

The Actuary

The wired future

Technology brings an information boom, but will health actuaries benefit?

by *Jacqueline Bitowt*
SOA Public Relations Specialist



Dramatic changes are occurring in the health care system, and behind them is information technology — a cornerstone of actuaries' work. For health actuaries in particular, information technology could have a tremendous impact. In 15 years or less, the technology structure today's health

actuaries work with "will look nothing like it does today," one expert says.

Consider:

- Several companies are offering services to manage any and all health care data — including medical information and patient eligibility data — over the Internet.
- Many software developers are offering products for "any-to-any" conversion of database file formats. The goal is to create "virtual patient records" carrying all medical and enrollment information, then allow sharing between doctors, pharmacists, insurance companies, Medicare, and others.
- A data warehouse company created a health care data depository from which participants can research, analyze, transmit, and track health data to help determine trends and treatments. The project includes 20 health care groups representing 3.5 million covered lives.
- Wireless technology lets a physician enter patient data into an institution's system from hospitals, clinics, private offices — anywhere the doctor is working.
- A high-tech company is offering "smart cards" for insureds. The cards would carry patient data and

eligibility information — and potentially, says an expert from outside the company, the patient's medical records themselves.

What's here, what's emerging For actuaries working in health care, the result will be the ability to work faster with more accurate ("cleaner") data than ever before. Knowledgeable observers say that technology can be expected to enhance — not eliminate — human judgment. They also say that an actuary's wildest dreams for gathering and analyzing data could be met today. The problem is turf protection and the need for industry-wide standards.

"Every hospital has its own information system that doesn't talk to any other hospital's system. The technology to exchange data is available. It's the implementation that's missing," said Kerry Evans, a 20-year information technology consultant now with Milliman & Robertson, Seattle.

With technology available now, Evans observed, "Information could flow into a data warehouse where actuaries could run experience studies non-stop." This is already practiced by some university medical centers, Evans said, where analysts "are getting minute-by-minute information on costs, empty beds, how many pills the pharmacies are distributing."

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EDITORIAL

Unintended consequences

by Robert H. Dobson

In this issue we explore, among other things, new ways in which computer technology affects health care. We also interview an actuary who has just accepted a position as chief information officer at a major managed care organization.

This editorial, however, will address the old issue of unintended consequences. We have two current applications of this. One is the proposed move of home health from Part A to Part B of Medicare. The second is the new practice among employers to pay employees for unused sick leave.

An illusionary 'improvement' As we all remember from the actuarial exams, Part A of Medicare is funded through a payroll tax and uses a trust fund mechanism similar to that of Social Security, or OASDI benefits, while Part B is funded from a combination of beneficiary premiums and general revenues. Can anyone really consider that the Medicare program is better off if home health benefits are moved from Part A to Part B? Obviously, it helps the Trust Fund. Removing an expensive benefit always does. But at the same time, we are removing any pre-funding. Why stop there? Think of how good the Trust Fund would look if we moved all Part A benefits to Part B. Think of how good the OASDI Trust Funds would look if we decided to fund all future benefits out of general revenues.

What is the unintended consequence of this move? Unless the proposal changes the Part B funding, the beneficiaries' premiums would rise significantly. The political consequences of that are easy to imagine, and I must assume they were not intended. Even if this flaw is addressed, either the deficit or taxes (other than payroll taxes) must increase.

Workplace ill served by 'benefit'

Most people think the concept of paying employees for unused sick time is quite fair. We all know of people who abuse sick leave benefits. The unintended consequences occur when someone really is sick. Take two similar employees, each making \$52,000 a year. Before sick leave policies, an employee who got sick for a week would not be paid and would end up making \$51,000 for the year. This, of course, is \$1,000 less than the employee who did not get sick.

Through the years, employers added sick leave benefits so employees who got sick would not lose earnings. Now, because some people abused the benefit, employers are paying employees for sick days they do not use. What employers may not realize is their employees are now in exactly the same situation as before any benefit existed. Employees who get sick lose earnings. The only difference is that now the sick employee gets the full \$52,000 earnings, but the employee who was not sick gets \$53,000, including a \$1,000 "wellness" bonus. I would say we should just drop the benefit, save the administration, and dock employees when they miss work, but no one would tolerate the loss of this "benefit."

Get involved

With this issue, I complete my three-year term as an associate editor of *The Actuary*. It has been a rewarding experience. I encourage others to get involved in the editorial board, and to call Bill Cutlip, editor, or Jackie Bitowt, SOA staff editor, for details on editorial board duties. I would like to give special thanks to the staff, who do much of the real work, for their support.

OPINION

The silent majority

by David M. Holland
1996-97 SOA President

As the largest actuarial organization in the world, the Society of Actuaries often is asked why we are not more vocal. Actually, it's by design. Article X of the SOA's Constitution provides that the SOA may not express an opinion unless it is first approved by a mail vote in which more than 50% of the Fellows respond and two-thirds of those voting approve the opinion. It is possible for an opinion to be expressed by the Board of Governors, a committee, or a Section, but even this is subject to authorization by the Board and other requirements. In today's world of electronic communications, mail votes and board authorizations are not exactly accomplished at the speed of light we now expect.

Speaking with one voice
However, this does not mean the profession is mute. A working agreement is in effect among a group comprised of the American Academy of Actuaries (AAA), the American Society of Pension Actuaries (ASPA), the Canadian Institute of Actuaries (CIA), the Casualty Actuarial Society (CAS), the *Colegio Nacional de Actuarios* (CONAC), the Conference of Consulting Actuaries (CCA), and the Society of Actuaries (SOA). (The Working Agreement document can be found on page 76 of the current Academy *Yearbook*.) One provision of the agreement says, "Each organization will endeavor to encourage the actuarial profession to speak with one voice in each country on actuarial issues in the public policy arena."

The CAS, CCA, and SOA have recognized the Academy in the United States, the CIA in Canada, and CONAC in Mexico as the organizations responsible for public policy representation.

The Academy and ASPA have agreed to coordinate statements on U.S. public policy pension issues. As a practical matter, this means that the business of expressing opinions on public policy issues rests mainly with the national bodies (whereas the SOA is an educational, research, and professional organization with an international membership).

Actually, I am envious of the position enjoyed by the CIA. The Canadian Parliament passed an Act granting incorporation to the CIA, setting out its purpose, and giving certain powers to the CIA and its council. It also defines the actuary in Canada as a Fellow of the Canadian Institute of Actuaries. Of the FSAs who reside in Canada, 97% are also FCIAAs. In absolute terms, only about 43 FSAs in Canada are not also FCIAAs. With the CIA, the actuarial profession in Canada is far from mute.

The Academy has not enjoyed the same level of recognition and support in the United States as the CIA has in Canada. The states recognize Academy members for certain actuarial responsibilities, but the Academy does not have a federal charter. Also, SOA member support for the Academy could be stronger. Of the FSAs who reside in the United States, only 89% are also MAAAs. Of the ASAs who reside in the U.S. and are eligible for membership in the AAA, approximately 68% are also MAAAs. In absolute terms, the AAA is missing 664 FSAs and approximately 1,740 ASAs who reside in the United States and are eligible to join. Benefits of the Academy
I believe it's important for Society members who practice in the United States to be members of the Academy. A study last year of its membership



identified several ways the Academy benefits the profession:

- Actuarial standards of practice and qualification standards
- A single and coordinated voice representing all U.S. actuarial practice areas to public policy makers, the media, and the public
- Representation before legislators, regulators, and the courts
- Liaison to other professions on behalf of the actuarial profession
- Promotion of new practice areas
- Public relations services
- Identification of public policy research topics
- Encouraging conformance with professional standards, including activities of the ABCD
- Building credibility with public policy makers
- Education of the public concerning actuaries
- Coordinated operational activities for the profession

The work of the Academy is divided into six Practice Councils — Casualty, Financial Reporting, Health, Life, Pensions, and Professionalism. The Practice Councils are each headed by a vice president and have identified a small number of key issues and a broader set of ongoing priorities that they monitor at the federal and state level. Key issues include topics such as genetic testing, nonforfeiture modernization, Medicare reform, health care entities that assume risk, Social Security solvency, and tax reform's impact on employee benefits.

