



The Newsletter of the Society of Actuaries

VOL. 25, NO. 6
JUNE 1991

THE Actuary

Journey of a retired actuary

by R. B. Leckie

This issue of *The Actuary* contains several personal career stories. The purpose is to illustrate the job possibilities and to inspire recent entrants to the profession. Unfortunately, your editor failed to request a contribution from the quintessential specialty – retirement.

This short article will have to suffice. Retirement often is seen as either a reward for faithful service or as a repository for useless beings. Part of the work of our profession is to help provide the means to ensure the former. In any case, retirement can be, and should be, much more. Retirement is the time to realize those goals not met during our working lifetime and to achieve unfulfilled dreams.

As the editor for this issue, I asked my successor at Manulife Financial to talk about his job. That way I could see, expressed through another, all the reasons I loved my working career spanning 35 years with one company. In addition, I was honored by my profession by being elected to serve as president of two of our organizations, the Society of Actuaries and the Canadian Institute of Actuaries.

There was never a doubt in my mind, however, that I would retire at the first opportunity – not to complete idleness (although that has merits), but to the freedom of personal choice – to do what I wish to do when I want to do it, freed from the needs of my employer and personal employment responsibilities, and secure with an adequate pension.

So what do I do? I have assisted my former company, and I continue

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Expanding roles and opportunities

by Robert D. Shapiro

More than three years have passed since the Society of Actuaries' Board of Governors adopted the report of the original Actuary of the Future Task Force. The following definitions of "mission" and "intellectual core" for the actuarial profession were central to the report:

- **Mission:** To be, and to be perceived as being, the financial architects and potential managers of enterprises, both private and public, that are built on the intellectual core of the actuarial profession.
- **Intellectual core:** The application of experience analysis and risk evaluation to measure, communicate, and respond to the current financial implications of future contingent events.

The work that actuaries have done in the past and the work they

are doing today fits within these definitions. However, they suggest employers and activities well beyond the boundaries of traditional actuarial work.

1990-91 charge of the Actuary of the Future Task Force

The Actuary of the Future Task Force was formed when the SOA Board adopted the 1987 report. The task force's overall charge has been to work with appropriate Society committees and task forces to develop action plans and, in coordination with other bodies, to prepare members, students, and the actuarial profession for the future roles of the actuary.

The major emphasis of this task force for 1990-91 is:

- To identify and prioritize appropriate nontraditional businesses and roles for Society members

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Expanding roles cont'd

- To develop a plan for informing and educating targeted nontraditional employers about the value of actuarial expertise
- To motivate those employers to use actuaries in the identified roles

We want to look ahead five or ten years and identify future businesses, functions, and emerging issues that will need actuaries' skills and experience. We are looking for areas where clear marketplace needs for actuaries exist. We also want to identify and strengthen those areas where we already are or can be uniquely qualified.

This 1990-91 effort of the Actuary of the Future Task Force is important and difficult. Unlike many other Society activities, its focus is external, concentrating on new employers, new roles, and emerging issues. Because of the impending need to communicate effectively with targeted nontraditional employers, the task force works closely with both Career Encouragement and Public Relations committees.

Activities

For the past few months, the task force has tried to develop information on potential future nontraditional opportunities. For example, at the Society's 1990 annual meeting, the task force sponsored five "Focus 2000" sessions, in which we examined the expected environment and potential opportunities for actuaries in the year 2000 in the insurance business, employee benefits, reinsurance, and nontraditional areas of practice. We asked individuals attending these sessions to complete a survey, and we received more than 300 responses.

The task force also has implemented three other sampling surveys. First, we interviewed actuaries in the 1991 Society Yearbook with nontraditional employers. Second, we are now surveying actuarial employers on the roles and demand for actuaries. Third, we contacted actuaries working in other countries to discuss the types of nontraditional work being done there.

The task force also identified and evaluated nontraditional opportunities evolving in several industries. These include insurance, healthcare, broader financial services, other industries, consulting operations, government, academia, and the international scene.

The preliminary hypothesis

Based on the surveys and our own analyses, the task force developed an

initial hypothesis about high potential nontraditional employers and high potential new roles.

We identified the following high potential nontraditional employers:

- Hospitals, HMOs and PPOs
- Banks
- Investment banks
- Universities (financial and general management of university and endowments)
- Utilities
- Foundations
- Consumer groups
- Retailers
- Industrials
- Government (planning, budgeting)
- Transportation (airlines, etc.)

We identified the following high potential new roles:

- Insurance company product line management
- Insurance company CFO, treasurer, controller
- Insurance company strategic and marketing planning
- Financial and general management in healthcare organizations (hospitals, PPOs, HMOs)
- Public policy influencer in healthcare, taxation, environment, population
- Warrantee and guarantee development and management
- Regulation and rating
- CFO or pricer in any industry
- Systems, software, and modeling

We also have identified major emerging issues, such as long-term care and the war on drugs, as areas where actuaries could play a major shaping role.

We hope this initial hypothesis will provide a starting point for each of you to develop your own ideas. We ask for your thoughts, comments, and help as we proceed.

This issue of *The Actuary* contains a short survey. Please take the time (about 10 minutes) to complete it and **return it to the address indicated by June 30, 1991**. Before we complete our task force plans, priorities, and future activities, we need the benefit of your thoughts.

Once we receive your input, we will finalize our approach to establish and target specific nontraditional opportunity areas. Then we can finish

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Editorial

The actuarial career: boom or bust?

by R. B. Leckie

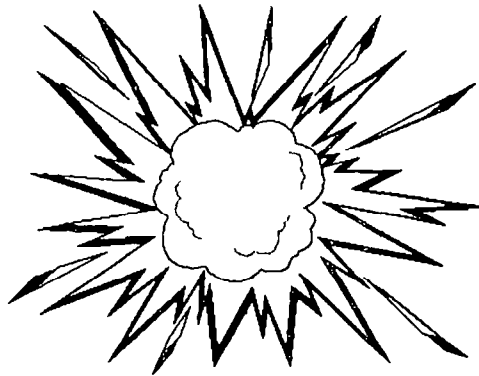
As an essentially retired actuary, I can ask the question of whether the actuarial career is a "boom" or a "bust" with some detachment. With that same detachment I also can answer, "Boom." Not boom with a bang or a bomb; but boom for an exciting, challenging, fun career, with excellent financial rewards, significant future opportunities, and a real variety of job possibilities. Don't take my word for it; read the articles and testimonials in this edition of *The Actuary*.

Unfortunately, the truth of my statement is subject to qualifiers. It depends not just on givens like hard work and integrity, but also on personal initiative and a willingness to work through the profession to advance its interests, in line with the interests of our clients and employers. And we must ward off, in a friendly and constructive way, others who would assume some portion of the role we might otherwise play.

Several successful actuaries wrote articles for this careers issue. A consultant submitted an excellent article, but since the author is a candidate for an executive position with the Society, its publication must be deferred.

These articles highlight the variety and possibilities within the career. Mostly they cover traditional jobs, but some indication of nontraditional career possibilities also emerges. (Also see the January 1990 *Actuary* for articles on such nontraditional jobs as Paul McCrossan as a politician and Margaret Tiller in environmental actuarial science.) In most cases, personal initiative and constructive opportunism are apparent. And most important, they enjoy their jobs.

I must point out a few straws in the wind, however, that could cause some concern. We cannot ignore the issues that triggered the Task Force of the Actuary of the Future. The issues still exist, but are being addressed. Chairperson Bob Shapiro gives a status report in this *Actuary* and includes a questionnaire, which we hope everyone will complete and return.



Another straw in the wind is, of all things, the implications of *The Jobs Rated Almanac*, 1988, placing the actuarial profession as number one. That's great, but will there be suitable job opportunities for the flood of students now knocking at our door? What are the long-term implications for current actuaries? Linda Delgadillo discusses this recruitment phenomenon in this issue.

The low level of minorities in our profession is another issue. We are making progress through the SOA/CAS Committee on Minority Recruiting, which encourages qualified minorities to consider an actuarial career. (See the article by Linda Kahn, Chairperson.) Although women are not included as a minority in this SOA program, an increasing number of women are entering the actuarial profession.

It was interesting to discover that the discussions of professional ethics and malpractice at the FAC sessions appeared to be an eye-opener to some new Fellows. It is possible we often choose to avoid the potential of a problem by retreating to a time-tested contribution that always can be proven. The SOA motto, "The work of science is to substitute facts for appearances and demonstrations for impressions," tends to support this.

