The Newsletter

of the Society

of Actuaries

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Actuaries interact with the public

by Charles Habeck

"An audience of elementary school children is one of the few groups I have found that is not yet jaded against insurance," states Jerome E. Tuttle, senior vice president and actuary at Mercantile & General Reinsurance Company, Morristown, New Jersey, in his response to questions raised in an October 1993 *Actuary* article on actuaries and the public.

Tuttle was one of six actuaries to respond to the request for accounts of experiences in giving talks to the public. Each year, he visits his children's elementary school classes to give a talk about math that relates to his work. His favorite talk involves a hurricane simulation game that he has presented both at the first-grade level and at the New Jersey math teachers conference.

The game typically covers several "years" or hurricane seasons. Each player receives Monopoly® money and a Monopoly® house and is given various hurricane data to think about. "The main issue in the game," Tuttle said, "is whether the students should buy hurricane insurance."

Probability concept demonstrated

In a Math Awareness Week for grade school students last year, Mark Rowley, associate actuary at The Principal Financial Group, Des Moines, opened his presentation with gambling-type examples. Once the students grasped the concept of probability, he progressed to the life and death case. A couple of students learned enough to be able to find the net premium, given a certain probability of death.

To reward their efforts, Rowley gave out "Ask An Actuary" buttons to the students. About a week later, one child was seen still wearing the pin on her jacket, and very proud of it.

Encouraging careers through example

Making use of her varied math background, Joan Ogden, health care consultant in Salt Lake City, builds her classroom presentations on the students' own experiences. She is a "founding mother" of the Utah Math/Science Network, whose purpose is to encourage young women to persevere in math and science. The network provides role models and career information to achieve this goal.

Ogden may speak to a class first about grading "on the curve" and then move to the concept of the "normal curve" and the need for a proper size sample. If time remains and the group is able, she describes other curves, such as the sine curve, and weaves into her talk examples from her earlier work in a pulsation dampener engineering firm and in the Apollo space program.

The presentation ends with a discussion of the need for good oral and written skills and the need to find and know how to use available data resources. All this occurs in one-half hour, followed by questions. Ogden gives talks once a month during the school year. In addition, she is now co-authoring a book to help benefits managers assess their companies' health care programs, including how to use an actuary to advantage.

Making content fit audience

An important aspect of public presentations — tailoring remarks to the needs of the audience — is related by Paul J. Sulek, vice president and chief actuary

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EDITORIAL

The pension actuary setting an interest assumption

Sitting on the horns of many dilemmas

by Mary Hardiman Adams

In the many years I spent as an actuary providing consulting services to defined benefit pension plan sponsors, I never met a pension actuary who did not want a plan's funding to be at least at a level that would provide the benefits promised under the plan's terms. Thus we have a basic premise:

> The actuary uses actuarial assumptions and methods deemed suitable by the actuary in determining the funding of a pension plan.

Lately we have been hearing about plans that are significantly underfunded because the actuary has been using interest assumptions that were too high. Is this true? Is some current underfunding really the fault of the actuary?

External restraints arising from laws and regulatory authorities limit how much the actuary can control the methodology and assumptions used for a particular valuation. Some of these restraints have been modified by court decisions. Some of the major issues, particularly those related to interest assumption selection, are included in the following dilemmas. (Note: It is usual to call the interest assumption the "valuation interest rate" when determining contribution/funding levels. For financial reporting, however, the "interest rate" is the expected return on assets; the "discount rate" applies to the determination of benefit obligations.)

Dilemma 1

The Internal Revenue Code and its regulations impose restraints under which:

a. Loadings and contingency reserves are prohibited.

b. If an actuarial assumption used for a plan's funding produces a gain over a period, such as five years, the offending assumption is challenged, and contributions may be disallowed.

c. Maximum deductible contributions are prescribed. These include a maximum funding limitation that, in turn, involves using an interest discount assumption that can be higher than the one the actuary would otherwise use (producing lower liabilities).

d. Excise taxes are imposed on a plan sponsor if contributions exceed the maximum deductible amount.

Dilemma 2

However, the tax court has ruled that some conservatism is appropriate. For example, Judge Clapp's Opinion of July 14, 1992 (Wachtell, Lipton, Rosen & Katz, David M. Einhorn, Tax Matters Partner v. Commissioner of Internal Revenue) acknowledged that actuaries need to balance the current economic environment with the long-term and largely unpredictable nature of pension obligations and with the security needs of plan participants.

Judge Clapp also noted that the actuary's perspective is very different from an economist's. "Congress did not entrust the nation's tax-advantaged retirement system to hypothetical returns that the markets 'should' bear. That task was left to actuaries whose background, training, orientation, and philosophy is well suited to the task. As practitioners specifically enrolled under the scheme established by Congress to create a smooth funding pattern assuring that benefit obligations will be met, they necessarily have a different perspective. The selection of an interest rate assumption is an actuarial judgment made in accordance with actuarial principles materially different from financial market performance forecasting."

Dilemma 3

The "Retirement Protection Act of 1993" (H.R. 3396/S.1780) was introduced in October 1993. This act provides for strengthening (some feel not enough) contribution requirements to defined benefit plans, particularly those that have low funding levels. While action is not expected until well into 1994, a step toward the goal of meeting plan participants' expectations has been taken.

Dilemma 4

The Supreme Court on December 13, 1993, in an opinion written by Justice Ruth Bader Ginsberg, ruled that a portion of the assets in the general fund under some insurance company contracts may be subject to ERISA's fiduciary rules. As I understand the conclusions of this summary judgment, if, under a group annuity (GA) or group immediate participation guarantee (IPG) contract that provides guaranteed and supplemental benefits, the assets held in the insurance company's general account are in excess of the amount needed for guaranteed benefits, then that excess is covered by ERISA fiduciary rules.

For a few years, actuaries will have to set interest assumptions for general account pension plan assets without knowing whether or how life insurance companies will change their interest crediting policy, or even whether the companies will be willing to have this money in the general account at all.

Those in insurance companies' group pension and investment areas likely will have problems that won't be resolved quickly. It took four years to get to this summary judgment; no guess can be made on the time it may take the trustee's suit (John Hancock Mutual Life Insurance Company v. Harris Trust & Savings Bank) to wind its way through the courts.

Dilemma 5

The Financial Accounting Standards Board (FASB) requires disclosure of certain pension cost and pension obligation figures. These are management numbers. The "instruction" for selecting the interest rate applicable to the assets was to use a long-term expected rate of return; the instruction for selecting the discount rate used to determine the obligation was to use a "settlement rate." The discount rates selected by plan sponsors were based on items such as 30-year treasury bonds, the interest rate used in computing group annuity purchase rates, or some other chosen index. According to a letter from the SEC to FASB in September, however, the discount rate should be determined in the same manner as that under FAS No. 106, i.e., the rate for Aaa (or Aa) bonds (now at about 7%). The actuary can question long-term considerations, but technically this has nothing to do with funding (but might it?).

Dilemma 6

The plan sponsor is the one who must make the contribution to the plan. Just as actuaries always want to see plans well funded, I have never heard a plan sponsor indicate that a low level of funding was a goal. Plan sponsors, however, are business oriented, whether they are profit-making organizations, nonprofits, small, large, industrial, service, governmental, or union/management. They all have cash flow considerations, and they all have a bottom line.