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The wired future (continued from page 1)

Available and emerging technology and systems seem enormous in number, but a few stand out as having current and potential impact on actuaries' work.

Internet and intranets: "The nice thing about the Internet is it's everywhere," Evans pointed out. "You don't have to run phone lines. Just call an Internet service provider, and you're in business."

The Internet's ease of access and low cost make it a promising source for information exchange. However, "It's taking longer than originally thought," said Carol McCall, an actuary who is now Humana's chief information officer (CIO). (See story, page 9.)

Evans observed that part of the reason may be fears of security breaches — a fear he thinks is unfounded. "Technology exists that allows consistency checks at data collection sites, and you can check data during transmission to make sure it's secure and error-free [using encryption software and a technology known as secure sockets]. Right-to-privacy issues are a big concern."

Intranets and online services (in which networks are set up in a proprietary fashion) offer benefits similar to the Internet's and arguably greater security. "There's so much power in PCs, and with connections like the Internet and intranets, you have a real good chance of getting very accurate and timely data," Evans said.

Data warehousing: The name implies "database," but there's a

difference, points out Michael Davlin, head of the Society of Actuaries Computer Science Section. "Databases aren't automatically updated and available to be shared by many different groups, and that's the point of data warehouse technology," Davlin said. Data "cleaning" is another advantage, Evans observed, and this is crucial to actuaries' work. "When someone sends data tapes for the last 10 years, there will be missing fields, inconsistent entries — all of the things that could go wrong and probably did. There's a whole set of procedures to be done to get usable data, and that's what data warehousing is supposed to do automatically. It produces nice, clean data and makes it available quickly to a group of people, then sends new reports based on new information on a regular basis determined by the user or institution."

Data mining: This software is often used by marketing firms to examine customer information that could lead to new buyers for products. But actuaries might use data mining to find hard-to-see correlations. "Data mining allows the automatic discovery of patterns in information," explained McCall. "While people tend to find data that corroborates their own thinking, data mining searches information for existing patterns rather than demanding that the user pose queries, based on the user's hypotheses, of course, and then seeking answers to those queries."

Wireless technology: This will allow anyone "to get information from anywhere to anywhere," said Davlin. "It's now in an embryonic stage, but as it develops, it will result in a lot more bandwidth [a network's capacity to carry information], greater transmission speed, and tremendous convenience for information exchange. You could get information from doctors on vacation, anywhere." Will actuaries have access? As Evans noted, technology is abundant but implementation is slow. The central reason is the high value of

information, notes McCall. "Implementation will not be easy," she said. "As information becomes a currency of exchange, people will not give it away for free."

So as provider systems gather more information, actuaries could be left out of the loop. "If the hospitals and physicians are collecting this data, what would make them give it to insurers?" commented Jeff Nohl, an actuary who is president of Aurora Health Network, an integrated health services provider in Wisconsin.

"For example, how does blood pressure really affect costs? We have some idea now, but with the technology available, we could have much more solid information. Yet while some insurers have strong business relationships with providers, many do not. How would those companies and their actuaries get access to that data?"

Equally important, Nohl said that actuaries are still too often excluded from the managed care environment — to everyone's detriment. "Actuaries have a lot they can offer physicians in analyzing patient and cost data," Nohl said. "Doctors could go a lot further working with actuaries than without them. Someone has to look at more than anecdotal evidence. What are those numbers saying? What do they mean? The statistics of science can work with the physician's experience in medicine to find best practices and patterns of treatment." Human judgment, technological help. Perhaps no industry is as focused on the real needs of people as health care. Confidentiality, doctor-patient relationships, emergency needs, and many other factors make it impossible to replace human evaluations with technologically based analyses.

Both Evans and McCall caution against placing too much emphasis on information technology in health care delivery. Both say the "human factor" is too important to ignore.

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Facts first

Medicare debate gets help from actuaries

by *Jacqueline Bitowt*
SOA Public Relations Specialist

“No politician with a brain would let Medicare go bankrupt on his watch,” a political consultant was quoted recently in *Money* magazine. The comment speaks to the importance of Medicare in the United States as both a political issue and a source of support for U.S. citizens.

Most experts agree that Medicare, the nation’s tax-supported health care plan, is in trouble. The Hospital Insurance Trust Fund, or Part A, is expected to be depleted by 2001. Costs of the program’s Part B, supplemental medical insurance, are rising faster than the U.S. economy is growing, which will require a doubling of today’s tax contributions to the fund within six years.

Medicare’s future is receiving the benefit of actuarial analysis during the high-volume, emotional public debate. Several initiatives are being conducted by the profession through the Society of Actuaries Foundation and the American Academy of Actuaries to bring objective, unbiased information and analysis to the public.

Clear information for consumers

At its February 27-28 Trustees meeting, the Society of Actuaries Foundation authorized the second in a series of “On the edge of change” consumer education programs. An unbiased, nonpartisan, actuarial-based look at Medicare and its financing problems will be the focus of the program — “On the edge of change: Time for a Medicare checkup” — which will have a short, easy-to-read brochure carrying its core messages.

“Many Americans, even those currently enrolled in Medicare, have very little knowledge of how Medicare is financed and the urgency of its problems,” said Jim Tilley, chair of the Foundation Trustees. “This program

can fill a real need and is clearly in line with the Foundation’s mission of ‘contributing to the understanding ... of social and economic problems by investing in ... education and communications initiatives.’”

The first Foundation brochure in the “On the edge of change” series, “Putting Social Security back in balance,” was introduced in September 1996, and more than 107,000 copies have been distributed to employees, libraries, schools, and community groups. More than 93% of those returning the accompanying survey card responded that they either strongly agreed or agreed somewhat that they understood the Social Security system better after reading the brochure. Newspaper and company newsletter articles containing material from the brochure have reached 4.5 million readers of more than 350 publications. 3 Academy initiatives

Among the Academy’s Medicare activities are Congressional testimony, a major project studying Medicare’s long-term solvency, and three work groups.

The Subcommittee on Health of the Committee on Ways and Means heard testimony on February 25 from actuary Alice Rosenblatt on behalf of the Academy. Rosenblatt’s testimony included six suggestions for improving the current risk assessment and adjustment method used by Medicare. (See accompanying story on page 6.)

The Academy is sponsoring a major study of issues relating to Medicare’s long-term solvency. This effort is headed by William Bluhm, an Academy vice president chairing the group’s Health Practice Council, a member of the SOA Board of Governors, and principal and consulting actuary at Milliman & Robertson, Minneapolis. The report, requested by Congress, will look at the various combinations

of cost-containment methods to seek the most efficient combination — one that provides the most benefits for the lowest costs. Work on the study is expected to take at least six months.

Three Academy work groups will study different areas to provide accurate information to the Medicare debate.

- The Competitive Bidding Work Group is studying ways to make Medicare payments more market-driven. Moving away from the fee-for-service basis for payments may be expected to make the system more efficient.
 - The Medigap Work Group was formed to review a bi-partisan bill on consumer protection for Medicare Supplement Insurance. Sponsors of the bill are Senators John Chafee (R-R.I.) and John Rockefeller (D-W. Va.) and Representatives Nancy Johnson (R-Conn.) and John Dingell (D-Mich.). The group will work with Congress on other Medigap issues as well. Chairing the work group is Michael J. Thompson, managing director, Price Waterhouse LLP, New York.
 - Members of the Medicare Reform Work Group are currently working on short-term projects, such as answering Medicare questions from influencers on Capital Hill and providing comment on various legislative proposals not addressed by other Academy work groups. Roland (Guy) King is chair of the work group. He was formerly chief actuary of the Health Care Financing Administration and now is president of King Associates, Ellicott City, Md.
- The three work groups are under the Academy’s Federal Health Committee, chaired by Geoff Sandler.