We must be ready to innovate, to chart new waters, and to speak out when our voice should be heard. The best way to avoid legal difficulties is to act with integrity, be open in our disclosures, thorough in our work, and decline to participate in questionable situations. That also is the best way to advance the profession.

Most of us feel good about our careers and are proud of our profession. But we should be more active in

sharing our knowledge outside our profession. (See the guest editorial by Jeffrey Kosnett.)

The body of knowledge that makes up actuarial science defines our profession. The real essence of our profession, however, is how we put that knowledge to work, and how we expand its application to the benefit of society.

AIRC extends invitation to SOA

The Actuarial Institute of the Republic of China (AIRC) has invited Society of Actuaries members to attend its 1991 Annual Convention held on September 13-14, 1991, in Taipei, Taiwan. Society members also are encouraged to submit papers to be presented at this convention.

Among the papers to be presented are the following:

- A study on the accounting systems of life and nonlife insurance companies
- A study on the overlapping products between life and nonlife insurance
- The possible effect of amending insurance law on the investment strategies of the insurance companies
- Pension plan issues
- The reinsurance of the excess of loss
- A discussion of automobile insurance

Papers should be submitted by August 5. For more information, contact Ted R. Z. Chung, Chairman, at Cathay Life Insurance Company, Ltd., 296, Jen-Ai Road, Sec. 4, Taipei, Taiwan, Republic of China. Telephone: 886-2-755-1399, Ext. 2240. Fax: 886-2-755-1122.

Expanding roles cont'd

our plan for informing, educating, and motivating targeted nontraditional employers and for obtaining the Society of Actuaries' support to implement the plan effectively.

We will continue to report on these activities in future issues of *The Actuary*. Thank you for your help.

Robert D. Shapiro, Chairperson of the Actuary of the Future Task Force, is President, The Shapiro Network Inc.

The academic actuary

Actuaries in the world of education

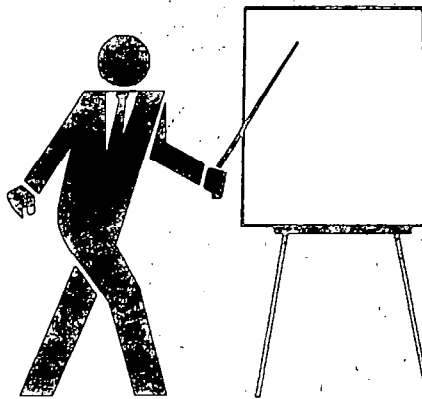
by Paul A. Campbell

In the actuarial studies program at the University of Hartford, Geoff Crofts, director; Frank Bensics, assistant professor; and I, as co-director, share a powerful mission. We attempt to channel the kinetic energies of young men and women into knowledge, understanding, and potential success (in whatever way a developing professional might define that word). The challenge is awesome; the obstacles are abundant; and the effort required is significant. The return on invested energy, however, is exceptional as we see the results of our partnership emerge.

Last semester a very upset freshman actuarial student sat in my office. Doubting his abilities, he told me that computer science (and Pascal) was the most demanding learning experience of his life. We faced that challenge together, along with a sensitive professor. Recently, the student told a new and exciting tale with a gleam in his eye and confidence in his voice: "I find linear algebra the most challenging educational experience I've ever faced, and I'm going to win!" What a transition!

Geoff Crofts has been guiding apprentice actuaries through life and casualty examinations of the societies for decades, pushing them and testing their learning power each week. Others of similar legendary practice include Cecil Nesbitt, Carl Fischer, James Hickman, Harry Panjer, Stuart Klugman, and Newton Bowers, who have taught at Michigan, Wisconsin, Iowa, Drake, and Waterloo. It's hard to appreciate the endless, sometimes repetitive, diet of planning, teaching, testing, and grading until you've watched it done. It also is impossible to appreciate the many rewards, often subtle and intangible, until you have experienced them.

To teach effectively, one must have a clear and concise strategy to attract students and to keep them. Competition for good students is keen. So many forces can work against our efforts to build technical skills, and we are fortunate that we can devote as much energy to out-of-



classroom support as we do to the blackboard at our university.

The graduate programs that Crofts and Bensics quarterback offer actuarial students the opportunity to supplement individual study with programs taught by experts on and off campus. We staff classes on virtually all Society of Actuaries and Casualty Actuarial Society examinations from a wealth of adjunct expert volunteers from the Hartford region. Our reward for administering registration and classroom space and helping volunteers organize their topics is completing a semester with minimal problems and satisfying a constituency of successful students.

It's not enough to cram mathematics and actuarial know-how into young minds. We need to help them prepare for a world of complex people and problems. This means we work with other university divisions to integrate humanities, social studies, business, and other broadening influences with technical skills. I spend time with students, talking about their interactions with professors and not-so-motivated classmates, planning for future semesters and relating their recent experiences to their professional futures. A cadre of mentors and advisors from the region offer additional layers of support for the students and our program.

Actuaries in education face several frustrating obstacles. These include differences in academic preparedness (among the hardest tasks is advising an interested student that another field may be a better choice), varying levels of academic

motivation, and a range in levels of maturity. Many preparatory school teachers are unaware of the actuarial career and its foundations, which creates a need for us to educate them, as well as their students, about the many facets of our profession.

Another reality of academic life is that most colleges and universities are unable to provide the levels of compensation typically found in other actuarial positions. This requires an adjustment of perspective when one transfers from the outside world into education. For the young professor, it means a longer wait to achieve the published salary averages. Consulting and publishing often add to the demanding schedule of an academic actuary. However, the love of what we're doing helps academic actuaries accept the financial inequity.

Recent SOA Board of Governors' resolutions offer a few financial incentives toward an academic direction for actuaries. The Board joins the support for research offered by academicians for many years, and we are optimistic that interest in this area will grow.

Academic politics are another fact of academic life. The structure of a university includes two independent hierarchies of academicians and administrators, and for many in each tier "never the twain shall meet." Additionally, money can be the life or death of a university.

The educational actuary's rewards, however, are substantial:

- An opportunity to shape and build active minds
- The experience of lending support as students share recent experiences and upcoming challenges
- The return on each student's investment of energy and time – we often see it before they do
- The accomplishments that result – a procession of company presidents and CEOs, respected consultants, and widely recognized experts – occasionally, a new professor

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The insurance company actuary

Become an actuary and see the world

by Robert M. Smithen

If anyone had suggested to me during my university days that becoming an actuary would give me ready access to the world, I would have thought I was being sold a bill of goods.

In my years as an actuary at Manulife Financial in Toronto, I have worked on projects involving all continents except South America. I have visited dozens of countries on business and learned first-hand a little of the history, culture, and ethnic character of their people.

Is my experience unique? If it is, it will become less so in the years to come. Globalization of financial services is a reality. North American insurers increasingly are expanding, mostly in Pacific Asia but also in Central and South America and Europe. Foreign insurers also are looking to North America for their own expansion. For actuaries, this means increasing challenges in dealing with peers from other countries, with different regulatory and tax environments, and different cultures. It is both fun and challenging.

My job as chief actuary and CFO of a larger multinational mutual life insurance company is diverse. My responsibilities include:

- Establishing financial policies (pricing, dividends, accounting)
- Establishing financial targets
- Monitoring results and reporting them to senior management and the board of directors
- Regulatory compliance, including establishing reserve assumptions, and methodology
- Capital planning and management
- Audit and financial control
- Acquisitions and divestitures

Anyone who thinks financial reporting and valuation is routine is unaware of what is going on around them. In Canada, life insurers are about to move to GAAP reporting for regulatory financial statements. Valuation actuaries are barraged with new life insurance laws, a new prescribed valuation methodology, new capital standards and developing standards by the Canadian Institute of Actuaries,



including the need to project and report to the board the company's surplus position of five years. According to the new insurance law in Canada, we'll soon be called Appointed Actuaries, with increased authority and responsibility.

What's the career path to become a chief actuary of a life insurance company? I'm sure mine would be typical. I've worked in the same company for 20 years, running the gamut of most actuarial jobs. I've prepared financial statements, done manual valuation calculations, and filled out tax returns. I've been a tax actuary, valuation actuary, group life actuary, pension actuary, and individual insurance actuary. I've had Canadian, U.S., and international experience. Before I became chief actuary of the company, I was CFO of our U.S. operations, a job with all the elements in my current job. I think it is crucial that corporate people have marketing experience, and I've been lucky to be accountable for pricing and product design in our U.S. operations.

