeats and savor victories.

SPDA study

The SOA Research Management Committee has reached an agreement with the Life Insurance Marketing Research Association (LIMRA) to undertake a study of Single Premium Deferred Annuity (SPDA) experience. Dr. Sam Cox and Steve Linney of the University of Nebraska have been selected to work on the study with Lucian Lombardi, LIMRA's Program Director for Product and Profitability Research. and Paul LaPorte. Assistant Vice President of LIMRA's Financial Research Department.

This joint study is the first phase of the SOA Interest Sensitive Cash Flow research project. The project's goal is to identify and analyze those factors affecting interest-sensitive product cash flow to provide information useful in the financial management of life insurance companies and in the review of companies by regulators. Such information should be particularly useful to actuaries who design and price SPDA products.

It is anticipated that the SPDA study will be completed during 1991. The progress of the SPDA study will be monitored by the SOA Interest Sensitive Cash Flow Project Oversight Group, chaired by Pete Deakins. Reports and preliminary results will be published as appropriate.

Members of the Project Oversight Group will use what is learned from the SPDA study to set specifications for studies of other interest-sensitive cash flow products such as Universal Life and Flexible Premium Annuities.

If your company is interested in contributing data to the SPDA study, please contact Warren Luckner at the SOA office, 708-706-3572.

Funding for the SPDA study has been provided by the SOA Product Development and SOA Financial Reporting Sections, as well as by LIMRA and the SOA research program.

In memoriam

David Wright Bell ASA 1925 Angus L. Crawford ASA 1949 Arnold Gerber ASA 1963 W. Harrison Ingersoll FSA 1945 Henry G. Neebe FSA 1951 Ronald E. Pfanstiel FSA 1980 Joseph R. Pickering FSA 1961 Nicholas J. Prendergast ASA 1954 J. Henry Smith FSA 1946 Bert A. Winter FSA 1939

FACTUARIES by Deborah Popper

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



Name: Dan McGinn.

Birthday: January 1931.

Birthplace: Buffalo, New York.

Current hometown: Whittier, California.

Current employer: DM&C Consultants, Inc.

Marital status: Married.

Children: Dan, 34: Kevin, 32: Peter, 29-deceased: Chris, 25.

My first job was: Group Actuarial Student.

I'd give anything to meet: Ronald Reagan (again).

The number of exams I flunked: 1.

The books || recommend most often: Any of the books I have written; I enjoy others' having to suffer!

The last movie I saw: Batman (awful!).

Nobody would believe it if they saw me: Singing in the shower.

The TV show I stay home to watch: CNN.

If I could change one thing about myself, I'd: Improve my golf (it can't get any worse!).

When I'm feeling sorry for myself, I: Smoke a cigar.

My fantasy is: Driving a Mercedes 500 SL.

The silliest thing I've ever done: Worry that my fiancé wouldn't show up for our wedding.

If I could do it over I'd: Do all the same things again!

My proudest actuarial moment was: Learning I had passed the final exam.

The best time of my life: Skiing with my wife and sons at Mammoth Mountain, California.

Airphone links Dad to delivery room

At the minute his new baby girl was born. John Tiller was flying high – 35.000 feet over Arizona, in fact. Yet he was able to hear his newborn's first cries in a California hospital.

He was connected by airphone with his wife Denise Fagerberg, who'd called him in Dallas at 3 a.m. January 14 with news that she'd gone into labor, two weeks before her scheduled due date.

John, a consultant in the midst of transferring from Tillinghast's Irvine office to its Dallas office, jumped on the first morning flight out of Dallas.

"I told Denise I'd phone from the plane," said John. "About two hours into the flight – about halfway there – I phoned."

"I'd been wishing I could call him on the plane," Denise said, "but that's not possible."

As luck would have it, John called just 20 minutes before the baby, named Victoria, was born and was able to get in a little Lamaze coaching as Denise held the phone to her ear.

"I didn't get to cut the umbilical cord, but I heard Victoria's first squeal." John said.

The plane's captain announced Victoria's birth over the PA system, and John was served champagne.

John and Denise, both of whom are FSAs, have another daughter, Betsy, 4¹/₂, who may have inherited the actuarial gene. She can count to 50 already, said her mother.

Now that the wait for the birth is over. John and Denise are awaiting another arrival – the credit card bill for the airphone call.

Professorship open at Temple

Temple University is looking for an assistant/associate professor in actuarial science, Department of Risk Management and Insurance. A Ph.D. and an actuarial science designation as well as a strong commitment to research are very important. Salary and benefits are competitive. Please contact Dr. M. Moshe Porat, Chairman Department of Risk Management and Insurance, School of Business and Management, Temple University, Philadelphia, PA 19122, or call 215-787-1836.



Society addresses students'

by Judith Bluder

OA examinations are a challenge to most who take them, but for students with disabilities or special needs, the exams can pose an even greater challenge. However, with assistance from Society staff members and volunteers, these students overcome such difficulties and work toward Associateship or Fellowship status.

The Society has been making these arrangements for many years, according to Neville Henderson, Examination Chairperson and Senior General Officer of the Examination & Education (E&E) Committee.

"We don't believe in putting people at a disadvantage," he said. "We try to make it (the examination process) as fair as possible."

Students with several types of special needs use the Society's program almost every exam period. Cases run the gamut from leftanded individuals who require additional scratch paper to students working around a pregnancy to individuals with cerebral palsy, visual impairment or learning disabilities, who require assistance for reading or writing the exams.

One such student. Christopher Moore, has been blind since birth. Through the Society's special needs program, he has completed the equivalent of nine exams and earned his Associateship. Moore said he wanted to become an actuary and knew his circumstances would make taking the exams more difficult. He required an additional 15 minutes per exam hour because he needed a proctor to fill in the exam answer sheet, and he had to use a typewriter to answer essay questions, which takes more time than writing longhand, he said. In addition, Moore needed someone to read his study materials to him because they were not available in braille.

"The exams are tough for everyone – more tough for someone in my situation," he said. But with the se of a separate room, talking calculator, proctor and braille books he was able to take the exams with little difficulty. If needed, visually impaired candidates are provided with braille books, prepared by the Johanna Bureau for the Blind.

Eighteen students requested special arrangements for the last exam period in May due to disabilities or unusual circumstances.

For left-handed individuals, the exam booklet poses some difficulty because scratch paper for figuring problems is provided on the right side of the booklet. When left-handed students use the scratch paper their arms block the problems. To remedy that, the Society has implemented a policy that additional scratch paper separate from the exam booklet be provided upon request.

