



The Actuarial Review

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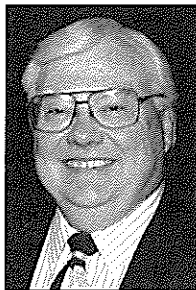
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From the President

No Tennis for this Racket

by Robert A. Anker

Probably every actuary in the world has a personal, most commonly used phrase when asked about the actuarial profession and what it is. Some respond technically; some with personal pride and ego; others with overdrawn humility.



Robert A. Anker

My own response has always been one of someone who grew up in a Minnesota farming community and never quite became used to matching my self-image with the profession. "It's a great racket!" I always blurt out, never affording the profession the dignity it deserves. But then, why not call it a great racket. It is.

There are many wonderful characteristics of this "racket." Perhaps a complete list is impossible, but my personal list includes a wide range of items.

Clearly, as has been noted elsewhere, this is a profession filled with people of great integrity and good will. The caliber of those who have chosen and qualified in the profession reflects positively on all of us and on the entirety of the profession. We are a body of individuals capable of exercising honest discussion and disagreement without rancor and often with good humor. It makes it fun.

Ours is a profession with great recognition in the insurance industry and

→ page 14

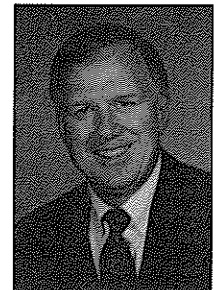
Walters Becomes President; Lehmann Chosen for President-Elect

ARLINGTON, Va.—**Mavis A. Walters** will officially succeed **Robert A. Anker** as CAS president at the close of the 1997 CAS Annual Meeting held in Palm Desert, California, this month. **Steven G. Lehmann** will assume the responsibilities of CAS president-elect.

CAS Fellows voted in October to elect Lehmann as CAS president-elect. A CAS Fellow since 1979, Lehmann is a consulting actuary with Miller, Rapp, Herbers & Terry, Inc. He has served on the CAS Board of Directors from 1988 to 1990 and as vice president-admissions from 1990-1993. During the last several years, Lehmann has also served on various CAS committees and task forces, most recently as the chairperson of the CAS Task Force on Education.



Mavis A. Walters



Steven G. Lehmann

The four new directors elected to the CAS Board of Directors are **Paul Braithwaite**, **Jerome A. Degerness**, **Michael Fusco**, and **Stephen P. Lowe**.

They will serve three-year terms and succeed **Claudette Cantin**, **Robert F. Conger**, **John M. Purple**, and **Richard H. Snader**. As the most recent past president, Anker will serve as chairperson for the CAS Board of Directors during 1998.

Valid ballots cast totaled 782, or 47.1 percent of the total number of Fellows eligible to vote. This percentage is lower than the 51.3 percent who voted last year. The average number of voters for the previous five years is 54.3 percent.

Members of the CAS Nominating Committee for the 1997 CAS elections were **Irene K. Bass** (chairperson), **Albert J. Beer**, **David P. Flynn**, **Allan M. Kaufman**, and **Michael L. Toothman**.

Editor's Note: For more CAS election results, see "CAS Board of Directors Appoints New Member of Executive Council," on page 12.

The Class of '47 Celebrates 50 years as Fellows.

See page 3.



Inside This Issue:

Editorial	2
From the Readers	4
Random Sampler	5
Actuaries Abroad	11
Non-Actuarial Pursuits of Casualty Actuaries	14
In Memoriam	16
It's A Puzzlement	24

The Actuarial Peace Pipe

by C.K. "Stan" Khury

In the May edition of *AR*, the coincidental combination of an editorial, an article by the President, a letter to the editor, and a "public" letter to the CAS Board combined to create a picture that stirred something of a firestorm. Subsequent events followed quickly:

- The SOA Board perceived this combination of material as an articulation of a hostile CAS policy and its president, David Holland, wrote a letter to every member of the SOA. (That letter was reproduced in its entirety in the August issue of *AR*).
- A record number of letters were written to *AR*—reactions and opinions ranged across the entire spectrum of views on the issues.

"It is difficult to miss the genuine goodwill that seems to have emerged out of all the commotion and conflict."

- The CAS Web Site recorded a record number of hits.
- The CAS Board held a special telephone conference to consider events.
- The CAS Board sent a letter to the SOA Board, which made three key points: (1) The views in *AR* do not necessarily reflect the views of the CAS; (2) The CAS reaffirms its independence; and (3) The CAS Board desires to continue to cooperate with the SOA whenever it makes sense. (The full text appears on page 4 of this issue).

- The president and president-elect of the CAS met with the SOA Board, and engaged the SOA Board in a constructive exchange of views on the underlying issues.
- David Holland attended the September meeting of the CAS Board and delivered a letter. Notable key points are: the SOA board affirms that "...it has the utmost respect for the CAS and its members," "understands that the CAS is 'an independent organization of professionals with a distinct identity' and has no plans to challenge the organizational sovereignty of the CAS," and "heartily concurs with the...CAS Board's wishes to continue to foster a cooperative relationship...." (The full text of the letter begins on page 4 in this issue).
- Holland reassured the CAS Board that the SOA does not intend to branch out into the casualty field.

Reflecting on these developments, it is difficult to miss the genuine goodwill that seems to have emerged out of all the commotion and conflict. It is clear that a peace pipe has been lit and is being passed around. With such good vibrations permeating the air, it is good to remember that lighting a peace pipe is merely an indication of *intentions*. In the months and years ahead, each of us can play an active role to ensure that the conciliatory gestures actually take life. This is a challenge to both the CAS and the SOA. Genuine cooperation can serve as a potent basis for many great accomplishments of the profession.

In the meantime, letters continue to arrive on the subject. A couple of years ago, these pages questioned whether actuaries are inherently apathetic. After the experience of the past six months, we can safely say that the answer is an unambiguous "NO." ■



The *Actuarial Review* is the quarterly newsletter of the Casualty Actuarial Society.

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Class of 1947 Celebrates Fifty Years as Fellows

by Matthew Rodermund with updates provided by M. Stanley Hughey

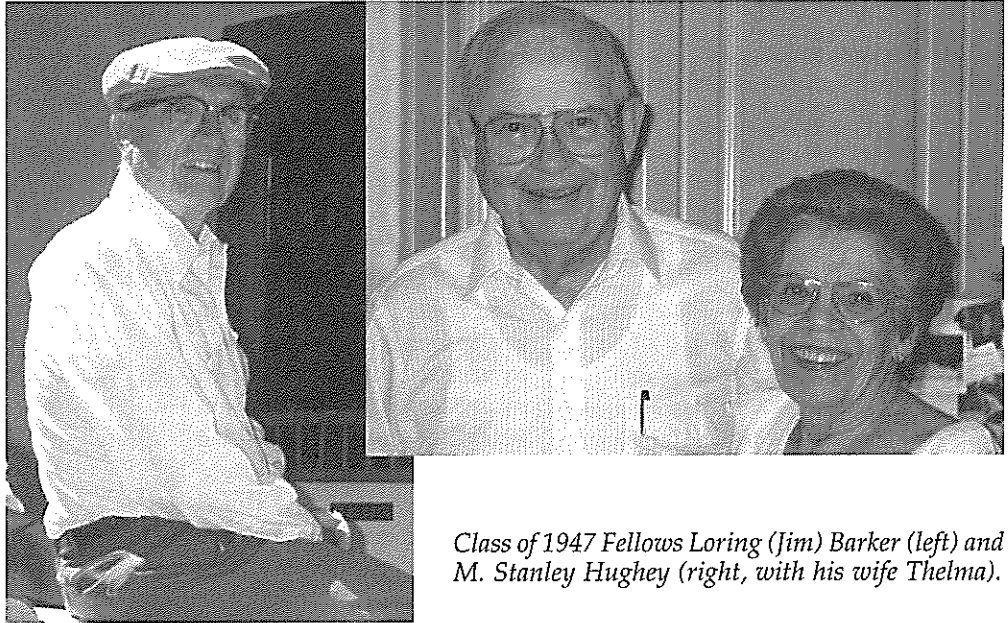
The CAS Fellowship class of 1947 is going to celebrate its fiftieth anniversary this year. There were nine members, of whom I am proud to be one—there were only eight fifty-year CAS Fellows from 1936 to 1942, and none from 1943 to 1946.

The 1947 class has been rather estimable in terms of its service to the CAS, as will be seen when its members are introduced. Eight of us are still alive (Ed Allen died in 1993). In 1972, five of us gathered for our 25th reunion. On that occasion I read some doggerel I had composed for each member of the class, and it might be well here to identify the members of the group by repeating the same doggerel.

Ed Allen was editor of the *Proceedings* and *Yearbook* from 1955 through 1958. He retired from the Travelers Insurance Companies (now Travelers Property Casualty Corporation) in Hartford, Connecticut in 1980.

Way back in the fifties, when our
class was still young,
They drafted Ed Allen for the
Editor's rung.
So a toast is in order for one of
the tenants
Of a job of great honor, and even
more penance.

Loring (Jim) Barker came from the Fireman's Fund and served on many CAS committees. Fully retired and living in the San Francisco area, Jim has done extensive travel in Europe. He has been active in his local church and has participated in several Elder Hostels. He currently loves sports as a spectator and tends his garden.



Class of 1947 Fellows Loring (Jim) Barker (left) and M. Stanley Hughey (right, with his wife Thelma).

Here's to Jim Barker of the
Fireman's Fund,
Whose diploma says "Loring," a
name he has shunned.
But as Loring or Jim, he's
persuaded his bosses
That woes by any other name are
still losses.

M. Stanley Hughey became president of the CAS in 1974, after many other responsibilities in the Society, including general chairman of the CAS Education and Examination Committee from 1969 through 1971. He was with the Kemper Insurance Group. Having given up on cold weather, Stan is living a life of full retirement in Naples, Florida. Stan enjoys extensive travel and occasional visits with extended family. He also takes in some golf and bridge, but is mostly active in church operations.

For Stan Hughey the point of our
toast is self-evident,
He'll honor our class by becoming
Vice President.
And he'll bring to his office some
subtle refinements

If he ignores his eight classmates
for committee assignments.

Norman Rosenberg came to the CAS from New York, but he soon joined the Farmers Insurance Group in California. Norm has been retired since 1978 and is living in Beverly Hills, California. Norman did some pro bono work but is taking it easy now. He took an interesting trip through the Balkans shortly before they erupted in political turmoil. His interest in sports is through a 12-year-old grandson who is mightily involved.

Now together let's lift a glass of
fresh frozen
Orange juice to rhyme our salute
to Norm Rosen—
berg, who, for some years, was
the sole actuary in all of Los
Angeles—
He couldn't even find a few
reasonable facsimiles.

John Rowell, who has always been
a consultant, finally settled in the Chi-

→ page 18

CAS and SOA Boards Discuss Relationships

From the Editor:

Following are eleven letters, many of which are closely related or are related to letters that previously appeared in the AR. We start with a series of eight letters regarding CAS/SOA relations.

First is a letter to the SOA Board, from Bob Anker on behalf of the CAS Board, responding to the SOA's reaction to several items that appeared in the May 1997 issue of the AR.

Second is a letter to Bob Anker, from David Holland on behalf of the SOA Board, which Mr. Holland delivered as an invited guest at the September meeting of the CAS Board. This letter, and the preceding letter, emphasize the desire by both organizations for cooperation rather than for competition.

In the next three letters, W. Paul McCrossan comments on letters from Irene Bass and Charles McClenahan that appeared in the August AR, and then both Ms. Bass and Mr. McClenahan respond.

The sixth and seventh letters are from Charles Gruber and Regina Berens, expressing their views on the CAS/SOA relationship.

The last letter in this series, from Richard Snader, is one that he originally sent to the CAS Board.

The next letter continues the debate between Will Peacock and the NCCI, which started as a letter from Mr. Peacock in the May AR, followed in the August AR by a response from William Hager, CEO of NCCI.