Medicare testimony

Actuary addresses Congressional subcommittee

by *Jacqueline Bitowt*
SOA Public Relations Specialist

Actuaries and their work stepped into the public spotlight through Congressional testimony on Medicare provided by the American Academy of Actuaries.

Alice Rosenblatt, Academy Board of Directors member and a member of the 1994-96 SOA Board of Governors, offered six suggestions to help ease the Medicare funding crisis to the Subcommittee on Health of the Committee on Ways and Means in Washington on February 25.

Rosenblatt was selected to present the Academy's testimony as an expert on risk assessment and adjustment. She and Daniel L. Dunn were lead investigators of a Society-sponsored report, *A Comparative Analysis of Methods of Health Risk Assessment*, published as part of the SOA's Monograph Series in 1996. She also serves on a study panel sponsored by the National Academy of Social Insurance on the effect consumer choices have on Medicare now that a wide range of private plans are available. Rosenblatt is senior vice president and chief actuary of Wellpoint Health Networks, Woodland Hills, Calif.

4 topics of testimony
Testimony was requested by the subcommittee on:

- Health risk assessment and risk adjustment
- How they relate to the current Medicare risk contracting program
- How improvements can be made to the current risk contracting program
- Provisions in the administration's 1998 budget proposal regarding HMO payments

Rosenblatt's testimony on the first three points concluded with six suggestions for improving the current payment method used by Medicare, which relies on the average adjusted per capita cost method (AAPCC). This approach bases risk adjustment on age,

sex, welfare status, institutional status, and basis for Medicare eligibility. The AAPCC is applied to a managed care plan's population, and the results are modified by a further factor, called the adjusted community rate (ACR), which attempts to adjust for the health plan's cost structure.

Suggestions for improvement were:

- Reduce the wide variations in the geographic region values of the AAPCC since the variation is not an accurate reflection of the geographic-driven costs.
- Use a "credibility" approach, possibly one that bases payments to health plans on a combination of prepayments and a plan's actual experience.
- Consider carving out particular disease populations or procedures to separate more costly situations from the base, thereby limiting the variation in costs due to risk differentials.
- Reengineer the ACR methodology.
- Base the AAPCC methodology on something other than fee-for-service payments, possibly the use of competitive bidding.
- Continue studies and demonstration projects on risk assessment and adjustment methods to improve on those currently in use.

Focus on the federal budget
Commenting on the administration's budget proposal, Rosenblatt addressed the alternatives to the proposal's suggested phased-in reduction in HMO payments from the current 95% of fee-for-service payments to 90%. Her testimony on behalf of the Academy said two alternatives worthy of discussion are modifying the risk-assessment method or modifying the current payment method linking HMO payments to fee-for-service payments.

The budget plan would remove

from the HMO payment formula two current elements: payments on graduate medical education and disproportionate-share



Alice Rosenblatt

hospital payments. These would be redirected accordingly. The Academy calls this an improvement, saying it would reflect the actual costs for Medicare enrollees.

Also under the administration's budget plan, provider-sponsored organizations (PSOs) and preferred provider organizations would be allowed to participate in Medicare under minimum federal standards, with states allowed to impose more stringent standards after four years. In her testimony, Rosenblatt said that PSOs should be subject to similar regulatory requirements as HMOs and traditional insurers if a level playing field is to exist. She told the subcommittee that the Academy is concerned about adequate solvency of new health entities such as PSOs. Under-the-wire response
This was Rosenblatt's fourth appearance testifying before a Congressional group. Her three earlier sessions in 1993 offered testimony on risk assessment related to President Bill Clinton's health care plan, subject of much heated discussion before its rejection during his first term.

As an experienced witness, Rosenblatt knows both the frustrations and opportunities of the process. "It's difficult. Everything is timed. You have only five minutes to express your statement. Also, every question the Congressional representatives can ask is also timed.

That keeps you from speaking up when a question is asked of someone else and you have helpful information.”

Lights in the hearing room turn yellow to warn that a speaker's time is almost up and red to signal the end. Rosenblatt spoke up when the red light appeared. “I said that I knew my time was up, but I had two points to make about comments expressed by the first panel earlier that day. The chairman, William Thomas, said, ‘Go ahead.’”

First, Rosenblatt told the subcommittee that suggestions made earlier that day to use loss ratios for Medicare risk plans ignored the fact that “there are lots of problems with any kind of loss ratio tests. Specifically, there is no standardized definition of the numerator or the denominator of the ratio. Also, there are significant problems that can distort test results.”

Second, she objected to an implication that Medicare's population of

frequent (high-risk) users was not a significant element of a plan's cost. Rosenblatt was able to cite the fact that “for under-65 populations, 5% of the claimants in an insured plan generate 50% of the claim dollars.” She observed, “While the number of people is small, the cost implications are great.” Copies available of testimony, monograph Copies of Rosenblatt's nine-page Congressional testimony are available free of charge from Doreen Evans, American Academy of Actuaries, 1100 17th Street N.W., Washington, DC 20036-4601 (phone: 202/223-8196; fax: 202/872-1948).

Copies of the 127-page monograph presenting Rosenblatt's and Dunn's risk assessment study are available for \$35 from the Society of Actuaries' Books Department (phone: 847/706-3526; fax: 847/706-3599; e-mail, for information requests only: ccimo@soa.org).

2 more actuaries testify

Two actuaries presented further testimony on Medicare to Congressional groups on March 19 on behalf of the American Academy of Actuaries.

William Bluhm, vice president heading the Academy's Health Practice Council, appeared before the House Conference Subcommittee on Health and Environment. He warned that proposed minimum solvency standards for provider-sponsored organizations may create undue financial risk.

Michael Thompson, chair of the Academy's Medigap Work Group, addressed the Senate Finance Committee. He cautioned that easing Medigap open-enrollment requirements may increase the cost of coverage for Medigap enrollees.

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“The medical profession is still in many ways a ‘cottage industry,’” McCall pointed out. “If anyone thinks we can successfully commoditize the delivery of health care, they're wrong. We never will.”

“It's so tempting to say that technology will tell us the right timing, the right decisions. No machine will think for you. Strategy is not that easy, whether it's for patient care or management of a health care network. If you focus solely on technology or data warehouses to deliver your information, you'll cut out more than half the information you'll need to run your business. The data that isn't in a warehouse is so important, if you don't find a way to integrate it, you'll miss the big picture.”

Davlin observed that health actuaries will need to be aware of the consumer uses of technology. With information and competitive physician consultations available worldwide, some consumers may be able to use health information in a way insurers would see as anti-selective: that is, consumers would seek insurance

because information they found on the Internet or another online source signals a possible health threat. On the positive side, “It may become much more difficult for insurers to detect pre-existing conditions,” Davlin noted. “People will be taking more responsibility for their health, and this could reduce health care and insurer costs in the long run.”

Current and emerging technology may not be a substitute for human judgment, but it could allow better medical decisions. “Encryption will make it possible to send patient information, even images, over the Internet, and this will allow highly experienced doctors to render second opinions — no matter how far the doctor is from the patient,” Davlin said. “What I imagine is that fewer doctors who are better at what they do will get more of the available work.”

Nohl observed that today's imaging technology is already enabling health care delivery at a distance, particularly the rendering of second opinions and the reading of X-rays. However,

improvements in encryption will expand the practice, he said.

Patients could benefit from other changes as well, noted Evans. “It would be nice to see computerized medical records instead of these charts no one can find. In the emergency room today, no one has access to your records if you weren't a patient at that hospital before. When institutions finally agree on (system standards to exchange information), no longer will patient records be lost.”

He said that health actuaries and others who analyze health care data have a tremendous responsibility. “We look at numbers and more numbers, but what you do with them has a great impact on people. In health care, it's literally life and death,” he said. “The goal of using technology in health care management is not just to cut costs. It's to do the right thing first. We want to help people get better. Technology can help partly to make us aware of the costs but also to know the effectiveness of treatments.”