All students must take exams on the scheduled exam dates. However, students with special needs can take an exam earlier or later than the scheduled exam time on the same day, if approved. In fact, there have been cases where students expecting a baby took an exam in the hospital.

Since each case varies, circumstances are handled on an individual basis, and usually exceptions are made. Anyone who feels he or she needs help will never be turned away. "We would never try to discourage anyone from taking exams." Henderson said.

Most special students need additional time, separate rooms or assistance by a proctor, according to Martha Quattrocchi, Supervisor for the Society's Examination Services and liaison between the E&E Committee and the special needs students. Separate rooms are provided for students receiving help from proctors so other students taking the exam are not disturbed. Quattrocchi said several students have requested untimed exams, but no precedent has been set on such a request. The Society will not allow untimed exam periods, but it has allowed students an additional one-third to twice the scheduled time if needed.

To determine what special accommodations a student requires, a physician's report and similar past cases are reviewed. "We go out of our way to help these people," Henderson said. "We try to make sure we're reasonably equitable and fair."

Diana Troy. who contracted multiple sclerosis in 1985, said the Society's program is very helpful. Since she developed MS. Troy said she writes more slowly and needs assistance and more time writing exams. She was able to take two exams without a proctor or extra time before her MS progressed, but needed a separate room and assistance for her third exam, she said.

Before the third exam, Troy almost decided to quit taking the exams because of her slower writing abilities. "But when I thought about it, I figured I deserve this help and so does anyone else who needs it."

Although special circumstances make the exam process more challenging. Moore said his blindness is not the main focus of his attention. "It's not the exams themselves, but the discipline you develop by going through the process. When you actually pass, you feel like you really accomplished something whether you're disabled or not."

Summary of OASDI and Medicare programs

Robert J. Myers, former Chief Actuary of the Social Security Administration, has just completed a revision of his Summary of the OASDI and Medicare programs. This 46-page document describes the program as it now exists, following the repeal of the Medicare Catastrophic Coverage Act of 1988. Copies may be obtained by writing to him at 9610 Wire Avenue, Silver Spring, MD 20901, and enclosing \$1 for postage (and, if possible, a self-addressed mailing label).

Introduction of sample reuse procedures – The bootstrap

by Thomas N. Herzog and Graham Lord

∦ith the advent of omnipresent \forall inexpensive computing, sample reuse procedures such as the bootstrap and the jackknife have become increasingly popular among statisticians. Sample reuse procedures are used for computing uncertainties in the form of a standard error, confidence interval, or other measures. These schemes (popularized by Professor Bradley Efron of Stanford University and John Tukey of Princeton University, among others) are intended to allow statisticians to substitute raw computing power for theoretical statistical analysis.

This article introduces one popular sample reuse procedure - the bootstrap. Bootstrap methods consist of estimating a characteristic of an unknown population by simulating the characteristic for a sample (i.e., an estimated population). The bootstrap is used primarily for complex situations when standard statistical procedures are not easily applicable. We introduce the bootstrap by means of a simple example so that the discussion is easy to follow. In practice, the bootstrap would not be used for such an elementary problem but would instead be reserved for more complicated situations.

Example

In early May 1989, two local newspapers had a total of twelve 1984 Ford Escorts advertised for sale with the following asking prices: \$1,600, \$1,700, \$1,900, \$2,600, \$2,700, \$2,750, \$2,795, \$2,800, \$2,875, \$2,985, \$2,995, and \$3,169. The mean of this sample is \$2,564.92, and its median is \$2,772.50. Based on this sample, what was the mean and the median asking price of all 1984 Ford Escorts advertised for sale in the United States during early May 1989?

Following Diaconis and Efron [1983], we reason as follows. What grounds do we have for believing that the population mean (median) was close to \$2,564.92 (\$2,772.50)? The sample of local prices could be atypical of the national population. Although the law of large numbers guarantees that in large samples, the sample mean (median) is likely to be close to the mean (median) of the entire population, the sample size here is small. The intent of the bootstrap is to provide a measure of the statistical accuracy of the sample estimates.

To understand what statistical accuracy signifies for sample estimates such as those discussed above, suppose price data were available for additional sets of twelve 1984 Ford Escorts, different from those already sampled. For each of 12 prices, we could calculate the mean (median) and thereby construct a distribution of the mean (median) over all of the sets of prices. For example, if 98% of the means were between \$2,560 and \$2,570, then we could assume that the reliability of the estimate of \$2,564.92 was high. However, if the means were uniformly distributed between \$2,000 and \$2,750, then the estimate of \$2,564.92 would not have been much reliability. In summary, the reliability of the estimate depends on the distribution of the sample means around the initial estimate.

Unfortunately, the data needed to calculate the means of many different samples are not easily obtainable. The bootstrap procedure is a means of estimating the statistical reliability of the sample mean using the data from a single sample. According to Diaconis and Efron [1983], the idea behind the bootstrap "is to mimic the process of selecting many samples of size 12 in order to find the probability that their means (medians) fall within various intervals. The samples are generated from the data in the original sample. The name bootstrap, derived from the old saying about pulling yourself up by your own bootstraps, reflects the fact that the

one available sample gives rise to many others."

For our example, we draw 1,000 samples of size 12 by repeated sampling with replacement from our original sample of size 12. To take advantage of the built-in computational power of the APL.2 system of the IBM 3084 computer at hand, we draw our 1,000 samples using the multiplicative congruential pseudorandom number generator described on page 5 of Herzog [1984] – i.e., the one with a=x=16807 and m=2*31-2. The results of our simulation are summarized in the table below.

	tributions o rapped sam	
Percentile	Mean	Median
0	2116.67	1800.00
1	2203.50	1900.00
5	2314.54	2325.00 <i>i</i>
10	2373.25	2650.00
25	2475.38	2725.00
50	2681.38	2772.50
75	2682.38	2797.50
90	2763.54	2837.50
95	2810.00	2890.00
99	2866.63	2967.50
100	2951.17	2995.00

It is apparent that both of the distributions are quite diffuse. For example, 90% of the distribution of the mean is between \$2,314.54 and \$2,810.00.

Limitations of the Bootstrap Model Although the bootstrap helps you pull yourself up by your bootstraps on many problems, it does not always give you the correct answer. Even Diaconis and Efron [1983] admit that "the bootstrap does not always guarantee a true picture of the statistical accuracy of a sample estimate. What has been proved is that the bootstrap gives a good picture of the accuracy of the estimate most of the time. There are always a few samples

Continued on page 11 column`ı

Bootstrap cont'd

for which the bootstrap does not work, and one cannot know in dvance which they are. The limitation is not so much a failure of the bootstrap procedure as it is a restatement of the conditions of uncertainty under which all statistical analyses must proceed."