The next letter, from Louis Gariépy, responds to Sri Ramanujam's letter in the August AR regarding the CAS/CIA qualification standards.

Last is a letter from Jim Hall, identifying what he considers to be a serious threat to the existence of the CAS.

The staff of the AR is pleased to be receiving so many letters, and excited by the fact that the AR is being used as a forum to discuss so many vital issues.

Walter Wright
Managing Editor

Dear Editor:

Following is a letter that I sent to the SOA Board of Governors on August 12, 1997 on behalf of the CAS Board of Directors.

The May 1997 issue of the *Actuarial Review* contained three opinion pieces: an editorial titled "How to Catch a Wild Hog" by the Editor-in-Chief of the newsletter and a member of the CAS Board of Directors, C.K. "Stan" Khury; a column titled "Cassandra of the CAS" by a member of the CAS Board of Directors, Sholom Feldblum; and a column titled "From the President" by Robert A. Anker. The CAS Board of Directors has been told that these three pieces have generated a substantial adverse reaction with the SOA leadership.

The CAS Board of Directors wants to reaffirm to all parties that the opinions expressed in these articles do not reflect an official policy of the CAS. Also, although there is a written disclaimer in the *Actuarial Review* that "The Casualty Actuarial Society is not responsible for statements or opinions expressed in the *Actuarial Review*" we are aware that some readers have, regrettably, mistakenly assumed that an editorial in an official CAS publication is a reflection of CAS policy.

The CAS Board of Directors also affirms its strategic plan, adopted by the board in September 1996, which (a) characterized the CAS as an independent organization of professionals with a distinct identity, yet (b) recognized that joint activities with the Society of Actuaries will often be beneficial to casualty actuaries, the CAS, and the entire profession. That plan further states "the challenge of the future (in particular, expanding the scope of casualty work) may be 'furthered' by some cooperative endeavors with the SOA."

The CAS Board continues to believe that "...the CAS should become or remain involved in joint activities

or co-operative efforts, including exams with other organizations..." so long as the guiding principles set forth in the strategic plan are met.

The CAS Board wishes to continue to foster a cooperative relationship

**"The CAS Board wishes
to continue to foster a
cooperative relationship
between the CAS and
the SOA...."**

between the CAS and the SOA and encourages the CAS leadership to continue to work together for the good of the profession as well as the CAS and the SOA.

*For the CAS Board of Directors,
Robert A. Anker, FCAS, MAAA
President, Casualty Actuarial Society*

(The following letter was sent to Bob Anker on September 12, 1997.)

Both personally and on behalf of the Board of Governors of the SOA, please accept our sincere thanks for you and Mavis Walters participating in the most recent SOA Board meeting. We are also very appreciative of the memo the CAS Board sent us regarding "Actuarial Review Articles—May 1997."

In spite of the best of intentions on the part of all parties, revising the E&E syllabus, the Foundations/AERF and the NAAJ have been contentious issues this year. The unfortunate editorial in the May issue of the *Actuarial Review*, which was buttressed by four other articles, caused serious concerns about the relationship between our organizations. We are very much encouraged, however, by the CAS Board memo and the broad range of re-

→ page 5

Letters

From page 4

sponses in the August issue of *Actuarial Review*. There are undoubtedly many different opinions held by the individual members of our organizations; we must both be careful not to take such an opinion as official policy or even intention.

Because of recent questions and comments, the SOA Board wants to affirm that it has the utmost respect for the CAS and its members. Further, the SOA Board understands that the CAS is "an independent organization of professionals with a distinct identity" and has no plans to challenge the organizational sovereignty of the CAS. The SOA Board heartily concurs with and has the same sentiments as expressed in the CAS Board statement:

"The CAS board wishes to continue to foster a cooperative relationship between the CAS and the SOA and encourages the CAS leadership to continue to work together for the good of the profession as well as the CAS and the SOA."

We hope there will be many opportunities for cooperation between the CAS and the SOA, and that these efforts will further the actuarial profession.
David M. Holland, FSA
President, Society of Actuaries

Readers Argue Issues

Dear Editor:

In their letters following Stan Khury's editorial on catching wild hogs, Irene Bass referred to the International Forum of Actuarial Associations (IFAA) and its impact on future actuarial education and Charles McClenahan referred to the permanence of the wall between the CAS and SOA. Perhaps, as the founding Chairman of the IFAA, I might make several observations.

Irene stated, "Now, however, it seems that basic education is part of the agenda of the IFAA and, since the U.S. stands alone among nations as having a separate actuarial organiza-

→ page 6

Random Sampler

What's In a Name? In Defense of the Prophet

Note on the May 1997 AR's *Cassandra of the CAS* Letter to the CAS Board from Sholom Feldblum, FCAS, CPCU, ASA, MAAA

by Daniel F. Kligman

It turns out I was right.
But nothing has come of it.
And this is my robe, slightly singed.
And this is my prophet's junk.
And this is my twisted face.
A face that didn't know it could be beautiful.

—Excerpt from *Soliloquy for Cassandra*
Wisława Szymborska, Winner 1996 Nobel Prize for Literature

In his letter to the CAS Board (published in May 1997 AR) Sholom Feldblum raises his voice in concern for the future of the CAS as an independent organization. His concern extends to members, perceived vulnerable to the loss of this status: sole recognized practitioners of the art we call casualty actuarial science. Recently, the larger, more powerful Society of Actuaries made overtures indicating to some that it wishes to swallow the smaller organization; sooner or later.

This may remind one of Jonah, biblical prophet caught running from his destiny, drowning, who was saved temporarily—if only bodily—by a greater beast. On the face of it, this actuarial juncture, like the belly of that whale for Jonah, seems like a great place for a prophet to warm up his oracle. Practice makes perfect in any faculty, whether for Jonah who, as the tale goes, would have his successful 'say day' in Nineveh; or for Cassandra, who would, anyplace and in any case, be ignored.

One might ask whether Cassandra wasn't blessed by some inherent defect that rendered her perspicuously gifted yet fated for ineffectuality. The child prodigy, the genius, or the great athlete we infantilize into adulthood, are examples of such partly stilted humanity. It's possible Cassandra didn't hang around long enough in any one place to be proven right or wrong and find out herself about the result. The individual with his or her head in the clouds often is a flyer! Or, maybe it was an acquired characteristic that caused others to doubt her utterances, whatever way her muse blew. As that mythic tale tells it, her failures were rooted in the revenge of a very powerful suitor she rejected. Whatever the reasons, as an oracle this one couldn't cut it. Maybe she should have settled as a poet, a lover, among us. One always pays dearly for dalliance with a god.

"...On the face of it, this actuarial juncture, like the belly of that whale for Jonah, seems like a great place for a prophet to warm up his oracle."

→ page 12

Letters

From page 5

tion for each basic area, the SOA may be more interested in unification." A commitment to develop a minimum standard of education for all actuaries who qualified in all IFAA member as-

"...detailed education in all of life contingencies and nonlife contingencies...will increasingly be regarded as prerequisites to be recognized as an actuary internationally."

sociations after 2005 was deemed so desirable that it was adopted at the founding meeting of the IFAA; it was not an afterthought. The reason for moving in this direction so rapidly is that free trade in professional services is almost a certain result of the next round of negotiations under the General Agreement on Trade and Services (GATS). This means that actuaries in one country are highly likely to be able to practice in another country with minimal (or no) additional country specific qualifications.

But who is an "actuary" and what education does an actuary possess? If the international actuarial profession cannot succeed in establishing internationally agreed educational standards before the GATS is changed, the possibility is open that "actuaries" will be accredited in some jurisdiction with lax (or no real) standards and attempt to achieve international recognition. The founding members of the IFAA recognized from the start that the public interest would best be served by ensuring that those who were recognized as "actuaries" under such a regime should belong to organizations with solid educational credentials.

The use, by Irene, of the phrase "*the U.S. stands alone among nations*" was very disappointing to me. I had always thought that both the SOA and CAS were international providers of actuarial education and that their non-American members were important to both organizations. Internationally, there is little interest in producing future actuaries with a narrow, limited, professional education. That means that detailed education in *all* of life contingencies, nonlife contingencies, asset/liability matching techniques and the actuarial thought process itself (which forms the basis of the educational system of the Institute of Actuaries of Australia under the name of "the actuarial control cycle") will increasingly be regarded as prerequisites to be recognized as an "actuary" internationally.

If the CAS wishes to educate its future members in depth but narrowly to serve the immediately foreseeable casualty actuarial needs of the U.S. when the rest of the world's actuarial educational organizations are moving rapidly in the opposite direction, that is its prerogative. But it is not a choice that I would recommend to an actuarial educational organization that wants to be vital by the middle of the next century.

I found it extremely disconcerting to read Charles McClenahan's proud description of the division between the SOA and the CAS not as a "*fence*" but as a "*solid wall which has been erected brick by brick over the past 83 years...held together by the mortar of education, experience, and dedication to casualty actuarial science.*" Would it be too provocative to note that the Berlin Wall, which lasted two generations, was built by people dedicated to Communism but that it could not stand up either to the new technologies which beamed electronic messages over the wall or to the innovation fostered as new ideas proliferated in the "free world"? Actuaries in the new world of international free trade cannot limit their intellectual base and expect to survive.

W. Paul McCrossan, FSA, FCIA, MAAA

Dear Editor:

Just as Mr. McCrossan is disappointed by my comments, I am disappointed by his, but I am not surprised by them. He chose not to read my words as they were written, and, instead interpreted them to have a nationalistic spin, as he is wont to do. I said that the U.S. stands alone in hav-

"...there is little value in producing actuaries who have a superficial knowledge of many areas with little depth of understanding."

ing separate educational organizations for each basic area; and I continue to say that. I understand fully, being an FCIA myself, that Canada is also served by two separate educational organizations for each basic area; but in addition to these two organizations, the Canadian Institute of Actuaries exerts educational control over its actuaries in a manner that unites the two sides of the profession in a way that the American Academy of Actuaries does not unite the actuaries in the U.S. (Please, let me not get letters now from the Academy. I don't mean to imply the Academy is not doing a fine job—it's doing a different job from the Institute, that's all.)

Mr. McCrossan then suggests, in a left-handed sort of way, that I may be interested in producing future actuaries with narrow and limited professional training, and he suggests, very plainly, that the CAS wishes to educate its members narrowly. Nothing could be further from the truth. On the opposite end of the spectrum, however, I believe there is little value in producing actuaries who have a superficial knowledge of many areas with little depth of understanding. The business world of today and of tomorrow

→ page 7

Letters

From page 6

is one that requires specialization—not in its narrow limited sense, but in the sense of focused application with understanding of wide-ranging implications. Mr. McCrossan's suggestion that actuaries can have a detailed understanding of all areas reminds me of the car repair shop in my neighborhood that proudly displays a sign, "We Specialize in All Makes of Autos." I still prefer to take my Volvo to the Volvo dealer.

Irene K. Bass, FCAS, FCIA, MAAA

Dear Editor:

While I am afraid the fences/walls comparison may be wearing a bit thin on your readers (I know it is on this one!), I would point out to Mr. McCrossan that unlike most walls, the Berlin Wall was designed to keep people in. The Great Wall of China, which has endured a bit more than two generations, was designed to keep invaders out. I will leave it to the readers to decide which is the better analog.

Charles L. McClenahan, FCAS, ASA, MAAA

More Responses to the August Issue

Dear Editor:

Sitting in a plane on a Newark runway for hours waiting to take off to Chicago allowed me to carefully read all of the letters on CAS independence and CAS/SOA relations in the August AR. It is clear there is much emotion on both sides of the "fence," as Messrs. Khury and Holland put it, or "brick wall," as Mr. McClenahan prefers to interpret it.

Some thoughts from a traveler.

I infer from Mr. Holland's letter that the SOA would like to eventually take the CAS under its wing as a practice area. He claims that the pressure to do so arises from the world outside the U.S. I, for one, have been a CAS member for over 20 years and have not felt any international pressure to become an SOA member.

