



The Actuary

The Newsletter of the Society of Actuaries

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AMERICA'S FIRST CONSULTING ACTUARY

by John C. Angle

John Frederic Entz, born 1796 or 1797 in Switzerland, appears entitled to be recognized as having been this continent's first consulting actuary. His office during a number of mid-19th-century years was at 52 Wall Street, New York City.

Mr. Entz must have come to the U.S.A. at least several years before 1847 when an article of his, "Annuities, Life Insurance, Tontines, Etc." appeared in *Hunt's Merchants Magazine and Commercial Review*. His familiarity, shown therein, with English, French and German practices and mortality tables makes it probable that his early actuarial training and experience were acquired in Europe.

The following are among his other actuarial milestones and contributions:

- 1859 Elected honorary member of the American Life Underwriters' Convention, an organization for home office executives. He was identified as "Mr. John F. Entz (Consulting Actuary) with the New York Life Insurance and Trust Company."
- 1860 Appointed Actuary of Germania, now Guardian Life Insurance Company of America. Occupied that post for several years, and then again became associated, either in a consulting or staff capacity, with the since defunct New York Life Insurance and Trust Company.
- 1871 Presented a paper to the National Insurance Convention, "Suggestions of Reform in the Practice of Life Insurance and Exposure of Some Grave Errors Affecting Its Usefulness."

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A FRESH LOOK AT ELECTION PROCEDURES

by Robert T. Jackson

Ed. Note: Mr. Jackson chaired the second Special Committee to Review the Society's Election Procedures. Its predecessor reported in our February 1978 issue.

This Committee's task was to offer suggestions to future Committees on Elections. We had no authority to institute changes ourselves. We made the following recommendations:

I. *That future ballot counts be supervised by at least three members of the Elections Committee, plus, to provide continuity, the Executive Director.*

We decided not to recommend a CPA audit. CPAs aren't normally used even to audit votes at stockholders' meetings of major corporations where the issues at stake are far likelier to engender temptation than in our case. We note, too, that other professional bodies do not call upon CPAs.

II. *That candidates' biographies be in standard format, and that they include all material reasonably relevant to competence as a Board member (including particulars of education, professional attainments, and activities, other than purely social, in other organizations), and that they reveal the candidate's major field of professional activity.*

These specifications should prevent the biography from developing an electioneering tinge.

III. *That actuaries who have already served on the Board or as an Officer normally not be renominated for the Board within ten years of such service.*

Our 29 Board members are but a fraction of 1% of our Fellows. We think that service on the Board should be

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LATIN WITHOUT TEARS

Si quid novisti rectius istis,
Candidus imperti, si non, his utere
mecum.

This is an account of efforts by three Society Past-Presidents to translate the above lines from Horace, which introduced a paper printed in J.I.A. during the 1850's.

Two of this trio, who have not authorized identification, unashamedly delegated the task to nearby experts, but with sharply differing renderings:

1. If you know anything more appropriate than these ideas of mine, It is up to you to share them; if not, go along with mine.
2. When you have made the right changes, spell it out clearly. If you haven't, then lets you and I work it out together.

We were then advised to put the problem to Benjamin T. Holmes (President 1951-52) and were gratified to receive this response:

My 13th grade room master, hot tempered "Latin Barnes," and I wasted my year on Horace in a personal feud. One of his favorite gambits was to call on me (full of porridge) to translate first. After I had plodded forth-rightly but painfully through two lines, he would say, 'Holmes, sit down! Now we'll have somebody who can translate.'

Horace is tricky. Nearly every second word raises questions, "Is he kidding? If so, whom? There's a good appreciation by Will Durant on pp. 244-250 of his *Caesar and Christ*. No wonder there is, as you say, material disagreement among authorities.

Now Holmes (full of porridge) stands up and translates:

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Letters

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ing via a life insurance or annuity policy as from other savings instruments? Possibly we should try for a tax-free benefit, with our present tax-deferred benefit coming into play above the tax-free amount. We might also suggest that permanent life insurance premiums be deductible from gross income, up to possibly 3% or 4% thereof.

Vernon J. Smith

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Students' Woes

Sir:
Louis-Jacques Pelletier's letter (March issue) reminded me of an unnerving experience with actuarial results I had late one memorable afternoon.

I heard that a friend in another company had got the results from the postal maw ahead of the rest of us. The bush telegraph in my company got every student crowding into my office as I got my friend on the phone. As he gave me the word I put either a check mark or a cross opposite each of their names, producing a scream or a groan from that person hanging over my shoulder. It hardly seemed the right way to communicate actuarial results.

J. Bruce MacDonald

* * * *

Sir:
As a relatively new Associate I am undecided whether to continue taking exams. After almost six months of intense study I took Part 6 this spring, only to make a score of 5 because the E & E Committee decided to pass fewer than three of each ten who sat. Even eliminating those who failed to meet minimum standards, the pass percentage was only 34.7%.