Rubin [1981] introduces a Bayesian version of the bootstrap. Referring to Efron's [1982] bootstrap as well as his Bayesian version, Rubin [1981] states: "Because both methods of drawing inferences are based on somewhat peculiar model assumptions and the resulting inferences are generally sensitive to these assumptions. neither method should be applied without consideration of the reasonableness of the model assumptions. In this sense, neither method is a true bootstrap procedure yielding inferences unaided by external assumptions." Rubin [1981] concludes that "there are no general data analytic panaceas that allow us to pull ourselves up by our bootstraps."

Referring to the early bootstrap described in Efron [1982]. Schenker [1985] states that when bootstrap "methods are used to construct nonparametric confidence intervals for the variance of a normal distribution, the coverage probabilities are substantially below the nominal level for small to moderate samples. This is due to the inapplicability of the assumptions underlying the methods. These assumptions are difficult or impossible to check in the complicated situations for which the bootstrap is intended. Therefore, bootstrap method confidence intervals should be used with caution in complex problems."

Our intent is to whet the reader's appetite. We recommend that the interested reader first read Diaconis and Efron [1983] and then Efron [1982], before the more current papers such as Hinkley [1989] and DiCicci and Romano [1988].

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Whole-brain thinking cont'd

Having identified the four roles in the creative process, von Oech notes there is no one right way to be creative. Not all creative thinkers start with the explorer, proceed to the artist and judge, and end up with the warrior. Some may start with the artist, go to the judge, revert to explorer and oscillate back and forth, eventually ending (usually) with the warrior. For the most part, however, the explorer will be used in the early part of the creative-thinking process and the warrior in the latter part, with the artist and judge between.

What are the reasons for lack of creative thinking? Two explanations predominate. First, there may be a weak link in the creative process; maybe the artist in you has not been fully developed. Second, the roles in the creative process are not used well either because of poor timing or because you lock yourself into one role. You judge that an idea is not right before the artist in you has worked the concept into a product by viewing it from different perspectives, reverse angles, or upside down.

I'm sure we can all identify which role predominates with us. In my case, my warrior predominates. I'm known as a guy who carries a chain saw and usually gets good results although I sometimes don't slow down for all the facts and don't judge the timing right. I have good friends who never stop their search for facts thereby keeping themselves from assimilating the facts and concepts into a workable idea. Some people seem to get bogged down in facts. Those who emphasize the artist's role never quit rearranging the ideas, and hence, never can turn an idea over to the judge for an assessment of whether it is workable. Those with a predominant judge role tend to search for perfection and thereby prolong the decision-making process. I have a good friend like this. You can be sure that if he passes judgment on an idea it will fly because he's looked at it forever. The judge's role is the easiest one to get stuck in, and

actuaries have not proven to be an exception to this rule.

If you want to learn more about expanding your creative thinking. I recommend a couple of approaches. One is to delve into the von Oech books. The other is to attend the seminar format session "Whole-Brain Problem Solving." which will be offered at each of the three SOA spring meetings.

One final artistic test: From the Roman numeral IX, how many ways can a six be made by adding one line? There are at least three. Hint: Remember, the Romans did not conquer the world.

¹ Harper and Row Publishers, Inc. – 10 East 53rd Street, New York, NY 10022. Fitzhenry and Whiteside Limited, Toronto, Ontario, Canada.

² Warner Books, Inc. – 666 5th Avenue, New York, NY 10103.

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Book review

Welcome addition to the literature dealing with the actuary as an expert witness

by Edward F. Cowman

The Value of Pensions in Divorce: What It Is and How to Use It by Marvin Snyder. Published by Professional Education Systems, Inc., 1989, 132 pages.

arvin Snyder's experience in ¹ preparing "valuations in more than 1,000 marital pension cases" and service as an expert witness in several cases of "equitable distribution of pension values" have gualified him to treat the title subject of this book. While Donald R. Anderson's important book, Actuarial Evidence, dealt summarily with the role of the actuary as an "expert on employment income," in Snyder's book we find a complete and helpful treatment of the valuation and distribution of pension benefits determined to be marital property and subject to a QDRO (Qualified Domestic Relations Order, a sample of which is given in an appendix).

The book begins with an excellent summary of the theory of pension plans and a discussion of pension plan terminology and reporting requirements. Separate chapters are devoted to the different valuation considerations for defined-benefit and definedcontribution plans.

Other chapters discuss the appropriate treatment of inflation and taxation in making pension valuations. The concept of actuarial equivalence is developed in connection with various forms of retirement benefits. A chapter also is devoted to enumerating all of the basic information required to make a proper valuation of a pension benefit.

A particularly helpful chapter discusses the format of the PBGC tables. The author makes a strong case for the use of these tables in valuing pensions in a divorce case. A handy detached "Pension Value Calculator" (slide rule) included with the book is based on the PBGC tables (separate scales for male and female).

The chapter on "hiring an expert" is composed primarily of unanswered questions that convincingly make the case for a qualified expert (probably an actuary) to make the pension valuation.

Other chapters cover present value vs. deferred vesting, non-ERISA plans, valuation dates and coverture, and postdivorce contingencies.

The book has several brief but useful appendices. One, entitled "Examination of Pension Expert Witness." lists 75 questions that an expert witness might expect to be asked in the course of the examination of his expertise. This list would be most helpful to both the novice and experienced expert witness. Other appendices include a list of pension acronyms. a sample pension benefit questionnaire, a sample pension valuation report, and an illustration of coverture.

Snyder's work is an important contribution to the growing body of literature that identifies and supports the actuary's role as an expert witness. This book is both a good review for the experienced divorce case pension valuation expert witness as well as a foundation for the beginner.

Edward F. Cowman is President and Actuary, Bankers Mutual Life Insurance Company. He is Chairperson of the SOA Committee on Review of Literature.

Dear Editor:

Future shock

I would like to make two comments on the November editorial written by Steve Radcliffe concerning the future of the actuary.

1. I agree with the position Steve is taking. I have been uncomfortable with the position adopted by the Future of the Actuary/Actuary of the Future committee. I fear that if we stress the management/communication aspect, as this committee proposes, there is a danger of losing our identity as a profession. I feel that we are an intellectual/conceptual profession, and we must remain so and continue to develop in this direction if we are to survive.

