ACTUARY OF THE FUTURE SECTION
"A KNOWLEDGE COMMUNITY FOR THE SOCIETY OF ACTUARIES"

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# ACTUARY OF THE FUTURE

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## From FSA to CEO: the Path is Quicker Than You Think

by Joseph Paesani

Over the last few editions of this newsletter I've written about the importance for actuaries to take control of their careers and our ongoing development–in essence, each of us is the "CEO" of our own career. The AOF strategy has always included a vision for identifying and creating non-traditional opportunities, and the concept of "*FSA to CEO*" fits within the horizon of this vision. At the Annual Meeting last October "*From FSA to CEO*" was one of the SOA's "Featured Sessions" and I was pleased to conduct this teaching session for the AOF. Forty-three people attended the session and the evaluation results were excellent. People especially rated high the value of the material and the extent to which it will be useful to them. This article provides a recap and some key takeaways to consider as you continue your ongoing education and development.

An often-overlooked aspect of the actuary's education has been in the area of business skill development or "business savvy." For years, as a profession, we either assumed we didn't need to develop these skills, or we thought we had enough to get by. Both views were shortsighted and, as a result, our overall ability to grow as professionals within traditional and non-traditional environments has been slowed. The "*FSA to CEO*" session is designed to enlighten actuaries to the role they need to play to take charge of their own career development, identify core skills and competencies that all actuaries should develop and propose tactics for acquiring them. Its message: recognize, very clearly, that in this era of constant and rapid change, results are more critical than ever and our value is tied directly to our ability to impact our organizations and their bottom line. It's no longer sufficient to have expertise in computing and analyzing the financial risk aspects of business, we must also be able to translate this expertise into measurable and significant actions. While rapid and constant change can present barriers for us, they can also create opportunities for us to grow. People and organizations are dealing

continued on page 4

CONTENTS

**ACTUARY OF THE FUTURE**
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# Chairman's Corner

by Andrew H. Dalton

It is an exciting time to be a member of the Actuary of the Future section—to be an actuary and thinking about the possibilities for the future of our profession. Let me explain.

At the 2006 Annual Meeting, the Society of Actuaries (SOA) unveiled its new brand to Society membership and to the public. In some ways, our brand message is simple. "Risk is Opportunity" very succinctly summarizes what we do as actuaries. In other ways, the message is complex and intriguing. For one thing, the brand unites us as actuaries, transcending the boundaries of specialized practices and geography. The brand reminds us that actuaries, regardless of practice area, share something vitally important—specialized training that uniquely qualifies us to identify, quantify and manage various kinds of risk. The revitalized brand also speaks to the forward-looking nature of our profession. Being forward looking, of course, is an essential component of effective risk management. But, the brand highlights much more than our ability to assign probabilities to future events; it points to the new and diverse risk management roles in which actuaries will add value in the future.

Some of these future roles are already emerging. Actuaries, for example, are increasingly involved in personal actuarial work, about which you will read more in this newsletter. Actuaries are also playing broader and more visible roles in financial services firms. Still other roles are yet to be identified—roles that will meet crucial risk management needs that businesses and society do not yet understand and where viable risk management techniques may not yet exist. "Risk is Opportunity" speaks to the latter category of risk. It reminds us that the actuarial profession is evolving and that many of us will provide future solutions to emerging problems—and that this evolution holds out tremendous opportunity for actuaries.

The identification of future opportunities for actuaries is precisely where our section will provide the greatest support for the new brand and the profession as a whole, across practice areas and regardless of one's current stage in his or her career journey.

With that in mind, I would like to share with you some of the goals your section council has set for itself and for the section for 2007.

During 2007, we will continue our work on the personal actuary initiative. Our section will continue to work closely with the Personal Actuary Task Force and the Personal Actuary Project Oversight Group to help them identify and promote opportunities for actuaries who use their skills in serving individual clients.

Within the past year, a Young Actuaries Network (YAN) was formed within the Actuary of the Future section. The network is committed to providing career support and networking opportunities to early-career actuaries. The network has grown quickly over the last year. We are excited about working closely with early-career actuaries to support their career goals, and leverage their ideas on future career paths for the profession.