Plan sponsors want adequate plan design; they want adequate plan funding. However, in plan design or funding, they do not want, nor can they afford, to exceed their competitors' or their peers' by any significant degree. They do not want to over-contribute; they do not want tax disallowances; they do not want to pay excise taxes. To avoid these situations, a sponsor can put pressure on the actuary to reduce contributions by employing a higher interest rate than the actuary would have selected (or, without success, even higher than a rate within the actuary's range of reasonable long-term rates).

In addition to all these external forces, actuaries face a further fact-of-the-moment. Interest rates have declined 1%, from about 8% to 7%, on top grade bonds in 1993, but the stock market has gone up by more than 10%. What kinds of special consideration does this call for?

At the time this issue of *The Actuary* is published, many pension actuaries are considering the valuation interest rate(s) that might be used for actuarial valuations to determine 1994 contributions (likely having completed the valuation of 1993 year-end obligation for financial disclosure, which, in turn, means that the discount rate for 1994 pension cost also is decided). Many problems can be involved. The most troubling is the significant upward effect on liabilities and contributions of a decrease in the valuation interest rate and on pension cost and disclosed pension obligations of a decrease in the discount rate. The increases in unfunded amounts is likely to be noted.

It is clear that this is not the fault of the actuary, who still has questions. Are the current low rates temporary? Were past assumptions really too high? What is the appropriate rate to use right now?

In spite of some poor press, actuaries have been doing a great job in coping with today's dilemmas, and I believe will continue to do so.

E&E CORNER

Improved E&E system helps new FSAs hit the ground running

by Roy Goldman

All of us have vivid memories of taking the actuarial examinations. In addition, many of you have served on one of the examination committees. But, how many of you are aware of how much the education and examination system has changed through the years? I have served in the E&E system since becoming a Fellow in 1980 and have found it to be a dynamic organization, which is always looking for ways to improve.

The examination side of E&E is big business. About 10% of the current Fellows volunteer time in one of the education or examination committees or in proctoring an examination. Volunteers and staff create, administer, and grade 55,000 exam papers for 65 different examinations. We run eight intensive seminars in applied statistics and risk theory and four Fellowship Admission Courses, and we oversee the Research Papers option.

Although much effort is directed toward examinations, the focus of the E&E Committee is on the first "E": education. Recent changes are aimed at developing an FSA who not only has a well-rounded basic education but also has the intellectual skills required by business today and in the 21st century.

Testing cognitive skills

The most significant change is the move away from questions testing only memorization. More questions, especially on the higher level examinations, now ask candidates to "discuss," "compare," "recommend," "evaluate," or "analyze." Candidates earn points only if they answer the question as it is asked. Candidates are expected to give a complete discussion, make a recommendation and justify it, or analyze all sides of a given issue. In fact, the grading outlines are reviewed as carefully as the questions themselves. They are reviewed at several E&E levels, including the general officer level.

Training

To help Fellows who may have little experience writing and grading questions, we train the examination officers who, in turn, lead training sessions for all their item writers. We now train item writers before asking them to write questions. Training requires an additional one to three days for the officers, but it should pay huge dividends by making volunteers effective more quickly and improving consistency across the various tracks.

Case studies

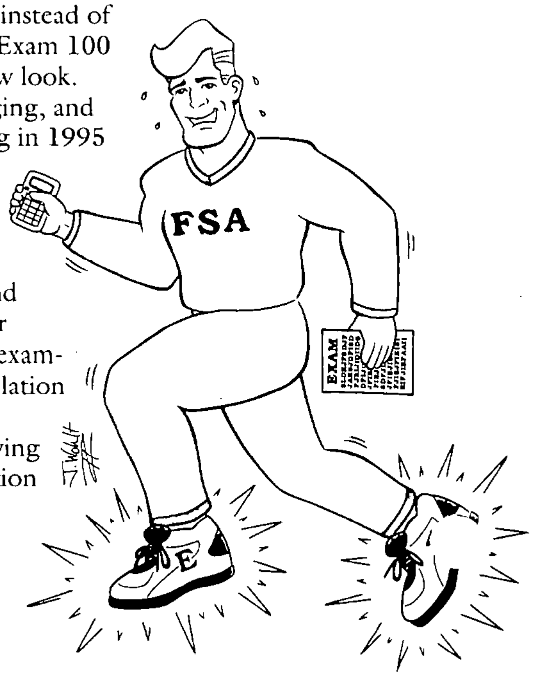
To facilitate asking more thought-provoking questions, many examination committees are developing case studies or realistic case situations that serve as the basis of several questions. The first effort was a 20-point question on the pension plan of a mining company whose production will increase rapidly over the next few years and then slowly decrease until the mine is depleted and permanently shut down in about 20 years. Candidates were asked to recommend a funding approach and an accounting approach, address tradeoffs between meeting cash flow and earnings goals, and discuss any other related issues.

As another example, the Individual Health Committee developed a seven-page case study of an insurance company. The case study was sent to candidates in advance and was available for use during the exam to answer a series of questions on individual health and long-term care. The candidates' responses were expected to be related back to the insurer in the case study. Simply recalling a list of facts in the study note was not enough to pass the exam.

Other examination changes

Other examination committees have supplied candidates with formulas or a copy of a complex law to allow a focus on testing concepts instead of just memory. Even Exam 100 is getting a fresh new look. The SATs are changing, and so are we. Beginning in 1995 or 1996, Exam 100 will consist of 45 questions on the concepts underlying the calculus and linear algebra, rather than a 60-question examination testing calculation techniques.

We will be removing the guessing correction to encourage all candidates to make educated inferences about the correct answer. And the



most famous bastion of actuarial exams, the triple-true-false (TTF) question, is being replaced by simple true-false questions. It is not true that TTF questions are constructed so that two of the statements were easy, and one was ambiguous; it just seemed that way to candidates. A student who answers a TTF question incorrectly may not know anything about any of the statements or may know everything about two out of three. We think it is important to find out what students know about each statement on the examination.

Syllabus updates

The other major educational focus has been on the syllabus itself. The Flexible Education System has given us the freedom to expand the course offerings and to innovate.

Four Fellowship tracks now exist: Individual Life and Annuity, Group Benefits, Pension, and Finance. The number of core examinations has been raised from three to four. Two of the core examinations deal with investment-related topics: Course 220 – Introduction to Asset Management and Corporate Finance and Course 230 – Principles of Asset/Liability Management.

Over the past three years, nine new investment or finance courses have been added to the syllabus. In addition to Courses 220 and 230, they are:

Course 385	Financial Management
Course 480	Advanced Asset/Liability Management
Course 482	Advanced Financial Management and Taxation – Canada
Course 483	Advanced Financial Management and Taxation – United States
Course 485	Advanced Portfolio Management
Course 580	Corporate Finance
Course 585	Applied Corporate Finance
Course 590	Corporate Strategy and Solvency Management

Candidates now may choose from among the 300-level Fellowship courses to satisfy their Associateship elective requirements. The 300-level courses include the two enrolled actuary exams, as well as the basic courses in each track.

Committees update the syllabus continuously, and we believe new Fellows can be productive on their first day in almost any job within their specialty. We rely on the Sections and the practice education committees to help us produce up-to-date study materials.

All the members who participate in the education or examination process give tremendous effort. Society members are involved in every step of the education and examination process, more so than any other professional group I am aware of.