2. However the most important aspect of this editorial is not that one person agrees or disagrees with the concept, but that it creates an opportunity to open a dialogue on what I feel is one of the most important issues facing the actuarial profession. I believe this is the first time that an alternative view has been articulated publicly and so it creates a basis for a dialogue. I hope that many actuaries will express their opinion on this crucial issue.

Ken McFarquhar

In the November Actuary: Stephen Radcliffe discussed "Being an actuary is a risky business" and described the skills and challenges that an actuary faces in becoming a manager. Technology and change are facilitating new entrepreneurial and networking careers for people with actuarial talents and business savvy. These opportunities are in addition to corporate management positions. For example:

- One person actuarial consulting firms enabled by facsimile machines and personal computer, which were not financially viable just a few years ago.
- Young FSAs becoming reinsurance intermediaries and deal makers.
- Actuaries starting new companies based on new product ideas, new agent incentives or distribution systems.

Continued on page 13 column 1

Dear Editor cont'd

• Actuaries becoming investment managers and becoming the heads of financial firms unrelated to traditional insurance lines.

Historically, the actuary has been philosophically introverted and defined himself based on past actuarial and managerial careers, but more actuaries are exploring the changing outside world for new exciting opportunities.

Harry Ploss

Find the fallacy

I have just received my January issue of *The Actuary*, and I am sure that many others have as well. Do you realize that at this very moment, actuarial activity around the continent is grinding to a halt, as we have all dropped whatever it was we were doing and are desperately trying to find the fallacy in Douglas Eckley's ingenious proof that 1 = -1.

I have seen many "proofs" that two distinct numbers are in fact equal, and they invariably involve division by zero. This observation makes it fairly simple to spot the trap.

If *h* is the addition to the ounger age, needed to obtain the equal age for a joint life status with two years difference in ages, then from the familiar formula for the law of uniform seniority. $1+c^2=2c^h$.

Since we are given that h=1, the above formula implies that

 $(1-c)^2 = (1-2c+c^2) = 0$

so necessarily, *c* and any of its powers are equal to 1. Therefore $c^{-40} = c^{-39}$, and we are indeed dividing by zero in Eckley's equation 1.

(Incidentally, I don't see the point of introducing negative ages, unless it is to add further camouflage to the idea. The denominators in equation 1 could just have easily been written as $c^{39}-c^{40}$.)

The proof using Makeham's Law that 1=-1 appearing in the January *Actuary* only demonstrates what I have long suspected. Actuaries can prove anything, with convincing logic. Laurence D. Cohen

Douglas A. Eckley has an interesting "proof" showing that 1 = -1. Under

Makeham's law the status (x:x+n) can be replaced by the equal age status (x+t:x+t) where $2c^{x+t}=c^x+c^{x+n}$ which is equivalent to $\mu_{x+t} + \mu_{x+t}$ $= \mu_x + \mu_{x+n}$. Solving for t gives

(1)
$$t = \frac{ln(1+c^n) - ln(2)}{ln(c)}$$

In the "proof" given by Eckley it is assumed that a Makeham table has been constructed so that $\overline{A}_{41:41} = \overline{A}_{40:42}$. Under this assumption, t=1and n=2.

Substituting into (1) gives

$$\frac{\ln(1+c^2) - \ln(2)}{\ln(c)} = 1$$

$$\ln(1+c^2) - \ln(c) - \ln(2) = 0$$

$$\ln\left(\frac{1+c^2}{2c}\right) = 0$$

$$\frac{1+c^2}{2c} = 1$$

$$c = 1$$

c=1 leads to division by zero in equation (1) of Eckley's "proof."

It also leads to division by zero

in my equation (1). In hopes of arousing further stimulating discussion consider

$$ln(2) = \sum_{n=1}^{\infty} \frac{(-1)^{n-1}}{n} = 1 - \frac{1}{2} + \frac{1}{3} - \frac{1}{4} + \frac{1}{5} - \frac{1}{6} + \frac{1}{7} - \frac{1}{8} + \dots$$

 $2ln(2) = 2 - 1 + 2/3 - 2/4 + 2/5 - 2/6 + 2/7 - 2/8 + 2/9 - 2/10 + \dots$ $2ln(2) = 1 - 1/2 + 1/3 - 1/4 + 1/5 - 1/6 + \dots$ 2ln(2) = ln(2)

2=1.

Thomas S. Tredway

Doug Eckley has proved using Makeham's Law of Mortality that 1=-1. Doug's proof assumes that the mortality rates can both be a geometric and arithmetic series at the same time, implying that B=0 and mortality rates are the same at all ages. Then assuming B=0 he is able to prove 1=-1. Q.E.D.

He assumes mathematically that negative ages are as valid as positive ages. Do people who die before they are born obey Makeham's Law. Test prenatal and infant mortality!

Life is short, but I think positive! Harry Ploss

Douglas Eckley's "proof" that
$$1 = -1$$

in the January *Actuary* invited discus-
sion. In response I would like to point

out that Equations 1 and 2 are inconsistent. The only value of c that satisfies Equation 2 is c=1, but c cannot equal one in Equation 1 because it would then contain a division by zero. Many erroneous conclusions are possible in a proof that begins with false assumptions. A simpler proof of 1=-1 (which also uses a division by zero) is as follows: Let x=y. Then x-y=y-x, which when divided by x-y gives 1=-1.

A common, more subtle mistake in doing proofs is to begin with the result that is to be proved, arrive at a result known to be correct by doing logically and mathematically correct manipulations, and then conclude that the proof is complete. This proves nothing. A trivial illustration of such a false proof is as follows:

Theorem: Let x and y be any two numbers, then x = y.

Proof: Start with x = y. Multiply both sides by 0. The result is 0=0. Since this is correct, we conclude that x=ywhere x and y are any two numbers. A valid proof does the opposite, i.e., it begins with valid facts, and by logically and mathematically correct manipulation arrives at the result that is to be proved.

James D. Broffitt

The author replies

On seeing James Broffitt's response to my proof that 1=-1, it occurred to me that a number of similar responses might be received. My point obviously was not really to prove that 1=-1, but to have the reader find the flaw and then learn from it. The flaw, not so hard to find, is that c=1, causing a division by zero. The thing to learn, not so obvious, is that under Makeham's law, the joint equal age will never be simply the average of the two individual ages; that would imply that c=1.

The telephone responses I've had so far indicate that the readers had fun with the thing.

Douglas A. Eckley

(Ed. note: Space prohibits us from printing several other letters in response to Eckley's article. Letters also were submitted by Mark D. J. Evans, Glen A. Harris, Jr., William David Smith, and Wolfe Snow.)