We will continue to communicate with our membership, through our semiannual newsletter (April and October) and by sponsoring sessions and breakfasts at the spring and annual meetings. We also recently unveiled our redesigned Actuary of the Future section Web page, which can be accessed directly from the Society of Actuaries home page. We hope these media will keep you informed on what the section is doing and enable a dialog between the section council and the members.

Finally, I am excited to announce that we have formally undertaken an environmental scanning initiative. The goal here is to identify what's next for actuaries. In particular, we will be asking ourselves: What are the emerging nontraditional career opportunities and how will we prepare ourselves to compete in those areas? While this concept is not new to the Actuary of the Future section, we have added it to our formal list of initiatives and are devoting significant time this year to thinking strategically about how to identify opportunities and prepare our members to take advantage of them.

We will be looking for volunteer resources to support our initiatives. Volunteering can be an especially rewarding way of networking and learning more about the profession. It is also an exciting opportunity to think about the future of our profession. I hope that many of you will choose to get involved with the work of our section. Perhaps more importantly, by sharing our goals, I hope that you will hold us accountable. This section, after all, is about you, your career and your profession. I hope that many of our goals are also your goals. Please let me hear from you throughout the year. If we are overlooking an important goal, if you would like to volunteer or if you would simply like to provide some feedback on how our initiatives are meeting your needs and expectations, please let us know.

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with serious and difficult issues—new and unknown risks that can impact their businesses and their lives, and frankly no profession is adequately servicing them—the opportunity is clearly there for actuaries to become leaders in developing solutions for addressing these issues, both for organizations and for individuals.

Our career path is an ongoing "work in progress"—we need to continually develop and strengthen ourselves to grow and prosper. "Reinvent yourself" is a relatively new concept, but a clearly relevant one for today's world. The ability to adapt proactively—to see emerging opportunities and prepare ourselves to capitalize on them is especially important for us today. We bring unique and different skills and characteristics, but really so does everyone else. What will set us apart is our ability to utilize those characteristics and skills to develop solutions, generate results and have an impact. That the actuary is uniquely trained in the areas of finance and risk gives us a unique platform from which to jump, but it is hardly sufficient—we can successfully make the jump only if we augment them with other business skills. Many other professions claim financial expertise once thought to be the actuary's domain. Whether or not they're right, or can deliver as well as actuaries, isn't the main issue—the marketplace perceives that they can—the issue is whether we can sufficiently arm ourselves to deliver and provide this expertise in a meaningful and measurable way.

Ultimately, the responsibility for developing your career and maximizing your potential lies with you. You're in the best position to take charge of it, manage it and develop it to get the results you want. While others may have an interest in your career growth and may support it, you ultimately are accountable for the results of it. So what can you do to make sure you develop good results? Specific answers will vary for each of us, but there is a common approach. First, determine exactly what it is you want—it's hard to get what you want if you don't know what you want. Next, objectively evaluate your core competencies, your strengths and the things that make you unique and valuable. The combination of these items should provide a good basis for matching your wants with your skills and setting a direction for you. This assessment should reveal some limitations and areas for improvement, so also recognize that you need to address these and develop action plans to do so. We should never lose our technical expertise and uniqueness, but we can't rely solely on it in our career development.

It's also important to recognize that the traditional education path followed by actuaries is not sufficient. Contrary to what we may think (or want!) our education no longer ends with the exams—we need to do more. In this era continuous education and learning are vital to our ability to thrive. This will continue to be true regardless of the level we attain in our organizations. Recognize that education and development are ongoing, lifelong processes; we need to keep learning and continually reinvent ourselves.

**In this era continuous education and learning are vital to our ability to thrive.**

Broader business skills such as interpersonal skills, strategic thinking and leadership are necessary to increase your overall effectiveness. The most successful people recognize this and have developed at least some proficiency in these areas. They also continually develop and augment these skills. But what are they? The most important business skills for development include: good decision—making skills, influence and persuasion skills, exceptional communication skills, strategic thinking/planning/execution, innovative thinking/problem solving and political savvy. These skills are all critical in enhancing our ability to develop good solutions, get our message across to broad and diverse audiences, gain the support of others and secure good outcomes. In addition to these, becoming a coach or mentor can also accelerate your own growth and learning—sharing your knowledge and developing others is often a good way to ensure our own success.