Like many in my position, I now get to measure results of operational areas around the company. It can be ego-shattering to see poor experience emerge in businesses you have priced previously. The original unusual life pricing assumptions do not look very sensible today.

I've been lucky to have chosen a profession and company that gave me such broad opportunities. In today's dynamic marketplace with change as the norm, broad opportunities abound. It definitely creates a challenging career environment.

Robert M. Smithen is Senior Vice President and Chief Financial Officer, Manulife Financial.

Academic Actuary cont'd

- The growth that we experience with each student's success
- The heritage and memory of an educational experience that will not fade away

The "terminal dividend" from actuaries in academia is professional immortality – assurance that our profession will not merely sustain itself, but flourish and grow.

Paul A. Campbell is Co-Director, Actuarial Studies, University of Hartford, and Chairperson of the SOA Futurism Section.

Journey cont'd

to represent them on the audit committees and boards of a couple of general insurance companies. I am affiliated with a major consulting firm (Actrex). I teach insurance at the University of British Columbia. I serve the Society as *Actuary* editor and in other ways, because I enjoy it, not because I have to.

This still leaves me free time to pursue nonactuarial, noninsurance activities of my choice and leisure activities, all in a location of my choice. Retirement is the career I recommend, but only after prior preparation. Sorry, but age 25 is too soon.

There are times when I wish I was young and in the mainstream again. There are all sorts of exciting career possibilities for actuarial professionals and so much to do. But not now. I have to go out and feed the ducks.

Study materials and workshop for SOA exams

Study manuals and textbooks for the November 1991 SOA exams are available from Actuarial Study Materials. For a complete list, write to A.S.M., P.O. Box 522, Merrick, NY 11566, or call 516-868-2083.

An intensive three-day problem-solving workshop for the EA-2 exam will be given by Actuarial Study Materials on October 18-20, 1991, in New York City. For details, write to A.S.M. at the address listed above, or call 516-868-2924.

Actuaries in the world of trade associations

On the cutting edge

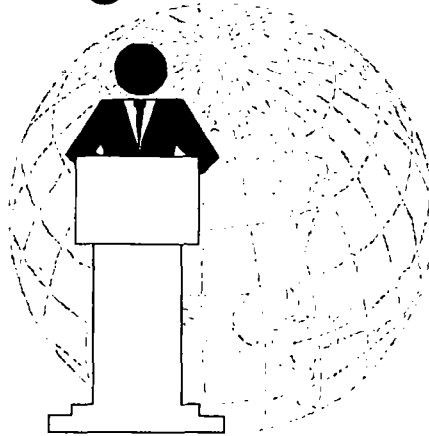
by John K. Booth

I became an actuary in a life insurance trade association because of my interest in the regulation of the life insurance industry and my contacts within the actuarial profession. After working as an actuarial student for a large mutual life insurer and then a smaller stock life insurer, I became intrigued with regulatory and association work after hearing speakers at the local actuarial club tell how rewarding this work had been for them.

After taking the last Fellowship examination, I joined the New York State Insurance Department. I discovered that in insurance regulatory work there is much ground to cover and resources are scarce. At that time, variable products were making their industry debut. Our work included designing and expanding a regulatory structure to permit these products to be marketed with safeguards to ensure company solvency, equity to other policyholders, and adequate disclosure to purchasers. I also participated in field examinations of companies needing close monitoring formed before capitalization requirements were strengthened.

My next career move was to join one of the predecessor organizations to the American Council of Life Insurance (ACLI). ACLI is an industry trade association that represents its member companies before regulators, legislatures, and the public. A trade association actuary deals with the most pressing regulatory and public relations problems affecting the industry. Much of my work involves staying in touch with leading actuaries through professional organizations and through ACLI committees that develop recommended policy positions. Trade association actuaries also present and advocate the industry position before legislative committees, state insurance regulators hearings, National Association of Insurance Commissioners meetings, and media representatives.

In addition, they are a source for the latest information on regulatory developments at association and



professional meetings and in response to inquiries. Much of a trade association actuary's work is to coordinate with and advise other trade association and company professionals in developing strategies for dealing with industry issues. These professionals include lawyers, doctors, economists, lobbyists, and public relations and media specialists.

Among the ACLI projects I worked on were three amendments to the Standard Valuation Law to raise the valuation interest rate for determining the minimum reserve standard from 3.5% to more current levels. In one committee meeting, I had difficulty persuading the members even to consider how a formula for an automatically adjustable valuation interest rate would work if interest rates rose as high as 15%. Everyone knew that couldn't happen. A few years later, short-term interest rates passed 20%.

I also saw annuity valuation mortality tables updated twice, the 1980 Commissioners Standard Ordinary Table introduced, and several changes made to the Standard Nonforfeiture Law.

In the 1970s, the conflict between civil rights advocates and insurers over the principles of risk classification surfaced. ACLI agreed to support model state regulations that would prohibit company underwriting practices that were not supportable as risk classification principles, such as the lack of equality between the sexes in the availability of certain insurance products. Other model laws and regulations were

developed to prohibit charging different rates to insureds on the basis of a disability unless it could be justified by sound actuarial principles. In the early 1980s, the U.S. Congress' attempt to mandate equal rates and benefits for men and women in insurance contracts was defeated by the insurance industry. The battle for unisex rates shifted to the states and the courts, where it continues today. This was followed by regulatory challenges to underwriting for the AIDS risk. More recently, the press accused the industry of using genetic tests to discriminate against insurance applicants even though few genetic tests are used in the medical community today. Companies and the trade associations are trying to determine whether the tests might have underwriting value.

The 1984 and 1986 amendments to the Internal Revenue Code led to major changes in the taxation of companies and products. Actuaries within the trade association were involved in proposed interpretations of these new laws. Currently, we are working with an ACLI committee to develop an improved life insurance industry tax database, which will better assess the effect of any new tax proposals.

In the past year, solvency issues have assumed greater importance. We have been working closely with the National Association of Insurance Commissioners (NAIC) and industry groups on revisions of bond and preferred stock classifications, new regulations limiting investments in higher risk assets, and new reserve formulas to provide for asset defaults. Other areas include risk-based capital requirements, and a law and regulation to require an opinion from a valuation actuary.

Today the life insurance industry faces greater challenges from the federal side than ever before. Legislation has been proposed to remove barriers between financial institutions, to repeal the McCarran-Ferguson exemption, and to establish

federal oversight of regulation of insurers for solvency.

The financial excesses of the 1980s have shown up in weakened balanced sheets for many financial institutions, including life insurers. Risk classification practices are increasingly under attack as the public regards access to affordable healthcare as a right. At the same time, demographic projections for an aging population emphasize the need for insurance programs to encourage capital accumulation to meet the needs of old age.

These trends suggest that the actuaries of the future may play an increasing role in the management of long-term assets and liabilities for both insurers and noninsurance financial institutions. Whatever issue is of major importance to the industry tomorrow, the trade association actuary will be on the cutting edge.

John K. Booth is Vice President and Chief Actuary of the American Council of Life Insurance.

The 1991 AERF Practitioners' Award

The Actuarial Education and Research Fund (AERF) announces the fourth annual Practitioners' Award for research done in 1990 and the first six months of 1991. This award recognizes unpublished research done by actuaries working in a nonacademic setting and encourages the publication of research performed in the working environment. The top prize is \$1,000, and honorable mention prizes of \$500 are possible. AERF expects to publish submitted papers in the Actuarial Research Clearinghouse (ARCH).

Submissions must be made to AERF by August 15, 1991. Winners will be announced in October. For rules and requirements on the Practitioners' Award, call Mark G. Doherty, Executive Director of AERF, at 708-706-3570.

Mail alert

Second Ballots for the Society's 1991 elections will be mailed to all Fellows on July 23. Ballots must be returned to the Society office by August 23.

Impressions from the FAC

Editor's Note: The Society of Actuaries has held two sessions of the Fellowship Admission Course, one at two locations last fall and one at two locations this spring. Two new Fellows, Sarah Christiansen and Michael Hulme, have responded to our request for FAC impressions, and they are pictured below receiving their FSA certificates from President Daphne Bartlett. Your editor, in his capacity as an FAC facilitator, also has contributed a few thoughts.



On the exams

Hulme: While I was in high school, my father knew of my interest in finance and mathematics and suggested the possibility of my becoming an actuary. He was the corporate pilot for Century Life of America. After some investigation and speaking to a recent FSA at Century, my interest in the field increased. The rewards appeared to be excellent, with the trade-off being those ominous actuarial exams.