During the last two years, we have begun to research the testing literature and have begun to learn from other professional bodies and consultants how other examination systems are administered. We now employ Professional Examination Services to work with us in setting course objectives, constructing examination blueprints, and improving the consistency and quality of our examination procedures. For E&E officers, it is a constant learning experience, which is what makes it exciting enough for me to stay in the system for 14 years.

Roy Goldman is general chairperson of the SOA Education and Examination Committee and senior vice president, chief actuary, and CFO of The Group Department of The Prudential Insurance Company of America.

E-mail addresses to be published

With this mailing is a form to return to Information Services if you have an E-mail address that you want to have published in a new section of the *1995 Directory of Actuarial Memberships*. Verification cards sent later this year will include this information for your review if you return the form.

FAC nears 1,000th graduate

At the end of the September 1993 Fellowship Admission Course, 999 participants had successfully completed the FAC, which began in 1990. This means 14% of the Society's Fellows have attained their Fellowship through the course.

To keep pace with the rising number of Fellowship candidates, the FAC Management Committee has continued training new facilitators. Joining an already distinguished list of faculty are Murray Becker, president of Becker and Rooney, Inc., Teaneck, New Jersey; Bob Beuerlein, senior vice president, Franklin Life Insurance Company, Springfield, Illinois; Yuan Chang, vice president, Metropolitan Life Insurance Co., New York, and Dale Yamamoto, Hewitt Associates, Lincolnshire, Illinois.

Several more facilitator training sessions will be conducted May 12-13 in Minneapolis and May 16-17 in Columbus, Ohio. New facilitators are asked to lead a case study discussion before a "pilot test group" of recent Fellows. If you are a recent Fellow and would like to participate in one of these sessions, please call Martha Mazariegos at 708/706-3596.

How bad were the original actuarial estimates for Medicare's hospital insurance program?

by Robert J. Myers

One of the major responsibilities of actuaries who make cost projections should be to compare the actual experience as it unfolds with such estimates. This can be very helpful and educational for both the actuary and the users of the projections.

The estimate of the outgo for benefits and administrative expenses under the Hospital Insurance (HI) portion of the Medicare program in 1990 is a case in point. The estimate, made when the program began in 1965, is in "Actuarial Cost Estimates and Summary of Provisions of the Old-Age, Survivors, and Disability Insurance System as Modified by the Social Security Amendments of 1965 and Actuarial Cost Estimates and Summary of Provisions of the Hospital Insurance and Supplementary Medical Insurance Systems as Established by Such Act," July 30, 1965, Committee on Ways and Means, House of Representatives, by Robert J. Myers, Actuary to the Committee.

The estimated 1990 outgo from the Actuarial Report (page 33) was $9,061 million, while the actual-experience figure was $66,997 million (1993 HI Trustees Report, page 10), or 7.39 times as high. Thus, the actual HI experience was 639% above the estimate. At first glance, this seems to be a horrendous variation. It is not a proper comparison, however.

Erroneous statements

Erroneous points about the 1965 Medicare estimates for 1990 have been made in newspaper articles, by Ross Perot during his November 9, 1993, television debate with Vice President Gore, and even at the October 1993 Society of Actuaries annual meeting by keynote speaker Senator Warren Rudman. (In fact, even more improperly, some observers have compared the actual 1990 Medicare experience for HI and Supplementary Medical Insurance combined — $111,037 million — with the HI estimate of $9,061 million).

Comparison of figures for outgo in terms of dollars are not really valid, because contribution income also will increase under economic conditions that are more inflationary than assumed in the cost estimates. Accordingly, the best procedure is to compare costs as a percentage of taxable payroll.

Realistic comparison

The actual outgo in 1990 was 2.71% of taxable payroll (1993 HI Trustees Report, page 19). This should be adjusted downward by 11% to allow for the more extensive benefit protection now provided (notably, the extension of the benefit protection to disability beneficiaries on the cash-benefit rolls for at least 24 months and to end-stage renal disease cases at all ages). The adjusted actual outgo in 1990 is then 2.41% of taxable payroll.

The 1965 estimated outgo in 1990 was 1.61% of estimated taxable payroll (the estimated outgo of $9,061 million, divided by the estimated taxable payroll of $563 billion — the estimated total contributions of $9,015 million, divided by the 1.6% contribution rate, from page 33 of the Actuarial Report). Thus, the ratio of actual adjusted outgo in 1990 as a percentage of taxable payroll to 1965-estimated outgo in 1990, as a percentage of taxable payroll, is, up to this point, 150%.

However, still further adjustment is necessary to draw valid conclusions, because the taxable-payroll bases in the two figures are not consistent. The 1965 estimate was made under the assumption that the $6,600 maximum taxable earnings base to be in effect in 1966 would continue without change for all future years, despite the assumption that wages would increase each year by 3%. This procedure was followed at the direction of Rep. Wilbur D. Mills, chairman of the House Ways and Means Committee (with my full approval), to provide a margin of safety in the financing of HI. It seemed inevitable that, with steadily rising wages, the maximum taxable earnings base would be increased from time to time.

If the $6,600 base had been assumed to increase in line with wage rises (as is now done automatically, by law), the 1965-estimated outgo in 1990 would have been 1.11% of taxable payroll (the previously described 1.61%, times the ratio of the rate that would have applied if the earnings base had been kept up-to-date with wage increases, 1.1% — from page 32 of the Actuarial Report — to the actual scheduled employer-employee contribution rate in 1990, 1.6%).

Another adjustment must be made, this time to the actual 1990 cost as a percentage of taxable payroll, to reflect that the actual maximum taxable earnings base in 1990 was higher than what it would have been if the $6,600 base in 1966 had been only kept up-to-date with changes in the wage level. In 1966, the $6,600 base covered 71.3% of total payroll, while 1990, the $51,300 base covered 86.9% of total payroll (Annual Statistical Supplement, 1993, Social Security

Bulletin, page 160). Thus, the 1990 actual outgo relative to taxable payroll on the basis that the earnings base only kept up-to-date with what the $6,600 base had been in 1966 was 2.94% (2.41%, times the ratio of 86.9% to 71.3%).

The appropriately modified cost rates for 1990 were thus 2.94% of taxable payroll for the actual experience and 1.11% of taxable payroll for the estimate made in 1965, a ratio of 2.65 to 1. So, the actual experience was 165% higher than the estimate, after all necessary adjustments to achieve consistency were made.

A deviation such as this is nothing to be proud about; it is, however, much better than that based on the dollar values alone. Nonetheless, the only thing for me to do now is to commit hari-kari!

Robert J. Myers was chief actuary of the Social Security Administration from 1947-70 and the 1971-72 president of the Society of Actuaries.

Editor's Note: *Not so fast with the hari kari! Given the economic experience before 1965 (more than 25 years ago), who would have thought that Part A medical costs would increase at such a significantly higher rate than the rate of inflation reflected in wage increases? Long-range projections should be revised and publicized frequently, at least every five years, to show more realistic results. (Bob Myers alluded to this in his opening paragraph.) We might note that there has been no adverse criticism of the Myers 1965 figures by a practicing actuary.*

CLASS OF '69

Nixon ... Viet Nam ...
Apollo II ... Bell Bottoms ... Glen Campbell
... 134 FSAs and 58 ASAs
received their highest designation

SOCIETY OF ACTUARIES
TWENTY-FIVE YEAR
CLASS REUNION

Celebrate 25 years
at the Society's premiere Class Reunion
Tuesday, October 18, 1994
Society of Actuaries Annual Meeting
in Chicago.