With the success of this session we will look to offer it again at future meetings and in other forums. We're also exploring bringing it to local actuary clubs, and we'll continue to write about the topic in future publications. The message is important for all of us. Learning and development are almost never quick and easy, but if we continue to learn and improve we'll be better positioned to recognize emerging opportunities and take advantage of them when they arise. And, don't forget the most important skill to continuously develop: ***Have Fun!*** It shouldn't all be work. Take your mission seriously but yourself lightly, and enjoy the journey.

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# Entrepreneurial Actuaries: Personal Risk Managers

by Dan Winslow

*This article was based in part from a Q&A session held at the SOA annual meeting in October 2006 in Chicago. Due to the very high interest from the session attendees, Dan Winslow has been asked to recap many of comments he made during the session. This article includes additional information that may not have been fully discussed during the SOA session due to time limits.*

Actuaries have been successful business people for many decades. Most actuaries have worked for insurance companies or actuarial consulting firms. A number of actuaries have been successful as solo actuarial consultants.

There have been a number of actuaries who used their technical and business skills to explore non-traditional business opportunities. STATS Inc., the sports statistics firm; IntellRx, a PBM data firm; Deerfield Bakery; and The Noodle, a fine dining establishment are a few Chicagoland businesses that are successful businesses run by owners with an actuarial beginning to their careers.

All in all, there are a lot of business opportunities in the world and fortunes are made daily. An exciting part of my work is that I get to see a lot of successful small business owners and that there are many ways to succeed.

## Opportunities for Actuarial Expertise

How do actuaries justify our price and value to the personal client? What is the additional value for actuarial expertise? An actuary does have outstanding financial expertise and there are market segments where our credentials are recognized.

How can we compete against competitor's billing rates? Very successful financial planners tend to have billing rates and incomes that are similar to actuaries. The main issue is that the market segment for financial advice to the affluent is already an established market segment with capable and well-established competition.

Is there a wider customer base for Personal Risk Management versus traditional actuaries? My opinion is that there is not an opportunity for most actuaries to move into the PRM business. Most

continued on page 6

actuaries do not have the relevant marketing skills to succeed as a financial planner. And most of the actuaries who can succeed as financial planners are already doing quite well as rainmaker consulting actuaries or high level insurance company officers.

If you are considering becoming a financial planner or a similar career track, please consult some of the internet bulletin boards on the topic—*http://www.financial-planning.com/* is one good example. There are some very smart people who share their experiences. Also, talk to several financial planners in your community to better understand the daily issues of the business.

## Risk Management

Personal actuaries have been viewed as one possible future path for actuaries. What do personal actuaries do? My implementation has been as a fee-based financial planner. I do personal risk evaluations and written financial plans for individuals or families with a net worth between $1 million and $5 million.

The financial calculations for one person are significantly easier than for a medium or large insurer. Instead of working with 100,000 or more policies at a time, there is one person. Actuaries are well trained in doing multi-decade financial projections. The harder part is understanding the various risks and uncertainties. There is much more volatility for an individual or small business.

Some of the risks are very similar, such as investment returns and mortality. Some are quite different, such as client job security.

As clients have expressed to me, "I am putting my retirement in your hands. Don't screw up!" It is not just financial variability with a few more dollars or less profit for an insurance company that is well capitalized to withstand risk. It is people's lives that will be deeply affected if an adverse scenario is not well handled.

**AN ENTREPRENEURIAL BENT—AN ENERGY AND EXCITEMENT TO MANAGE YOURSELF AND MAKE A BUSINESS GO—IS QUITE IMPORTANT. NOTHING HAPPENS IN MY BUSINESS UNTIL I MAKE IT HAPPEN.**

## Marketing

Marketing is an important part of starting a new business. Financial planning is primarily a marketing business for the first few years until a foundation of clients has been built. There are different skills needed to be successful as a self-employed individual versus being an employee in the corporate world.

These skills include communication with a wide variety of people and having a good personality. Networking with the Chamber of Commerce, legal and accounting professionals and other community leaders is an important business building skill. Listening and diagnostic skills and building empathy with clients are also important to gather key information from clients and build trust with clients.

An entrepreneurial bent—an energy and excitement to manage yourself and make a business go—is quite important. NOTHING happens in my business until I make it happen.

My strength is working with referrals from existing clients. Other financial planners use seminars or mailing campaigns or media public relations to generate clients.