Passing percentages in Part 6 for the past four years have been in the 45-50% range; for other recent Fellowship exams, the figures have been about 50%. Even for Parts 1, 2 and 3, passing percentages have been higher than our 29.5%.

This is totally unfair to this one group of Part 6 students. I reject any suggestion that we were less prepared than others. We are dedicated professionals whose careers depend on these exams, not college students taking them for fun.

Nor can I believe that students taking one particular exam would all of a sudden be so much less prepared than our forbears were. Something is wrong with the syllabus, grading process, or both. If the Committee is trying to discourage students from continuing on to Fellowship, they are doing a good job.

David A. Christopher

E. & E. Committee's General Chairman, Michael J. Cowell responds: The abnormally low passing percentage for Part 6 last May was indeed given close attention before the committee decision was reached—see the May 1981 E & E Corner for a description of the procedure. The grading appears to us to have been fair, and consistent with prior treatment. One possible explanation is that as a result of the recent change in subject matter, none of these candidates were repeating this exam. We do hope that Mr. Christopher and other disappointed candidates will not be discouraged and will press on.

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Notation In Buenos Aires

Sir:
"Saks' Notation" (March issue) prompts me to tell about the notation in use for life contingencies at my faculty in the Buenos Aires National University.

Although our use of Anglo-Saxon books, e.g. Jordan, requires command of Halo notation, we use the following linearization in our papers and examinations. Functions are identified as in Halo, but age, duration and other variables on which they depend are shown between parentheses after the main symbol. For example:

$$\begin{aligned}
 a_x : \overline{m} &= a(x; 1; m) \\
 \ddot{a}_x &= a(x; 0; w-x) \\
 \bar{A}_x &= A(x; 0; w-x; \infty)
 \end{aligned}$$

This system, indeed not new, is straightforward for computer programming and is easy and unambiguous for typewriting. It can be expanded to any number of variables without crowding the main symbol's surroundings.

Claudio Migliore

Ed. Note: We welcome this contribution from our reader in Argentina.

* * * *

Solecism Unlocked

Sir:
What are these non-smokers' discounts one reads about in your columns?

Webster's defines discount as: "To make deduction from usual for cash or prompt payment. To leave out of a count. To underestimate the importance. To make allowance for bias or exaggeration in." To this non-actuary, therefore, actuaries and underwriters are using the word in a way that makes them guilty of a sin against professionalism (sic!).

A non-smoker isn't getting a discount. If anyone is, it's the smoker whose rate wasn't raised when the non-smokers were taken out of the total group!

Charles A. Will

Ed. Note: Reader Will is editor of a newsletter, sometimes about risk selection, appropriately titled "Newsletter." The "sic" above is his sic, not ours.

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Actuaries Who've Faced the TV Camera

Sir:
To add to your list, I've been on local and state-wide television 10 or 15 times over the past several years — mainly about pension systems and workers compensation. Over twenty years I've found greatly increasing public awareness of actuaries' work on pension plans.

Conrad M. Siegel

SOCIAL SECURITY TRUSTEES REPORTS

The customary trio—Annual Reports of the Social Security Boards of Trustees—were distributed in July, delayed somewhat by circumstances attributable no doubt to the change in Administration. We report with satisfaction that each report contains a Statement of Actuarial Opinion certifying on methodology and assumptions; that for the OASI and DI funds is signed by Dwight K. Bartlett, III, F.S.A., and each of the two on the Hospital Insurance Fund and the Supplementary Medical Insurance Fund by Roland E. King, F.S.A.

In former times these reports used to be reviewed in this newsletter, but now the Social Security and the Health Care Financing Administrations are following the excellent practice of disseminating their own crisp summaries. After that began, we started showing how the eco-

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SIGHTINGS

Actuaries are being cited in sports articles these days—sometimes as authorities. Gerald A. Fryer found in the *Toronto Star* last February 14th, this remark by Peter Bavasi, President of the Blue Jays, about their efforts to sign Carlton Fisk:

"He (Fisk) is the kind of player who can stabilize our kids. But we did an actuarial study of catchers and found that at his age, the 120-130-games-a-season catchers start to taper off, to 80, to 60."

Mr. Bavasi explained to Mr. Fryer that they hadn't hired a consulting actuary but had made their own attained age analysis of catcher's durability, and he was relieved to have an actuary's assurance that in using the adjective he was in the right ballpark—though possibly in left field.