Watch for more information in future issues of *The Actuary*.

Section needs program committee members

If you have knowledge of financial reporting and would be willing to be part of a team to develop financial reporting topics for SOA meetings, Ken McFarquhar wants to hear from you.

This year, the SOA Program Committee includes representatives from each Section to ensure that meetings offer topics and speakers pertinent to all members' areas of expertise. The Financial Reporting Section's representatives are Cheryl Krueger and Ken McFarquhar.

The Life Insurance Company Financial Reporting Section is establishing a Section Program Committee to suggest topics and solicit speakers and moderators to participate in meeting sessions. In the past, the Section Council had the responsibility for working with representatives to the SOA Program Committee to develop program topics and speakers. Forming a separate program committee within the Financial Reporting Section will give the council members more time for other activities and will give more people a chance to be involved in Section responsibilities.

McFarquhar asks those who want to learn more about the Financial Reporting Section's work and who want to increase their professional knowledge and visibility within the Section to contact him at his *Directory* address.

Spring exam seminars

Exam preparation seminars for the May exam period will be held in April and May 1994 in Chicago, New York, and Toronto for Courses 120, 130, 135, 140, 141(EA1-A), 150, 151, and 160. For details, please contact Prof. S. Broverman of the University of Toronto at his *Directory* address, or call 416/978-4453.

Results of U.S. Appointed Actuaries survey

by Maria Thomson and Donna Claire

The new Appointed Actuary (AA) requirements were in place for U.S. life insurance companies in 1992. Much work needs to be done to develop a body of knowledge and standard practices that will make the AA Opinion consistently meaningful.

To help with this work, the American Academy of Actuaries Committee on Life Insurance Financial Reporting and the Society of Actuaries Financial Reporting Section surveyed Appointed Actuaries on:

- The usefulness and practicality of current literature, guidelines, and regulations
- Areas where AAs would most profit from additional research and guidance (such as that provided by Practice Notes)
- Practices employed in 1993

Committee and Section members Donna Claire, Doug Doll, Henry Siegel, and Maria Thomson prepared a survey with two parts. Part 1 asked actuaries to evaluate the major documents intended to guide valuation actuaries. Part 2 asked questions on the practices actuaries followed to reach their reserve Opinion.

Surveys were sent to about 650 U.S. companies in March 1992. Responses were received from 141 actuaries, with some representing more than one insurance company. The authors presented preliminary results at the "Postmortem on 1992 Reserve Adequacy Analysis" seminar sponsored by the SOA on June 3-4, 1993.

This article gives a summary of the final survey results for Part 1. A future issue of *The Actuary* will include results of Part 2. The articles also will include information gathered at the seminar and how this information has been used to date.

Chart 1

Model Regulation and Actuarial Opinion

Rankings of Multiple Choice Results

	Usefulness	Familiarity	Clarity
Section 8. Opinion Based on Asset Adequacy	1	2	1
Section 9. Memo Including Asset Adequacy	2	4	3
Section 6c. Exemption Eligibility	3	1	2
Section 10. Additional Considerations	4	5	5
Section 7. Opinion Not Including Asset Adequacy	5	3	4

As shown in Chart 1, actuaries were far more familiar with Sections 8 and 9 of the Actuarial Opinion and Memorandum Regulation than they were with Sections 7 and 10. Not surprisingly, their assessment of the usefulness (this probably translates to applicability) of the various sections correlates somewhat with their familiarity with the sections. The unfamiliarity with Section 7 ties in with the fact that only about 30 of the responses received were from actuaries who represented exempt companies. The regulators at the June seminar believed this distribution of responses may have been representative of the general population of companies.

At the time this survey was taken, Section 10 still referred to the MSVR, which led to several negative comments on clarity. This problem has been corrected by the NAIC.

Regarding Section 6.c., four actuaries believed there should be no exemptions, and five believed there should be additional exemptions. On Section 7, only one actuary mentioned that the requirement to provide each state with the date the commissioner was notified of the actuary's appointment should be eliminated. However, in Part 2 of the survey, most actuaries said they are not complying with this requirement.

Six actuaries requested that sample or standard Opinion and Memorandum formats be provided.

Chart 2

SOA Publications

Rankings of Multiple Choice Results

Publication	Familiarity	Clarity	Usefulness
ASOP 14	1	4	3
ASOP 7	2	2	4
Draft ASOP (Opinions)	3	3	2
Role of Appointed Actuary pamphlet	4	1	5
Life & Health Valuation Law Manual	5	5	1

It is interesting that in Chart 2 the respondents were least familiar with the *Life & Health Valuation Law Manual* and rated it last for clarity, yet it got the top rating for usefulness. All the comments on this document related to ways to make it even more useful.

The draft ASOP re Opinions (now ASOP #22) generated considerable comment. A partial summary follows:

- What constitutes reserve adequacy, and what is considered passing for a test? (Most of the comments related to this.)
- Relationship between reserves and surplus
- Materiality
- Interim results

The final document does not address the issues raised, so they will have to be addressed in other ways (see the response to suggested new Practice Notes in Chart 5).

The full title of the pamphlet referred to in Chart 2 is *The Role of the Appointed Actuary in the United States for Life Insurers in 1992.* This was prepared by the AAA and SOA as "a communication piece for use by the actuary with insurer management and its board."

Chart 3 provides the distribution of responses to more detailed questions about this document. These questions were directed at statements in the pamphlet considered potentially controversial or problematic.

Chart 3

SOA Publications

Role of Appointed Actuary Pamphlet Responses

Statement in Pamphlet	Appropriateness: Very				Not Very	Have Met Impediments to Compliance?: Have	Will	Won't	Comments
1. The AA has duty to be continually aware of adequacy of reserves & to advise mgt. of concern	83.1%	13.2	3.7	0.0	0.0	15.4%	33.1	51.5	Impediment is difficulty of obtaining asset data from others
2. Mgt. are AA's principal, and must allow AA access so that he can present advice	69.1%	23.5	4.4	1.5	1.5	15.8%	31.6	52.6	Impediment is that Directors not always involved in co.'s affairs
3. AA advises mgt. of effects of their actions re reserve adeq. & would be consulted on significant proposals	65.4%	26.5	5.9	2.2	0.0	23.0%	47.4	29.6	
4. If disagreement (with mgt.), the profession or the regulators might be approached for assistance	38.2%	23.5	22.1	8.1	8.1	4.6%	40.0	55.4	As part of mgt., it's wrong to make actuary quasi-regulator. Actuary must accept some, but not all of responsibility
Overall									If AA ever opines on total assets, i.e. on reserves & surplus, impediments will get much larger

More than 90% of the respondents believed the first three statements listed in Chart 3 were appropriate in defining the role of the Appointed Actuary. Unfortunately, almost 50% have met or expect to meet impediments in applying the first two assertions. A disturbing 70% have or expect to meet impediments in applying the third assertion. In other words, Appointed Actuaries are not close to top management or a part of the top management team in most companies.

Only 62% of the respondents believed the fourth statement was appropriate. There was only one comment (shown in Chart 3), but it probably expresses the sentiments of many.

Chart 4 shows a good correlation across the board on responses to the familiarity, clarity, and usefulness questions.