Profession gets a new international home

by Sam Gutterman

SOA Immediate Past President

At its September 1996 meeting, the Council of the International Actuarial Association (IAA) decided that both the IAA and its recently formed section, the International Forum of Actuarial Associations (IFAA), of which the Society of Actuaries is a founding member, would be administered by the Canadian Institute of Actuaries (CIA) in Ottawa. The Secretariats of the two organizations will be combined at the CIA beginning in October 1997, subject to approval by the IAA Council at its September annual meeting.

The IAA has been administered in Brussels since 1895 and the IFAA in Canada since this section's formation 100 years later in 1995. The IFAA's main objective is to promote professionalism of the international actuarial community by requiring its member associations to adopt a code of professional conduct, standards of practice, and a disciplinary process.

This was a significant decision. It was based on the recommendations of an IAA task force headed by Prof. Hans Bühlmann of the Swiss Association of Actuaries, who studied this issue for 12 months. Five actuarial organizations from as many countries applied for the job: the CIA, the Society of Actuaries, and organizations resident in Belgium, France, and the United Kingdom. The Society of Actuaries applauds the decision for one central office and wishes the CIA the best in assisting the leaders of the international actuarial profession to meet the needs of all actuaries worldwide. The SOA also offers special thanks to the Association Royale des Actuaire Belges (Belgium) for providing distinguished leadership over the last century for our profession.

Yves Guerard, FSA, FCIA, FIA, has agreed to serve as the secretary general of the IAA. He brings a solid, impressive background to the position. He has

served on the SOA Board of Governors (1988-90), as 1982-83 president of the CIA, as the organizer of the scientific program of the 1992 International Actuarial Congress in Montreal, as 1988-89 national president of the Canadian Chamber of Commerce, and as a councilor to the IAA for 12 years.



Planning for the future Guerard and CIA Executive Director Rick Neugebauer are focusing on guiding the IAA into the 21st century.

Guerard noted that an IAA task force is looking at possibilities for revising the entire IAA structure in light of new demands brought on by the accelerating rate of change. "The consolidation and transfer of the IAA Secretariat coincides with a restructuring that will enable our profession to adapt to globalization and respond more adequately to other challenges of the next century," Guerard said. SOA member Jim MacGinnitie is serving on the task force.

Near term, Neugebauer will focus on integrating the IAA/IFAA's many functions into the CIA's staff responsibilities. "In these times of technological capabilities, we'll be able to provide support to the IAA from a distance," Neugebauer said. These capabilities are now essential, because the group's presidency will be rotating from country to country (rather than being held by a Belgian as it has since the IAA's

founding). He noted that meeting support will be coordinated from the Secretariat in Canada but the country hosting the meeting will provide the local logistical support, a long-standing procedure.

Join the IAA

SOA members are encouraged to join the International Association of Actuaries.

Benefits of membership include:

- The *Index*, the annual yearbook and list of IAA members
- The *Bulletin*, a semi-annual compendium of research and reports from various actuarial organizations from around the world
- Opportunity to attend International Actuarial Congresses (the next to be held in Birmingham, England, in June 1998; see story, page 16)
- Opportunity to join either of the IAA's other two sections, the Actuarial Approach for Financial Risks (AFIR) and the Actuarial Studies in Non-Life Insurance (ASTIN), both of which publish the *ASTIN Bulletin*

More information about the IAA is contained in the SOA's 1997 *Yearbook* on page 237. SOA members may direct their questions about the IAA to the organization's U.S. representative, Curtis E. Huntington, at his *Directory* address.

Membership applications are available from Lela Long at the SOA office (phone: 847/706-3533; fax: 847/706-3599; e-mail: llong@soa.org). The membership fee has traditionally been expressed in Belgian francs [600 francs, or about \$20 (U.S.), in 1996, plus a small administrative fee]. A notice showing the fee in local currency is mailed to members in the spring each year.

Sam Gutterman is a director and consulting actuary for Price Waterhouse LLP, Chicago. He can be reached by e-mail at 73462.27@compuserve.com.

Actuary uses skill set in new CIO role

by Jacqueline Bitowt
SOA Public Relations Specialist

When executives of one of the nation's largest managed health care companies, Humana Inc., needed a leader to plan the giant company's information strategy, they didn't select the usual computer guru, MBA, or Silicon Valley business leader. Instead, Humana's top executives invited into their ranks an actuary who until recently had worked for their own company.

Granted, Carol J. McCall, a Fellow in the Society of Actuaries since 1991, had been moving away from traditional actuarial work toward the strategic role of an executive for some time. Nonetheless, her actuarial skills and experience will be central to her success as Humana's chief information officer (CIO), she said.

The CIO position is new at Humana, a publicly traded health plan with 4.8 million members in 22 states and

the District of Columbia, and it is separate from the everyday digital technology functions. "This position recognizes that information — identifying it, creating, using it — is what's going to help the corporation's larger strategy succeed," McCall said. "Humana's senior management realizes that because information links the elements of the corporate strategy together, information management is not a technical issue but a strategic one."

McCall began her career in 1985 working as an actuary for Central Life in Des Moines, Iowa. In 1987, she moved to the company's group health division in Madison, Wis., where she remained when the division was acquired first by Employer's Health Insurance and then, in 1995, by Humana. Unlike some professionals, McCall found that acquisitions helped her career. "I experienced three different environments in nine years without ever having to move. I worked with new leadership and new management, and this was very refreshing and educational." When McCall moved to a consulting firm in 1996, Humana pursued her. "I came back here for the opportunity [to serve as CIO]," she said.

Starting in 1990, Employer's Health offered her management and leadership

training and a position managing people. "After I became a very solid individual contributor, I was trained in the core competencies needed for management:

self-confidence in dealing with people, coaching others, ability to deal with difficult situations."

It's those skills and others "that leapfrog you into management and possibly into an executive role," McCall observed. "Moving from being an individual contributor to a manager and leader cannot be made by simply being a better individual contributor. More of the same will not work."

So how will an actuarial background serve an executive whose role is new to a corporation, does not involve managing actuaries, and does not require actuarial work per se?

"An actuarial background does provide a particular advantage," McCall said. "Both our training and in many cases our experience require that we



Carol J. McCall
CIO, Humana Inc.

Setting the pace

From time to time, The Actuary will feature stories of actuaries who have moved successfully into nontraditional areas. Here is the first article in this occasional series. The Actuary welcomes nominees for future stories. Contact Bill Cutlip, editor, at his Directory address or Jackie Bitowt, staff editor, at the SOA office.

Skills needed for the executive suite

Becoming a health actuary, moving to the role of manager, and then becoming chief information officer (CIO) for one of the nation's largest health care companies required the acquisition of many core competencies. Here, Carol McCall, Humana's new CIO, cites some of the traits and skills needed at each level.

Individual contributors

- Analytical skills
- Technical expertise
- Concern for order

Managers

- Influence skills
- Coaching and development
- Team leadership

Executives — strategic level

- Strategic thinking
- Vision communication
- Resource stewardship

All levels

- Customer focus
- Continuous learning
- Drive for excellence
- Teamwork
- Results-oriented approach

Virtual mentors and role models needed

A joint project of the American Mathematical Society (AMS) and the Society for Industrial and Applied Mathematics (SIAM) has asked for the Society of Actuaries' help in securing nonacademic actuaries as mentors for recent graduates and for students in a master's or doctorate program in mathematical sciences.

Volunteer mentors are matched with appropriate students and stay in touch for one year answering e-mail messages on the work environment in

actuarial science, job and internship opportunities, interview and resume tips, and recommended course work. Several students have expressed interest in actuarial science, but few actuaries are involved in the program at this point.

In addition, this project's Web site (www.ams.org/careers/) needs career profiles provided by actuaries for site visitors to learn something about actuarial careers. They are looking especially for profiles from those who graduated

within the past five years.

For more information on how to encourage a future actuary through this project, prospective mentors should contact Cecilia Green (phone: 847/706-3561; fax: 847/706-3599; e-mail: cgreen@soa.org). Although registration is available on the Web site, those interested also should contact Green so that the SOA will know of members' interest in this mentoring project.