Wayne E. Stuenkel noted, from the *Birmingham Post-Herald* of July 9th, that the Atlanta Falcons consider actuaries bad luck. Tom Braatz, Falcon's official, said when emphasizing his problems now that players he wants have more than just the traditional agents negotiating terms for them:

"These guys all got lawyers . . . They've got actuaries, everything. You never talk to one guy. That's why it's taking so long. All the time you're running out for more proof or something."

There is notable overlap between readership of this newsletter and of *Sports Illustrated*. Gary J. Bacchiocchi, Peter Hepokoski, Walter J. McLaughlin and Stephen L. White all told us of the remark in its issue of May 25th:

"Musing on the appeal that statistics have for the baseball fan, he ('deep-thinking baseball statistician Bill James') asks, 'How is it that a chart of numbers that would put an actuary to sleep can be made to dance if you put it on one side of a card, and Bombo Rivera's picture on the other?'"

Mr. Bacchiocchi went beyond just telling us about this; he sent us bulletins about the prowess and whereabouts of Mr. Rivera (hitting .295 for Omaha).

Frederic Seltzer contributed word from the *New York Times* of February 13th that the French painter Maurice Utrillo (1883-1955) "took his first name

from his sire, an insurance actuary called Maurice Boissy."

Thomas K. Custis considers Paul A. Samuelson's "Economics of Old Age," in *Newsweek* of March 30th, notable because the reference deals with an important concept:

"I have been pondering (an) article by Dr. James F. Fries of the Stanford Medical Center . . . His thesis is dramatic . . . Life, Fries argues, is in no danger of becoming inhumanely long. Science can't keep us going long after 85: our cells are programmed to self-destruct at the same maximal ages as in times past . . . From the standpoint of an actuary concerned about social-security burdens, that's the good news. Also good news is Fries's second finding. Even if 85 represents the cutoff point to the normal human life span, more and more people are reaching it. And they do so in increasingly good health."

Which brings Prof. Samuelson to discussing "the 'rectangular actuarial life tables' that Fries foresees":

"What does a rectangular life table mean? Suppose all the millions born in 1981 lived to the year 2066, and all then died on their 85th birthdays. The curve showing how many out of 100 survived to each age would be a horizontal line up to age 85; then it would drop down to zero, like the side of a box or rectangle. This, of course, is the extreme case, one we're moving toward. . . . But M.D.'s can whistle in the dark reaching for an optimistic diagnosis that the cold facts may not sustain. Even as the actuarial life table . . . is becoming more nearly rectangular, the penultimate years of expensive and gloomy life are increasing, not decreasing. . . . When the actuaries put a microscope on the way that the force of mortality—the risk of dying each day—changes at 85 and after, they find no magic point of discontinuous acceleration. . . . Fries has taught us a moral: it makes no sense to encourage or force people to retire at 65 or earlier."

Thomas L. Bakos has passed along from his daughter a few words in Robert A.

ACTUARIAL NOTATION—GOING LINEAR WITH L.A.N.

by Gary Chamberlin,
London Correspondent

As a member of the Institute's working group that devised LAN, the Linear Actuarial Notation that made its appearance last autumn, I am happy to supplement your "IAN, LAN & CAN" article (Nov. 1980 issue). Actuarial notation has been a lasting interest of mine, almost from when I joined the Institute in the mid-seventies.

The Halo Effect

The subject begins with the long espoused International Notation (IAN), which has a slightly eccentric quality about it, even to those well versed in mathematics. That quality is in keeping with its nineteenth century origins; although despite its wearing a halo, it would be going too far to describe it as "saintly".

Saintly or not, this corona of suffixes and superfixes is the stumbling block today. A computer that operates undeviatingly on a single track cannot accept them; so the cry goes out for a notation that is linear, mainly or entirely composed of alphanumeric characters, and with parameters in brackets following the main function on the same line. There have been many attempts to produce this, but the trouble is that the result never looks actuarial, and somehow lacks the character of the existing notation.

Rubber Sheet Geometry

Faced with this dilemma, our working group proceeded to carry out its task in two distinct stages—first, linearising the notation but leaving it still with its actuarial facing, then by means of a coding chart going the rest of the way to the fully computable alphanumeric symbols. The final version, called CAN (Computable Notation) is by general agreement thoroughly unreadable: good food for automatons, but unfit for human beings.

The first step though, linearisation, is certainly worth our attention. Conversion to LAN is effected by "rubber sheet geometry," pushing the symbols about on the paper to achieve the desired result. A few examples show how this works:

Actuarial Notation*(Continued from page 4)*

For

 $n P_x$ write npx $Ax:\overline{n}$ " $Ax:n\overline{}$ $t|\overline{a}_x|y$ " $t|a-x|y$

When numeric values occur, these are substituted out by appropriate letters (x , y , n , etc.), and then reappear in brackets at the end:

 $A_{10:\overline{20}}$ becomes $Ax:n\overline{}$ (10,20) ${}_5P_{25}$ " npx (5,25) $\overline{a}_{65|60}$ " $a-x|y$ (65,60)
and so on.