Chart 5 shows the level of interest in suggested new Practice Notes.

Chart 4

Practice Notes

Rankings of Multiple Choice Results (Current Notes)

Practice Note	Familiarity	Clarity	Usefulness
• Wording for Opinions	1	1	1
• General Considerations	2	2	2
• Accepting or Resigning Position as App. Act.	3	1	3
• Reliance Upon 3rd Parties	4	3	5
• Use of AVR/IMR	4	5	4
• Interest Rate Models	5	4	6
• Modeling Bond Default	6	6	7
• Alternative Methods of Testing	7	9	10
• Modeling CMOs	8	8	9
• Modeling Mortgage & Real Estate C-1 Risk	9	7	8
• Issues Involving Structured Settlements	10	10	11
• Issues for Single Prem. Group Annuities	11	11	12

Chart 5

Practice Notes

Those Who Indicated Strong Interest (1or 2 interest level) In Suggested New Notes

Suggested Note	# of Responses
• Aggregating Results & Forming Opinions	122
• Reinsurance	85
• Health Insurance	78

Chart 6 shows the greatest area of interest in new Practice Notes or research in asset modeling and behavior. Current Practice Notes on these topics got very poor ratings.

Chart 6

Suggestions for New Practice Notes/Research

Suggestions	# Requesting
• Modeling misc. assets & research on asset behavior	19
• Dynamic formulas (lapse, loan)	7
• Sensitivity testing (what, how many)	7
• Health: Details on each product type	6
• Expenses, overhead, taxes	5
• Misc. balance sheet (shareholder div., holding co. debt, voluntary reserves)	5
• Show cash flow test examples from beginning to end	5
• Par insurance/reflection of non-guar. element practice in testing	4
• Variable products (testing, guaranteed funds)	4

Maria N. Thomson is managing principal at Thomson Management Solutions, Inc., Palmer, Massachusetts. Donna Claire is president of Claire Thinking, Inc., Dix Hills, New York, and a member of the SOA Board of Governors.

THAT'S YOUR OPINION

Four readers responded to Edward Schwenk's September 1993 article, "What is wrong with actuaries?" This article offers their views.

Mark Chartier works as actuarial assistant in the pricing/risk management unit of Monarch Life Insurance Company in Springfield, Massachusetts, and says he "bears the designation of career Associate with pride."

Edward Schwenk asserts that entrance to the actuarial profession should not depend on the ability to pay for a university education. I agree that the profession should continue to rely on examinations the student can pass by self study and not cede the role of actuarial education to the universities. However, I have serious reservations about the way students are tested.

Are the skills needed to be an actuary the same skills needed to pass an actuarial exam? An actuary must have technical knowledge, good communication skills, sound business judgment, and a strong sense of ethics. The last two skills are not testable by a written exam. To pass an actuarial exam, a student must have technical knowledge, speed, stamina, and the ability to memorize large volumes of material. Some exams, such as Course 200, are pure tests of speed and memorization.

The Society recently decided to "strengthen" the ASA designation by requiring candidates to complete the 200 series of examinations. If a trained seal jumps through three more hoops, is it a more professional seal? If students perform three more feats of memorization, are they more professional actuaries?

I think the 100 series of Associateship exams are in some ways superior to the Fellowship exams, because:

- Associateship exams test for skills that are so general, they are used by all actuaries, regardless of their practice area.
- The content of the 100 series exams never goes out of date. The newer stochastic approach to life contingencies doesn't make the material in Jordan wrong; it augments it. Fellowship exam knowledge can become obsolete a few months after the exam date.
- In my experience, while memorization is essential at all exam levels, it is less crucial at the Associateship level.

Of course, the 100 series exams do not test verbal skills, but neither do the Fellowship exams. Students are encouraged to answer written exam questions in shopping list format. Are written answers graded according to rhetorical skill or the completeness of the shopping list?

I therefore make the following three recommendations:

1) Make all exams open book. The real world is an open book exam. If I have a question about laws or regulations, I'm going to look up the answer before I rely on anyone's memory.

2) Reduce the number of topics covered on any single exam to reduce the need to speed-read during preparation. I know at least two students who passed life contingencies without any knowledge of the commissioner's reserve valuation method. By cramming so many topics into a single exam, we encourage students to practice selective skipping, so they can learn certain topics well enough to pass.

3) Survey "career Associates" to determine why they stopped taking exams. Were they discouraged by their inability to pass, or did they think the value of passing wasn't worth the effort? I would like to hear about career Associates who have attained the company rank of chief actuary. How can they be qualified for such a post without successfully completing Fellowship exams? If this is not an indictment of the individuals, can it be an indictment of the exams themselves?

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

I take exception to several points in "What is wrong with actuaries?," specifically:

- There is nothing wrong with actuaries. The question should be rephrased, "How should the actuarial profession address the recent decline in job opportunities, given the emerging economic outlook of the 1990s?" I do not subscribe to the belief that we have become smug and complacent following the publication of the 1988 *Jobs Rated Almanac.*
- Schwenk suggests actuaries' skills are too narrow and more emphasis must be placed on accounting, management, investments, marketing, law, and medicine. Except for management skills, all these topics are covered on the SOA exam syllabus, and every effort is being made to improve the material and broaden areas of practice. In the case of management, the Committee on Management and Personal Development is actively writing articles, sponsoring workshops, and drafting specialty guides to help sharpen our management and leadership skills.
- Schwenk suggests a university education should not be required by an actuary. The SOA exams are not a substitute for a college education. Certain skills must be gained through work experience rather than a textbook, but there is no substitute for a college education. Is he faulting the educational system for actuaries' lack of transferrable skills to noninsurance related fields?

I do agree, however, that the learning process should not end with attainment of the ASA or even the FSA designation. We should continue to improve our skills through other means (college courses, seminars, pursuit of other professional designations).

Carl A. Westman is an actuarial associate with Aetna Life & Casualty in Hartford, Connecticut.
Edward Schwenk correctly identifies the cause of reduced employment opportunities for actuaries, but his recommendation for improving our lot would likely worsen the situation.

To his credit, he cites the *Jobs Rated Almanac* ranking the actuarial profession as the best job in the country as a primary source of excess supply of actuaries. Because our profession is so small, only a little favorable publicity was needed to saturate the market. I also agree that the actuarial profession should be more diversified by industry.

I disagree, however, that the examination system should de-emphasize mathematics and place greater weight on investments and marketing. First, weakening the mathematical core of our profession weakens what makes actuaries different from other business professionals. A strong command of mathematics provides a competitive advantage for us in the marketplace by providing us analytical tools that others may lack. Without this strong foundation, how are we different from MBAs? Second, we cannot expect any series of examinations to comprehensively cover all we will have to learn for our careers. We must settle for including just what is basic to most actuarial work. Obviously, actuaries are free to pursue additional study in a field if they so choose.

Schwenk seems concerned that the SOA may abandon sponsoring some examinations in favor of university training. I agree that such a system would limit the diversity of actuaries into the profession, since only a few universities offer actuarial studies. In addition, students would have to decide in high school whether they wanted to become an actuary to select the right college.

However, I disagree with the notion that a "university education should not be required to be an actuary." The absence of a university requirement for SOA membership should not lead us to boast. A frequent criticism of actuaries is that we lack strong communication skills. I cannot fathom how this would improve if a larger proportion of actuaries lacked a university education. Perhaps the Society should not mandate that actuaries have university degrees, but promoting such a position will not gather respect and demand for our skills in the marketplace.