## Competition and Credentials

There is a lot of competition in financial planning. It has been estimated that there are about 600,000 financial planners in the United States. Most financial planners are registered representatives for a broker/dealer and work on a commissioned basis.

A Registered Investment Advisor is the SEC/NASD legal basis for receiving fees for investment advice. There are about 9,000 RIAs in the United States, most headed by CFAs or CFPs. The CFAs are highly skilled in managing investments and their credential is well recognized as the appropriate credential for managing large sums of money.

The CFP has won the credibility battle with the popular press and the Internet news services as the knowledgeable financial professional to provide advice on personal finance issues. There is a wide variance in competence among CFPs. The best CFPs are highly competent in tax code and good investment managers.

The weakness of the CFPs is that most are compensated on a commission basis and their investment advice may be biased towards the investment products that pay good commissions.

Most insurance agents are also financial planners. Their marketing skills tend to be very good. The best financial planners who are insurance agents also have other good credentials such as the CFP or CLU.

Many accounting firms also do investments and tax planning for affluent clients. Many CPAs specialize in financial planning. CPAs are acknowledged as experts in tax code and financial matters. Their business practices in accounting give them good networks and opportunities in marketing to the affluent business owner or corporate business executive.

Last, but far from least, there are many financial services firms with strongly established brand names. Actuaries are quite familiar with the insurance companies that do asset management. There are also brokerage firms, banking firms, mutual fund families and hedge funds. There are even specialist "private bankers" with centuries of experience serving the affluent.

## Brand Name or Independent?

A key consideration is whether you wish to align yourself with a well known brand name or boldly practice as an independent.

There are major strengths and weaknesses for each path, and it is a very important decision. The major reason to align with a brand name firm is if you need sales support and help marketing. They have well proven marketing tracks and successful sales professionals to help you. They also expect a cut of all income and expect sales quotas to be met.

The major reason to be independent is if you feel you can do better by your clients without the product restrictions set by a sales manager and wish to keep all the income. Many independents spent 10 years or so learning key skills while working for a brand name firm and then strike out on their own.

## Legal Considerations for PRM Actuaries?

The SEC and NASD strongly consider themselves to be the legal authority for investment advice in the United States. Also, state securities laws may come into play for a newer or smaller firm. Series 65 is the exam for registered investment advisors or investment advisor representatives. Series 6 or Series 7 is the exam for registered representatives. There are other SEC/NASD exams, depending on the particular investment products or expertise being used.

It is a very good idea to hire a compliance firm or compliance professional to help you start a firm. There are many laws and regulations. And you need to write good contracts with your clients and good disclaimers with your written analysis.

There are a number of plaintiff lawyers that specialize in and advertise that they will sue financial professionals when investment performance is less than desired. Therefore, E&O insurance is a very good idea. Any successful financial planning professional is handling significant sums of money daily. No single person controls the worldwide financial markets. And if you hire employees, you become responsible for their actions. Also, defending a plaintiff lawsuit with false allegations is still very expensive even if you win all the legal decisions. As someone who has purchased both, interestingly, E&O coverage for financial planners is easier to find, more comprehensive in coverage and much less expensive than actuarial E&O.

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# Actuaries: Masters of the Non-Tradable Risks

by Michel Rochette

What will you be doing in 25 years from now? Twenty-five years!? Most of us don't know what we will be doing next year! However, in every field, one has to consider what one will be doing in the short-term (tactical tasks) while keeping an eye on the long-term (the strategic aspect).

That kind of thinking exists in every field. Think about the option pricing model in Black-Scholes. There are two main components, a trend factor (strategic) and a noise factor (tactical). Unfortunately, in our every day professional lives, we tend to worry a lot about the noise, and we loose track of the trends. Thus, a primary goal of this section is to identify trends in order to anticipate future professional needs. In turn, this should help individual actuaries position themselves as they progress throughout their career as well as the profession in general.

## Risk Management: A Fundamental Trend and Shift in Paradigm

One such fundamental trend is the broad and somewhat elusive field of risk management. Risk management has always existed. From the beginning of humanity, mankind has always faced threats from its environment, and has found ways to manage risk to an acceptable level of comfort. However, since the beginning of the '70s, risk management as a separate discipline has grown steadily, and has accelerated in the last 10 years. Risk is on everyone's mind.