The rules are simple: as far as possible, follow the left-to-right ordering of the IAN symbols; and without discarding any, bring them into line. Because the familiar A's, a's, p's and q's, etc. remain, together with the usual punctuation strokes such as : - and $\overline{}$, the resulting formula is still quite readable, though it has well and truly lost its halo.

Falling From Grace

This apostasy won't please the holy men; it is a good question whether it will even please the actuaries, a conservative breed at heart. Our group has put the work forward in a spirit of experimentation—If we want to linearise, what can we do? And having seen what is possible, is it then desirable? These are questions which the profession must answer as we progress into the age of the all-accomplishing but all-demanding computer.

Interesting and germane comments from actuaries in England tend to suggest that we are not yet ready to abandon our traditional notation; indeed, intelligent adaptation of IAN to modern needs may be the best approach. The question remains open: Should actuaries keep our haloes, or find some other sign of our devotion to the chosen path? \square

Welcome

... to more than 100 students who have recently decided to become readers by the subscription route. We hope all of them will quickly become Associates and begin to get their copies gratis.

PUBLICATION NOTE*by Charles A. Siegfried*

A. Haeworth Robertson, *The Coming Revolution in Social Security*, 1981, pp. 376, Security Press, McLean VA 22101, \$19.75.

Several years ago, our profession's Social Insurance Committees concluded that actuaries could perform a useful public service by spreading information about Social Security through programs sponsored by local actuarial clubs. Experience since then indicates, however, that there is no widespread burning desire for such information, and that providing it in an exciting way is no easy matter. Nevertheless, it is somewhat startling, at a time when national policy is so much affected by the "red menace" of the U.S.S.R., to see our distinguished colleague, A. Haeworth Robertson, use "Revolution" in his book's title and use bright red for its cover and dust jacket. And he uses the label "Freedom Plan" for the proposals he favors as improvements on the current program. Whether such devices will attract the attention the subject deserves remains to be seen.

One of the author's major themes is that there is dangerous lack of information about the current program. He demonstrates much skill in providing enlightenment but he seems convinced that with enlightenment will come demand for basic changes — "revolutionary" changes, it would seem.

Another major theme is that there have been many significant changes in the U.S. economy and society since the present system was adopted, that a new situation exists today, and that likelihood of further important changes calls for something fundamentally different from, and more flexible than, the system we now have.

Perhaps the most fundamental question the author raises is whether the current program is so deficient and incapable of acceptable correction that a revolutionary new approach is either necessary or desirable. His "Freedom Plan" is certainly revolutionary; whether it is an improvement is far from clear.

The Social Security program must of course be responsive to changes in our social and economic life, and must be capable of being adjusted in acceptable ways. But it is likely that the nature of the adjustments that will be most appro-

*(Continued on page 7)***NON-ROUTINE BUSINESS OF BOARD OF GOVERNORS AND EXECUTIVE COMMITTEE, December 1980 to May 1981**

Ed. Note: We hope readers will find this account (composed from the Minutes by one who wasn't there) so inadequate that they will complain to the Secretary at his Ontario address.

1. A Year Book Editor was appointed. (See his message elsewhere in this issue).

2. Rules for expressions of opinion by Society committees were drafted.

3. A task force was appointed to explore new guidelines for professional conduct. (See its message in our March issue).

4. The year 1981 is reportedly viewed by the Education & Examination Committee as one of consolidating what has been accomplished.

5. The Canadian Institute's special examination may henceforth be used as an alternative to one of the Society Fellowship parts as one of the Society Association requirements for students of the Institute or Faculty.

6. The Executive Committee devoted a study session to the following broad topics: Supply of and Demand for Actuaries; Inflation and our Profession; Our Election Process; What Is the Society of Actuaries?; Society Meetings; Administrative Services.

7. The Board endorsed, by majority vote, the terminology recommended by the Joint Committee on Pension Terminology.

8. The Board expressed general agreement with our profession's broad requirements set forth in the Academy Committee's Report on Long Range Planning.

9. A Health Insurance Section was authorized.

10. Increases in examination fees for 1982 and annual meeting registration fee for 1981 were adopted.

E.J.M.

NEW STUDY NOTES OF GENERAL INTEREST

Readers may wish to order single copies of one or more of the following new Study Notes. Those who do so will be billed for postage and modest overhead costs. (Subscribers to the Study Note Service already have these.)