Actuaries face new and unfamiliar challenges on the employment front. To succeed, we must promote our profession to noninsurance industries and strengthen our skills. By finding new ways to apply our unique skills, we will succeed with the former. By maintaining an educational system focused on our core expertise that embraces many disciplines, we also will achieve the latter.

Joe Nunes is employed at William M. Mercer, Toronto.
Actuaries may find greater employment opportunities with a broader education, and this broader education may even provide actuaries with a greater ability to do their jobs. However, this broader education should not be the Society's responsibility and should not be considered as a substitute to the current highly technical examination syllabus.

An actuary's job often is highly technical. If the public is to have faith in our work, we must show we have adequate training. Recently, I prepared a report for a worldwide soft drink producer, in which I examined data they provided under a range of assumptions. My work relied on my understanding of the binomial, Poisson, and normal distributions. My client is unaware of the Poisson distribution; however, he relies on the fact that "actuaries know that stuff." If we stop requiring this highly technical education, how will we distinguish ourselves from accountants or insurance salespeople?

Although universities may provide valuable training, the responsibility for certifying its members lies with the Society. The responsibility of training membership should not be casually delegated to a third party whose interests are not exactly those of the Society.

I have nothing against expanding the exam syllabus to include other materials considered necessary to the FSA designation. To avoid requiring 20 years of exams, however, individuals should pursue in their own time topics that are not necessary and under their own chosen study method.

29th ARC to be at Oregon State U.

Each year, the Actuarial Research Conference (ARC) provides a central meeting for academics and researchers interested in all aspects of actuarial science. The 29th Actuarial Research Conference will be Thursday, August 25, through Saturday, August 27, 1994, at Oregon State University, Corvallis, Oregon.

Participants are invited to present papers on all topics of interest to actuaries. A lead paper on market value based accounting for insurers is expected, followed by discussion on this subject and related topics.

For more information, contact Donald A. Jones at his *Directory* address, or call him at 503/737-5174; fax: 503/737-0517; E-mail: donjones@math.orst.edu.

MEETING NEWS

4th AFIR Actuarial Approach for Financial Risks International Colloquium
'94 CAS Casualty Actuarial Society Special Interest Seminar
'94 SOA Society of Actuaries Spring Meeting

First SOA spring meeting draws near

Don't miss out on the first SOA spring meeting of 1994, April 20-22, at the Buena Vista Palace in Orlando, Florida. In addition to the usual full slate of SOA continuing education sessions, this meeting also includes Casualty Actuarial Society sessions and the 4th AFIR Colloquium.

Offering the colloquium with an SOA spring meeting provides SOA and CAS actuaries with opportunities to exchange ideas with financial and investment specialists on an international level. Adding a variety of other casualty, investment, insurance, and employee benefits topics will make this meeting an exciting educational venture.

For registration information, or more information on the meeting, please call the SOA Continuing Education Department, 708/706-3540.

Group of Thirty consultant to speak at AFIR

Charles R. Taylor, consultant for The Group of Thirty in Washington, D.C., will speak on global derivatives at the AFIR Colloquium luncheon, Thursday, April 21. The colloquium is scheduled for April 20-22, 1994, at the Buena Vista Palace in Orlando, Florida.

The Group of Thirty consists of 30 bankers, central bankers, and international economists from around the world. Taylor is director of conferences, seminars, and publications of The Group of Thirty international economic and financial issues. He also is consultant to the Conference Board on the competitiveness of U.S. industry and the prospects for North American economic integration.

AFIR, Actuarial Approach for Financial Risks, is the financial section of the International Actuarial Association (IAA).

For more information on the colloquium, please call Colleen Fiore at the SOA office, 708/706-3547.

IN MEMORIAM

Robert D. Penick
FSA 1970, MAAA 1972

Victor E. Henningsen
FSA 1934, MAAA 1965

Victor E. Henningsen, 1964-65 president of the Society of Actuaries, died November 16, 1993. He retired in 1973 as senior vice president of Northwestern Mutual Life Insurance Co., Milwaukee, after 40 years of service.

Henningsen's service on the SOA Board of Governors spanned 18 years. Among his contributions to the profession were helping engineer the merger of two predecessor organizations in 1949 to form the Society of Actuaries, writing the historical paper, "Society of Actuaries — Its First 20 Years," in 1969, and helping formulate the Commissioners 1949 Standard Ordinary (CSO) Mortality Table.

Memorials may be made to the Laubach Literacy Center or to the Alzheimer's Association in Milwaukee.

Obituaries detailing the careers of all deceased members are prepared by the Committee on Memorials and printed in the Transactions. *Members with waivers of dues who do not receive the* TSA *may request copies of obituaries on any deceased member by contacting E.J. Moorhead, chairperson, at his* Directory *address.*

General Colin Powell to be annual meeting speaker

General Colin L. Powell has accepted the Society of Actuaries' invitation to be the keynote speaker at the opening session of the Chicago annual meeting on October 17, 1994. U.S. Army General Powell achieved national and international prominence in 1990 and 1991 as one of the key leaders of Operations Desert Shield and Desert Storm. He served as President Bush's Chairman of the Joint Chiefs of Staff.

It's not too soon to plan your trip to Chicago to hear one of today's most respected leaders. The annual meeting is at the Hyatt Regency, October 15-19. More information on the annual meeting and Powell's appearance will be included in later issues of *The Actuary*.

Correction

The Schedule of Dues included with the 1994 dues invoice incorrectly stated which publications would be received by members granted full waiver of dues. These members will continue to receive these publications: *The Actuary*, the *1994 Yearbook*, and the *1994 Directory of Actuarial Memberships*.

Public interaction (continued from page 1)

at American Guardian Life Assurance, Blue Bell, Pennsylvania.

Sulek describes three talks that grew out of his work on the HIV Research Committee. The first consisted of a report to his local actuarial club on the work of the committee. Here he spoke from an outline to a select group. In contrast, his second talk on AIDS was presented to a group of mostly P&C producers in rural New Jersey. "Although they were insurance people," said Sulek, "their knowledge of my topic put them pretty close to the category of general public." The third situation, a talk to a church group, called for more changes to address AIDS as a social issue with which the congregation was concerned. In each case, Sulek spoke as an actuary from a demographic, statistical perspective; one topic, three different presentations.

High schoolers can be tough audience

William E. Neal, second vice president and associate actuary at Western and Southern Life Insurance Company, Cincinnati, Ohio, discovered things don't always go smoothly at a typical high school career day. Despite careful planning, actual results can be less than expected.

Neal was promised 40 minutes for his talk and told to expect 30 students. Instead, his session began late, and only seven or eight students showed up. Two of these left early. His formal presentation described the profession, how to prepare for it, and how actuaries compare to other professionals. He moved on to the case study.

Since Neal's pension plan service table began with 30 active lives, he had to create about 25 imaginary participants. Names were then drawn from a hat for withdrawals, deaths, and retirements. Contributions, investment income, and benefit units were expressed in terms of pieces of candy. The process began okay, but time ran out before the service table did.

Despite these results, Neal says he would volunteer again with a few changes in his approach–more emphasis on the positives, less on the exams.