Actuary uses skill set (continued from page 9)

learn about a lot of things — and, more importantly, how one thing affects another. Also, the actuarial profession tends to attract people who have a great deal of curiosity. They want to learn things, to know about things, and to use that knowledge.”

Technical skills are important, too, McCall said. “They allow actuaries to understand the system. I think it's terribly difficult to be an effective manager today without the ability to understand how things fit together at a comprehensive level.”

However, moving beyond the individual contributor role to management

and, eventually, to executive leadership requires a broader perspective than even the most difficult actuarial work can provide, McCall said. “What has been especially important for me is that my career has been a synthesis of underwriting, actuarial, sales, systems, and service, where I have had to understand how different areas impact one another. This role [as Humana's CIO] brings it all together. I view it as a once-in-a-lifetime opportunity.”

Observed McCall, “A major strategic question for every company today is how to align their technology and their partnerships. If you try to use the tech-

nology first before you've discovered the partners' real needs, you will fail. In too many situations, health care companies and providers are seen as adversaries. But the relationship should not be an adversarial one.”

McCall will direct her skills toward a number of activities for Humana. “Two key areas of emphasis for the company this year are customer focus and provider relations,” she said. “Success in each of these areas depends on developing and using key information strategies that will help us realize our overall goals.”

The silent majority (continued from page 3)

Case in point:

Kassebaum-Kennedy The Academy is not a lobbying organization. It attempts to provide an unbiased, professional analysis of actuarial issues involved in major public issues.

It has played a major role in the health care debate in general and in the Kassebaum-Kennedy legislation in particular. Last year, it appeared that Kassebaum-Kennedy was hopelessly stalled in committee. I understand that it is quite unlikely that anything would have happened had not Senator

Kennedy called the Academy. At a command performance before the senator, Bill Bluhm, the Academy vice president for health practice and an SOA board member, discussed the implications of this bill. Following that meeting, Senator Kennedy called for a vote, and the bill subsequently passed Congress. Academy representatives were invited to the White House for the signing of the bill into law. The actuarial profession is far from mute. Our voice is heard on the Hill, within the administration, and by the NAIC

and state regulators.

If you are not already a member of your national organization, I urge you to call, fax, phone, or e-mail right away for a membership application. Also, you can make your voice heard in the SOA by participating in its education, research, or professionalism activities. David M. Holland is president and chief executive officer at Munich American Reassurance Co., Atlanta, and can be reached by e-mail at 72277.2602@compuserve.com.

Palm Desert meeting offers pension, health insights

The newest developments in actuarial topics, networking opportunities, and the beauty of the desert will mark the 1997 Society of Actuaries Spring Meeting, May 21-23, at Marriott's Desert Springs Resort, Palm Desert, Calif.

Presenting the keynote address at the general session on May 22 will be James C. Hickman, Ph.D., FSA. His speech, "The Old Age Crisis," will provide an overview of his paper for the eminent 1996 Bowles Symposium. The paper discusses the dramatic impact that the maturing baby boomers will have on the United States and some possible solutions to the problems this presents. Hickman served as Bowles Chair last year, and he is emeritus professor and dean, University of Wisconsin School of Business, Madison, Wis.

Looking toward the 21st century, Michael J. Cowell, FSA, will discuss his novella, *Cyberbug*, at the general luncheon on May 22. *Cyberbug* tells the story of an imaginary actuary in the next century and the changes he must make because of new technology,

political movements, shifting family values, and the aging process itself.

The Palm Desert meeting will begin on Wednesday, May 21, with a jointly sponsored half-day session of underwriting topics designed by the Home Office Life Underwriters Association and the Society of Actuaries Product Development Section.

For this year's meeting, more than 100 sessions have been planned to address the educational needs of

pension and health actuaries. Other sessions at the meeting will cover topics including:

- Computer science
- Health disability income
- Investments
- International issues
- Product development
- Reinsurance
- Education and research
- Actuary of the future
- Subjects of interest to smaller insurance companies

Attire for the meeting is casual so that attendees can feel comfortable during several days of great educational sessions and good networking opportunities on the resort's golf course or tennis courts.

For more information, contact the SOA's Continuing Education Department (phone: 847/706-3545; fax: 847/706-3599; e-mail: sberg@soa.org). Information and a registration form are available on the SOA's Web site (<http://www.soa.org>) under continuing education.



Life reinsurance, 403(b) plans are new specialty guide subjects

Two new Professional Actuarial Specialty Guides (PASGs) are being distributed to members of certain Sections:

- "U.S. Tax-Sheltered Annuities" (W-1-97), edited by John Bremer, is being distributed to members of the Pension Section.
- "Life Reinsurance" (Y-1-97), edited by Hugh J. McFarland and William J. Reifenberger, is being distributed to members of the Reinsurance Section.

The annuities guide was developed under the auspices of the Retirement Systems Professional Education and Development Committee. The reinsurance guide was prepared under the auspices of the Life Insurance Specialty Guides Committee.

Both guides are available to Society members through the SOA Books Department (phone: 847/706-3526; fax: 847/706-3599; e-mail: ccimo@soa.org). Individual copies are free to members. A nominal fee

is charged for multiple copies.

Topics of other specialty guides currently under development include variable life and demutualization. In addition, a guide on U.S. statutory financial reporting will be published in the near future. The Life Insurance Specialty Guides Committee welcomes ideas for new or updated guides. The contacts are Peter Duran or Martin Snow, who can be reached at their *Directory* addresses.

New policy clarifies use of SOA designations, titles

by Sam Gutterman

Chair, SOA Committee on Professionalism

A long-standing element of the Society's Code of Professional Conduct (Precept 13) states that actuaries "shall make use of membership titles and designations of an actuarial organization only in a manner that conforms to the practices authorized by that organization." The phrase refers to the fact that several organizations offer actuarial credentials and maintain governing boards, committees, and other groups in which members may have leadership roles with accompanying titles.

At its January 17, 1997, meeting, the Board of Governors adopted a policy to clarify how and when actuarial designations and Society titles can be used.

At the heart of the new policy are the ideas stated in its first paragraph: "In order to create public awareness of the actuarial profession, actuaries are encouraged to identify themselves as actuaries. However, a member must not imply that the ideas or opinions expressed represent those of the Society of Actuaries unless he or she has specific authorization to do so."

Designations

Those who have earned an SOA designation and are current members may identify themselves orally or in writing with the appropriate designation:

- Fellow or Associate of the Society of Actuaries
- Fellow or Associate, Society of Actuaries
- FSA or ASA

Anyone who has ceased to be an SOA member through nonpayment of dues, resignation, suspension, expulsion or any other reason may not use any of those designations until that individual resumes being an SOA member.

Titles affiliated with SOA leadership positions

Section 2 of the new policy discusses appropriate uses of SOA titles by those who have become active leaders or members of SOA Sections, committees, task forces, or even the Board of Governors itself. It states: "The member [holding a current or past title] must not imply that the ideas or opinions expressed represent those of the Society of Actuaries unless there has been an explicit authorization in accordance with Article X of the Constitution to present the views of the Society."

Members elected or appointed to certain SOA volunteer positions may identify themselves as such when engaged in SOA business, but may not state or even imply the authority of the SOA in public statements, court testimony, marketing his or her professional services, or to convey special knowledge.

However, an SOA member holding one of these positions may refer to current or past SOA offices or titles in these settings:

- Resumes for business or professional purposes
- Statements of qualifications used in presentations to current or prospective clients

- Statements of qualifications used in biographical material for a book or article written by or about the member
- Testimony in a court of law or before a legislative or regulatory body
- Announcement of SOA elections or other SOA public relations efforts, as well as publication of employment changes or promotions

SOA members are rightly proud of their professional designations and SOA titles and should use them at every appropriate opportunity to raise the visibility of the profession. It's also appropriate to clarify the source of our opinions as individual or organizational when we offer them publicly. This policy will help.