Code	Title	Author	Pages
6-101-81	Actuarial Aspects of the Changing Canadian Demographic Profile	Robert L. Brown	21
6-102-81	Consumerist Issues in the Canadian Life Insurance Industry	James Witol	7
10LB-402-81	Gross Premiums and Profit Margins	David B. Atkinson	81
10LB-402-81	Term Insurance	Claude Thau	46
10PC-804-81	Reporting to Pension Plan Participants in Canada	Sylvain Dion	5
10PU-805-81	Reporting to Pension Plan Participants in the U.S.	Robert Davis	9
10LB-410-81	Pricing of Individual Insurance Products Sold Under Mass Solicitation Programs	John D. Ladley	11
			L.N.C.

Trustees Report

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economic assumptions used have changed during the years, but now that too is being effectively done in an Actuarial Note from Baltimore. All good actuaries are advised to write to Office of the Actuary, Social Security Administration, Baltimore, MD 21235, requesting a free copy of each of the following:

- (1) Summary of the 1981 Reports of the Social Security Boards of Trustees, pp. 21;
- (2) Actuarial Note No. 106, *Comparison of Actual Economic Experience and Assumptions in Trustees Reports*, 1971-80, Joseph A. Applebaum, pp. 3;
- (3) Actuarial Study No. 85, *Social Security Area Population Projections*, 1981, Joseph F. Faber and John C. Wilkin, pp. 9.

A noteworthy feature of the 1981 Reports is that the number of sets of assumptions has been increased. There are now five Alternatives, labelled respectively, I—Optimistic; II-A—Intermediate (more robust economic expansion); II-B—Intermediate (less robust economic expansion); III—Pessimistic; and for 1981-1986 only, a non-numbered prospect called, rather rashly, Worst-Case. This last assumes, for instance, the following percentage increases in the Consumer Price Index: 1981, 12.8%; 1982, 13.6%; 1983, 11.6%; 1984, 10.9%; 1985, 9.7%; 1986, 8.6%.

The need for actuaries to press on with educational efforts about the system's workings is well illustrated by a Roper Survey finding, drawn to our attention by Mr. Robert J. Myers. From 2,000 face-to-face interviews with U.S. adults, Roper found that:

"Americans think that the Social Security Administration spends a median of \$52.10 of every \$100 it takes in to support its bureaucracy, leaving less than \$48 for benefit payments."

In explaining that the true expense figure is only one-thirty-fifth of the average supposition, any of our readers willing to set the record straight may find the following short table of rounded amounts useful:

TRUST FUND OPERATIONS 1980

Total of OASI, DI & HI—In Billions

Assets, Jan. 1, 1980	\$ 43.5B
Contributions*	+ 141.0
Interest Income	+ 3.4
Benefits	- 145.6
Expenses	- 2.1**
Assets, Dec. 31, 1980	\$ 40.2B

*net of transfers

**\$1.49 of every \$100 contributed!

E.J.M.

Deaths

Garry L. Gaudry, F.S.A. 1975

GREGORIAN CALENDAR QUADRICENTENNIAL, 1982

Assuming, as perhaps we may on an 8,500 circulation, that 40 people perused our April Editorial urging a 1982 calendar change to mark the 400th anniversary of Pope Gregory XIII's work, its yield was a stellar 10% response. Which would have been gratifying except that the solidly supporting response was only 2½%—thank you, Peter M. Thexton! The other 7½% cling obstinately to counter-proposals, thus: *J. Ross Gray* prefers to promote a brace of unrelated reforms. If he has his way, (A) each day will be divided into 100,000 "rosses" to replace the present 86,400 seconds, and (B) New Year's Day will mark "an astronomical event which means something." His choice for (B) is less than utterly clear, but he seems to favour January 8th (nearest approach of the Earth to the Sun), or December 25th (zero point on the Equation of Time). Possibly Mr. Gray will compromise on the mid-point between these two significant dates.

D. C. Townsend urges "return to unblemished principles", represented in his eye by the ancient Roman calendar of twelve 30-day months. Says he:

"The last five days of each year would not officially exist, and agents, administrators, presidents, mail persons and telephone operators would use this time to pay homage to the god 'Bacchus'. Computer operators, accountants and actuaries would then be uninterrupted in their worship of their personal deity 'Year-end'. Once every four years, even those Year-endians would be permitted a non-existent day."

Charles M. Underwood II seeks a way to eliminate the distinction between semi-monthly and bi-weekly payroll periods, and to enable imaginative planners to re-define holidays to fall on Mondays or Fridays and maintain a constant date. This he would achieve by a year consisting of thirteen 28-day months followed by one or two non-weekdays. Each month would begin on a Sunday. "I would also like", says he, "to see the months redefined to make September through December represent the seventh through tenth months, but am afraid that would be too much to ask."

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Publication Note

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appropriate need not be revolutionary. Much of what contributes to concerns about the present system stems from excessive liberalizations of benefit levels, especially those associated with the 1972 Amendments. It is to be hoped that over the years aberrations of this sort can be dealt with acceptably without revolutionary changes.