Continued on page 14 column 1

Dear Editor cont'd Turning the tables

Every actuary knows that women outlive men in general and that wives outlive their husbands. A number of recent deaths in my wife's family and mine have identified an interesting anomaly as far as we are concerned.

Of our grandparents, three of our grandfathers outlived our grandmothers. Of our parents, both fathers outlived our mothers. Of our five blood uncles, three outlived their wives. Of our three blood aunts, two died before their husbands, and the third never married.

In no cases were the wives more than a year or so older than their husbands, but there were two accidental deaths.

Small samples do not mean much; but of the 13 couples, in nine cases the husband outlived the wife. Would anyone care to attach a probability to this?

J. Bruce MacDonald

Small-group renewal rating

Having read with great interest Drew Davidoff's article on "Small-group renewal rating" in the September *Actuary*, Richard Vaughan's response in the November issue, and Raymond Marra's further response in the December issue, I have a comment and several questions:

I wholeheartedly agree with Marra that those particular practices ultimately will be self-defeating to the insurers practicing them.

My questions: Why have none of the writers alluded to nor stressed the obvious inconsistency and inequity in experience-rating tiny groups for which every single member was fully underwritten before coverage commenced and thus should be considered to be in the same "class?"

In at least the worst instances of such "post-claim underwriting." shouldn't the Actuarial Standards Board initiate some dialogue on this issue?

Robert C. Nuding

Don't mandate nonforfeiture values

Gordon Trapnell makes a persuasive argument for insurers to provide reduced paid-up nonforfeiture values in their long-term-care (LTC) policies ("Need for reduced paid-up nonforfeiture values in LTC policies." December *Actuary*). His argument is so persuasive that many insurers should do so voluntarily, to make their products more attractive in the marketplace. In fact, the October 1989 issue of *Consumer Reports* indicates that four insurers already are offering nonforfeiture values.

Unfortunately, Trapnell is proposing additional regulation – a mandate that all LTC insurers provide nonforfeiture values – to solve what he perceives to be a problem. A mandate of this nature actually does more harm than good for a number of reasons.

First, were nonforfeiture values mandated, premium rates would have to rise because current pricing assumes "savings" from lapses. LTC policies, which are at some ages extremely high-priced, would be even more unaffordable. Individuals who might otherwise have been able to afford a LTC policy without any nonforfeiture values would be unable to find anything but Cadillac coverage (i.e., policies with nonforfeiture values) at a higher price.

Second, mandating nonforfeiture values would create added complexity and, in the short run, provide added work for actuaries. However, many small insurance companies, Blue Cross/Blue Shield plans and HMOs do not have the actuarial sophistication to cope with level-premium rating, let alone nonforfeiture values. A mandate may drive up their consulting bills just enough for them to decide to get out of or not enter the business.

Finally, and perhaps more importantly, we must consider our loss of freedom as well. A regulatory mandate is another way of saying, "You, the public, and you, the insurance industry, are not free to enter into a voluntary contract of your own making. We, the government, paternalistically know what's in both parties' best interests."

I do not wish to give up my rights to enter into voluntary contracts with other parties, be it for LTC insurance, food, clothing or other goods and services. In general, once we give away this right to decide, we will not get it back. (If anything, giving up such rights usually leads to additional curtailments of freedom.)

Even setting aside the moral grounds, do we want the government to set standards at a time when the LTC insurance industry is still in its infancy? I know I don't.

Taxing Social Security benefits

Referring to my October 1989 Actuary article, John T. Gilchrist (January 1990) unintentionally quotes me out of context by not citing the sentence preceding the two sentences shown. This would have made it clear that I do not favor diverting the additional monies arising from the extension of the income tax on Social Security benefits to the Social Security program. Rather, I was stating what some persons propose. My strong choice is to put such monies in the General Treasury (and thus help to eliminate the budget deficits) - just as is done with income taxes on private pensions.

I must disagree strongly with Gilchrist as to extending the income taxation on Social Security benefits. so that it is on a proper, equitable basis. No reason exists why these benefits should not be taxed to the same extent as contributory private pensions. In neither case is this unfairly "to deprive the elderly of their incomes."

Robert L. Brown gently chides me that the proposed method of income taxation of Social Security benefits is not nearly as "proper" as the Canadian approach for all retirement pensions - not taxing the contributions and then taxing all of the benefits vs. the U.S. approach of the contributions coming from aftertax income and then part of the benefits being taxable. I agree that the Canadian approach is much better. but I was discussing how Social Security benefits should properly be taxed within the context of the (inferior) U.S. general approach.

Finally, I must point out an error in my article. Incorrectly, it was stated that the proposed basis of taxing Social Security benefits "is used for contributory private pensions." I really should have said "is somewhat similar in broad, general principle to the procedure used for contributory private pensions." The latter procedure, for one thing, does not use a "purchasable with interest" basis, but rather a "noninterest, life expectancy" basis. In my view. the "purchasable with interest" basis is more correct in theory, but more difficult from an administrative standpoint. Both procedures, however, have the same general basis.

Harvey Sobel

The Actuary — March 1990

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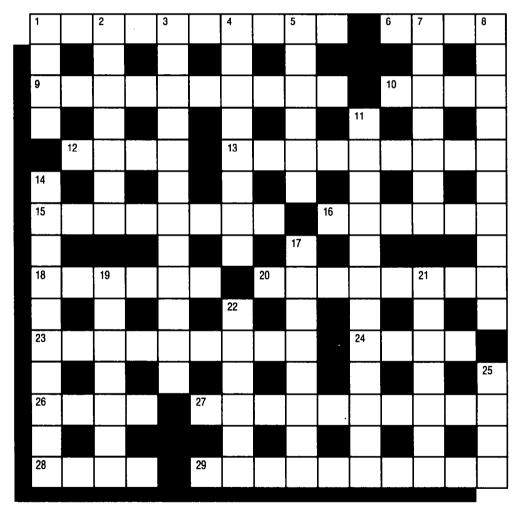
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- 6. Discover from the dates Pythagoras lived (4)
- 9. It combines with a slim and airy likeness (10)
- 10. Mathematical 13 (4)
- 12. Order of weight about state (4)
- 13. Conclusion if put together (3,3,3)
- 15. Lees clog the learned groups (8)
- 16. Worker surrounded by Popes building (4,2)
- 18. Vegetable formation is on twice (6)
- 20. Tilt and bang of warfare (8)
- 23. Where a sportsman performed or did he? (4,5)
- 24. Garment of State. But turn over first (4)
- 26. The French bear but belonging to us too (4)
- 27. Seafood places on the railroads (4,6)
- 28. Fitting encounter in game, etc. (4)
- 29. Dominate force in media (10)