Professor Bob Hogg at the University of Iowa helped me get started on the right track with tests. I remember his question at the end of each session. "What's our motto? Work! Work! Work!" That motto remained a big part of my attitude in preparing for exams.

Another aspect of exams that I soon realized played a big role was the commitment made by family members. They make many sacrifices, and my wife was no exception. I appreciate the understanding and support she showed.

On passing

Hulme: What a wonderful feeling—the relief of passing the last exam! The only thing that held my feelings in check was that I could not celebrate my FSA with my father. He died in a plane crash on November 29, 1990.

He had introduced me to the profession and followed my progress with encouragement and praise. His absence has strengthened my belief that priorities must be set carefully because the really important things in life may not be there tomorrow.

On preparing for the FAC

Christiansen: Excitement, fear, impatience, tension, and pressure were among the emotions I experienced as the FAC approached.

While leaving work the Friday previous to the FAC, a coworker mentioned that a storm was predicted. By Saturday afternoon, the prediction was for rain, changing to snow, for central Iowa and for winter storm warnings west and north. The instructions from the Society implied an inflexibility about promptness.

("Those unable to attend Sunday evening will be asked to defer their FSA for a later FAC.") I had intended to drive to Chicago on Sunday, but being risk averse, my 18-year-old daughter and I left late Saturday.

Hulme: As a potential Fellow, I looked forward to the FAC. I had heard good things about it and liked the concept. I especially thought the new Fellows deserved a banquet.

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FAC cont'd

Editor: When I passed my last exam in 1957, the FSA was automatic, and the prevailing view was that we had passed through the golden door of opportunity for a secure future. Not only was there no FAC, there were no Guides, Regulations, or Standards — nothing but our education, actuarial writings, the experience of others and ourselves, and common sense. Those were the days!

Back to the present. Would I, as a facilitator, be shown up by all those bright, up-to-date, new professionals? Did I have anything to offer besides practical experience and the wisdom of years? Did I need anything more?

On the course

Editor: The course consists of five one-hour ethics cases, two three-hour case studies by specialty track, and a presentation on malpractice. Cases are handed out to students the night before, except for the Sunday evening ethics case. Students are divided into groups of about 20. Facilitators are there to keep the discussion on track, not to teach.

Hulme: The FAC was enjoyable and time well spent. It is an instructive review in a format that makes sense for topics as subjective as ethics and standards of conduct. The complex real-life style of case studies provokes thought and discussion that broadens everyone's perspective. The two integrated problem-solving case studies were very realistic and presented situations without easy solutions.

Christiansen: Only a small percentage of the students were familiar with the case study method. Each written case concluded with specific questions, which we discussed first in small groups of four or five, and then in the larger groups.

Although I had never worked in the group area, I chose the group track for the FAC, since I had written group track exams. The first case discussion began with reserving, and encompassed pricing, underwriting, and sales. My impressions were that the suggestion made in the case would have one effect, but those in my small group who had actually worked in the area convinced me that it would have exactly the opposite effect.

Ralph Levy's talk on malpractice and how to avoid legal problems was a highlight for me. He gave 10 practical "commandments" and the wise

counsel that our most important judgment is in accepting an employer or a client.

Postscript

Christiansen: Aside from the sessions, the chance to make friends at the receptions, meals, and during the short breaks in the program was a highlight. I left feeling that I made at least four new friends, as well as having met many new colleagues.

The banquet was a nicer and more formal way of receiving our "diplomas" than the mail, but it lacked the pomp of a university graduation. We all cheered for each other as our names were called. Daphne Bartlett's moving speech at the banquet emphasized the need for the FAC.

In conclusion, the FAC met or exceeded my expectations. It was a very interesting and worthwhile experience.

Hulme: The rewards and personal satisfaction of reaching Fellowship and attaining the position of a professional are well worth the labor of getting there. It's worth reminding all Fellows to volunteer to give something back to the profession that has been of benefit to them.

New Section elects council

The Education and Research Section, as of May 10, had 512 members. Members held an election of council members, with the following results (in alphabetical order):

Robert B. Brown, Ohio State University
 Paul A. Campbell, University of Hartford
 Edward (Jed) Frees, University of Wisconsin
 Charles S. Fuhrer, Washington National Insurance Company
 Donald A. Jones, Oregon State University
 Stuart Klugman, Drake University
 Esther Portnoy, University of Illinois
 Arnold F. Shapiro, Pennsylvania State University
 Aaron Tenenbein, New York University

The council will be selecting Section officers and further organizing this new Section.

Big thanks and big please

by Bern Bartels
 SOA Registrar

The number of individuals registered for actuarial examinations has more than doubled in six years. More than 19,500 individuals registered for exams in 250 locations this May, up from 9,300 candidates in 1985.

The 1,000 volunteers who helped supervise the examinations this past session are a vital link in the structure. We have not always recognized how important these volunteers were, especially when their numbers were fewer. Now that a small army of these people is needed, we find it even more important to say, "Thank you."

We salute the actuaries and academics who are involved in the actual supervision. We salute the clerical help needed for the process. We salute the companies and universities that so generously give space and staff. We salute the CEOs who, although somewhat removed from the actual administration, support the examination process.

While November may seem far away, plans for fall examinations already are underway. Occasionally, we have difficulty securing facilities and personnel to supervise examinations. We need your continued cooperation. We ask all members — those employed by insurance companies, consultants, and others, and retired members — to give generously of your time for this work. We ask the present generation to continue in the tradition of those who preceded you and not to hesitate when asked to provide these services for future actuaries.

In memoriam

Harold G. Allen FSA 1946
 Stuart F. Conrod FSA 1934
 Archibald H. McAulay FSA 1939
 Allan Shane FSA 1978
 William I. Struble FSA 1950

Interest in profession growing

by Linda M. Delgadillo
SOA Director of Communications

Room to move and grow. Playing an important role in people's lives. Designing and implementing financial security programs. Those are some of the descriptions we use to interest students in the actuarial profession. And the interest is very strong.

By now most in the profession know that *The Jobs Rated Almanac*, 1988, listed being an actuary as the top job around. That unsolicited public relations shot-in-the-arm certainly helped our image and has, to some extent, been responsible for the significant increases in the number of candidates writing exams. As far back as 1985, however—three years before the number one rating—the Society began to experience increases. See Table 1 on the number of candidates writing examinations between 1984 and 1990.

In his Presidential Address last year, Allan Affleck said, "The number of new ASAs has surged by almost 50% in the most recent two-year period, 1988-1989. We have not yet seen the impact of these changes on the number of new Fellows, but with the surge of new ASAs in 1988-1989, we will certainly begin to see a substantial increase in new FSAs over the next few years." This is one reason why the Actuary of the Future Task Force is focusing much of its effort on identifying and developing nontraditional employment opportunities. (See Bob Shapiro's article in this issue).

Just how much interest are students showing in the actuarial profession? We can begin to answer that question by looking at the volume of material distributed last year. Almost 65,000 information kits about the profession were mailed, with many going to colleges and universities with actuarial science

programs. Some information kits are distributed directly to high schools requesting information or to members who hand them out at school career days. The rest are distributed through individual requests—young people who just want to know more about becoming an actuary.

Many students call the Society office to ask about the profession before requesting printed material. When that happens, they speak with Education and Examination Ombuds-person Pat Holmberg. She handles between 25-30 calls on an average day and more in the first few weeks right after exams have been given. That's when both the hotline for exam results and her regular line frequently ring simultaneously. The questions range from the simple, "How do I become an actuary?" to the more complicated, "What is the breakdown of my grade from this exam?"

Holmberg also talks to professors who are interested in establishing actuarial curriculums at their universities, as well as to students who have questions about study material. If she cannot answer their questions, she directs them to someone who can.

In keeping with the Society's activity to strengthen relations with academics, recruiting material and posters are sent each fall to about 3,800 colleges and universities with enrollments of 5,000 or more. Targeted recipients are professors of mathematics, business, economics, and statistics.

This year for the first time the Society sponsored an exhibit booth at the joint annual meeting of the American Mathematical Society and the Mathematical Association of America. The booth was staffed by members of the Career Encouragement and Academic Relations Committee with help from the San Francisco Actuarial Club. More than 400 university professors visited the booth during the three-day show.

Much has happened during the past few years to promote the actuarial profession. I think the increases in the number of candidates writing examinations indicate that we're successfully reaching our audience. The next challenge the profession faces may indeed be found in the work of the Actuary of the Future Task Force.