A copy of the official policy adopted by the Board, including a list of proper identification for various leadership positions, is available from Cheryl Enderlein at the Society office (phone: 847/706-3563; fax: 847/706-3599; e-mail: cenderlein@soa.org). Questions about interpretation in specific instances can be directed to Linden Cole, FSA, at the SOA office (phone: 847/706-3595; fax: 847/706-3599; e-mail: lcole@soa.org). Sam Gutterman is immediate past president of the SOA. He is a director and consulting actuary, Price Waterhouse, LLP, Chicago. He can be contacted by e-mail at 73462.27@compuserve.com.

Applications sought for 2 AERF awards

Deadlines are approaching for two award programs sponsored by the Actuarial Education and Research Fund (AERF): the 1997 Woody Scholarships for 1997-98 college seniors and the Ninth Annual Practitioners Award for research conducted by experienced actuaries. Woody scholarships Applications are due June 30, 1997, for four scholarships of \$2,000 (U.S.) each to be awarded for the 1997-98 academic year. Recipients will be notified by August 31, 1997.

To be eligible, students must rank in the top quartile of their classes, must have successfully completed one actuarial examination, and must be scheduled for senior standing in the 1997-98 academic year. Each student must be recommended by a professor, and a brief essay is required. Only one application per school is allowed. Awards will not be made on the basis of need.

The scholarships are funded by the estate of John Culver Woody, a distinguished actuary who was active in several actuarial fields. He established the scholarships to help worthy actuarial students complete their education.

Applications for the Woody scholarship are available through the AERF office. Contact Paulette Haberstroh (phone: 847/706-3584; fax: 847/706-3599; e-mail: phaberstroh@soa.org).

Practitioners Award Submissions are due June 2, 1997, for the Practitioners Award, which recognizes the considerable research done by actuaries in non-academic work. This award was established by AERF to encourage publication of research done while pursuing normal job duties.

The winner will be awarded \$1,000 (U.S.). Two second prizes may be chosen, depending on the merits of the

submissions. Winners will be notified by August 31, 1997. Winning entries will be published in the *Actuarial Research Clearing House (ARCH)*.

The work submitted need not be exhaustive but should be practical and innovative. The work need not be presented in a formal paper as long as it is described clearly and understandably. Judges look for:

- Research done as part of the author's normal job duties rather than research performed specifically for publication or for this competition
- Research that has practical applications
- Applications of actuarial techniques to problems outside the areas in which actuaries traditionally work
- Unusual approaches in analyzing economic trends with conclusions that can prove useful to actuaries in making long-term forecasts
- Innovative shortcuts in handling formulas to make calculations easier or more efficient

There are several eligibility requirements for the Practitioners Award:

- Authors must be members of at least one of the seven sponsoring organizations of AERF: American Academy of Actuaries, American Society of Pension Actuaries, Canadian Institute of Actuaries, Casualty Actuarial Society, *Colegio Nacional de Actuarios*, Conference of Consulting Actuaries, Society of Actuaries.
- Authors must not be substantially employed by an academic institution. This means that their main employment must be for an insurance company, consulting firm, government, or other non-academic employer.



- The work must be actuarial in nature; computer programming, for example, would not qualify.
- The work must be submitted to verified peer review by a member of one of the sponsoring organizations. A letter from the peer reviewer must accompany the submission.
- The work cannot have been previously published or be in the process of publication elsewhere in books, journals, newsletters, company publications, or any other type of publication that is widely disseminated.

Submissions for the Practitioners Award should be mailed to: Actuarial Education and Research Fund, 475 N. Martingale Road, Suite 800, Schaumburg, IL 60173-2226. Questions should be directed to Curtis E. Huntington, AERF executive director (phone: 313/763-0293; fax: 313/763-0937; e-mail: chunt@math.lsa.umich.edu).

Exam center visits

Examination supervisors are critical to the success of the examination process. To emphasize the regard the Society has for supervisors and proctors and their efforts on behalf of the Society, Bern Bartels, registrar emeritus, will be visiting various exam sites. These visits afford an opportunity for supervisors and proctors to present any concerns or suggestions they may have about the implementation of the exams. A supervisor will be notified that the test site will be visited during an upcoming session.

Seeking exam volunteers
The SOA Examination Committee relies on the generous support of its members in volunteer roles. The committee consists of several individual examination committees, each responsible for specified examinations. The Series 100 Exam Committee is seeking volunteers, especially for Course 160, "Survival

Models and Construction of Tables." If you are interested in serving on the Course 160 Committee, or any other committee, please contact Sandra Rosen, SOA education administrator, at the Society office (phone: 847/706-3558; fax: 847-706-3599; e-mail: srosen@soa.org).

Business instructor needed
The SOA Education and Examination Committee is seeking an actuary to serve as business instructor for the 121 Intensive Seminar on Applied Statistical Methods to be held at the University of Iowa in August.

This is an opportunity for an actuary to serve the profession by using his or her business skills and case studies to help teach an enthusiastic group of fledgling actuaries.

The business instructor should be an FSA or FCAS who is employed full-time by a non-academic employer and who uses applied statistical methods on the job. This person will be responsible for one day of the seminar session during which one or two case studies, developed from the instructor's actual experience, will be presented.

Interested actuaries should contact Sandra Rosen, SOA education administrator, for an application.

Candidate information moves to the Internet
The following information will no longer be available in printed form and will be offered only on the SOA's Web site:

- List of passing candidates' names and exams passed
- Prize winners for Course 100 and passing percentages for each exam (also number of candidates writing, number effective, number passing, and percent of effective passing)
- List of candidates who met the educational requirements for ASA
- List of potential FSAs
- List of candidates receiving Course 100 credit through the GRE

This information will be available about 10 days after the May and November exam grade mailings are completed. It can be found on the Web at <http://www.soa.org> under education and examinations.

The list of passing candidate numbers will continue to be posted on the Web and the exam hotline soon after grades are mailed.

Math awareness week has Internet theme

"The Internet" is the theme of the 1997 Mathematics Awareness Week, April 20-26. Seven days of lectures, math games and competitions, and other special events focusing on mathematics across the United States mark the yearly event.

The nationwide program is sponsored by the Joint Policy Board for Mathematics. The board represents three organizations — the American Mathematical Society (AMS), the Mathematical Association of America (MAA), and the Society for Industrial

and Applied Mathematics (SIAM) — whose membership totals 60,000. The Society of Actuaries maintains contact with the MAA through its appointed liaison representative.

This year's focus on the Internet is intended to raise the visibility of mathematics' role in the Internet. Developments in fields such as number theory and queuing theory have opened the way for key Internet technologies including data encryption for secure financial transactions, data compression for messages with audio

and/or video components, and routing and network configuration. Moreover, the Internet has enabled worldwide collaborations among mathematics teachers and researchers.

A colorful poster and information about this year's events are available through the Web site (<http://forum.swarthmore.edu/maw/>) and from the Joint Policy Board for Mathematics (phone: 202/234-9570; e-mail: jpbm@math.umd.edu).

Closing the book, opening a new one

March brought the final chapter of a Society tradition as the last issue of the *Transactions* to contain refereed papers is mailed to members.

The 104-year-old *Transactions of the Society of Actuaries* — also known as *TSA* or the *Transactions* — has long been recognized as a forum for seminal papers in actuarial science. The final volume of this annual publication presents papers accepted in 1995.

The Transactions Reports (TSA Reports) experience studies volume will continue publication.

Replacing the *Transactions* is the *North American Actuarial Journal (NAAJ)*. The new journal is not only refereed but also includes articles by non-actuaries and is published quarterly. The *NAAJ*'s more frequent publication and wider range of articles

are designed to meet the interests of contemporary, international audiences in the scientific, academic, business, and governmental communities. The second issue of the *NAAJ* will be published in April.