J. Ross Adams, retired, of Astoria, Oregon, gives an impressive example of the indomitable spirit of the actuary in pursuing his mission. He told of his speech to the local Womens Political Caucus on unisex insurance rating.

Adams asked to appear on their program, and he used his allotted minutes to educate the group about underwriting principles and the implications if their disregard became a trend. For instance, there might ultimately be no premium distinctions by age. His talk got a one-line mention in the group's minutes.

On another issue of importance in Oregon (and elsewhere), Adams believes that actuarial expertise would be helpful in the debate on using property or other taxes to fund education. He doubts, however, that actuaries can help develop a mathematical approach to Congressional reapportionment until "antithetical criteria in Oregon law" are dealt with. He points out that reapportionment difficulty is a nationwide problem.

These responses should give our readers a fair sample of how actuaries are interacting with the public in local settings. The SOA staff is revising the "Speakers Guide" and will include some of the information in the responses. Additional contributions are welcome and should be sent to the Communications Department at the SOA.

Charles Habeck is a consultant at EM-BAR-EX International, Milwaukee, Wisconsin, and an assistant editor of *The Actuary*.

Several actuaries requested copies of the wine-cask problem and the whisky advertisement I offered in the October *Actuary*. One person pointed out that use of age and evaporation aspects of whisky are common marketing devices that seem to work. Taste, however, also counts for value, because an 18-year-old whisky may be far superior in taste to the 12-year-old version of the same brand.

No one pointed out how the volume of the "batch" could be calculated from the estimated loss of 1,000 bottles a day, as stated in the ad, nor whether the aging process creates a stationary population that can be managed by properly timing one's marketing efforts.

William Neal sent a formula to calculate the reserve amount needed to provide for an award of a martini for each "significant response." Based on the comments of six who responded — or on the lack of such comments — my estimate of $32 was too high, and Neal's formula should include an abstention factor.

Conclusion: Actuaries who write letters to the editor seem to be guided by an inner light, and like Mr. Liddy, are impervious to coercion or enticement.

— **Charles Habeck**

Transactions authors profiled

Thirteen papers have been accepted for publication in Volume 45 of the *Transactions.* The following biographical sketches briefly describe three of the eleven authors. Four authors were profiled in the January *Actuary*, and the remaining four authors will be featured in a future issue.

"The Sensitivity of Cash-Flow Analysis to the Choice of Statistical Model for Interest Rate Changes"
by Gordon E. Klein

Gordon E. Klein, FSA 1989, is a manager, actuarial services, at Polysystems, Inc., in Chicago. His current duties include cash-flow testing, development of all types of life insurance and annuity products, and the design of asset modeling and projection software. In the past, he has been involved in the design, valuation, and projection of life, health, and annuity products, as well as pension plans. He has designed and programmed computer systems for pricing interest-sensitive products and for cash-flow testing. He received a B.S. from Northeast Missouri State University in 1985. He has spoken at seminars and has taught review courses for actuarial students sponsored by the Chicago Actuarial Association for five years. He is vice-chairperson of the Society committee that prepares and grades Examination 230, "Principles of Asset/Liability Management."

"Leading Gross Premiums for Risk without Using Utility Theory," "Percentile Cost Methods: A New Approach to Pension Valuation," and **"An Introduction to Business Credit Insurance"**
by Colin M. Ramsay

Colin M. Ramsay, ASA 1984, is Edwin J. Faulkner professor of actuarial science and director of the actuarial science program at the University of Nebraska—Lincoln. He obtained his bachelor of science degree in actuarial science from the City University, London, England, in 1979 and his masters and doctorate degrees in statistics from the University of Waterloo, Ontario, Canada, in 1980 and 1984, respectively. He is the editor of the *Journal of Actuarial Practice*, Absalom Press. He has written more than two dozen papers in refereed journals, including the *ASTIN Bulletin, Insurance: Mathematics and Economics, Journal of the Institute of Actuaries, Journal of Risk and Insurance, Scandinavian Actuarial Journal,* and the *Transactions of the Society of Actuaries.* His research interests include risk theory, the impact of AIDS on insurance, the adequacy of pension funding levels, and establishing a theory of the valuation of actuarial liabilities. His papers in the *Transactions* are "AIDS and the Calculation of Life Insurance Functions" (Volume 41, 1989), "The Impact of Mortality on Panjer's Model of AIDS Survival" (Volume 42, 1990), "Minimum Variance Moving-Weighted-Average Graduation" (Volume 43, 1991), and "A Practical Algorithm for Approximating the Probability of Ruin" (Volume 44, 1992).

"A Mathematical Analysis of Financial Accounting Standard No. 88"
by Keith P. Sharp

Keith P. Sharp, FSA 1990, FCIA 1983, FIA 1982, FIAA 1981, is an associate professor and associate chair, actuarial science, at the University of Waterloo. His business experience includes periods with Commercial Union Assurance in London, with PTOW (now Towers Perrin) in Melbourne, and with Towers Perrin in Toronto. He received a bachelors degree in mathematics from Cambridge University, a masters degree in statistics from the University of California at Berkeley, and a doctorate in finance from the University of Waterloo. His papers have appeared in various journals, including *Proceedings of the Canadian Institute of Actuaries, Journal of Risk and Insurance, Review of Economics and Statistics,* and *Insurance: Mathematics and Economics.*

Library request

The Society's library requests donations of used copies of the following publications: *Record of the Society of Actuaries (RSA), Transactions of the Society of Actuaries (TSA), Actuarial Research Clearing House (ARCH)* reports, and *TSA Reports.* These books will be donated to members of the Society, to international actuarial organizations, and to universities offering actuarial studies. For more information, call Becky Chase-Warren, assistant librarian, 708/706-3538.

DEAR EDITOR

Motto misleading

I was disappointed that the Ruskin quote, "The work of science is to substitute facts for appearances and demonstrations for impressions," was reaffirmed as the SOA motto. Despite talk of its appropriateness and appeal, it is incorrect.

Science deals with theories. A scientist observes the available evidence and formulates a theory to explain it. He or she then devises tests of that theory. The tests will either support the theory (in which case the scientist either accepts the theory as fact or devises more tests for it) or disprove it (in which case the scientist has to modify or replace the theory). A theory can be well-supported. It can be believed. It can be accepted as fact. But it cannot be proven. It is this distinction that separates math, in which conjectures are proven (at which point they become theorems), from the sciences.

Newtonian physics serves as a good example. The laws of mechanics as they are taught in first-semester physics courses were believed to accurately describe the way the world works. All available tests supported them. Only in the 20th century did scientists discover that these laws are not fact. They are approximations — useful approximations for most people's everyday lives, but approximations nonetheless. New laws replaced the old. Now we believe in wormholes, superstrings, warped space-time and other things that, quite frankly, leave me clueless. Eventually, some new hotshot physicist will probably come along and prove today's theories wrong.

Perhaps a better motto would be, "Please, God, all I need is a 6."

Marc I. Whinston

Message unclear

I am glad to see that two members wrote in (September 1993, "Dear Editor") about the editorial "Professional responsibilities" (May 1993), with or without the appended "Tsk, tsk." I too was upset by the message since it was unclear to me who were the "some actuaries" and what precept was being violated.

In my work with pension firms, clients, and other actuaries, I have found many different ways of doing things wrong. These ways may be in the census, the decrements, the discounting, or the algebra. I also have found many ways of doing things right, and these depend on the pension plan circumstances and on the audience being addressed. I am disappointed a clear explanation has not been made.