I do not wish to be under Mr. Holland's or the SOA's wings. I be-

lieve the CAS can fly quite well by itself.

The CAS Board of Directors has declared its independence and its desire to conduct joint activities with other actuarial organizations. Perhaps

"I believe the CAS can fly quite well by itself."

a declaration by the SOA Board that it too agrees with CAS independence and endorses joint activities would put the current controversy to rest.

Growth can be a challenge. The larger the CAS becomes, the more its members may need to create subsets, like the regional actuarial associations, or perhaps groups concentrating on one line of business, like workers compensation, or one area of focus, like regulatory actuaries. Larger size naturally leads to a dilution of interest. It becomes difficult for an association's leadership to pay attention to individual member needs. A CAS/SOA combination would only exacerbate this problem.

Charles Gruber, FCAS, MAAA, FCA

Dear Editor:

I got a call yesterday from a recruiter with a lovely British accent. Their search firm, in the UK, is beating the bushes looking for actuaries with CAS credentials to relocate to positions in the UK.

This made me realize—again—that our specialization is our strength and the remarks that we're confusing our publics with multiple actuarial organizations is a lot of babble. We need to remember that.

Regina M. Berens, FCAS, MAAA

(Following is a letter that was recently sent to the CAS Board.)

Dear Editor:

We are at a crossroads not just in our relationship with the SOA but with respect to our future as well. One path, the path we have been on until now,

the path charted for us by our forebears, can lead us to continued success and prosperity as a professional organization. The other path potentially can lead us to professional irrelevance and possibly oblivion.

Here is what I believe. I believe in a united (not unified necessarily but united) profession under the umbrella of the American Academy of Actuaries. And, I believe in an independent CAS. These are not mutually exclusive goals. To the contrary, they are mutually supportive goals. I believe the independence of the CAS can best be maintained by supporting the endeavors of the rest of the profession, by having the rest of the profession support the endeavors of the CAS, and by being perceived as a strong, equal partner in endeavors that are common to all actuaries and affect the entire profession.

There are many actuarial endeavors with common elements, but first and foremost among them is the education and examination process. I therefore believe it is essential to jointly test as many common topics as possible. This has not been achieved, and I regard this as a failure more on our part than on the part of the SOA. Consequently, we can depend on the academic community to continue channeling its students to the SOA and away from the CAS just as it has always done in the past. Another opportunity for common endeavor was the NAAJ. The decision to not participate was, I believe, a grave tactical error. I believe it is quite possible that the NAAJ will come to be seen as the voice of the actuarial profession. If so, the CAS will not be heard and our work will remain obscure.

I have been associated with the actuarial profession for well over 30 years. My first boss was Tom Murrin, who was the first CAS member to serve as an Academy president. My second boss was Dick Johe, a CAS president, and Academy vice president and a member of the initial Admissions Committee. Through my early association with these individuals and my direct association with the Academy in several different capacities, I have

→ page 8

Letters

From page 7

been able to observe at close hand the changing relationship of the CAS and SOA over the years. In these early days it is safe to say that the attitude of the SOA toward the CAS was dismissive at best. Like most of you, I have been irritated by their denigration of our

"The isolation of the CAS and balkanization of the greater actuarial community are not in anyone's best interest."

syllabus and their failure to understand the breadth of the casualty field. But because of the work of leaders like Tom Murrin and Dick Johe and their successors—Dan McNamara, Stan Hughey, Jim MacGinnitie, Mavis Walters, and Dave Hartman to name a few—the attitude of the SOA members we came in contact with at the Academy slowly and inexorably changed to respect and even (perhaps grudgingly given) admiration. And it was not just at the presidential level that this transformation occurred. CAS members showed their mettle and proved their worth on every committee and task force where they participated.

I have followed the events of this past summer with an increasing sense of dismay. It is as if all the slow, hard work of those who preceded us has been blotted out by a dark shadow and the foundation of mutual trust and respect so necessary in professional relationships has been swept away at a single stroke. I refer primarily, of course, to the May issue of the *Actuarial Review* and its inflammatory lead editorial. The firestorm of protest from all segments of the profession, though startling in its intensity, is in retrospect hardly surprising.

Where can we possibly go from here? Obviously the damage that has been done must somehow be repaired. I have two suggestions. The first is that

we throw off the cloak of destructive paranoia that is clouding our thinking. To believe that the SOA is out to get us and to seek refuge in a form of "independence" that isolates us from the rest of the actuarial community is a profound strategic error. The isolation of the CAS and balkanization of the greater actuarial community are not in anyone's best interest.

The second suggestion is that we really communicate with each other. Communication is not dialogue. We have had more than enough dialogue over the years but precious little communication. To communicate effectively each side must make a special effort to understand the needs, ambitions, and apprehensions of the other. This is a prescription for the SOA as well as the CAS.

We need to realize that the SOA is not the enemy. Our common threat is from economists, accountants, financial analysts, and self-important MBAs with spreadsheet programs to calculate average annual compound growth rates and tell them what the internal rate of return is. We need to make common cause against this very real threat. The strength of the profession and the future of the CAS lies in unity, not discord.

Richard H. Snader, FCAS, ASA, MAAA

At Issue with NCCI (Round 3)

Dear Editor:

Since my last letter to the *AR* (May '97), the NCCI has informed me that we may *license* a copy of an individual state rate filing for \$600 if I use the filing only for academic and educational purposes, and "not for the specific benefit or on behalf of current and future clients." In contrast, last fall the price of \$957,557 was quoted for four rate filings for *full use* in my business activities. Unfortunately, this reduction in price is meaningless because I undoubtedly will want to use the rate filing to service our clients' actuarial needs. Any price in between would require me to specify my *use* in advance, i.e., Custom Pricing, but

NCCI will not divulge its methodology for *non-affiliate* pricing. The cost differences between non-affiliate and affiliate pricing is staggering. If all my clients were NCCI affiliates, then I would not have to pay anything for the rate filing. This is economic inequity.

As explained by William Hager of NCCI in his letter to the *AR* (August, '97), NCCI has taken the position that the rate filing is *intellectual property* that belongs to NCCI and that they can sell at any price they choose. My position is that the rate filings, once they have been filed with the state regulatory agencies, are within the public domain and should be available to anyone for a nominal charge. NCCI is circumventing this availability by persuading insurance departments such as Louisiana and South Carolina to release its rate filings without actuarial backup.

The NCCI copyright claims of the rate filings are spurious and the courts in Florida and Kansas have decided as much. This is because the ratemaking procedures have been developed within the actuarial community over the last forty years and have been published in public journals. Contrary to Mr. Hager's assertions, copyright claims are not based on the amount of investment or effort expended, but require a uniqueness not found elsewhere. Further, since the data in a rate filing is aggregated and not identifiable to any specific company, no competitive advantage or disadvantage is obtained for any company (in contrast to the current rulings concerning zip code data). I believe that public examination of the rate filing is the quid pro quo for the anti-trust exemptions contained in the McCarran-Ferguson Act.

Mr. Hager claims that my firm is a competitor of NCCI, a statement that I fail to understand unless the NCCI is in the actuarial consulting business. If NCCI is acting as an actuarial consultant to individual insurance companies then that is a clear conflict of interest with their role as a ratemaking organization, and insurance regulators should be conscious of that. I have requested NCCI to explain how other

→ page 9

Letters

From page 8

consultants and non-affiliate users are getting rate filing data as it is inconceivable to me they would pay approximately \$250,000 per rate filing. No response.

NCCI clearly has its own agenda in the current debate, over and above its dubious claims to ownership of the rate filings and other workers compensation insurance data. Because of a gap in sanctioned regulations, NCCI has seized an opportunity to commercialize its service and through exorbitant pricing financially penalize non-affiliate customers for not being a member.

I advocate the licensing of alternative and competitive statistical and ratemaking organizations in each state in which NCCI is a de facto monopoly. The state of Florida recognized the inherent threat to a competitive insurance market and fair pricing from a single loosely regulated statistical/ratemaking organization in workers compensation by recently licensing three statistical agencies.

I will continue to work with the NAIC, state regulators, and insurance organizations to bring about needed regulation of statistical agencies and promote the availability of insurance data to everyone.

William W. Peacock, ACAS, MAAA

Membership Requirements: U.S. Versus Canada (Round 2)

Dear Editor:

I am a Fellow of the Casualty Actuarial Society (CAS) and the Canadian Institute of Actuaries (CIA) and I understand the points that Mr. Ramanujam raised in the August 1997 AR, regarding FCAS and FCIA designations. The loopholes he referred to are important and should not be ignored. I disagree though with his preferred alternative as it would create problems similar to those faced by actuaries that have designation in other countries, like England and Australia. It could lead to a complete break between the CAS and the CIA, which

would be to the detriment of both in my opinion. It would also be unfortunate for Canadian Actuaries to lose the FCAS designation that is recognized worldwide. Finally, he would have the problem of actuaries from foreign countries who would become CAS Fellows and be allowed to sign financial statements in the U.S. without any relevant U.S. experience.

The CIA has been working very closely with the Office of the Superintendent of Financial Institutions (OSFI) in Canada to set forward requirements for actuaries signing financial statements in Canada. Following this, the CIA has expanded on the Canadian contents of CAS exams and is requiring that in order to be able to sign financial statements in Canada, you need to be an FCIA, which is attained by having the FCAS designation, passing the exams with Canadian contents and having 3 years of related experience in Canada. These requirements are very similar to those of the American Academy of Actuaries (AAA). In fact, the CIA role as a governing body for actuaries in Canada is very similar to that of the AAA, at least in theory.

I would suggest the AAA would have requirements that are similar for its members to those of the CIA. Then, for an actuary to be able to sign financial statements for American companies, they would have to be a member of the AAA. This is similar to what Mr. Ramanujam proposed as his second alternative.

His third alternative is similar to what we had in the past where an FCAS could only do the Canadian section of Part 8 to received their FCIA designation (if they had 3 years of Canadian experience). I think the biggest problem with this alternative is that it is very difficult to create common sections for exams when you are dealing with accounting rules, regulations and laws in different countries. That is why the CAS is proposing to separate part 7 and part 8 into U.S. and Canadian contents.

Finally, I totally agree with his fourth alternative, but I would modify it to make reference to the MAAA designation instead of the FCAS designation.

nation. Fellows in either country that have accumulated enough experience in the other country should be allowed to sign financial statements there. This would also open the door for actuaries from foreign countries that are Fellows of their respective societies.

I am willing to discuss the subject further with anyone who would be in-

**"Actuaries...may
determine that the
biggest culprits in the
decline of the CAS
were ourselves."**

terested. I am also available to present my views in any CAS forum or committee.

Louis Gariépy, FCAS, FCIA

On Threats to CAS

Dear Editor:

While much of the attention of our membership is directed to the contest between the CAS and the SOA, I am much more concerned about a different threat to our continued existence—the suicidal rate war in commercial liability and workers compensation insurance. The current phase of the underwriting cycle features pricing approximately as soft as in the last cycle for commercial liability and extends that level of underpricing to workers compensation as well. The addition of workers compensation to the rate war seems to be linked to the passing of the minimum rate laws in a number of jurisdictions, and this deprives a number of commercial casualty insurers of the opportunity to mitigate commercial liability losses with workers compensation profits. Casualty actuaries who look for employment after the current soft market has motivated numerous commercial casualty insurers to quit the business may use the hindsight method to determine that the biggest culprits in the decline of the CAS were not those pesky SOA guys, but

→ page 10

Letters

From page 9

ourselves, for failing to convince operating management that price adequacy, not premium volume, is the prerequisite for profitable underwriting. I accept that the underwriting cycle is the predictable pattern of our business, but CAS members should be able to help their companies minimize the damage caused by the cycle. If this letter stimulates even a fraction of the debate contained in these pages in recent issues on the CAS/SOA tiff, then we may see some progress towards identifying a solution to what I believe is our most serious problem.