It is natural that a program affecting so many people and involving such huge sums will involve many differing views and difficult political problems. How to carry on effective, constructive examination of these issues and how to deal with the complex political aspects are challenges of a high order to all responsible segments of our population. Actuaries who have the advantage of having insights into many of these issues can be especially helpful to their fellow citizens. Mr. Robertson is commended for making a contribution to this end. □

Sightings

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Heinlein's Podkayne of Mars (1963). In reporting that, on the planet Venus, murder is "a very serious violation of regulations", Podkayne adds:

"You'll have your pay checked for years to offset both that employee's earning power for what would have been his working life, and his putative value to the Corporation, all calculated by the company's actuaries who are widely known to have no hearts at all, just liquid helium pumps."

Daniel Desfosses has been saving for us this two-year-old fragment from the *Worcester Evening Gazette*:

"The (Massachusetts) Senate gave initial approval to a bill giving savings bank actuaries a \$55,000 salary. Sen. David H. Locke, R-Well-sley, who tried to block the bill, complained, 'The highest salary ever endorsed by the Senate is . . . not for a great doctor or a great scientist, but an actuary.'"

Kenneth A. Rothschild picked up, from the life story of Robert Noyce in *The Economist*, December 27, 1980:

"He was sacked from college and trained to be an actuary, which he found thoroughly boring . . . He then went to MIT and got top grades in all subjects but one. (He found fame in electronics)."

E.J.M.

ADVERSE DEVIATION DELTAS

John C. Wooddy et al, *Adverse Deviation*, 1981, pp. 105, Society of Actuaries, Chicago, IL. \$20.

The Society has published this monograph in which Mr. Wooddy and his project associates describe in useful detail the approach, devised by the Committee on Theory of Risk, to the problem of providing appropriately for the risks of adverse deviation in a GAAP valuation under the specifications of the *Audit Guide for Stock Life Insurance Companies*.

Such deviations may arise from chance fluctuation, secular variation, catastrophic variation, cyclical variation, incorrect classification, or insufficient knowledge of the mortality rates or other basic probabilities.

After a Preface and then James C. Hickman's Introduction, the contents are:

- Chap. 1—The Problem
- 2—Development of the Solution
- 3—The Model, "SOFASIM"
- 4—How to Calculate GAAP Deltas
- App. 1—Academy Recommendation 1 and its Interpretations
- 2—SOFASIM Assumptions and Some Results
- 3—Table of Corporate Bond Yields, 1899-1976

Bibliography

Mr. Wooddy points out that the SOFASIM model can be and is being used to solve a wider class of problems than just those under GAAP. The broad subject of Possible vs. Expected Values will be explored in Panel Discussion 6 at the Society meeting in Atlanta on October 20, 1981. Anyone who attends it is well advised to have read this clearly written book beforehand.

E.J.M.

• THE E. & E. CORNER

Ques.: Unsuccessful students are given their 0 through 5 score, describing their failure only in its degree. Why can't they be given particulars to show where the weakness was found, so they can concentrate future efforts productively?

Ans.: As an experiment, we have begun providing an analysis of exam results to all failing candidates for Parts 3, 5A and 5B, two or three weeks after results are mailed. If this proves successful and is well received, we will try to extend it to other Parts.

Ques.: Why is it sometimes so difficult to obtain application forms and sample questions?

Ans.: We apologize for the difficulty that prompted this question. One person in the Society office, surrounded by an impressive array of materials, responds to these and other requests; when she's absent, substitutes do their best. Such service lapses—rare, we believe—should always be called to the attention of the office.

Ques.: Why is Chapter 7 of Kellison's *The Theory of Interest* omitted from the Part 4 syllabus? Can one become an actuary without having learned what's in that chapter?

Ans.: The miscellaneous topics that make up that chapter appear elsewhere in the Course of Reading. □

MAIL ALERT

Since September 1st you should have received the *Record*, Vol. 7, No. 1, covering our first 1981 Spring Meeting, and the *Transactions*, Vol. XXXII, 1980. If you haven't, better let Society headquarters in Chicago know you haven't.

Gregorian Calendar

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A plan exciting enough to ignite a unifying spark among progressive actuaries may lurk somewhere in all the above. But will this spark become a consuming fire before the end of (1582 + 400) A.D.?

E.J.M.

First Consulting Actuary

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1872 Another paper, "The Mysteries and Blunders of Life Insurance," written while Mr. Entz was terminally ill at his home, printed in *The Insurance Monitor*.