In his foreword to the final *Transactions*, SOA Immediate Past President Sam Gutterman reviews the publication's history, noting a few of the landmark papers and acknowledging "with gratitude those editors ... who worked tirelessly to bring papers of note to the attention of members and to maintain the highest standards of quality in doing so." He also reminds readers that three features of the *Transactions* — the SOA presidential address, obituaries, and the financial report — will move to the *TSA Reports*, which will continue to present mortality and experience

studies, task force reports, and industry studies.

Members who have not received a copy of the last *Transactions* by May 1 should contact the SOA Books Department (phone: 847/706-3526; fax: 847/706-3599; email: ccimo@soa.org).

The *Record*'s role
Another SOA publication, the *Record*, will continue its role of offering transcripts of the spring and annual SOA meetings but will be distributed electronically. The final printed volume of the *Record* will cover the SOA's 1995 annual meeting.

Copies of individual meeting sessions will always be available in printed form. Contact the SOA's Books Department for more information.

TV news discussion of Social Security features actuary



Social Security drew the attention of TV cameras for a special edition of Chicago Tonight, a popular news program on the city's Public Broadcasting Service station. Marc M. Twinney, a retired actuary who served on the Advisory Council on Social Security, joined the panel on February 20 discussing the future of Social Security with a live-TV audience. Pictured are Pierre DuPont, former Republican presidential candidate, who favors privatization; Twinney, supporting the moderate individual account plan; Robert Eisner (obscured), economics professor emeritus, Northwestern University, opposing privatization; and Lisa Davis, senior policy analyst, National Committee to Preserve Social Security and Medicare, also opposing privatization. Veteran journalist John Callaway, left, hosts the show.

Photo courtesy of WTTW-TV

ICA brings the world together in one place

by Faye S. Albert

An attractive aspect of being an actuary is joining a community of thoughtful people. Gaining admission to this community is the prize that makes all the studying worthwhile. We actuaries are proud of being part of a respected and learned profession. And of course, it's nice to look forward to having a job that produces a good income as well.

But once there, then what?

After finishing the Fellowship exams in 1972, I was looking for a way to celebrate. Now was the time to kick up my heels. At that moment, a fellow actuary, Jay Jaffe, reported his wonderful adventure at the International Congress of Actuaries (ICA) in Stockholm that year. Foreign travel sounded like an excellent way to expand my life into new areas (yes, there is life beyond studying). So my original interest in the ICA was a lark more than a serious business endeavor.

The ICA, usually held every four years, was scheduled next for Tokyo in 1976. Though foreign travel was

inviting, I couldn't justify the substantial commitment of time and money based on a whim. But, what if I could make a contribution to the learned dialog? So I prepared a short paper describing actuarial procedures used in the United States based on my on-the-job experience.

Despite this off-hand beginning, my association with the ICA has been a highlight in my career life. At least three aspects of the congress experience — professional development, the people attending, and the places they're held — have been valuable.

Profession

Worldwide, the same ground is covered in basic actuarial training: mathematical underpinnings of contingent events combined with financial consequences. But, actuaries don't operate the same way in different countries. Attending the ICA can make that point come alive. Appreciation of our tools broadens when we see how many different areas of investigation there are and how many different ways actuaries attack a similar problem. Legal requirements or

accounting conventions in one country may require preparing actuarial analyses differently from one country to the next. For example, various schemes for retirement funding may lead actuaries in two countries to face entirely different questions.

Congress presentations are diverse and cover a wide range of both practical and esoteric topics. The 26th ICA in Birmingham, England, has plans for scientific sessions, as well as breakout sessions on current issues such as professionalism, actuarial education, solvency, regulation, shareholder reporting and even a specialist track from which participants can choose from several practice areas.

As in any intellectual forum, participation is the key to value. Comments (and even corrections) by others on your own paper or presentation will reveal how you might improve your work. And your review of others' works may provide insights into areas that could prove interesting in the future. People

The ICA is a large gathering of actuaries from around the world, and there's an air of excitement and impressive pageantry associated with formal ceremonies. The 25th ICA in Brussels in 1995 marked the 100th anniversary of the first ICA, also in Brussels. More than 1,100 actuaries from 52 countries gathered. The 26th ICA in 1998 will honor the 150th anniversary of the founding of the Institute of Actuaries in London in 1848, a great landmark in actuarial history. The use of various languages with simultaneous translations lends importance to the proceedings.

The dignity of the gathering does not dampen the personal side of the ICA. Collegiality among members of the Society is expected, but feeling this same connection on an international scale at the ICA is surprisingly warm. Group activities and interactions outside

(continued on page 18)

England is site of next ICA

Hundreds of actuaries from around the world will gather in historic Birmingham, England, for the 26th International Congress of Actuaries (ICA), June 7-12, 1998.

For the ICA, reports on mortality and investment statistics are being prepared by two research groups of The Faculty of Actuaries. The two reports will be international in scope, incorporating data provided by correspondents from many countries.

Other highlights of the congress will include:

- National reports on the history of the actuarial profession and the development of actuarial thought in individual countries
- Demonstration of software (on personal computers) of special interest to actuaries
- Poster displays for papers on the latest developments in actuarial science
- Entertainment from the British Isles, including a special performance by the renowned City of Birmingham Symphony Orchestra
- A wide range of programs and social events

Attendees must be members of the International Association of Actuaries. Membership and ICA materials are available from Lela Long at the Society of Actuaries (phone: 847/706-3533; fax: 847/706-3599; e-mail: llong@soa.org).



on the lighter side

Newspaper confirms what actuaries have long suspected

by Jacqueline Bitowt
SOA Public Relations Specialist

“World Death Rate Holding Steady at 100 Percent.” So reads the headline on an article in *the Onion*, a newspaper that spoofs the news, published in Madison, Wis., and Boulder, Colo.

SOA member Stephen Brink brought it to *The Actuary's* attention in a letter to Editor Bill Cutlip. “I thought your readers might be interested in this article of vital importance to all actuaries!” began Brink’s letter.

“As actuaries, we knew of the phenomenon all along, but we were unable to measure it with any degree of statistical accuracy. Because of the lack of data, we have been forced to measure only pieces of the puzzle, such as how long it takes to reach death or how much should be spent on health care designed to make the journey more enjoyable.

“It’s about time the Society undertook some serious research in this area. As a ‘source’ quoted in the story said, ‘Everybody talks about death, but nobody seems to actually be doing anything about it.’”

Responded Cutlip, “I know this has been somewhat of an issue for some time, but I didn’t realize the extent of it. This is serious! We need to sound a wake-up call to actuaries everywhere.”

The “source” cited in Brink’s letter was Sen. Pete Domenici, a real senator (R-N.H.) who, like others named in the story, was never called for comment but were “quoted” anyway — via the imagination of Todd Hanson, a writer for *the Onion*.

Noting that death is “responsible for 100% of all recorded fatalities worldwide,” the story continued with “quotes” including:

- “I was really hoping, what with all the new radiology treatments, rescue helicopters, aerobics TV shows, and what have you, that we might at least make a dent in it [death] this year,” said the director general of the World Health Organization.
- “It is beginning to seem possible that birth — as well as the subsequent life cycle that follows it — may be a serious safety risk for all those involved,” opined the head of Citizens for Safety.
- “Why should we continue to spend billions of dollars a year on a health care industry whose sole purpose is to prevent death? That’s called a zero percent return on our investment,” noted Ralph Nader, famous consumer activist.

Hanson said he didn’t interview actuaries for the article “because I’ve never interviewed anybody for anything I’ve written for *the Onion*.” So why didn’t he make up a quote from an actuary? “Sheer, dunderheaded ignorance,” he admitted. Despite Hanson’s obvious penitence, a question occurred to him, and he couldn’t restrain himself from posing it. “Death leads us to the opinion that at least some actuaries must be overpaid. What is it exactly they’re trying to figure out? Don’t the columns add up to 100%?”

The article is available by ordering a back issue of *the Onion*. Requests should list volume 31, issue 2, and should be forwarded with \$3 and a 9x12 envelope, self-addressed and stamped with 90 cents postage, to: *the Onion*, 33 University Square, Suite 270, Madison, WI 53715. A Web page for *the Onion* carries other funny stories (<http://www.theonion.com>).