Some observers may reason that the excessive level of capital in the insurance industry is both our safety device (allowing the well-capitalized insurers to survive the price war for a longer time than would otherwise be possible) and the reason that the overcapitalized insurers are trying to buy business. If this is true, then a number of well-run smaller, specialty insurers will be "burned" out of their niche markets, by the all-lines, all-states insurers, and the actuaries serving these insurers will be victims just as much as the actuaries who were reorganized out of positions at the recently acquired old-line giants that used to employ so many of our peers.

In quite a few insurers the actuary may already be telling management that prices are inadequate, but the continued underpricing of commercial liability business shows that the actuary has failed to persuade the underwriter to reject underpriced risks.

Given that the authority of the actuary in pricing commercial casualty coverages is shared with the underwriter, and is far less than the authority enjoyed by the pricing actuary in personal lines, it is natural to ask whether the pricing actuary in a commercial liability insurer can reasonably seek help from the reserving actuary to moderate the underpricing of the liability and compensation lines. In particular the reserving actuary may be able to demonstrate the unprofitability of current business as part of expressing an opinion on the current accident year's results.

An excuse offered in a number of companies is that the reserve actuary is often unable to measure current price adequacy in order to update the a priori loss ratios for the Bornhuetter-Ferguson method until it becomes obvious that the expected loss ratios were too low. Rather than accept this excuse, we should at least insist on a "best practice" in which the reserving actuary incorporates the latest price level changes into the estimated a priori ELR's for the most recent years, so that we are at least shortening the time lags between the time when the business is underpriced and the time when the unprofitable results force management to take corrective action. To the extent that "cash flow underwriting" requires both a time lag for generating investment returns, and also a time lag for excessive optimism about underwriting results, whatever we can do to shorten the time lags for reporting reasonably accurate loss estimates may restore a modicum of pricing discipline to our employers and clients.

The SEC (for publicly traded insurers) and the NAIC (for most domestic

casualty insurers) together have given the reserving actuary a prominent voice in financial reporting. Only the NAIC requires the actuary's opinion on reserves, but the SEC-mandated loss reserve disclosure exposes the reserve development history for the shareholders to see. If the actuary has the expertise to get the reserves right for the most recent year, and the courage to report the numbers without flinching, the shareholders will learn that their company's management has been giving surplus to the policyholders through the mechanism of underpricing, and the threat of share price declines (or of shareholder revolt) may prompt management to halt the giveaway program. If the actuary fails to get the reserve opinion right, the chances of moderating the underwriting cycle are diminished, and all of us will suffer from the inevitable decline in the number of viable casualty insurers, with the subsequent decline in the prestige of a profession which failed to develop a plan to save our employers and clients.

James A. Hall, III, FCAS, MAAA ■

1997-98 Woody Scholarships Awarded

The Actuarial Education and Research Fund (AERF) has announced the winners of the John Culver Woody scholarships for 1997-98. Four college seniors will receive the \$2,000 scholarships, established by the estate of John Culver Woody, a distinguished former actuary who provided funds to help worthy actuarial students complete their education. Woody died in 1987.

The 1997-98 Woody scholarship recipients are:

- Jennifer Cardello (Tufts University, Medford, Massachusetts), nominated by Eric T. Quinto
- Jocelyn Norton (Lebanon Valley College, Annville, Pennsylvania), nominated by Bryan V. Hearsey
- Matthew Rustige (Maryville University, St. Louis, Missouri), nomi-

nated by Leonard Asimow

- Raman Srivastava (University of Waterloo, Ontario), nominated by Harry H. Panjer.

Thirty-four schools in the U.S. and Canada sent in applications for the scholarships. The next round of applications will be accepted in June 1998.

Undergraduates are eligible if they are scheduled for senior standing in the semester after the scholarship is awarded, rank in the top quartile of their classes, have successfully completed at least one actuarial examination, and are nominated by a professor at their school. Applicants must also submit a brief essay. Preference is given to candidates who have demonstrated leadership potential through extracurricular activities. ■

Actuaries Abroad

by Kendra Felisky-Watson
U.K. Correspondent

Blackpool Night Life Beckons Non-Life Actuaries

Calling all beach lovers—the next gathering of nonlife actuaries (the General Insurance Study Group or GISG) is in Blackpool, a favorite holiday spot of Victorian England. This year's GISG will concentrate on three main themes: the management of risk, the London Market and the Direct Market. However, I think the three subsidiary themes will be: the pub, the nightclub and the Pepsi Max (the largest wooden roller coaster in Europe).

The first meeting of the Casualty Actuaries in Europe Group (CAE) will take place at the GISG. Amazingly there are 45 names on the distribution list covering CAS members in eight countries—another indication of the value of CAS membership outside North America!

The full employment act for general insurance actuaries continues. Lloyd's is now requiring that ALL syndicates (162 of them) have actuarial certification of reserves for year-end 1997. This is in addition to the certification required by the U.S. regulators. What makes this requirement even more harrowing is that there are two different bases for valuation: U.S. insurance law and U.K. regulations. Finally, the U.S. opinions are due to Lloyd's by the 16th of February! And to make our lives even more difficult, London underwriters have turned the downward turn in rates into an avalanche! Of course, each underwriter assures us that they are turning away unprofitable business and are not following the downturn in the market, blah, blah, blah. Yeah, right.

Actuarial Organizations Test Communication Skills

The CAS is not alone in changing its exam structure: the Institute and Faculty of Actuaries have also recently revised their exam structure. The exams are split into four groups. Series 100 consists of nine exams covering

the basic skills an actuary needs such as actuarial mathematics, statistics and economics. Series 200 is a communications exam. Series 300 has four exams covering the four main practice

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areas: investment, life insurance, general insurance and pensions. Series 400 consists of the four fellowship exams, which treat the same subjects as series 300 but in more depth. Students must take all exams in series 100, 200, and 300 but only one subject from series 400. The most interesting feature of the new exam structure is the communications exam. Part of this exam consists of presenting students with a problematic situation and asking them to write a letter explaining the problem and solution.

Scenario Analysis and Equitas

In May a general insurance seminar on reinsurance was held at Staple Inn. The first presentation was about reinsurance treaty pricing techniques including a discussion of explaining the calculations to underwriters so that the underwriter can see how the actuary is adding value. The next discussion was on how a model of the impact of different reinsurance programs on a company's expected program can

be used to quantify the capital at risk and how this is affected by different reinsurance strategies.

The actuarial challenge of Equitas was described by the actuaries who work for Equitas. The biggest problem they have encountered is collecting and managing data when they have hundreds of thousands of policies and thousands of reinsurers with which to deal. Other topics during the day were the practicalities of the securitization of reinsurance, a practical guide to commutations and the modeling and management of catastrophe exposures. The final discussion was about risk-based capital including a description of the U.S. and Lloyd's risk-based capital systems and the possible impact on the U.K. insurance market of a risk-based capital approach on capital allocation.

Premium Ups and Downs: Ultimately Discoverable

The London Market Actuaries Group (LMAG) continues with its very interesting meetings. In April there was a discussion about why changes in premium rates should be monitored. The conclusion was that the monitoring process helps actuaries' understanding of the business being written and it helps to quantify the underwriters' "feel" for what is happening in the market. Of particular relevance to today's market, the cumulative effect of decreases becomes apparent. Also, since premium may be the only measure of exposure, inflation and rate changes are needed for methods like the Bornhuetter-Ferguson.

The insurance regulator, the Department of Trade and Industry, has asked all insurance companies for information on their asbestos, pollution and health hazards losses. The LMAG provided a great forum for discussion as to whether this would violate attorney/client privilege and what would potentially be discoverable. I suppose we will find out eventually. ■

Random Sampler

From page 5

Contrarily, Mr. Feldblum's rooted, challenging, sarcastic tone will certainly arouse actuaries and peripherally interested parties. I was struck by his omission (though strictly in accord with prophecy's partisanship), of the benefits of integration—to both CAS members and students. Cross-pollination, as a growth promotion strategy, is not limited to the biological realm. He also omitted mentioning any utility that might accrue to casualty actuarial, nay, *actuarial* science; and to the profession as it's practiced in diverse forums. And there will certainly be benefits that flow outward from melting borders, onto other bodies served by the profession; and further, to the public.

Still, maybe the CAS Board was due for a clarion (clannish) wake-up call on the general issue of protecting corporeal boundaries, if only to highlight a perceived need for re-prioritizing their concerns and debate subjects. And, maybe this call had to be issued by someone with Mr. Feldblum's professional track record and respected position within the actuarial community. Although, one hopes all members and students feel free, moved *and* pulled to speak about their concerns.

Though Cassandra's name was invoked in the AR article's title, Mr. Feldblum is not fated to be ignored, or disbelieved. I don't think his utterance qualifies as prophecy at all. For if there's one thing the prophet-type rarely worries about, it's money; especially the money of those around him. They're already worrying about it too much for his taste. Money is always out of the prophet's priorities loop; often he thinks it unclean, dirty. The prophet's sole concern for money is by virtue of its use as an ersatz measure for social equality.

Cassandra's problem, the failed-prophet's problem, is the common problem of anyone who struggles to define individual boundaries and establish borders in relationships, *fuzzily* between poles of separation and conjoining. This is an Herculean struggle for one who holds himself or herself

CAS Board of Directors Appoints New Member of Executive Council

The CAS Board of Directors voted at its September meeting to appoint **Curtis Gary Dean** as the new vice president-administration. From 1985-1993, Dean has been primarily involved with the CAS Examination Committee, serving in various capacities from member to chairperson. He replaces former vice president-administration **Paul Braithwaite**, who had served for three years as vice president and has now been elected a director on the CAS Board.

The four other vice presidents on the 1996-97 Executive Council were reelected by the Board of Directors for 1997-98. These vice presidents are **Patrick J. Grannan** (Programs and Communications), **Robert S. Miccolis** (Research and Development), **Susan T. Szkoda** (Continuing Education) and **Kevin B. Thompson** (Admissions).■

always apart, simultaneously speaking for everyone, trumpeting in the name of some heavenly eschatology. Few people welcome change; and revolu-

it did to the preacher in *The Grapes of Wrath* or to *Prufrock* in T.S. Eliot's poem.

Yet, there is an element of prophecy that is organic, nourishing, like childhood. It may reappear when we thought it, and all, was lost. And though it may be that a prophet's love was meant for himself, it was only because he felt that no one loved him. Poor boy, or girl. Lucky for us then, lucky for her, if she hangs around to accept a new role and spread the earthly gift of poetry. It's easier to swallow than prophecy.

So, in conclusion, if the CAS Board heeds Mr. Feldblum's call and considers the subtle shadings of '*society*' within the broader context of actuarial science as art and profession, then his words will have been a fresh breath from an ancient zephyr rejuvenating our Indian summer doldrums. But prophecy? No. Certainly not the fire and brimstone kind. And I applaud loudly his thunder.

Endnote:

We need scarcely add that the contemplation in natural science of a wider domain than the actual leads to a far better understanding of the actual.

A. S. Eddington

**"Cross-pollination,
as a growth
promotion strategy,
is not limited to the
biological realm."**

tionary change, the prophet's kind, is simply a nightmare. Most of us ignore our nightmares, especially when they no longer frighten us as a society.

As a person, the prophet's special difficulty is in finding acceptance, in fitting everybody into his worldview, including himself. He refuses to comprehend resistance to this expansive prescription; he doesn't understand all the clinging to borders. He is unsettled within his own, and will use the power of the word to unsettle others in their spheres. The prophet who has lost the edge, become complacent, grown fat *so to speak*, will sometimes lose the calling. Hopefully, this will seem to him no great matter, no great loss, as

Pitches and Hits Increase at the CAS Web Site

CAS Web Site Celebrates Its First Year

The CAS Web Site is growing up. No longer a mere infant, the Web site is maturing steadily and September 1997 marked its one-year anniversary.