Minority recruiting report

by Linda M. Kahn

The Committee on Minority Recruiting is actively involved in acquainting minorities with the actuarial profession. It works to encourage qualified minority students to seek careers in the profession. The Society of Actuaries (SOA) and the Casualty Actuarial Society (CAS) jointly administer a scholarship program begun in 1977.

For many years, the committee's main activities related to the review and evaluation of scholarship applications. The scholarship application process is extensive. The committee considers aptitude (particularly mathematics and communication skills), financial need, motivation, and recommendation of teachers in determining scholarship recipients and amounts. A committee member often contacts an applicant to clarify questions raised in the review process.

The amount of the award depends on the financial need and the amount of funds available. A request for renewal of a scholarship is processed like a new application, with the applicant's record taken into account.

When an award is granted, a committee member is assigned as advisor to that student. Advisors contact their students, introduce them to the work of an actuary, and monitor their progress. Staff at the Society of Actuaries is developing procedures for tracking the progress of scholarship recipients through the examinations.

This Minority Recruiting Program has included support of summer actuarial programs at Howard University since 1983 and at Florida A&M since 1988. Committee members have worked very closely with the faculty at each of these programs and have participated by lecturing.

We try to maintain a balance on this joint SOA/CAS committee by type of employer and business activity, by gender, and by ethnic group. Funds for the scholarship program are obtained from an annual solicitation of employers.

Linda M. Kahn, Chairperson of the Committee on Minority Recruiting, is Director of Program Management, Pacific Maritime Association.

Table 1

Year	Exam 100	Exam 110	Exam 120-135
1984	1,620	1,151	728
1985	2,121	1,379	855
1986	2,590	1,722	1,064
1987	2,693	2,148	1,280
1988	3,329	2,048	1,638
1989	3,996	2,750	1,808
1990	4,378	2,978	1,880

Actuaries and the public interest

Committee seeks input on project

by James C. Hickman

Daphne Bartlett thinks big. One of her first acts when taking office as Society of Actuaries President was to appoint a Committee for Research on Social Concerns. The committee's charge was nothing short of global. It was directed to:

- Identify social concerns with actuarial aspects on which objective analysis, research, and creative input could be provided
- Form task forces to write white papers on selected issues
- Review the output of the task forces for compliance with the Society constitution
- Transmit the resulting white papers to the American Academy of Actuaries (AAA) and Canadian Institute of Actuaries (CIA) for use in public interface activities

The charge is unusual in its broad scope and in its emphasis on research and creative input, rather than calling for actuarial analysis on ideas generated by other groups.

Issues

The committee has a big assignment. The first problem is to find a niche for SOA research efforts that complements AAA and CIA activities.

Five areas are being considered:

- Government financial guarantees (deposit insurance, loan guarantees, pension guarantees, insurance company guarantees)
- Healthcare financing
- Macroeconomic issues (national savings, the aging work force)
- Education, especially mathematics education
- Social insurance

Within each area, several issues have been identified. The next step was to judge whether the actuarial profession has unique intellectual tools to contribute significantly to public decisions of each issue.

Government financial guarantees

The committee zeroed in on government financial guarantees. This area is high on the public agenda and involves questions amenable to actuarial tools.

The key issues are: How extensive should government financial guarantees be, at what levels should these guarantees be set, and how should they be priced? If financial risk is assumed by all the people through their government, then can one of the principal advantages of capitalism, the efficient allocation of capital, be realized?

On the other hand, without financial guarantees, some of the most defenseless members of society may suffer, and governments would lose one of their major policy tools for shifting the allocation of capital in response to public decisions.

When the committee discussed these guarantees, many U.S. and Canadian programs were suggested as candidates for study. The discussion was hampered by the lack of an adequate classification system, despite actuarial, risk management, and insurance literature devoted to sorting out financial guarantee and insurance programs. In the actuarial literature, the monograph, *Fundamentals of Actuarial Science*, by C. L. Trowbridge, provides the basic concepts for an actuarial classification system.

The proliferation of government financial guarantee and insurance programs, however, has outstripped our traditional classification systems. The rich mixture of programs to guarantee deposits, loans, home mortgages, and pension promises in the United States and Canada illustrate the problem.

Classification project

As a first step in an actuarial research effort on government financial guarantee programs, the Committee for Research on Social Concerns is considering a project to develop a classification system for these programs. The project should not be an abstract exercise and the goal is not a set of definitions. The committee seeks a set of measurable dimensions, such as the risk or uncertainty the program is designed to reduce, the funding program, and the nature of any risk classification system used.

The committee wants to illustrate the system by placing various

Continued on page 13 column 3

New Index to Publications available soon

by John E. Bailey

By the end of June, your mailbox should contain the second edition of the Society's *Index to Publications*.

The *Index* provides a single source to locate research or reference material in the Society's many publications. It is organized by subject, author, and title. It includes, but is not limited to, the *Transactions*, *The Record*, *The Actuary*, *ARCH*, Section newsletters and newly published or revised study notes.

This year's *Index* is cumulative, including all material published by the Society in calendar years 1989 and 1990. It also includes references to the *1989 Centennial Celebration Proceedings*, published jointly by all actuarial organizations in North America.

Members can recycle the 1989 *Index* with no loss of information when they receive the new *Index*. The committee intends to produce cumulative indices for several years until a reasonable size is reached, and then repeat the cycle.

Many volunteers supplied entries for the *Index* from papers, discussions, articles, and letters to the editor in all Society publications. Thanks are due them and to David Nearpass and David Promislow who served on the committee that directed this effort.

Special thanks are due Barbara Simmons of the Society staff for a major role in the production of the *Index*. Through her efforts, the 1989 *Index* won the Award of Excellence from the Chicago Chapter of the Society for Technical Communication.

The *Index* will be valuable only if it responds to user needs. The Publication *Index* Committee welcomes your suggestions and comments about the organization and contents of the *Index*. Please send them to me at my *Yearbook* address.

John E. Bailey, Senior Actuary at Northwestern Mutual Life Insurance Co., is Chairperson of the Publications Index Committee.

Guest editorial

Actuaries good sources for press

by Jeffrey R. Kosnett
Senior Associate Editor
Kiplinger's Personal Finance Magazine
(formerly *Changing Times*)

Three years ago, as I worked on a series called "The Facts of Life Insurance," the chief actuary of a Midwestern insurance company (that will never be famous but will always be solvent) told me that I was the smartest reporter he had ever talked to.

I felt terrific until it dawned on me that I might also be the only one. That is a pity.

After more than a decade of writing about life insurance for the *Baltimore Sun* and *Changing Times*, I believe actuaries are the most useful sources for any journalist writing about life insurance as a product and as an investment. I know some reporters may laugh at this. I also empathize with any actuary who wants no part of speaking with the press. I am convinced, though, that the best way for my profession to improve its understanding of yours is for reporters and actuaries to develop close working ties.

Why is this so? Let's say I'm trying to explain to more than one million subscribers what is likely to happen to participating whole life policies as investment returns on insurance companies' portfolios decline and the companies cut dividend scales. With all the public concern for safety and solvency, this is a timely subject.

As I make the rounds of the industry, I can almost write my notes before the interviews. I know what to expect.

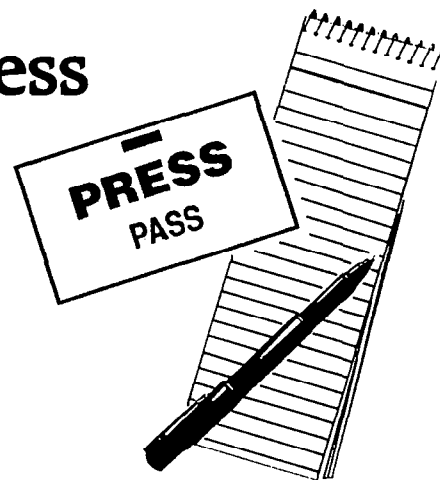
Chief executive officers will speak in well-rehearsed generalizations about everything from congressional tax policy to the recession to the need for "better consumer awareness of our industry." They'll unanimously admit that the life insurance industry has done a poor job burnishing its image. CEOs always speak endearingly about how the policyholders come first. They say, after all, if it's a mutual, the policyholders own the company and

so, in theory, can fire the chairman. We invariably part friends. However, I'm no closer to knowing if my readers will have to pay premiums for 10 years instead of 7 before no more premiums are required, which is a matter of more immediate consumer concern.