- Down
- 1. Instance covering argument (4)
- 2. Mule ran badly maybe Arabic or Roman (7)
- 3. File kept neat and used by artists (7,5)
- 4. Fine bits of neckwear are scarce (8)
- 5. Fruit of corn and it could be melon (6)
- 7. How hornets can retrench (7)
- 8. Bad hand for rough bay or bridge negotiation (10)
- 11. Depressed areas? (12)
- 14. From moor and loch, so traditional a source of learning (10)
- 17. Privation of vessel that is 19 in red (8)
- 19. Policies extant (2,5)
- 21. Unsophisticated female, e.g. (i.e.) nun (7)
- 22. Profession of self and rank (6)
- 25. According to Shakespeare, adversity's are sweet (4)



100% SOLVERS — **December:** L Abel, J & M Accardo, R Alexander, W Allison, F Alpert, D Baillie, D Baldwin, J Beaton, J Braue, J Brownlee, G Cherlin, F Clarke, W Clifford, S Colpitts, C Conradi, L Cralle, H Currie, J Darnton, F & M David, B Dibben, S Dulley, M Eckman, N Fischer, D German & L Laderman, Mrs E Gooden, E Goral, J Grantier, M Grover (also Nov.), C Hacherneister, W Hill, HTI Hogs, R Hohertz, J Hughes R Holtz & M Gilje, J Hux (72/160) & K Shaw (88/160), A P

February's Solution



Johnson, W Jones, O Karsten, A Keys (also Nov.), R & J Koch, W Lumsden, M Lykins, M Mac Kinnon, R Maguire, R Makin, P Marks, R C Martin, H Migotti, R A Miller, C Montpetit, B Mowrey, C Mutti, B Packer, J Paddon, B Rickards, A Santos, J Schwartz, N Shapiro, G Sherritt, M Steinhart, Beth Thompson, P Thomson, C Walls, C Wasserman, D Weill, A Weishaus, A White & M Vandesteeg, A Whiton, D S Williams, and B Williams & C Tower.

Send solutions to: Competition Editor, 8620 N. Port Washington Rd (312), Milwaukee, WI 53217

The Actuary --- March 1990

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ACTUCROSTIC

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A.	A sinner who kept trying.	45 103 152 78 205	М.	Have one's doubts; consider carefully. (6 wds)	3 122 68 193 150 14 187 96 178
B.	Equestrian gait.	86 197 101 12 216 50 161 34 153			109 209 81 228 55 222 28
C.	Approved or customary tax deduction, eg. (2 wds).	77 200 63 154 16 93 131 51			135 202 41 165
		225 2 144 112 181 31	N.	The type of business we all are in.	137 172 49 99
D.	Routine chore on outside of a car. (4 wds)	230 10 179 166 147 98 79 130 40 114	0.	Seizure by legal process.	6 111 171 72 47 127 13 146 194 214
	(1.1.0)	25 208 61	Р.	Beethoven's <u>(2 wds)</u> .	70 170 91 105 32
E.	Every baby's bottle is	191 46 157 75 123 207 136			184 125 80 223 206 52 148 11
F.	Stir up; work into a lather. (5 wds)	1 92 213 27 108 199 124 15 155	Q.	Gnashed.	100 219 121 60 180 29 149
		229 43 186 143 59 167 76	R.	Choice, but not both. (2 wds)	4 87 104 215 53 231 67 173 33
G.	Gaiety; playfulness.	226 90 192 26 141 115 174 44	S.	First union to defy management.	89 62 218 35 134 198 107 163 18
н.	North & south and night & day, eg.	133 85 42 168 116 20 221 189 65	T.	What you do to a man if you're wrong, but to a women if you're right.	30 159 94 8 142 71 190 203 176
I.	Coarsely textured; granular.	234 201 48 117 24 210	U.	Give it a good try. (4 wds)	57 183 82 113 158 39 224 128 21 140
J.	Comforter; soft clothing fabric.	227 22 164 102 151 132 56 188 139			
К.	Flag in a green. (2 wds)	7 138 217 185 88 73 38 119	V.	Fond of; stuck on. (2 wds)	120 162 64 83 212 169 97 195 17
L.	The theater; entertainment, generally. (2 wds)	9 106 232 126	W.	Bystander; testifier.	
		182 84 196 69 156 36 23 54	X.	Meter; cadence; measure.	5 110 220 129 175 66

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LAST MONTH'S SOLUTION: David Gavitt (Commissioner of Big East Conference), (What it was like to) Play for AI McGuire, "AI then was like AI now. He didn't know anyone's name. I was working like hell for two or three games to get into the starting lineup and we had a big game against Holy Cross. I must have hit seven or eight shots and when he pulled me out, he gave me a slap on the back and said, 'Good job, George'." Milwaukee Journal, November 12, 1989.



APRIL 1990 Elections Report

SOA elections process

by Gary Corbett

y now most members are В probably aware that changes in the Society election procedures are under way for 1990. An article in last month's Actuary highlighted some of these changes. To recap, for the first ballot we will be introducing 200-word position statements for all officer candidates and randomly selecting a top name for each slate, with the alphabetizing of all following candites' names. For the second ballot, candidates have been invited to submit 200-word position statements. and we will also randomly select the top name for each slate. Presidential candidates will be interviewed for the July issue of *The Actuary* to help all members get to know them better.

These changes are the initial results of an elections procedure review being conducted by a specially appointed task force. That task force is also in the process of determining whether further elections changes may be appropriate. It will ask for your ideas this summer, when an elections survey will be sent to all Fellows.

To assist in that process, we have prepared this special report on the Society elections for your review. It discusses current elections procedures. provides background on the SOA Constitution, Bylaws and Elections Guidelines, explains how the Committee on Elections functions, and discusses concerns about the current process expressed by both leaders and members. It also presents potential ernatives to consider.

After you have reviewed this report. I hope you will write a letter to The Actuary and express your

thoughts about the existing elections process, the proposed changes, or any other changes you might wish to suggest. Those letters will be published and shared with the membership in the July issue of *The* Actuary and will also provide important feedback to the Elections Committee. the Executive Committee and the Board as we continue to review our elections procedures.

Elections – What the Constitution and Bylaws say

According to the Constitution, an annual election must be held in accordance with the Society's Bylaws. Six Fellows must be elected to the Board. three or more Fellows must be elected as Vice Presidents, and one Fellow must be elected as President-Elect.