My original concern was that the message was inappropriate in any publication of the Society. If the Society is to maintain its excellence, any message should have considered different viewpoints. This could have been done by asking "some actuaries" to present their own case to us before the editor announced a unilateral judgment.

William S. Wright

Parent questions son's status

Could you clarify for me whether it is proper for an Associate (ASA) to call himself or herself an actuary or a qualified actuary?

My son has completed your examinations and has been enrolled as an Associate. He is working as an actuarial analyst in a local insurance company here in Hong Kong. Of course, I am very proud of him, and whenever friends and relatives ask me what he is doing, I say loudly, "He is an actuary!"

This irritates my son very much. He maintains an Associate is not yet qualified and should not call himself or herself an actuary. According to the etiquette of the profession, only Fellows (FSA) can call themselves actuaries. He says what I have been doing will bring his reputation into disrepute among his colleagues, just like a medical student passing as a doctor or a legal student as a lawyer. I have argued that ASA is more like an intern who, although not yet a surgeon, is nevertheless a qualified doctor, and a lieutenant-general, although not a full rank general, is also a general.

May I have your views, please? In order not to embarrass my son further, please do not publish my name.

A concerned parent

Reply to concerned parent from Steve Radcliffe, President of the Society of Actuaries:

Let me first assure you that the Society of Actuaries considers your son an actuary. He is a member of our Society and is entitled to most membership benefits. He also is subject to the code of conduct that all actuaries should follow, whether a Fellow or an Associate. However, he will not be able to vote or hold office in the Society until he becomes a Fellow.

It is true he has not reached the highest professional designation the Society awards, that of Fellowship. The Society encourages all actuaries to complete the Fellowship exams to reach the highest level of education and professional standing. However, you have every right to be proud of his accomplishments to this point. The Society has many Associates who have made great contributions to the profession and the business world.

From your son's point of view, he may be expressing the fact that he is not fully qualified to practice or give actuarial advice on specific issues. In these cases, he may be required to have specific training, practical experience, or some other formal qualification to be allowed to practice in his area of expertise. In an international environment such as Hong Kong, there are many different ways to become qualified. It is easy to see why this situation might be confusing to you. However, let me conclude by returning to the original point. That is, we at the Society of Actuaries consider him an actuary.

ACTUCROSTIC

by Julian Ochrymowych

A. 1988 film that won the Best Makeup Oscar — 214 159 144 131 61 25 41 85 107 174 186

B. Lack of grace or dexterity — 77 98 109 116 127 139 206 228 17 33 51

C. Condition characterized by painful joints or muscles — 83 99 175 194 204 8 67 124 149 38

D. Dog with an unsurpassed ability to follow elusive scents — 46 23 189 169 213 226 72 95 114 10

E. 1925 Pulitzer-winning novel by Sinclair Lewis — 45 58 5 19 209 183 167 151 136 106

F. Hummingbird variety — 220 1 18 34 71 84 120 148 178 193

G. Actress Perry, for whom the Tony is named — 192 179 142 103 91 160 117 66 44 22

H. He watched Lady Godiva ride naked (2 wds.) — 147 134 119 158 207 217 229 7 47 86

I. Belgrade's country — 102 130 163 222 14 29 56 118 172 200

J. Athos, Porthos or Aramis — 16 42 54 73 100 132 166 180 195

K. The bear, in Disney's *Robin Hood* (2 wds.) — 197 11 36 49 62 82 94 129 143 162

L. Personifying — 205 146 128 111 3 21 68 78 93

M. Mozart's "Jupiter" and Haydn's "Mercury" — 96 110 135 157 185 210 9 28 37 57

N. Hooverville, e.g. — 26 165 87 187 105 55 225 115 76 12

O. Rash; inconsiderate — 122 137 75 182 32 155 164 212 4 201 232

P. Name in a R. L. Stevenson title — 133 121 218 52

Q. "______ the Country" (song from *A Little Night Music*; 3 wds.) — 196 184 154 138 113 65 31 20 227 88

R. Herb that has leaves with a peppery flavor — 191 60 35 80 211 170 97 145 112 223

S. Henry VIII's wife after Catherine of Aragon (full name) — 50 92 108 140 152 181 198 219 63 74

T. In a vague manner — 125 224 89 104 153 15 48 202 176 188

U. Detective — 64 216 171 43 123 79 230

V. Spectacles — 233 199 215 70 177 156 6 24 59 40

W. Pining; suffering neglect — 231 53 101 126 203 161 173 81 30 2 13

X. Pomposity — 221 208 190 168 27 39 69 90 141 150

1 F	2 W	3 L	4 O	5 E	6 V	7 H	8 C	9 M	10 D	11 K	12 N	13 W		14 I	15 T	16 J	17 B	18 F	19 E	20 Q	21 L		22 G
23 D	24 V	25 A	26 N		27 X	28 M	29 I	30 W	31 Q	32 O		33 B	34 F	35 R	36 K	37 M	38 C		39 X	40 V		41 A	42 J
43 U	44 G		45 E	46 D	47 H	48 T	49 K		50 S	51 B		52 P	53 W	54 J	55 N		56 I	57 M		58 E	59 V	60 R	61 A
62 K	63 S		64 U	65 Q	66 G	67 C	68 L	69 X	70 V		71 F	72 D		73 J	74 S	75 O	76 N		77 B	78 L	79 U	80 R	81 W
82 K	83 C		84 F	85 A	86 H	87 N	88 Q		89 T	90 X	91 G	92 S	93 L		94 K	95 D	96 M	97 R		98 B	99 C	100 J	101 W
	102 I	103 G	104 T		105 N	106 E	107 A	108 S	109 B		110 M	111 L	112 R		113 Q	114 D	115 N	116 B		117 G	118 I	119 H	120 F
121 P	122 O	123 U	124 C	125 T	126 W		127 B	128 L	129 K	130 I	131 A		132 J	133 P	134 H	135 M		136 E	137 O	138 Q	139 B	140 S	141 X
	142 G	143 K	144 A		145 R	146 L	147 H	148 F	149 C	150 X	151 E	152 S	153 T	154 Q		155 O	156 V	157 M	158 H	159 A	160 G	161 W	162 K
163 I		164 O	165 N	166 J		167 E		168 X	169 D	170 R		171 U	172 I	173 W	174 A	175 C	176 T	177 V	178 F	179 G	180 J	181 S	182 O
183 E		184 Q	185 M	186 A	187 N		188 T	189 D	190 X		191 R	192 G	193 F	194 C	195 J	196 Q	197 K	198 S	199 V		200 I	201 O	202 T
203 W	204 C	205 L	206 B		207 H	208 X		209 E	210 M	211 R	212 O	213 D		214 A	215 V		216 U	217 H	218 P	219 S	220 F		221 X
222 I	223 R	224 T	225 N	226 D	227 Q	228 B	229 H		230 U	231 W	232 O	233 V											

Solution for November Actucrostic: "Pay attention," said Owen Meany. "There are ways to remember everything. The way to remember 'pleistocene' is to recall that this epoch was characterized by the appearance of man and widespread glacial ice. Remember the ice: it rhymes with 'pleis' in 'pleistocene.'" "Jesus," I said. -- J(ohn) Irving, *A Prayer for Owen Meany*