Agents and brokers turn defensive, even when I don't ask provocative questions. They maintain that they issue their illustrations in good faith, while other companies are guilty of outrageous excesses. Agents cannot draw a breath without saying something like, "The company I represent has been around since Thomas Jefferson's day. It survived the Civil War and the Great Depression, so you can see that our policyholders love the company." While I often refer to the industry's longevity as a point in its favor, such homilies don't help me tell my readers whether that premium will in fact vanish on schedule.

Public relations people work frantically to convince journalists, especially editorial writers and financial columnists, that life insurance companies share none of the perils of savings and loan associations. PR people have endless fact sheets about how insurance companies' junk bond holdings represent a sliver of total assets and the insurers' real estate is of good quality. Unfortunately, I think this PR strategy might backfire. By drawing attention to S&Ls, these handouts tempt editors to have reporters who know zero about how life insurance works spew out instant analyses of the insurance industry. Mostly, this alarms readers into thinking raw land in West Virginia or Sri Lanka is a safer place for retirement savings than a life insurance company with an A+ rating from Best's and triple-A from Moody's and Standard & Poor's.

Back to the role of actuaries. If the life insurance industry expects the press to educate the masses about reasonable expectations of how much



a life insurance policy will accumulate safely, we need numbers. Hard, real numbers, based on alternate economic and interest rate scenarios. Actuaries have these or can find them quickly. Actuaries can transliterate them into reasonable comments and forecasts. This helps us provide accurate, reassuring answers to questions like: What does this year's dividend cut mean to the projected cash value in 1995? What does a \$150 million real estate writedown mean now to participating policyholders of a company with \$14 billion in total assets? What's going to happen to universal life surrender values if interest rates drop by 1% or by 2%? These topics, not the pros and cons of retaining the McCarran-Ferguson Act, are what the public wants to read about life insurance.

A company's PR staff can help a reporter immensely by persuading their actuaries to cooperate and to provide the reporter with actual examples, such as sample illustrations dated a few years ago and today, projected at alternate rates of interest or dividends. This way the reporter can see that a vast middle ground lies between a policy paying a high rate of return and one paying 1% or 2% less. Believe me, from my reader mail and calls, tons of policyholders think a modest dividend cut is a prelude to the total wipeout of all cash value. We can say this is ridiculous, but we need hard evidence.

Actuaries also can defuse reporters' innate suspicions that insurance policies, unlike certificates of deposit, mutual funds, or Treasury bonds, are purposely obfuscatory. While a whole life contract has various elements that

Continued on page 12 column 1

Press cont'd

cannot easily be unscrambled into a yield figure directly comparable to, say, a CD at a bank. Policyholders want some approximation. Editors always press reporters to affix the current yield on a whole life policy. The reporter can guess, can quote outdated National Insurance Consumer Organization and Federal Trade Commission findings, or can take actual policy illustrations going back to an earlier date of issue and feed the known premiums and known accumulated cash values into a calculator. For a competitive policy from a good company, the results will not be unflattering.

Earlier this year, I was working on an article about future cash values versus past illustrations. I asked several life companies to provide information about their policies' illustrated and actual results. I expected not all would cooperate, and not all did. One company that is currently marketing universal life with extremely high posted interest rates wouldn't answer even general questions about how it sustains this. The management must have thought I was going to mention them as an example of what's wrong with universal life marketing. Maybe, but perhaps they really did have an advantage. They stonewalled me, though, and succeeded in keeping their name out of the story.

To those three companies whose chief actuaries granted me plenty of time, spoke frankly about their companies and others' decision-making, and printed out good numbers for me even though the actual results weren't as rosy as expected, I thank you very much. So should my readers, who now know something about the effects of a reduction in dividends on the value of a whole life policy.

To those companies that refused, I submit that you have little recourse the next time a policyholder insists on an early surrender or 1035 exchange because of rumors and innuendo. The life insurance industry maintains that most of its member companies are in as good shape, if not better, than banks and thrifts. The people who can prove this readily — and explain it to the inexperienced reporters crowding around the industry — are the members of your Society.

Research papers for Fellowship credit

by Roy Goldman

The Education and Examination Committee recently awarded 30 Fellowship credits to Michael F. Conwill for his paper, "A Linear Programming Approach to Maximizing Policyholder Value." This is the fourth paper approved for Fellowship credit under the Future Education Methods (FEM) program.

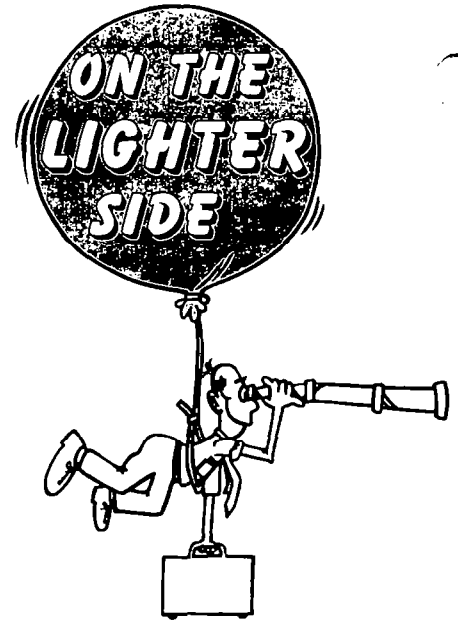
Conwill's paper explores the use of linear programming as a tool to guide policyholders in getting the most value out of their combined insurance and investment programs. Concentrating on flexible premium universal life within the tax environment of the United States, several linear programming models are developed that can be used (1) at the point of sale, to select the most cost-effective policy from those available in the marketplace, and (2) after issue, to maximize the present value of future cash flows on the policy of an insured who is in ill health. These optimization models utilize to the maximum benefit of the policyholder the options available within the typical universal life contract to vary premium payments, make cash value withdrawals, take loans, and select a level or an increasing death benefit. Considerations in developing similar models for traditional plans of insurance also are discussed briefly.

Copies of the paper are on file in the Society library. Members interested in reading it can contact Donna Richardson, the staff librarian.

The committee thanks Graham Lord, Richard Moore, David Promislow, and Eric Seah, who refereed this paper, and acknowledges Curtis Huntington, who served as Conwill's supervisor and provided the committee with a review.

Students interested in the Research Papers program should consult Appendix 2 of the Fellowship Catalog. Applications for Research Papers can be obtained from the Society office.

Roy Goldman, Vice President and Associate Actuary at Prudential Insurance Co., is Chairperson of the Examination Research Paper Committee.

**Final update on 'Let's make a deal'**

Since the May issue went to press, we received solutions to the March game show puzzle from Hank Ramsey, Michael Wise, John Atteridg, S. David Promislow, Hemant Tilak, William Schreiner, Tom Hamilton, Sidney Cooper, Gerald Brown, W. A. Drew, David Sanders, Steve Malerich, and Bob Koch. This brings the total to 45, with 27 agreeing that the contestant should switch doors, 8 disagreeing, and 10 saying, "It depends."

William Schreiner believes there is no advantage to switching doors because "games have no memory." He offers a colorful explanation to anyone who contacts him at his *Yearbook* address.

After offering his solution with a table of possibilities, John Atteridg made an interesting observation: "Of course, if you had the intelligence to make this analysis, would you have been willing to dress like a chicken to appear on the show?"

Gabriela Sanchis, who got her Ph.D. in mathematics this spring, wrote she incorporated the puzzle into her interview process for a university faculty position. Since her area of research is probability, she generated a lively discussion by introducing this problem in the one-hour talk required of applicants before faculty and students. And, yes, she got the job. She'll begin her teaching career at a Pennsylvania college this fall.

Stephen Steinig wrote that this puzzle is a hot topic of debate at Amherst where his daughter is a freshman. "Although some university

Ph.D.s may have stubbed their toes on this problem, my hunch is that New York street corner three-card monte dealers would have no trouble getting the right answer," he said.

Michael Wise, who said his uncle is a close friend of Monty Hall, wrote that he uses a card game to illustrate that things aren't always what they seem. He asks someone to draw a card and guess the probability that it is the ace of spades. When the person correctly says, "1/52," Wise looks through the other 51, puts one face down on the table next to the card originally drawn, and says that the ace of spades is not in the 50 cards he put aside. He is often able to sway the person into sticking with the first card drawn by offering to pay \$1 if it is the ace of spades. Wise, of course, gets \$1 if the ace of spades is the other unseen card on the table. Those who still can't see that the two cards are not "equal" and want to continue the game could lose a substantial amount to the "wiser" player.