New address for IAJ

SOA members interested in applying for affiliation as “Kenkyu-Kaiin” with the Institute of Actuaries of Japan (IAJ) should contact the organization at its new address. (See *The Actuary*, March 1997, page 12.) Its new room number is 2F. The new contact information is:

Mr. Hideyuki Yoshida, FIAJ, FSA, General Secretary;
The Institute of Actuaries of Japan; Nihon Seimei
Koishikawa Bldg., 2F; 1-12-14 Koishikawa, Bunkyo-ku;
Tokyo 112, Japan. The IAJ also may be contacted by fax
(81-3-3816-4559) or e-mail (iaj96@lib.bekkoame.or.jp).

DEAR EDITOR

Ex-chief actuary, SSA, clarifies agency's use of interest income

Allan W. Ryan, in his letter in the February issue of *The Actuary*, strongly implies that interest on the investments of the Social Security Trust Funds is not used until the annual receipts from payroll taxes first fall short of the annual outgo, and that then it will be very difficult to redeem, for the first time, the Trust Funds' securities. Under the intermediate-cost estimate in the 1996 trustees report, this situation as to tax receipts and outgo first occurs in 2012. However, under the actual financial procedures for the Trust Funds, Ryan is not correct. Securities are already being redeemed and investment income used.

Payroll taxes are received by the Treasury Department every business day in the form of checks and electronic transfers from employers. Regular interest income from the investments is paid by checks on June 30 and December 31. Each day (except June 30), any excess of such items of income over outgo is immediately invested in certificates of indebtedness maturing the next June 30 and bearing a long-term interest rate (which changes for each month's new issues and has recently been 6-7%), based on an index specified in the law.

Generally, excesses of income over outgo occur, and these are used to purchase such certificates.

An exception is on the third and fifth of each month, when the Treasury Department needs large amounts of cash for, respectively, the benefits paid by direct deposit and the benefits paid by check, allowing a two-day difference for the "float" in the latter. On those two days, the Treasury Department obtains the large amounts of cash needed by redeeming certificates of indebtedness, those bearing the lowest interest rates. However, for example, if \$15 billion is needed, somewhat less than this amount of certificates is redeemed because accrued interest on the redeemed certificates is payable in addition to the face amounts. So, this is one instance where the interest is currently being used.

Further consider the large amount of regular interest (roughly, \$20 billion) payable by check on December 31. This is added to the payroll-tax income received that day, and the excess over the outgo for that day is invested in certificates of indebtedness. If these certificates bear a lower interest rate than others held by the Trust Funds, they will later be redeemed to meet the benefit outgo on a "third" or "fifth" day. So, once again, interest

may currently be in use (although sometimes it will be difficult to determine, because money is fungible).

Finally, the large amount of regular interest is payable by check on June 30. It is not at all clear where that amount goes. On June 30, all certificates of indebtedness and, along with the excess of income over outgo for that day (including the effect of the regular interest), are put into a duration spread of longer-term bonds. The identity of the portion that came from the interest checks is lost, and it cannot be said whether or not it will go to pay benefits, or when this will occur.

Robert J. Myers

A productive economy is the only real answer

I would like to comment on privatizing Social Security.

Privatizing Social Security would decrease total economy-wide savings in both the public and private sectors. Since the total savings pool available each year is private savings less annual government deficit, any move to pay for privatizing Social Security with increased government borrowing would decrease public savings. The larger deficits "crowd out" the beneficial effects of increased savings in individual Social Security accounts.

(continued on page 19)

ICA brings the world together (continued from page 16)

of the business sessions provide an opportunity to meet wonderful people from different cultures whose interests are often very similar. The compatible environment is made possible by the fact that the people attending from all over the world share the type of disposition that led them into actuarial inquiry. It is remarkable how many of these contacts are renewed at subsequent meetings or even maintained outside formal gatherings.

Places

ICA arrangements follow the format

of a fine vacation choice. The sites are cosmopolitan and scheduled at temperate seasons, and each shows the country, the city, and the surrounding area to good advantage. Accommodations range from excellent to fabulous. At the 26th ICA, you can extend your trip with pre- and post-congress itineraries to popular sites in England, Wales, or Scotland.

Visiting new places through the ICA is especially stimulating and fun because the host country actuaries become involved in showing off their

hometown and its highlights. Not every traveler has the personal attention of local residents, steering their guests to the best the area has to offer, like those attending the ICA.

Try the International Congress of Actuaries; you'll like it. Faye Albert is president of Albert Associates in Miami. She is vice chairperson of the SOA's life insurance research committee and a member of the strategic planning committee.

Dear Editor (continued from page 18)

In addition, under a system of private Social Security accounts, older baby boomers now saving for retirement by plowing large amounts into mutual funds may feel less need to save outside of their individual private Social Security accounts. Savings going into the individual Social Security accounts may replace dollar for dollar decreased savings outside these accounts. To avoid decreased total savings (in both the private and public sectors) under the private accounts plan, you need to raise taxes to pay for privatization. If the real goal is increased savings, we can do that without changing the Social Security system.

Another point is that there is no difference, economically speaking, between a private prefunded universal retirement system and a pay-as-you-go (PAYGO) system. An economy as a whole cannot prefund for its retirement the way an individual can. Today's 40-year-olds can save for retirement by buying stocks and bonds now. In 25 to 30 years, these financial

assets will represent claims on the wealth and productive assets in existence then. The food retirees will eat 25 years from now will be produced then, not now. This is true for most items that will be consumed far into the future. Cars, TVs, VCRs, and computers suffer from obsolescence of 25 years or less.

The only way an economy as a whole can save is with continual real investment: physical infrastructure such as airports and telecommunications networks; plants and equipment; human capital (education) and research (knowledge). These are real investments. Financial assets increase an economy's efficiency by coordinating transactions smoothly. They keep track of who owns what and who owes what to whom for the entire economy. All financial assets also appear as liabilities on someone else's balance sheet, while real assets do not.

Therefore, from the perspective of the economy as a whole, the net result of a prefunded private plan is the same

as a PAYGO plan. Because these plans decide how to divide the economic pie, the only difference between privatization (except for the savings-retarding effect of private Social Security accounts) and PAYGO schemes is that lower-income retirees in the future will not be protected as well as their counterparts today are.

The only way for society as a whole to prefund is to create a more productive economy than would otherwise exist in 25 or 30 years. That way, the slice of the economic pie for each worker would be much bigger — so much so that even with more retirees per worker, there would be enough Social Security benefits to meet the needs of those working, those finished working (retirees and the disabled), and those yet to begin working (surviving children).

Ting Kwok

IN MEMORIAM

Leonard H. McVity
FSA 1933, MAAA 1965,
FCIA 1974, AIA 1974

Walter C. Woodward
ASA 1968, MAAA 1979

Benjamin T. Holmes, FSA 1930, FCIA 1965, died at the age of 91 on December 2, 1996, in Toronto. He was the 1951-52 president of the Society of Actuaries. As a vice president of the Board of Governors in 1949, he was one of the SOA's first officers after its incorporation earlier that year. He was an active participant in the education of actuaries, serving as an SOA consultant for education

and examinations, writing an influential paper that helped reshape the education system in the 1940s, and helping organize Toronto's first actuarial study groups.

Holmes came from a prominent actuarial family. His brother Horace became secretary of Mutual Life of Canada; brother George became president of Manufacturers Life; and sister Janet worked for Confederation Life until she became a missionary in Bolivia. Ben Holmes passed his Fellowship courses at age 24, but had to wait several months to reach age 25, the minimum then required for Fellowship.

He also served the profession as 1946 president of the Canadian Association of Actuaries (predecessor of the Canadian Institute of Actuaries), and chaired the committee advising the Canadian government on founding the Canada Pension Plan. He also was active in the International Congress of Actuaries and the Canadian Life Insurance Officers Association. He retired from his position as vice president and chief actuary, Confederation Life Insurance Association, Toronto, in 1970 after 45 years of service.