The CAS began offering online services in 1993 with the CAS Bulletin Board System (BBS). In April 1996 a membership survey conducted by the CAS Task Force on Electronic Services found the membership to be keenly interested in the possibilities of a CAS Web Site. The CAS Executive Council approved the idea in July, and the CAS Board of Directors was given the first look at the proposed Web site during its meeting in September. The CAS Web Site was unveiled to the membership on September 30, 1996.

The benefits of a Web site have shown themselves repeatedly over the past 12 months. CAS members and candidates now have quicker access to more information than they had previously. For members, the Searchable Membership Directory has provided the most up-to-date listing of phone numbers, snail mail addresses, and E-mail addresses for Fellows and Associates. While the *Yearbook* and *Membership Information Update* are published once per year, the online Membership Directory is updated monthly.

Candidates benefit by having passing candidate numbers more accessible than ever before. Previously, pass lists were first available through the BBS, which allowed access to only two users at one time. Now with pass lists posted on the Web site, thousands of candidates worldwide have access to this information simultaneously.

Other examples of better access to more information include the Web site's Calendar of Events, which is updated frequently with the latest information about upcoming continuing education programs and other CAS activities, and the searchable Online Catalog that will contain all citations listed in the CAS *Bibliographies* and include their abstracts.

The next year will see advanced interactive applications on the CAS Web Site such as event registration forms and online publication ordering. The Committee on Online Services welcomes your suggestions as to how the Web site should be further developed. Send questions and feedback about the Web site to Mike Boa by E-mail at mboa@casact.org.

"Members Only" Section: A Quiet Club

CAS members are using the CAS Web Site increasingly since its inception a year ago. With more than one-third of CAS members registered for the "Members Only" section of the Web site, the CAS is encouraged by the growing number of members online.

Using the "Members Only" section, members can search an updated CAS Membership Directory or participate

in a Member Discussion Forum. Members can also complete an online change of address form and receive updates on CAS Committee activities, such as agendas and minutes.

Access to the Members Only section of the CAS Web Site requires a user name and password. CAS Members may choose their user name and password, both of which should be between 6 and 12 characters and are case sensitive.

CAS Members should send their selected username and password to Mike Boa at mboa@casact.org. The request may also be mailed to the CAS Office at 1100 North Glebe Road, #600, Arlington, VA 22201-4798, or faxed to (703) 276-3108. Those CAS Members who have previously submitted a request but have misplaced or forgotten their username and password should also contact Mike Boa. ■

AERF Sponsors Grants Competition

The Actuarial Education and Research Fund (AERF) is sponsoring the 1998 Individual Grants Competition. One or more grants will be available through AERF and its sponsoring organizations to support education or research projects. Funds may be used to compensate recipients, and/or to cover expenses for services used in carrying out projects.

Proposals for the grants competition must be submitted to the AERF office by December 1, 1997. Grant recipients will be announced by April 1, 1998.

Application forms for the proposals can be obtained by contacting Paulette Haberstroh at the AERF office by phone, (847) 706-3584, or by fax, (847) 706-3599. ■

CAS Continuing Education Calendar

March 12-13, 1998

Ratemaking Seminar
Chicago Hilton & Towers
Chicago, IL

April 23-24, 1998

Special Interest Seminar on Emerging Technologies
Fontainebleau Hilton
Miami Beach, FL

Non-Actuarial Pursuits of Casualty Actuaries

The Road Not Taken...For Health Reasons

by Brian Haney

I got a phone call the other day from an actuary who once pursued a career track that is what we in the insurance business like to call "rare." This Fellow (and fellow) was on the track for being a professional roller derby player. That's right—roller derby.

For those of you who don't remember, and for those of you who are too young to know about it, roller derby is a sport that used to be shown on Saturday mornings after the Ernest Angeley faith-healing televangelism show and before pro wrestling. Roller derby is played on a banked track by two opposing teams of people on roller skates (for the younger actuary-folk, roller skates are how we old-timers eluded dinosaurs before the invention of roller blades or bronze).

Points are scored when members of one team lap members of the other

team—referred to in derby-lingo as "jamming." Roller derby is full contact, as we Saturday morning devotees recall. Clobbering one's opponents is not only legal, but highly encouraged. In the roller-jargon, this is referred to as "blocking." In most courts, it's battery. It makes not only jamming a real challenge, but breathing and other low-level bodily functions as well.

Our Fellow actually trained in San Francisco, the roller derby capital of the world. The basic course, given at the Bay Bomber Roller Derby Training Center, was offered by the people who owned an entire roller derby league (one of only two then in exist-



Can you guess who our Rollerderby-hopeful-turned-actuary is?

ence), including all the teams in that league. It was THE official place to learn the sport. If one became proficient enough in the basic-course fundamentals, one proceeded to the advanced course to learn blocking. From there, players could join teams in the professional leagues if they could get a contract.

It was not as easy as it may sound. Our Fellow,

who made it to the advanced course, says that blocking people is incredibly difficult, not because it is hard to hit people, but because it is hard to hit people and remain upright. Also, roller skating on a banked track is tough, and

→ page 23

From the President

From page 1

among all those who seek a career applying math skills in a multidisciplinary environment. The recognition has led to relatively high levels of both status and income. On top of it all, they both tend to come fairly early in our careers. Not a bad result for folks described in the first insurance textbook I ever saw as "mathematicians with a kind of insanity so rare as to be valuable."

Perhaps even more important than the recognition and status is the fact that we have wonderfully complex and interesting problems on which to work. They are also usually problems with real meaning and impact. The profession is rewarding in almost every material dimension.

As we individually made our way through the ordeal of achieving actuarial credentials, each step was one of

personal accomplishment putting a permanent tally on our lifetime record. The ultimate proof of value of each of the individual steps lies among those we all know who ultimately did not choose the profession or who lacked the will to go further. They are often the ones who declare most loudly and with great pride how many exams they passed.

There seems to be but a single fly in the ointment. Once outside the insurance industry, we have almost no recognition in the general public and very little even among those who are aware of the profession. This is not helped by the difficulty we have in defining our profession nor is it helpful that many who achieve broader career success chose to ignore or hide their actuarial background. Why they do so is troubling and likely indicating some real problems with the image we carry today.

For some years the CAS has participated in Forecast 2000, a quite successful joint public relations effort among North American actuarial bodies aimed at raising the profile of the actuary among the media and policy makers. We are now exploring whether there is a need to actively mold the image of the actuary in the public's mind. Discussions are very preliminary. Our only clear conclusion so far is that we do not agree on what our image is, much less on what we might want it to be. Please share your thoughts with members of the Executive Council on whether this is an area worth pursuing.

So how does all this tie together? Only to confirm both the premise that this is indeed a great racket and the belief that, just like anything else, it can be made better.■

How DFA Can Help the Property/Casualty Industry, Part 4

by Susan T. Szkoda, FCAS

Editor's Note: This is the fourth in a series of articles on Dynamic Financial Analysis (DFA).

Reinsurance

One of the things we find when we talk to people about DFA is that while DFA is considered a "new concept" for primary insurers, DFA is already considered an established part of how business is done in the reinsurance industry. This is largely because reinsurers frequently deal with events that are low frequency but high severity. Therefore modeling a number of scenarios is the best way to illustrate the value of any given coverage to potential purchasers, and to compare and contrast the economic effects of possible reinsurance "solutions" for a potential client. Reinsurers are in the lead in terms of using DFA for pricing studies, marketing studies, and reserving studies.

Many reinsurers and brokers have become increasingly sophisticated and now use DFA-type modeling to actively evaluate the effect of proposed cessions from primary companies. DFA is also particularly useful in evaluating various finite risk reinsurance transactions.

If you are a primary insurer, how can you use DFA? Primary insurers can use DFA modeling to help develop an appropriate cession strategy that will maximize achievement of their reinsurance goals. This may involve modeling a variety of mixes of reinsurance coverages at various limits and retentions and with various loss-sensitive features in order to achieve an optimal program.

A second example of DFA use by primary companies is perhaps the best known—catastrophe modeling. When Hurricanes Hugo and Andrew hit and the Northridge Earthquake occurred, the industry realized that simulation, modeling and multiple stress test scenarios were the only reasonable ap-

Table 1

Loss Scenarios			
Strategies	No Claims	One Partial	One Total
Keep QS	\$100	\$50	\$0
Buy XOL	<u>\$200</u>	<u>(\$50)</u>	<u>\$100</u>
Improvement (4) - (1)	\$100	(\$100)	\$100

proach to get a handle on their true potential exposure. In fact, reinsurers who specialize in writing catastrophe covers rely on these types of DFA models for their very existence!

It's generally conceded that the industry is far more sophisticated today about managing its exposure to natural disasters than just five years ago. Much of the credit for this improvement has to go to the knowledge derived from this special subset of DFA models.

A third use of DFA models is to help primary companies deal realistically with the risk of uncollectible reinsurance. At the same time DFA can help reinsurers deal realistically with the potential financial stresses of failures occurring among primary company cedants.

Modeling reinsurance recoveries under mass torts is yet another important use of DFA. DFA is well-known to primary insurers as an accepted method for estimating various mass tort liabilities. It can be used to model potential reinsurance recoveries under a variety of scenarios.

Other specialized uses of DFA may involve modeling non-reinsurance alternatives such as CBOT Catastrophe Futures, lines of credit, catastrophe bonds and other derivative products.

Table 1 shows a simplified example of one traditional type of DFA analysis. An insurer considers the purchase of quota share (QS) or excess of loss (XOL) for a small low frequency, high severity book of business. This insurer

has decided that its key measure is profit-center underwriting gain.

The insurer can then see not only how often each reinsurance alternative is best, but when and why.

DFA modelers frequently need to do significant original research and development. Some areas requiring such research include:

- Catastrophe models for workers compensation.
- Tying together workers compensation and property loss occurrences.
- Tying together the effects of major natural catastrophes with significant movements in financial markets (e.g., stock market plunges and exchange rate declines related to the 1906 San Francisco earthquake and recent Kobe, Japan earthquake).
- Specialized reinsurance product features such as reinstatement provisions, sunrise and sunset provisions, ECO coverage, corridor deductibles, loss ratio caps, or MAOLs.

DFA model building is likely to spur a host of econometric-related insurance research that will prove beneficial in numerous areas.

As you can see, reinsurance provides a particularly rich area for DFA studies whether you are a primary carrier or reinsurer.

Paul J. Kneuer, FCAS of the Holborn Agency contributed to this article.■

International Accounting Standards for Insurance: A Work in Progress

by Bruce Moore

The International Accounting Standards Committee (IASC) is beginning work on developing standards for the insurance industry—a development that actuaries involved in financial reporting or international operations should follow.

International Accounting Standards (IAS) are developed by the IASC, a body similar in role and operations to the Financial Accounting Standards Board (FASB) in the U.S. and several similar bodies in other countries. The IASC has part-time board representatives from around the world specializing in accounting, industry, accounting education, and financial analysis.

The growth in recent years in corporate financing across borders has increased the importance of IAS. Companies seeking to raise capital in multiple national capital markets now potentially face the burden of preparing financial statements based on several different national accounting standards. To avoid the additional cost and inconvenience of this burden, there is a desire to have securities regulators around the world recognize generally accepted IAS for financial statements. There is also pressure from the financial analyst community to have more meaningful IAS.

This has led to a push to fill perceived gaps in the existing IAS, to provide a solid foundation for reporting results internationally. The current work on a new IAS pension standard is part of that process. The current target is for core standards generally applicable to all industries to be in place by Spring 1998. At that point there will be an effort to forge a general agreement among international securities regulators that these should be acceptable for foreign companies raising capital in the future. Securities regulators will undoubtedly retain the right to review each case going forward, but, it is hoped, with a strong inclination to accept IAS.