Solutions to May puzzles

"I've got your number" puzzle asked what number should replace the question mark in this series: 10, 11, 12, 13, 14, 15, 20, 22, 24, ?, 100, 121, 10,000.

Here is John Cook's solution:

There are many problems calling for a number to replace a blank in a series. They have a variety of characteristics. This particular one depends on a characteristic that does not lend itself easily to a series of similar problems. Once the key is found, the complete series is easily identified.

In this case, the missing number is 31. The series is a repeated expression of the value 16 where the value is expressed with the use of a different base each time. The first base is 16. The last base is 2. The missing number is 16 to the base 5.

Derivation of the answer to this problem does not yield to any "organized" approach. It depends on recognition of the apparent steep increase in the magnitude of the latter numbers following such a gradual increase in the early numbers. This is one where either you see the light or you don't.

Dear Editor:

On the role of the Society

President Bartlett is to be commended for her response to William S. Wright (March 1991 *Actuary*) on the role of the Society. It is right on target. The Society is an exclusive intellectual fraternity that is aristocratically aloof from any relationship with the public. This is as it should be; it is the clear sense of the Society's membership. Its primary function is guardian of the gate and it has no business venturing beyond that purview. In the interest of the profession, it must cede other functions to other bodies. Holding a condescending stance toward other groups is a central mind-set to preserving the ramparts of the initiated. The Society is neither psychologically nor authoritatively capable of relating to the public. I appreciate very much her stand.

Wright has succinctly expressed a frustration felt by many other actuaries at the impotence of the profession to express itself intelligently on basic actuarial matters. He is a witness to what he perceives as government run amuck by using the obscurity of actuarial theory to wreak mayhem. He is not alone. He notes that, in the vacuum of any articulation on the subject, ASPA has taken the initiative to blow the whistle. Perhaps ASPA's "non-actuarial" influence has enhanced its ability to communicate.

Both letters are dead right. As Bartlett points out, the Academy is charged with dealing with these matters. The problem is that the Academy is throttled. The mind-set of the Society permeates the actuarial

community to such an extent that it has a stranglehold on the Academy. The Academy is severely circumscribed in its range of activity. For example, issues referred to the Academy for public interface are referred to Society committees that, by definition, are inert in this arena.

There are many serious actuarial issues before our country. How do we deal with the situation? I don't know what being "encouraged to support the Academy" means. Perhaps it means send money! Perhaps it should mean to encourage the Academy to be more aggressive. Where the Academy fails to address the concerns of its constituency, it is then appropriate to turn to whatever organization may be available.

The synthesis is to cede to the Academy greater range of motion as the fundamental actuarial entity. This is very threatening psychologically to the corporate Society mind. In reality it can afford to "let go" a little and still retain its august position. It is clearly in the best interest of itself and the profession to do so. The Society should use its good offices to encourage the Academy to speak and assume a greater role in the "logos" (word) of the profession.

Thomas H. Shelby III

Continued on page 14 column 1

Input cont'd

government-sponsored U.S. and Canadian financial insurance and guarantee programs within the system. With the deeper insights, sharper comparisons, and hidden interrelation revealed by the classification project, the committee hopes to map a research program on particular systems of current public concern.

The committee seeks comments from SOA members on its general plan, its initial concentration on government financial guarantees, and on the proposed development of a classification system. The committee also seeks volunteers and actuaries interested in working on this project. These comments and suggestions should be sent to me at my *Yearbook* address.

James C. Hickman is Professor, Business and Statistics, at the University of Wisconsin.

1	2	3	4	5	6
5	3	2	9		1
7	1		7	2	9
	8	9		4	
10			11		12
6	9	8	8	9	6
13			14		
3	9		3	6	5
8		15			
		1	6	0	0

Dear Editor cont'd

* * *

Daphne Bartlett laments that the leadership of the actuarial profession in the United States hasn't done a very good job of communicating to the members about the role of each organization. However, she seems a little confused about this matter.

In a recent guest editorial in *Actuarial Update*, Bartlett suggested the Academy drop its individual memberships for an arrangement where it would be funded by a portion of the dues income from the other U.S. actuarial organizations. This is inconsistent with the primary role Bartlett assigns to the Academy, namely public relations and government interface. Most such organizations, from Common Cause to the National Rifle Association, are supported by individual dues-paying members. Only the support of their members enables these organizations to make their voices heard over the din of the public arena.

On the other hand, Bartlett assigns to the Society of Actuaries a role similar to that of a university. All universities I know of are supported by the tuition they charge their students and by research grants to their faculty members. The Society, shorn of its individual membership functions, could be similarly self-supporting.

If one or the other of these organizations drops its individual memberships (I strongly support this idea), then to maintain consistency with their respective roles as delineated by Bartlett, that organization should be the Society, not the Academy.

Eric J. Klieber

* * *

Daphne Bartlett claims that the Society has no business working in the fields of the Academy. However, the Academy is now required to have the President and President-Elect of the Society *ex officio* on its Board. People get on a board to exert influence and when they get on by right of office, they are there to exert influence for the body they represent.

I would be far happier if the Academy were abolished and the Society take full responsibility for its own political and public interface position. That would give Society members full control over what position was claimed for them. The

current position compares to the claim of being "a little pregnant."

Jan R. Harrington

Editor's note: The statement in the above letter that the Academy requires the President and President-Elect of the Society to serve as ex officio members is not correct. The Academy is in the process of making room on its Board for such officers of actuarial organizations to serve as full members, but has not completed the transition. Don Sondergeld, the SOA President-Elect, is a member of the Academy Board, but Daphne Bartlett is not.

Call for Section organizing committee

I invite Society members interested in being on a committee to organize a Computer Science Section to call me at my *Yearbook* number. A few people have already shown an interest.

According to the 1991 *Yearbook*, 10 members of the Society can petition the Board of Governors to approve Section formation. Members of the organizing committee draft the petition to define the Section's purpose. After approval by the Board, the petition is printed in *The Actuary*. When 100 members have shown an interest, the organizing committee prepares Section bylaws. After the Board approves the bylaws and 200 members respond to an invitation to join, the Board authorizes the organization of the Section.

The scope of a Computer Science Section can be as broad as the committee wants to make it. Six areas under discussion are:

- (1) Mainframe (hardware and software)
- (2) Mini computers
- (3) Personal computers
- (4) Programming languages
- (5) Networks
- (6) Data bases for industry studies

There are many more possible areas. I look forward to hearing from those interested.

Kerry Krantz

University of Illinois program alive and well

The February issue of *The Actuary*, with its emphasis on actuarial education, was very interesting. However, I am perplexed by the omission of the University of Illinois from the article, "Universities respond to survey." I do

not recall receiving the questionnaire — possibly it was lost in the mail.

The University of Illinois has more than 200 undergraduates and 15 graduate students in the program. We have just arranged for an additional faculty member (though not an actuary) to be assigned to the program. We work hard, especially with our alumni and corporate supporters, to maintain and improve our program. Recent moves by the Society to strengthen relations with the universities are most welcome, and I trust our omission from your survey was only a rare oversight.

Esther Portnoy

Worthless candidate statements

I am not a candidate for any office in the Society. But since every current candidate for president has yet to write a useful statement for the voters, here's one I offer as a model: I believe the Society is primarily an educational institution that owes its members and students certain duties. The Society must be alert to creating and preserving productive jobs for its members. This is how it should be done: (1) For current members, the Society should develop a noncompulsory continuing education program, offering, at a reasonable cost, study notes, a reading program, and faculty-taught courses, designed for members (not students) and accenting practical skills. (2) For members and students, the Society should create and maintain a well-publicized "placement office." I also believe the Society must control its costs (which are getting out of hand, particularly postage) by being more efficient. The creation of a weekly newspaper would be a way to disseminate the information now selectively conveyed by myriad mailings. If you agree, vote for me, John Doe.

The idea behind letting candidates make statements was to see (1) whether they could identify meaningful issues, and (2) what their positions were on them. If the candidates can't even pass test (1), there is no point in having elections. A lottery would be quicker, simpler, cheaper, and less self-deluding. Bland, meaningless statements only serve to undermine our fragile democracy and waste paper and time. Few vote in that kind of environment because it's a waste of time.