The Bylaws provide a little more detail on the elections process than the Constitution. Specifically they require that a Committee on Elections is responsible for conducting the elections. That committee must consist of two immediate Past Presidents, plus at least seven additional Fellows. Committee membership also must be reasonably representative of both membership occupational interests and geographical distribution.

The Bylaws additionally spell out an elections timetable, the number of nominees to be included on the second ballot for each elected position. the length of terms, and how to fill vacancies and break ties.

Committee on Elections: How it functions

Neither the Constitution nor Bylaws provides detailed information about the Committee on Elections, except regarding its composition. So, to fully 🔿 understand our elections process, it is important for members to know how this committee functions. The committee conducts the Society elections according to detailed guidelines approved by the Executive Committee. It does not act as a nominating committee, but rather suggests and includes candidates on the first ballot according to the Bylaws and Elections Guidelines. It prepares the second ballot according to the Bylaws and the Elections Guidelines, but it is allowed some discretion for the Vice President and elected Board member categories. More on this later.

The Elections Committee normally has 12 members, each serving a three-year term, plus the two most recent Past Presidents acting as Chairperson and Vice Chairperson. The Chairperson is responsible for staffing the committee and balancing its membership to reflect area of interest. Canadian/U.S. residency, and the general needs of the membership. Committee members are usually individuals who have been active in Society affairs. They frequently include current and past Board members. Committee and Section leaders, and other Society members who are perceived as leaders in a particular specialty or area of interest. For example, the 1989-90 Committee on Elections consists of 10 members

plus the two Past Presidents. Two of the 10 are Canadians; five are predominantly life actuaries. three are pension, one is health and one is in academia; three work for insurance companies; six are consultants and in the past 10 calendar years. up to and including the year of the election, provided they were elected either Secretary or Treasurer in a contested election, or they also had served as an elected Board member.

"After you have reviewed this report, I hope you will write a letter to *The Actuary* and express your thoughts about the existing elections process, the proposed changes, or any other changes you might wish to suggest."

one is at a university. Four of the 10 serve on the Board of Governors.

Even though Elections Committee members are involved in conducting the elections. membership on the committee does not preclude them from running in the election. They may appear either on the first or second ballot. according to the regular Elections Guidelines. In fact, last year a committee member was elected to the Board.

The elections process: How the first ballot is assembled

The assembly of the first ballot begins in the fall preceding the election year. The committee prepares a list of individuals eligible to run for the Board and Officer positions. using the Elections Guidelines and Society Bylaws to guide the development of the ballot. For example, the Bylaws do not allow consecutive Board terms for those who are retiring from the Board, so those individuals would not be eligible to run. The Bylaws also prohibit consecutive terms as Vice President and make a Past President permanently ineligible for another term as President.

Here are some specific guidelines for the Officer and Board positions.

President-Elect

Candidates eligible for the office of President-Elect on the first ballot include:

Fellows who have completed a term as Vice President in the past 10 calendar years, up to and including the year of the election.

Fellows who have completed their terms as Secretary or Treasurer

As indicated earlier, Fellows who have previously served as President or President-Elect cannot run again for President-Elect.

Vice President

Candidates eligible for the office of Vice President include:

Fellows who have completed their terms as an elected Board member, Secretary, or Treasurer, with the term of service being at least two years. Service must have been within the past 10 calendar years, up to and including the year of the election.

Those who have completed a term as President. President-Elect or a full two-year stint as Vice President are not eligible.

Elected Board member

Candidates eligible for Board election typically include the following:

Fellows who have been active in the Society of Actuaries and/or other actuarial organizations generally are placed on a reference list. This list frequently includes up to 100 names. From it, voters are asked to choose up to six candidates. However, any Fellow who volunteers his/her name for the first ballot in response to the Elections Committee invitation in *The Actuary* is generally included on the ballot.

Fellows who are current Board members or Past Presidents are not listed as suggested candidates for the Board. In addition. those Fellows who have completed two Board terms, including service as an officer within the last 10 years. are not eligible to appear on the ballot. Other than these restrictions, previous Board experience does not preclude a Fellow from being listed.

Role of the Committee on Elections: First ballot

As part of its responsibility to conduct, the Society elections according to the Bylaws and Guidelines, the Committee on Elections has some discretion in preparing the first ballot, especially for the Board list. It uses its judgment to suggest additional candidates who possess the various leadership skills and experiences that represent different segments of the Society of Actuaries and contribute to its governance. At this stage of preparation, the committee does not usually determine an individual's willingness or ability to serve as an elected Board member because of the high number of candidates eligible to run in this category. This step is more practical when preparing the second ballot.

The committee can also add to or decrease the number of names suggested for all slates, as long as the members can select the appropriate number of candidates for the second ballot.

The philosophy is to have as broad a list of suggested names as possible for members to select from on this first ballot, so the committee attempts to include all suggested names it receives.

How the second ballot is assembled

In preparing the second ballot, the committee must follow the specific Bylaws and Guidelines, but it also has some discretion for the Vice President and elected Board member categories.

The specific guidelines follow.

President-Elect

The Bylaws require a minimum of three candidates to appear on the second ballot, and the Elections Guidelines require that "no candidate will be dropped from the second ballot if the first ballot vote is within five votes of a candidate on the second ballot." What this means is that on occasion, four candidates may appear on the second ballot instead of three. Candidates appear on the second ballot based solely on the number of votes each received on the first ballot.

Vice President

In each election, usually three positions are open for Vice President. The Bylaws require a minimum of six nominees on the second ballot for the Vice President slate, and the Elections Guidelines require that the top six votegetters on the first ballot must be included on the second ballot.

In addition, the Guidelines indiate that the Committee on Elections an add up to three additional candidates. Such additions might be made to attempt to balance representation according to practice specialty or residence. Candidates would normally be added according to the order of finish on the first ballot, with the committee having the discretion to draw the line at six, seven or eight candidates, depending on where there is a significant gap in the first ballot votes. It should be noted that a top finish on the first ballot does not necessarily assure that a candidate will be elected for office on the second ballot.

Elected Board members

In each election, there are normally six Board seats to fill. In preparing the second ballot, the Elections Guidelines state that the top nine or more Fellows with the highest first ballot vote must be invited to appear on the second ballot. The Bylaws also require that at least 12 and not more than 18 nominees should appear on the second ballot.

In preparing the second ballot, he Committee on Elections again exerises some discretion. It considers the number of votes received on the first for candidates meeting these specific qualifications are to be listed on the second ballot. For example, in the 1989 election the Board designated one seat for a health insurance specialist and one for a pensions specialist. Using designated seats may mean that the top six votegetters on the second ballot may not be elected to the Board.