In addition to the standards generally acceptable to all industries, the IASC will be pursuing industry-specific standards, including standards for the insurance industry. Insurance has been given a high priority, but with the understanding that the IASC will not have time to devote to it until after the March 1998 target for the more broadly applicable standards. The current plan is to have IASC staff begin working on these standards now, with IASC consideration of them to begin some time in 1998 and final approval in early 1999.

The actuarial profession is organizing to participate in this process. The International Federation of Actuarial Associations (IFAA) has formed a subcommittee chaired by Sam Gutterman to respond to the IASC Committee on Insurance Principles. The American Academy of Actuaries has also formed a working group to support this review process, providing its input through the IFAA comment process.

In March 1997, the IASC released a discussion paper on "Accounting for Financial Assets and Financial Liabilities." The deadline for comments was July 1997. Intended to apply to insurance enterprises as well as other businesses, the discussion paper takes the position that "fair value" is the appropriate basis for valuing financial assets and liabilities, including insurance and reinsurance obligations. The paper concedes that further work needs to be done to determine how to apply those principles to insurance, reinsurance, and pension obligations, but asserts that those are the basic principles that should be followed.

The international standards are not intended to replace U.S. Generally Accepted Accounting Principles (GAAP) for U.S. companies. However, many U.S. actuaries work for subsidiaries of large foreign insurers that have shown interest in raising capital in U.S. markets—some companies have even converted to U.S. GAAP for that purpose.

This development will be especially of interest for these companies.

Further, to the extent that the IASC develops standards for insurance significantly different from U.S. GAAP, this will create an uneven playing field in the capital markets and ultimately in the insurance markets. In turn, the development of these standards may well lead to pressure on the FASB to reconsider its insurance standards. Consequently, this process could have important implications for all financial reporting actuaries. ■

In Memoriam

Robert D. Bart, Sr.

(FCAS 1942)

August 6, 1997

Douglas Critchley

(FCAS 1952)

January 1997

Harold E. Curry

(FCAS 1953)

March 2, 1996

Richard C. Ernst

(FCAS 1978)

September 17, 1997

Alfred V. Fairbanks

(FCAS 1955)

June 30, 1997

Daniel J. Lyons

(FCAS 1936)

July 3, 1997

Earl H. Nicholson

(ACAS 1926)

Byron Wright

(FCAS 1958)

November 7, 1996

The Ethical Issues Forum: A Case For The ABCD?

Editor's Note: This article is part of a series written by members of the CAS Committee on Professionalism Education (COPE) and the Actuarial Board for Counseling and Discipline (ABCD). The opinions expressed by readers and authors are for discussion purposes only and should not be used to prejudge the disposition of any actual case or modify published professional standards as they may apply in real life situations.

A Case For The ABCD?

ABCD Board member Mae Day, FCAS, MAAA, noticed an article in the *Small Street Journal* under the headline, "Actuary to Blame Says Commissioner Presume." Upon reading the article, Day learned that Insurance Commissioner Livingston I. Presume of the state of Confusion held a press conference to announce that the insolvency of the Adequate Casualty Company might have been averted if its actuary Phil Harmonic had not understated reserves for the last two years. The commissioner asserted that this prevented the detection of a weak financial condition that could have been corrected by remedial regulatory action.

Furthermore, according to the commissioner, Harmonic had experienced a financial gain by understating reserves under the company's profit sharing plan.

Day checked the Directory of Actuarial Memberships and found that Harmonic was both a FCAS and a MAAA.

What should Day do if...

- No complaint is received from an actuary, a policyholder or a regulator?
- A copy of the article is received in the mail and the sender states that it is not a "complaint" but merely "information" for the ABCD?
- A "complaint" is received but the complainant requests anonymity?
- The commissioner files a formal complaint with the ABCD at the

same time that a formal suit is filed on behalf of the policyholders?

- Another actuary sends a copy of the article and requests ABCD action "for the good of the profession?"
- A policyholder requests that the ABCD take action against Harmonic?

Your comments are requested and will be included in a summary of responses to be published in the next issue of the *AR*. You may send them by letter to the *AR* at the CAS Office, by E-mail to actuaryjoe@aol.com or by fax to (715) 845-0935. Your name won't be used unless you specifically request it.

The Minnie Vann/Lance Boyle Case

The case in the last issue dealt with a company actuary, Minnie Vann, who was told by a department actuary, Lance Boyle, that a rate filing would be approved for an amount less than that originally requested and then only if Vann would rewrite her actuarial analysis using factors that Boyle would provide.

A reader points out that none or a variety of violations may be involved depending on the scenario.

Scenario 1 would be the acceptance by Vann to amend the filing since the conclusion and factors supplied by Boyle were accompanied and derived by accepted actuarial principles and standards. The only requirement in such a situation would be for Vann to state that the amendment was due to the reliance upon another as required by Annotation 5-2.

Scenario 2 would be Vann agreeing to amend the filing, but Boyle cannot or will not supply actuarial verification or derivation of such factors. Again Vann has the obligation of disclosure. As for Boyle, he may have violated Precepts 1 and 2 (professional integrity) depending on whether factors were the product of actuarial science or political science, Precept 4 (standards of practice), Precept 5 (disclosure), Precept 8 (conflict of inter-

est) if the factors were politically derived as the reader considers both the public and the insurance company to be clients of a department actuary, Pre-

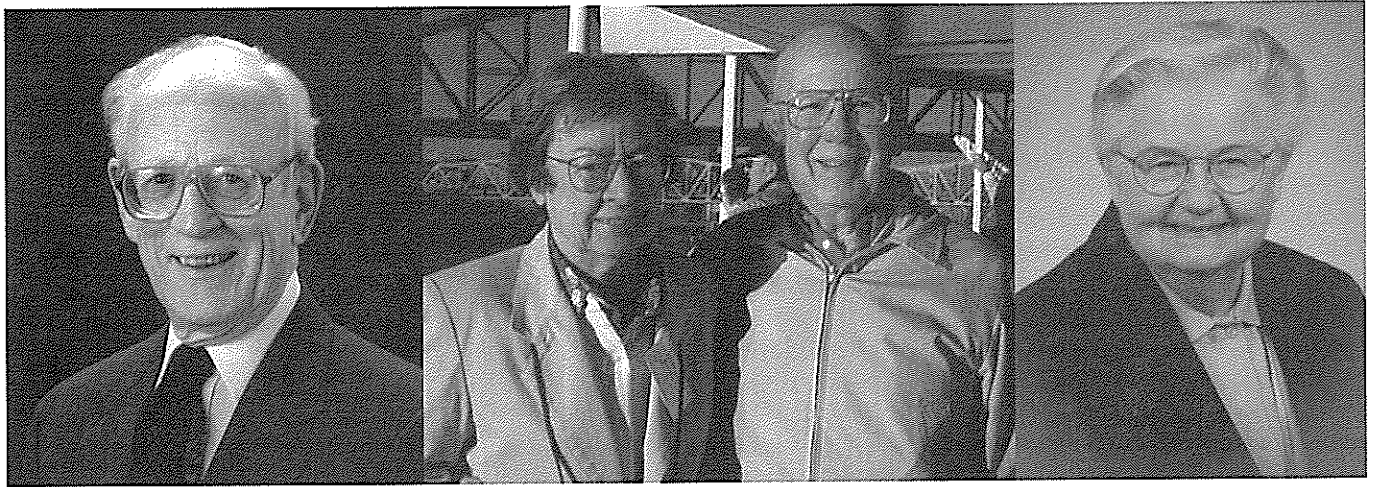
"...questions of confidentiality of information or legality of disclosure are legal questions that depend on the circumstances."

cept 9 (control of work product) if factors were derived on an unsupported basis to "low ball" the rates to the point that they may be misleading or to evade the rate standards stated in the law. In any case, the reader goes on to say that the standard on documentation clearly was breached.

Under scenario 3, Vann rejects Boyle's offer and withdraws the filing. Boyle still has to meet criteria under scenario 2 if the factors were not supported or derived or if he refuses to release actuarial documentation (Standard of Practice No. 9).

Finally, under scenario 4, Vann rejects Boyle's offer and challenges his finding either through court, administrative hearing or arbitration. In such a case, Standard of Practice No. 17 (expert witnesses) may come into play and perhaps Precept 11 (courtesy and cooperation) as well as the precepts enumerated under the first three scenarios.

To this we might add that Vann would have the responsibility under Precept 14 (collateral obligations) to either report any material violation of the Code of Conduct by Boyle to the ABCD or take alternative action as prescribed under Annotation 14-2 to resolve the apparent violation. ■



1947 Fellows (left to right) John Rowell, John W. (Bill) Weider, Jr. with his wife Jane, and Ruth Salzmann.

Class of '47

From page 3

cago area. John is still very active, working 10-12 hours per day operating an insurance brokerage firm with his son in Glencoe, Illinois. They work with personal clients in the field of retirement planning. John's outside activities include fishing and a senior citizens' bridge club.

Our salute to John Rowell has some explanation,

We toast a person of
discrimination.
(The Rowells don't speak to the
Babbitts, we guess,
And the Babbitts know nothing of
God)—we digress—
John's talents are employed by
Marlennan these days,
As a man in the middle he earns
our *oles*.

Ruth Salzmann became CAS President in 1978, the first woman president of an American actuarial so-

ciety, including the Society of Actuaries. At the time of her Fellowship she was in the Hardware Mutual Casualty of Wisconsin (now the Sentry). She later became one of the famous actuarial team under Laurence Longley-Cook at the Insurance Company of North America, and later moved back to the Sentry, in Stevens Point, Wisconsin. Ruth is enjoying retirement in Wisconsin, including the winter season. She recently completed a paper on "Allocated Loss Adjusting Expense" (see the 1996 *Proceedings*). As a bit of advice from the elder generation, Ruth suggests that allocated loss adjusting expense is the most underreserved area in the statement! Still doing some consulting, Ruth serves on two boards of directors and plays tennis regularly.

Now a toast and a curtsy to
Salzmann, Ruth.
Long before women's lib we had
Ruth—and forsooth,
Her colleagues can't fault her
financial endeavor,
Nor beat her in tennis or golf or
whatever.

Dunbar Uthoff was active in all kinds of CAS activities. He also came to the CAS from New York, but went soon to the Employers Insurance Company of Wausau, Wisconsin (now it's the Wausau Company). The *Actuarial Review* was unable to catch up with Dunbar for a personal report on his

→ page 19

Class of 1922-1947 Fellows

1922	Clarence S. Coates	1941	Morris B. Kole
1924	Harold J. Ginsburgh		Stefan Peters
1927	Evelyn M. Davis	1942	Robert D. Bart
	Norton E. Masterson	1947	Edward S. Allen
1928	William H. Burling		Loring M. Barker
1929	James M. Cahill		M. Stanley Hughey
	Albert Z. Skolding		Matthew Rodermund
1931	Elgin R. Batho		Norman Rosenburg
	Herbert E. Wittick		John. H. Rowell,
1935	Gilbert W. Fitzhugh		Ruth E. Salzmann
	Matthew H. McConnell		Dunbar R. Uthoff
	Harry V. Williams		John W. Wieder, Jr.
1936	Daniel J. Lyons	1950	Frank Harwayne
1938	Elsie Ruchlis		William J. Hazam
1939	Harold M. Jones		Francis J. Hope
1940	George B. Elliott		William Leslie, Jr.
	Jarvis Farley		George C. Munterich

This listing illustrates how large the class of 1947 was compared to other classes.

Class of '47

From page 18

current activities. However, his friends tell us that he is fully retired and living in Lees Summit, Missouri, a suburb of Kansas City.

The trouble with Uhthoff is finding a rhyme,
But "Hats off to Uhthoff!" is right any time.

He talks actuarial, but Dunbar's disarming
His mission to Wausau was really for farming.

John W. (Bill) Wieder, Jr. was general chairman of the CAS Examination Committee from 1952 through 1956. He spent his business life at the Aetna, and now lives in Glastonbury, Connecticut. Bill has been active since his retirement in 1981 serving several years as administrator for a large church and as treasurer for Habitat for Humanity. More recently his time has been taken up with Elder Hostels, cruises, and bridge.