Mr. Entz died at his home in Westchester County, New York, on November 21, 1872. His obituary in *The Insurance Monitor* contains these remarks about his character, influence and work:

John Frederic Entz, the accomplished actuary and estimable gentleman, died on the 21st ult. at the ripe age of seventy-five. He was a gentleman of fine culture and of great mathematical ability, having been for many years connected with life insurance. He was a man of active and vigorous intellect, fond of research, and wielding a graceful and instructive pen.

With all his vigor of intellect and all his scholarly erudition, he had the artlessness and purity of a child. Incapable himself of doing evil, he believed others to be possessed of like honesty.

I acknowledge with gratitude the information unearthed for me by Mr. Donald Carson, Librarian at the College of Insurance in New York.

Ed. Note: Was Mr. Entz an earlier consulting actuary than David Parks Fackler, the primary founding father of the Actuarial Society? The answer seems clearly to be Yes. Mr. Fackler was more than 40 years younger than Mr. Entz, and did not enter the consulting field until well into the 1860's; his first client may have been the then fledging Metropolitan Life in 1868.

We plan to print excerpts from the papers of Mr. Entz in a later issue. □

Year Book Editor Wants Your Ideas

Our 1982 Year Book will be changed in several ways designed to make it more useful and more attractive. Your ideas will be more than welcome. Send them to Roland A. Dieter, Year Book Editor, at his Year Book address.

Election Procedures

(Continued from page 1)

available to as many Fellows as possible, but an unfortunate byproduct of the annual requests for suggested nominees is that former Board members, being rather well known, receive a high share of suggestions, and thus their rate of return becomes high. Our word "normally" would permit such renominations when circumstances warrant.

IV. *That Secretary and Treasurer positions as such be eliminated, that two additional Vice-Presidents be elected—an effort being made to assure that at least one of the six Vice-Presidents is a Canadian—and that the duties now performed by the Secretary and Treasurer be assigned to two Vice-Presidents.*

This suggestion has already been unfavorably viewed by our present Executive Committee, but three advantages seemed to warrant its reconsideration: (1) It produces more potential presidential candidates; (2) it makes the two positions on our powerful Executive Committee elective rather than appointive; and (3) it permits better distribution of Vice-Presidents' work. Admittedly, adoption of this plan would require a Constitutional Amendment and might entail transition difficulties.

Our Committee decided against suggesting a Constitutional Amendment to require that at least one Vice-President be a Canadian. We felt that this idea should not be put forward while the structure of Sections is being developed, and we noted that our members have shown excellent sensitivity to needs for representation of particular groups whenever these needs have been brought to their attention.

Topics On Which No Changes Were Suggested

1. *Publishing Candidates' Views on Subjects of Special Moment.* We found this idea intriguing, but doubted the feasibility of devising questions that would give our voters useful insight into a candidate's qualifications for Board service. Some of us foresaw this becoming an electioneering device, and felt that skill displayed in presenting one perhaps emotional topic might weigh too heavily in the election result. Others of us would have liked this to be given a trial.

2. *Identification of Actuaries In The Pension Field.* Pension Actuaries on our Committee pointed out that their specialty is more heavily represented on the present Board than perhaps is generally realized. We decided to content ourselves with pointing out this fact, and to leave any question for consideration after Sections have come into being.

3. *Availability of Candidates for President.* We recognize that the unwillingness of many outstanding actuaries to offer themselves as candidates for President is becoming the Society's most serious election problem. Our only practical suggestion was that some new division of duties among the President, President-Elect and Vice-Presidents be worked out.

Ed. Note: Let it be observed that this author's father, Henry H. Jackson, FSA, wrote the following about election results many years ago:

*I never did believe, and shall not ever,
That truth is ascertained by counting
noses,*

*Or that he's best who polls the biggest
vote.*

*There are rewards in life for high
endeavor,*

*Though unacclaimed and from the
press remote,*

Whatever the majority supposes. □

Latin Without Tears

(Continued from page 1)

If you have concocted something for those exemplary friends of yours,

Shining, I demand my share. If not, it's for this other ruff raff, me too!

Across more than 60 years, the voice of "Latin Barnes" reaches me loud and clear: 'Holmes, sit down! Now we'll have somebody who can translate.' The Loeb Classical Library translation of these, the concluding lines of *Epistles 1, No. 6 to Numicius*, reads thus:

If you know something better than these precepts,

Pass it on, my good fellow. If not, join me in following these.

E.J.M.