Claude Y. Paquin

ACTUCROSSWORD

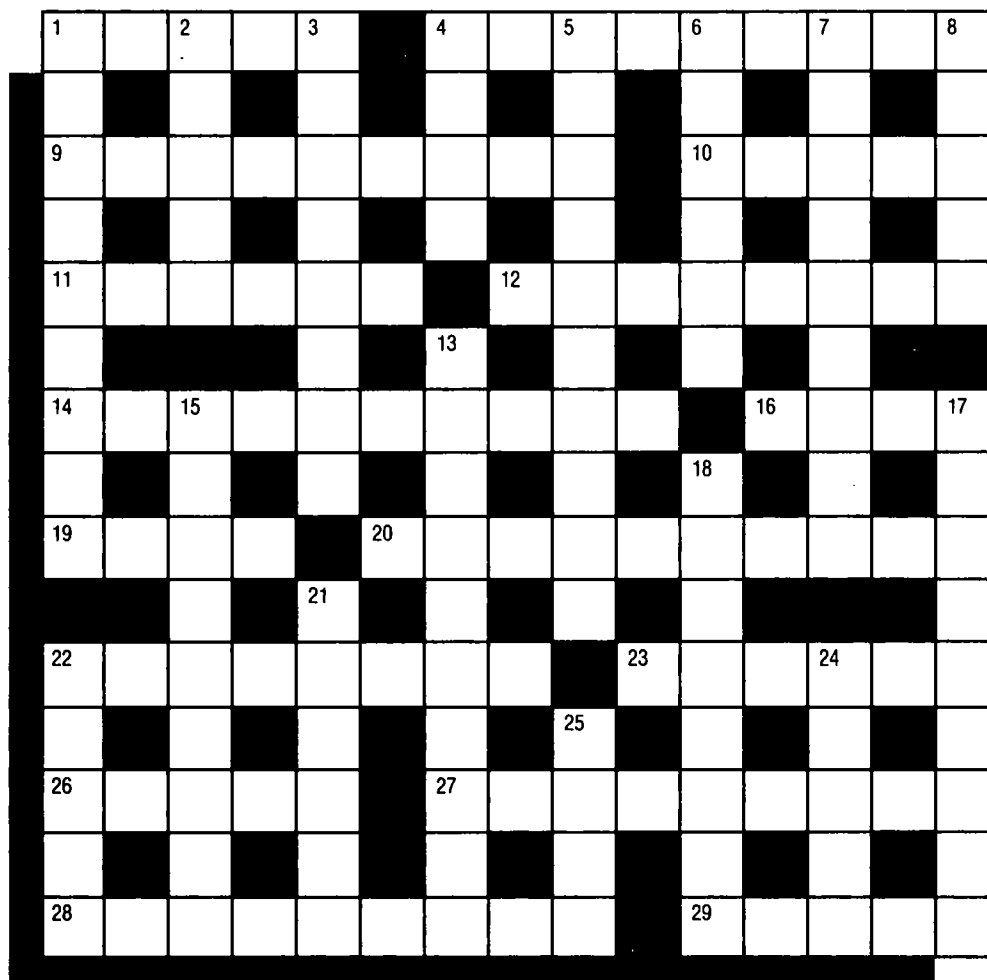
by R. Graham Deas

Across

1. God 99 causes a scare (5)
4. Licensed for three-card trick (9)
9. He manages start of 13 insect (9)
10. Layer of sorts in time (5)
11. Runner about to back a trifle for animal (6)
12. Disturbance of aged. Preposition follows it inside (8)
14. Fairy with friend about her at the side (10)
16. Pins back a good deal (4)
19. Fifty to one on an animal (4)
20. Zealous person sat in the U.S. Assembly (10)
22. Mobile condition of Smetana's Bride (8)
23. Italian figure of Euclid (2,4)
26. Biological factors of Sarazen, Kelly and O'Neill (5)
27. I'm not poor, anyway; this helps the finances (9)
28. Official rate change more certain to succeed (9)
29. Produce to give way (5)

Down

1. Main source of 29 (9)
2. Tidy appearance of women at typing duties (5)
3. Memorial not cheap to construct (8)
4. Hat but no water for a guy (4)
5. Those who sought them might have sought a par (10)
6. Form of art, yet subject to agreement (6)
7. Hope Rudolf foiled Rupert there (9)
8. Nymph subject of bad publicity (5)
13. Average moderate anger but deplorable (4,6)
15. Order a gin and get plenty of water with it (3,6)
17. Drape tent into regular formations (9)
18. Mad ploys of singing practice (8)
21. Defeats but not about poetry (6)
22. He is intolerant but has a bit of go in him (5)
24. From the pronoun it emanates as an integration (5)
25. 8. But not one to say when (4)



May's Solution

100% SOLVERS — **March:** W Allison, F Alpert, D Baldwin, J Beaton, T Boehmer, J Braue, R & M Buck, G Cameron, F Clarke, J Darnton, K & M Diede, Mrs C Edwards, E & G Fairbanks, N Fischer, C Galloway, E Goldstick, J Grantier, P Lepokoski, R Hohertz, G Horrocks, V Hosler, R & J Koch, D Leapman, R Maguire & J Heikkinen, P Marks, R C Martin, P

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PASSOVER EUCLID
O I U C O R E U
NIGHTCLUB DIVOT
Y M S A S U I C
SASKATOON CASH
H I L T
ORDER ILEX CHAIR
P I T M T S A E
PAYE AICHE HENNA
I E L O T
NARY BIORROWERS
G S P V O B E I
MAINE ENGROSSED
A O T R E A I L
DANGER CRETONNE
    
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& J May, G D McDonald, H Migotti, R A Miller, R Nolle, B Packer, B Rickards, M Sander, G Sherritt, M Steinhart, H Tate, Mrs J S Thompson, B & J Uzzell, M Vandesteeg & A White, C Walls, C Wasserman, D Weill, R Weitzenkamp, A Whiton, H & F Zaret, and U of ND Math Dept Puzzle Solving Team (Feb).

ACTUCROSTIC

- A. Romance; novel, cock and bull story. _____
58 103 34 149 157 190 85
- B. Off-the-rack; in stock. (hyph) _____
64 125 29 218 201 9 184

97 80 120 194
- C. Makes goo-goo eyes at. _____
122 67 26 198 140
- D. Largest member of the deer family. _____
36 118 202 62 93
- E. Musician who plays a double-reed woodwind. _____
171 79 28 215 60 112
- F. Paradise; heaven on earth. _____
13 110 219 159 196 61
- G. Lay down the law; admonish sternly. (4 wds) _____
124 5 229 71 207 192 169

32 116 86 147 18 101 48
- H. The afternoon snack is the (3 wds) _____
141 174 1 94 232 75 102 15 158

88 210 119 57 193 117 31 129 46
- I. Get a reaction; strike a chord. (3 wds) _____
40 72 121 204 91 182 21 155 172
- J. One who believes the living owes him a world. _____
114 2 223 33 189 65 200 128 50 220

162 100 136 231 19 146
- K. First voyage of a new ship. _____
55 16 74 35 145 126 99 227 109
- L. Restrictive overgarment of strong material (such as canvas). _____
161 22 175 199 3 130 106 87

38 142 68 186 51 214
- M. Stick-in-the-mud; recluse. (hyph) _____
7 63 135 179 24 176 144 185 197 45
- N. _____ Day; Primary _____ _____
89 25 107 153 77 217 44 228
- O. Rickety; tumbledown. _____
212 37 104 187 52 69 170 20 137 84
- P. Injured one or party. _____
4 138 98 221 53 165
- Q. To some extent; somewhat. (3 wds) _____
164 47 154 209 108 132
- R. Place of worship; cathedral; temple. _____
30 150 203 183 81 177
- S. Lengthened; stretched. _____
39 173 11 225 143 211 230 56 90
- T. Completion; frequent end to a law suit. _____
42 96 14 139 156 224 83 178 70 123
- U. Loveliness; charm; grace. _____
17 181 59 131 105 152
- V. The only man who had all his work done by Friday. (2 wds) _____
6 205 23 148 66 115 226 95

134 180 41 195 78 216
- W. Bit; speck; smidgen. _____
111 82 206 160
- X. Gaunt; haggard; scrawny. _____
76 92 163 27 8 127 191 151 43
- Y. Told a trivial or childish lie. _____
12 133 166 188 222 73
- Z. An eyelid hair. _____
167 213 49 113
- AA. Arizona city. _____
10 168 54 208

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

LAST MONTH'S SOLUTION: Judith Stone, Big Brewaha of B C. "Just look closely at the archeological records, say a pair of heady researchers, and you'll see that civilization began with the invention of beer. Clay tablets indicate that the Sumerians graded their beers according to their quality and use: Beer to Make You Happy. Beer for Use in Rituals." DISCOVER, January, 1991.