We drink to John Wieder, or shall we say Bill?

Just five years a Fellow, they noted his skill,

He was chosen to manage our examinations—

And may have got his bald pate from the great aggravations.

I was editor of the *Proceedings* and *Yearbook* from 1965 through 1969, and became the first editor of the *Actuarial Review* in 1974. I held the editorship job through 1989, although I had retired from the Munich American Reinsurance Company, New York, in 1981. I came to the CAS from New York and now live in Medford, New Jersey.

Last on the list is **Rodermund, Matt.**

It's been said here and there that he strains at a gnat

In trying to prove, that from cradle to coffin

All actuaries are funny, but not very often.

The 25th reunion ended on this:

Let's drink now to all of us, our brains and our charm,
May the saints who watch actuaries preserve us from harm.

If the next quarter century is kind to us all,

We'll do this again—but with less alcohol!

And for eight of us, the saints have watched, but we won't be able to get together. It was a good group, and we've been lucky. ■



1947 Fellow Matthew Rodermund

Other Memorable Events of 1947

- The House Un-American Activities Committee blacklists over 300 actors, directors and writers for involvement, or alleged involvement, in communist activities.
- *Gentleman's Agreement* wins the Academy Award for Best Picture, Ronald Coleman wins for best actor in *A Double Life*, and Loretta Young wins best actress for *The Farmer's Daughter*.
- Forty-two members of the CAS (1.4 percent) are born in 1947; 1,952 CAS members (67 percent) are born after 1947.
- President Truman proposes his Truman Doctrine, the first organized attempt by the United States to contain communist expansion.
- In the first-ever televised presidential speech to the nation, President Truman discusses the world food crisis.
- Jackie Robinson becomes the first African-American in the modern era to play major league baseball.
- The Brooklyn Dodgers play against the New York Yankees in the first World Series to be broadcast on television.
- U.S. Air Force Capt. Chuck Yeager becomes the first person to break the sound barrier.
- Pan American is the first airline to offer round-the-world service: the fare is \$1,700.
- Reddi-Wip whipped cream goes on the market.
- Norwegian anthropologist Thor Heyerdahl travels for 101 days across more than 4,000 miles of the Pacific Ocean on his balsa raft *Kon-Tiki*.
- James Michener publishes his novel *Tales of the South Pacific*.
- Secretary of State George Marshall proposes a plan (dubbed the Marshall Plan) for European economic recovery.
- Princess Elizabeth of England weds Lt. Philip Mountbatten.
- *Howdy Doody*, *Meet the Press*, and *Kraft Television Theatre* debut.
- India gains independence from Great Britain and is divided into two dominions. Jawaharlal Nehru becomes the first prime minister of Hindu India and Muhammad Ali Jinnah becomes president of Muslim Pakistan.
- The army, navy, and air force are united as the National Military Establishment. The National Security Council and the Central Intelligence Agency are created. ■

AR Readers Give Newsletter "Thumbs Up"

On the whole, *Actuarial Review* readers are pleased with content of the newsletter, according to the results of a readership survey conducted earlier this year. AR readers gave the newsletter high marks for format and timeliness and a majority of readers said they would change "very little" or "nothing" about the newsletter. In questionnaire comments, several respondents described the newsletter as "casual and informal" with articles that are "timely, concise and clearly written."

The AR Editors and the CAS Staff Editor developed the questionnaire to determine readers' opinions about the current mix of news and features in the newsletter. Approximately 7,500 copies were mailed with the February 1997 issue of the AR. The questionnaires were sent to all CAS Fellows, Associates, Academic Correspondents, Invitational Program Subscribers, International Exchange Program members, and Candidates who had registered for an examination within the

all respondents, nearly half reported that they worked for property/liability insurance companies, a percentage consistent with the total CAS membership. Almost nine in ten were located in the United States. Of the re-

"A major challenge has been to recruit new volunteers to submit articles."

maining 10 percent, about 5 percent reside in Canada and about 5 percent live outside North America. More than one-third of all respondents were Fellows for more than 10 years, while almost a quarter were Fellows for less than 10 years.

In the survey, respondents were asked to rank the newsletter's regular features by citing how often they read them. The front page story topped the list of newsletter features read most often with almost nine out of ten reporting that they usually read it. "From the Readers" was the second most popular with one-third reporting that they always read the feature. "From the President," "Editorial," and "Actuarial Sightings" rounded out the top five most popular features. Two-thirds reported that they read "all" or "most" of the AR.

Survey respondents were pleased with the newsletter's general content, and in the survey's comment section they offered suggestions for articles. More than nine in ten respondents reported that they liked the newsletter's occasional articles on topics such as Proposition 103, loss reserve opinions, hurricanes, earthquakes, and tornadoes. Respondents commented that they liked to read "updates on what people are doing" and to see "news and

pictures about 'the CAS family.'" Readers were also very interested in learning about current issues, such as reserve opinion requirements, and DFA and ABCD topics, as well "public exposure" of actuaries and future plans for the actuarial profession.

Not all respondents were completely satisfied with the state of the newsletter, however. Some readers complained that the same contributors were used issue after issue. "Volunteering to work on the AR is a great way to remedy this complaint," said Walt Wright, AR managing editor. "A major challenge has been to recruit new volunteers to submit articles," Wright continued. AR editors have contacted respondents who had indicated that they were interested in working on the newsletter. Any member who is interested in writing an occasional article or book review, submitting cartoons, or contributing to "Brainstorms" should contact the CAS Office at (703) 276-3100.

In addition to increasing volunteer involvement, the AR staff is working to incorporate some of the survey's suggestions into future issues of the AR. "We are always open to new ways to improve the content and design of the newsletter," said Wright. "The *Actuarial Review* is for the members and by the members," said Wright. "The AR staff is committed to providing what our readers want." ■

AR Readers' Top Five Favorites

1. Front Page Story
2. "From the Readers"
3. "From the President"
4. "Editorial"
5. "Actuarial Sightings"

past two years. As of April 16, 1997, the CAS Office had received 286 (4.0 percent of the total mailed) responses; all were included in the final analysis.

The respondents represented the overall make up of CAS members. Of

For more information on becoming an AR contributor, contact the CAS Office at (703) 276-9649 or send an E-mail to casact.org.

Feedback on the "Report of the CAS Task Force on Education"

by John J. Kollar, FCAS
Chairperson, CAS Task Force on Education

The CAS Task Force on Education would like to thank the members and students for the substantial amount of valuable input on the "Report of the CAS Task Force on Education" (June 1997). This feedback led to the changes that were announced in Kevin B. Thompson's letter of July 30, 1997. Rather than provide individual written responses to this feedback, the task force would like to communicate the most frequently raised issues to the membership at large.

Many respondents applauded the new syllabus as a substantial improvement over the current syllabus, particularly with regard to the organization of subject matter.

The area of the report that generated the most comments was the transition rules with new Exam 2 having the most frequently discussed transition rules. As new Exam 2 will be jointly administered with the SOA, the CAS and the SOA wanted to have reciprocating recognition of each Society's transition rules. If the CAS does not accept the SOA transition (conversion) rule for new Exam 2, college students who succeed at the SOA approach to new Exam 2 before 2000 may reject a casualty career rather than requalify for new CAS Exam 2. [The SOA transition (conversion) rule for new Exam 2 requires the candidate to pass Course 140 or 141 and also have 20 unassigned credits, which can be achieved by passing Parts 1 and 2. At the request of the CAS, the SOA explored alternatives to this transition rule but could not come up with a better solution.]

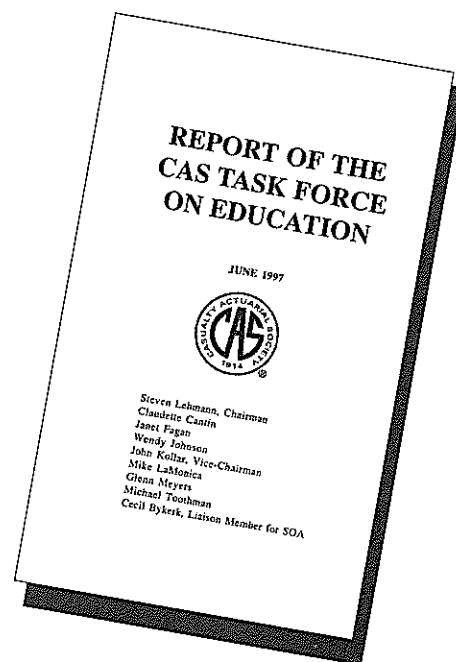
Many CAS students remarked that the SOA route might be an easier way to obtain credit for the new Exam 2. While the Task Force recognized this possibility, the interest in it far surpassed the Task Force's expectations. This led the Task Force to recommend

a new option for obtaining credit for new Exam 2—Parts 1, 2, and 5B. The Task Force felt strongly that it would be better for CAS students to take Part 5B than SOA Course 140 because 5B covers the important subject of finance. Also, new Exam 8 covers investments and will require an understanding of finance.

The SOA currently has a waiver policy that gives credit for course 140 for students who passed Part 4A. As a result of discussions between the CAS and the SOA, this waiver policy will not apply for students who pass Part 4A subsequent to July 1, 1997 as it relates to conversion (transition) on January 1, 2000.

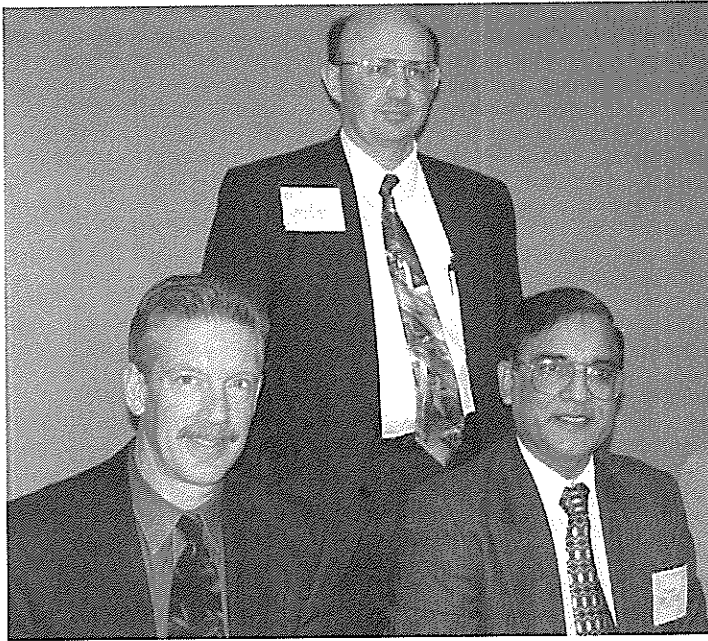
Some respondents questioned the applicability of Part 3C material to new Exam 4. A student will receive credit for the new Exam 4 for passing Parts 4B and 3C, or alternatively Parts 4B and 5A. While the 3C material is not covered on the new Exam 4 and will be dropped from the new syllabus entirely, the Task Force decided to give transition credit for this option under the new syllabus provided that Part 3C is passed by the November 1997 exam. The Task Force wanted to encourage students to study economics rather than numerical methods. Students who expect to receive their associateship before the new syllabus is introduced in 2000 will have to pass Part 3C.

Some have recommended additional lead time, a period of joint administration of current and new exams, a partitioning of new exams, and/or increased frequency of administration of Parts 6-10. The CAS is providing more lead time than for past restructurings. Parts 1 and 2 will be given seven times each before implementation of the new structure. The sub-parts of Parts 3, 4, and 5 will be given five times each. Parts 7 and 9 will be given three times



each and Parts 6, 8, and 10 each will be given two times each before implementation of the new structure. Increasing the frequency of the current exams would put a tremendous burden on the Examination Committee and the CAS Office. The same would be true about giving the current exams after the implementation of the new exams in 2000. During the next couple of years the Examination Committee and the Syllabus Committee will be working on the development of the new syllabus and eventually the new examinations for the year 2000. This in itself will place a substantial burden on these committees.