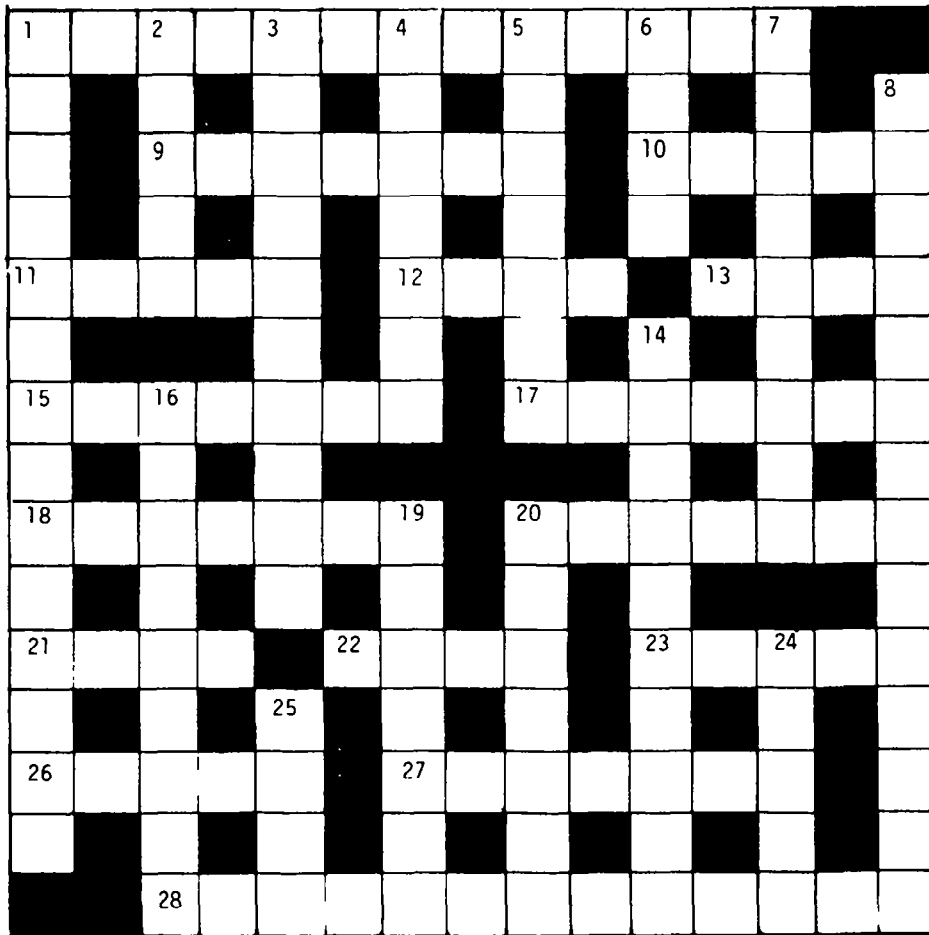
ACTUCROSSWORD

Clues Across

- 1 Quadrilaterals and owl make an honest person (6,7)
- 9 This month, briefly, emmet is right now (7)
- 10 Island for new development in copper (5)
- 11 Finger, Do you follow? (5)
- 12 One of the fair maidens (4)
- 13 Animal in first again- bring the guns back (4)
- 15 Actuaries help in providing this(4,3)
- 17 Veteran albatross marksman (7)
- 18 Proposed feed for a change (7)
- 20 Bright prospect tennis not bad (3,4)
- 21 Get on with the job here s a trifle (4)
- 22 Animal color to cringe (4)
- 23 Indian of alphabetical extremes and a bit technical (5)
- 26 Animal factor in Orient scene of Lorelei s spells (5)
- 27 Bestow a claim to the lint tee (7)
- 28 Kindly freight, a French husband and take the sun (4,9)

Clues Down

- 1 Non-sedentary societies always operative (8,6)
- 2 Taking advantage of a bit of calculus in graduation (5)
- 3 There is a chance they have gold in Part 5 (4,6)
- 4 How a gin rash is spread (7)
- 5 Best work it back and keep silent (7)
- 6 Credit check beat (4)
- 7 Land of Hope? (9)
- 8 Rude little French deed but not decimal (6,8)
- 14 One paid starts and thespian finishes this instrument (10)
- 16 Plenty sung about loudly here in France (9)
- 19 What became of shopkeepers who sparred about(7)
- 20 Re 24 can and must change (7)
- 24 Stand this is pay (5)
- 25 City catering for disaffected union members (4)



LAST MONTH'S SOLUTION: Across - 1. Board Membership; 9. Olsen; 10. Collins; 11. Opus; 12. Dolan; 13. Gigi; 16. Kincaid; 17. DeLisle; 18. Olmsted; 21. Inexact; 23. Losk; 24. Shank; 25. Ende; 28. Corliss; 29. Hulme; 30. Early Retirement. **Down** - 1. Book of knowledge; 2. Ausburn; 3. Dunn; 5. Ballard; 6. Rais; 7. Hoskins; 8. Presidents Elect; 10. Cloud; 14. Bartz; 15. Flier; 19. Masecar; 20. Duhaime; 21. Innes; 22. Ainslie; 26. Gray; 27. Shoe.