1989 election results – How did the process work

In preparing the second ballot, the top 15 votegetters on the first ballot (after two declined to run) were entered. The 18th place finisher on the first ballot was chosen for the second ballot to provide the minimum of two candidates for one of the designated Board seats. The 32nd and 40th place first-ballot finishers were placed on the second ballot to provide two Canadian residents. If this action had not been taken, no Canadians would have appeared on the second ballot.

In the actual election, two of the three additional candidates were ultimately elected. According to the Bylaws, the results of the second ballot for any slate stand, and the Committee on Elections has no discretion to alter them.

"It is also important...that we hear from you on these issues ...in the next stage when an elections survey will be sent to all Fellows late this summer."

ballot; strength of the criteria qualifying the candidates to run; balance of specialties, areas of interest and Canadian/U.S. residency: and if any Fellow, not included on the first ballot reference list, received a significant number of write-in votes.

In addition, beginning with the 1989 elections, the Society's Board of Governors can designate up to three Board seats for individuals repreenting areas of interest and/or country of residency which are underrepresented in relation to the total Society membership. At least twice the number of reserved Board seats

Counting the votes

The Elections Guidelines require that the presidential election be conducted on a preferential basis; that is, voters are requested to indicate their first and second choices for the office. For the other slates, voters are asked only to vote for the appropriate number of candidates. The tabulation of the second ballot is done by SOA staff under the supervision of the Elections Committee Chairperson and Vice Chairperson. An external audit of the counting process is provided for in the Elections Guidelines if requested by the Elections Committee Chairperson or the President of the Society. To date such an audit has not been requested.

Candidates are informed of the election results as soon as possible after the votes are tallied. Actual results. including the order of finish. are not disclosed. However, unsuccessful candidates can request information about the number of additional votes they would have needed to be elected. No attempt is made to keep election results confidential for more than the few days necessary to inform all candidates.

Elections issues

Now that we have reviewed our current elections process, let's examine some of the issues that have been raised by both the members and leaders of the Society. I have delineated what appear to be the predominant issues concerning the elections and have tried to present. as best as I can, the various viewpoints which I am aware of. It is also important, however, that we hear from you on these issues, both at this stage and in the next stage when an elections survey will be sent to all Fellows late this summer. The Board. Executive Committee and Committee on Elections want to conduct our elections in a fair and equitable manner that encourages the participation of all Fellows.

Board representatives of different groups within the Society of Actuaries

Beginning with the 1989 elections, the Society's Board of Governors has the authority to designate "a certain number of Board seats (up to three) for individuals in areas of interest and/ or country of residency deemed to be underrepresented in relation to the total Society membership."

The extent to which the Board should represent the membership by specialty, employment, residence, age, experience, and sex has been much debated. Many regard the question of representation as the most difficult one facing us. Broad representation in all areas of SOA membership is important, but it is not clear what the best approach is and it is not clear what the membership desires. Some feel that no attempt should be made to achieve such representation. Others recommend establishing divisions within the Society, that would then elect their own representatives. One

"The extent to which the Board should represent the membership by specialty, employment, residence, age, experience, and sex has been much debated."

obvious problem regarding Board representation focuses on the limited number of Board seats and our inability to slice the membership demographics in more than one or two ways. Then there is the practical problem of just how to implement any desired degree of assured, or even encouraged, representation.

Before the 1989 Elections, the Committee on Elections had the responsibility for achieving balance on the candidates who appear on the second ballot. It did this not only by deciding who should be on the second ballot according to the Elections Guidelines but also, in the case of Canadian representatives, by running three Canadian residents for Secretary or Treasurer, thus assuring such representation on the Executive Committee. With the advent of designated Board seats and the President's ability to appoint, with the Board's concurrence, an elected Board member to the Executive Committee to balance representation, the committee's responsibility and discretion have been reduced. The upcoming survey will delve extensively into this matter. and your thoughts on this issue are very important.

Candidate statements

Beginning with the 1990 elections. first-ballot officer candidates and all second-ballot candidates will be invited to submit 200-word statements supporting their candidacies. These statements will be mailed to the voters along with the ballot materials. In addition, interviews with the second-ballot presidential candidates will be published in a July issue of The Actuary, before voters receive the second ballot. We hope that members will find the additional candidate information useful in making a more informed choice. Again, your thoughts on these changes will be sought in the survey.

Eligibility of Committee on Elections members to appear on first or second ballot

The Elections Guidelines do permit committee members to appear on either the first or second ballots. From time to time, however, it has been suggested that committee members should not be eligible for election.

The Executive Committee and the Committee on Elections have generally felt that barring committee members from running for election was not desirable because it could reduce the list of potential candidates. That would be counter to the elections philosophy of opening the slates to all Fellows who are qualified to run under the Elections Guidelines. Secondly, if committee members were prohibited from running, it would create difficulty for a Fellow asked to serve on the Committee on Elections. He/she would have to decide between committee service or the opportunity to be elected to the Board.

On the other hand, suggestions for prohibiting committee members from running stem from concerns about the appearance of bias and the potential to influence the elections in their favor. It should be noted, however, that the Committee on Elections is charged with <u>implementing</u> the Elections Guidelines and conducting the elections themselves. It <u>does not nominate</u> but rather provides a reference list of candidates who are eligible to appear on the first and/or second ballot, based on the specific criteria previously described.

Alphabetizing candidates' names Another change for the 1990 elections is on the alphabetization of candidates' names. Some members have expressed concern that our present alphabetical listing could favor candidates with names toward the beginning of the alphabet. We have attempted to study this phenomenon and find it difficult to prove or disprove the thesis. For the 1990 elections, we will randomly select the top name on each slate, with the other names following in alphabetical order. **First-ballot reference list**

As previously indicated, the Committee on Elections provides a reference list of candidates (about 100) for election to the Board as a means of facilitating that portion of the elections. Candidates' names are generally assembled based on their activity in the Society of Actuaries or other actuarial organizations. Past surveys have told us that voters have found the reference list helpful. The Canadian Institute of Actuaries, on its first ballot for members of Council, does not supply a reference list, and this is an alternative to our current procedures. Of course, Society voters can always write in additional names of candidates to appear on the Board slate.

Summary

These are some of the key issues being examined in our study of the elections process. Again, as I have indicated throughout this report, your thoughts on these matters are essential to creating the kind of elections process that will provide the best leadership for the members and the Society of Actuaries. I encourage you to share your ideas by writing to *The Actuary* and complete the survey when you receive it this year. Most important, please vote on both the first and second ballots.

Gary Corbett, a former SOA President, heads the Committee on Elections.