In developing its recommendations, the Task Force recognized that a perfect solution was not possible. For example, priorities were assigned to certain subjects recognizing that some students might become Fellows without being exposed to every subject on the new syllabus. Others may be tested twice on the same subject on a current exam and a new exam. The same, of course, was true in past exam restructurings. ■



Thomas V. Warthen, III (front, left) and Prakash Narayan (front, right) were awarded the CLRS Prize. Alfred O. Weller (back) moderated the CLRS session in which the prize-winning paper was presented.

Narayan and Warthen Win CLRS Prize

ATLANTA, Ga.—Prakash Narayan, PhD, ACAS, and Thomas V. Warthen, III, FCAS, were awarded \$1,000 for their paper entitled, "A Comparative Study of the Performance of Loss Reserving Methods Through Simulation." Stuart B. Suchoff, CAS Committee on Reserves chairperson, presented the award to Narayan and Warthen at the Casualty Loss Reserve Seminar held in Atlanta on September 29-30.

In their paper, the authors used a Monte Carlo simulation method to compare loss reserve estimation methods, including traditional methods, and regression-based methods of loss reserving.

The prize-winning paper was one of eight papers submitted to the Call Paper Program by the CAS Committee on Reserves. A review team judged the papers based on originality of

ideas, clarity of presentation, contribution to the literature on loss reserving, and thoroughness of analysis.

Both Narayan and Warthen work for RLI Insurance Company in Peoria, Illinois where Narayan is an actuary and Warthen is vice president, actuarial services.

Narayan and Warthen's paper was published in the *CAS Forum*, Summer 1997 edition, Volume 1. ■

Faculty Positions Available

Drake University

An Actuarial Science teaching opening at Drake University is available beginning August 1998. For more information, contact Stuart Klugman at Stuart.Klugman@Drake.edu or (515) 271-4097.

Drake University is an equal opportunity/affirmative action employer and actively seeks applications from women and minority group members who are qualified for this position.

University of Waterloo

The Department of Statistics and

Actuarial Science has two open faculty positions available:

Assistant or Associate Professor.

Applications are invited for a tenure-track or three-year definite term position in Actuarial Science. The appointment is effective July 1, 1998 or later. The closing date for applications is January 31, 1998.

Visiting Appointment in Actuarial Science. Applications are invited for an appointment up to one year, to begin May 1, 1998 or later. The closing date for applications is December 31, 1997.

For more information on either position, contact Professor M. E. Thompson, Chair, Department of Statistics and Actuarial Science, University of Waterloo, Waterloo, Ontario Canada N2L 3G1.

In accordance with Canadian immigration requirements, these positions are directed to Canadian citizens and permanent residents. The University encourages applications from all qualified individuals including women, members of visible minorities, native peoples, and persons with disabilities. ■

Observations From Down Under

by David G. Hartman

In August I had the privilege of representing the Casualty Actuarial Society at the International Forum of Actuarial Associations (IFAA) Committee meeting in Australia. Prior to the IFAA meeting, I was able to attend the ASTIN and AFIR meetings, also in Australia, and afterwards a portion of the Institute of Actuaries of Australia Centenary meeting. Listed below is a collection of observations made during the ten days.

Collegiality—Actuaries from 32 countries attended either the ASTIN or the AFIR or both meetings. Leaders of actuarial associations from 22 nations participated in the international dinner hosted by the Institute of Actuaries in Australia. Even though we came from all corners of the globe and represented all sorts of practice areas, the various actuaries were collegial in their dealings with one another with a free exchange of ideas.

Colloquia—This was the first time ever that ASTIN and AFIR held their Colloquia back-to-back. These two sections of the International Actuarial Association also plan to meet back-to-back in August 1999 in Japan. **Jim Stanard**, FCAS, retired as the chairperson of ASTIN and was replaced by Edward Levay of Israel. Jim Tilley, FSA of the U.S., is the new chairperson of AFIR.

Convergence—This was the first time a joint day meeting of ASTIN and AFIR was ever held. However, due to the convergence of many of the concepts in general insurance and in finance, it was a natural development. For example, one of the major topics of the joint day was the securitization of catastrophe risks.

Commendation—More than ten years ago the Institute of Actuaries of Australia (IAA) initiated a recognition program for outstanding work done by one or more of its members. They awarded two silver medals in 1988, and none before or since, until this August. Gregory C. Taylor, recipient of the CAS Hachemeister Prize one year ago, was awarded a gold medal by the IAA "in recognition of his outstanding contributions, nationally and internationally, to the theory and practice of actuarial science, and for his unsurpassed dedication to his chosen profession."

Centenary—This meeting marked the 100th anniversary of the founding of the IAA. It was commemorated with much celebration and the presentation of gifts to the IAA from more than twenty actuarial associations from around the world. **Robert A. Anker** presented the gift from the CAS and **Allan M. Kaufman** presented the gift from the Academy.

Change—At the IFAA Committee meeting there was a major change discussed regarding the structure of the International Actuarial Association, which is considering adopting the structure of the IFAA by shifting from an organization of individual actuaries to an association of associations. The theme of the IAA meeting was "Shaping the Next Century" and the meeting certainly highlighted change. The Australians have taken a lead role in revising their educational system by introducing what they call the "actuarial control cycle." It has been the basis of their educational process for the last couple of years and has worked quite well so far. Change is a common theme throughout the worldwide actuarial profession.

Continuum—At the IFAA, Chris Daykin of the UK passed the gavel as chairperson to Walt Rugland of the U.S. Jean Berthon of France is the new vice chairperson.

Missing from the list above is conflict. Internationally speaking, our profession is working together quite well.

Thanks for the opportunity for me to mingle with the leaders of our profession worldwide down under as a representative of the CAS. G'day mate! ■

Nonactuarial Pursuits

From page 14

roller skates don't have brakes. To stop, a skater must drag one skate perpendicular to the other, as is done in roller blading (unless you're me, in which case the preferred method is to run into an immovable object).

Here are some interesting roller derby facts that I learned from our Fellow:

- Roller derby is definitely real. The competitors are trying to win and some of the players really get injured. There is some scripting, and there are "good guy" and "bad guy"

teams like in Harlem Globetrotters' games.

- At least four movies have featured roller derby: *Fireball*, with Mickey Rooney; *Kansas City Bomber*, starring Raquel Welch; *Roller Ball*, in which James Caan plays a game very similar to roller derby; and *Derby*, a documentary.
- At the height of its popularity in the 70s, roller derby attracted more spectators in the San Francisco Bay area than any other sport except baseball.
- Roller derby players were paid as much as \$30,000 a year; the pay was similar to that of minor league base-

ball players.

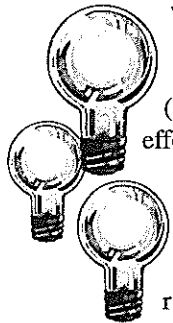
Our Fellow, of course, eventually gave up his dreams of roller derby stardom and instead pursued an actuarial career (and enjoyed substantially less risk of personal injury).

If you want to know more about roller derby, you should ask the CAS's erstwhile roller derby hopeful, Jerry Tuttle, yourself. But if he invites you to go skating, wear your helmet and stay out of his way! ■



Light Bulbs and More Unsolved Problems in Number Theory

by John P. Robertson



A room has three light switches, each of which controls one of three lights in another room. You want to determine which switch controls which light bulb. You cannot see (or otherwise detect) any effect of the lights from the room where the switches are located. You want to go once from the room with the switches to the room with the lights and determine which switch controls which light; you do not want to go back and forth between the rooms. These are normal up/down wall switches (no dimmers) and normal incandescent bulbs (not three-way bulbs for instance). You know that the up position turns the lights on and the down position turns the lights off. How do you determine which switch controls which light? Extra credit: how do you do it if you don't know whether up is on or off, but you know that it's the same for all three switches.

Unsolved Problems in Number Theory

The first problem posed by Gary Venter was to investigate sequences of consecutive integers such that each can be written as a product of two-digit integers. Edwin Jordan found several sequences of length six, starting with 779, 1022, 1271, and 3476. He and Brian Donlan found a sequence of length 8, beginning with 4895. Note that 4901 is $13 \times 13 \times 29$, a product of three two-digit numbers. I think that this sequence of length eight might very well be the longest possible such sequence. There are theorems on the density of integers with only "small" prime factors, say primes less than 100, which show that the probability that larger and larger integers have only small prime factors declines very

rapidly. Assuming statistical independence of such divisibility, one obtains a probabilistic argument against the existence of sequences longer than eight.

Mark Yasuda sent in some interesting comments on Gary's second problem, which was to investigate ns such that $(n+i)/i$ is a prime for i from 1 to k , for k as large as possible. After a short search he found $n=19,440$, which yields prime $(n+i)/i$ for i from 1 to 5. He noted that if there are n associated with arbitrarily large k then:

1. For arbitrarily large positive integers r and arbitrary primes p there is an M so that Mp^i+1 is prime for all i from 1 to r .
2. For any finite set $\{p_j, r_j\}_{j=1..m}$ of primes and powers, there is an M so that $Mp_1^{i_1} p_2^{i_2} \dots p_m^{i_m} + 1$ is prime for any $0 \leq i_j \leq r_j$.

For proof, note that (1) is a special case of (2). To prove (2), let $k = p_1^{i_1} p_2^{i_2} \dots p_m^{i_m}$, and find the corresponding n . Then k divides n , so M can be taken to be n/k . Each of the numbers in (2) is $n/i+1$ for some $1 \leq i \leq n$. It is not hard to generalize this proof to show that under the conditions stated, there are infinitely many M s satisfying the conclusions. In the 1800s, Dirichlet proved that if a and b are relatively prime positive integers (i.e., a and b have no common factor greater than 1), then the sequence $a, a+b, a+2b, a+3b, \dots$ contains infinitely many primes. Mark noted that (1) implies Dirichlet's theorem for $a=1$ and $b=p^k$ for any prime p and any positive integer k . In fact, (1) implies a result somewhat stronger than Dirichlet's theorem. This leads him to be skeptical as to whether there are n associated with arbitrarily large k .

Gerry Myerson informs me that for any given k , this problem is a special case of a conjecture known as

Schinzel's Hypothesis H. This hypothesis essentially states that if you have a finite collection of polynomials in one variable x with integer coefficients, and if there is no obvious reason (in a well-defined sense) why there can't be a value of x that makes them all prime, then there are infinitely many values of x that do make them all prime. In the case $k=5$, a set of polynomials is $60x+1, 30x+1, 20x+1, 15x+1$, and $12x+1$. For general k , let m be the least common multiple of 1, 2, ..., k , (or any multiple of this) and use the polynomials $mx+1, (m/2)x+1, \dots, (m/k)x+1$. Apparently, the majority of the number theory community believes that Hypothesis H is true. If it is true, it would be a very deep theorem.

Stephen Mildenhall found $n = 51,755,760$ and $n = 175,472,640$ for $k = 7$. He notes that for any k , if m is as above, then by Dirichlet's theorem each of the arithmetic progressions $mx+1, (m/2)x+1, (m/3)x+1, \dots, (m/k)x+1$, as x varies from 1 to infinity, will contain infinitely many primes. Stephen comments that if statistical independence of the appearance of primes in the sequences holds, then there will be infinitely many x s such that all of the polynomials are prime simultaneously. This seems likely, but difficult to prove.

For $n = 2,394,196,081,200$, $(n+i)/i$ is a prime for i from 1 to 10. Can anyone do better? Any other thoughts on these problems? I will consider printing any comments anyone has on either of these problems, or any other Puzzlements, at any time in the future.

Solutions should be mailed or E-mailed to the CAS Office at casact.org. Solutions can also be E-mailed to me at jpr2718@aol.com. Attachments should be in MicroSoft Word or Excel only, please. ■