Unfortunately, as a profession, we didn't see this fundamental shift well in advance to position ourselves. For example, let's consider the field of financial risk. As a separate discipline, it emerged back in the '70s when drastic fluctuations started to occur in the commodities sector (e.g., the oil crisis), the interest rate field (e.g., which started when President Nixon decided to eliminate the gold standard for the U.S. currency) and the publication of the option pricing theory by Black and Sholes, which spurred the growth of the derivatives market to manage these fluctuations.

Of course, many actuaries have since then been working in this field but, as a profession, we should have better anticipated what was happening then and reacted by informing and training actuaries appropriately.

Another major breakthrough in the risk management field happened about 15 years ago when the field of quantitative credit risk started to emerge. Unfortunately, very few actuaries became interested in this field although many of the models used are identical to models used in the life and casualty fields. Again, the field has grown so quickly that any actuarial involvement outside of our traditional fields will probably be limited.

Thus, these two examples show the importance of being on the lookout for trends that the actuarial profession should not miss.

## Risk Management: Actuarial Expertise Versus Market Expertise

I often ask myself why would a company in the broader financial services industry or corporate world hire an actuary if they can rely on other professionals' views of risk? What does an actuary bring to the table that the other market participants don't possess in the risk management field? Let's

| Type of Risk/ New Risk Approaches | Actuarial Possibilities |
|---|---|
| Longevity Risk | Mortality is no longer boring! Consider the advances in the health and medicine fields. Really exciting field and huge impact on retirement programs. Mortality bonds are becoming more widespread.<br>We need actuarial experts in longevity risk and better thinking about the extreme events that may affect this field. |
| Business and Strategic Risks | This is a broad and untamed territory. Areas of expertise to be developed are:<br>-operational risk<br>-supply chain risk<br>-reputation risk<br>-business continuity<br>-country risk |
| Environmental Risk | Companies are more and more interested in assessing the impacts that environmental changes will mean.<br>Long-term climate changes will have to become part of the risk analysis of investment projects. |
| Drug Company Risk Management | Drug companies face huge risk when they develop new drugs.<br>This field could represent an interesting avenue for health actuaries who understand health issues, and can marry that knowledge with risk management approaches. |
| Securitization of Risk | The securitization field is related to risks that used to be non-traded.<br>Developing a particular knowledge of a non-tradable risk today will be relevant when the market catches on and needs the appropriate knowledge to securitize those risks. |
| Food Security | Among the many security risks, this is probably the least studied and understood but highly relevant to companies, governments and countries. |
| -Risk Intelligence<br>-Enterprise Risk Management (ERM)<br>-Corporate Defense Management (CDM)<br>-Business Continuity, Crisis Management | These are not risks per se but rather novel approaches to identifying, assessing and managing risk.<br>These are new ways of managing the uncertainty. For example, Risk Intelligence approaches identify risks that we don't know yet. |

continued on page 10

look at an example to compare the two views.

Think about mortality or longevity risk, clearly an actuarial area of expertise for centuries. However, mortality has never been really risky in the sense that it has never fluctuated too much except in periods of broad economic stress situations like wars and epidemics. This low volatility is probably the reason why so few actuaries really understand or bother to understand the dynamic nature of mortality. Essentially, what drives this risk factor fundamentally?

As actuaries are implementing their traditional models and blindly assuming steady mortality improvements, other risk professionals are proactively analyzing this risk, what is driving it, how some extreme events may affect it—whether it be from avian flu or some fundamental medical discovery, finding arbitrage opportunities and selling mortality to investors. In fact, this seems to be a fundamental trend in our field. As soon as a risk becomes traded and becomes scrutinized by the market and thousands of risk analysts, our knowledge of each risk becomes judged by the market.

Thus, if we are not proactively trying to foresee trends and really understand what the fundamental drivers of the risk factors that affect our industries are, we run the risk of becoming irrelevant to our employers. Of course, some actuaries will work for the investment banks that securitize these risks but, as a profession, we will be losing ground to the market as risks are more and more securitized.

## Actuaries: Champions of the Non-Tradable Risks

Thus, one avenue for actuaries to remain active in risk management is to focus on risks that are difficult to package and securitize. We can then focus on risks that the majority of the risk analysts in the market cannot really grasp. We need to focus on emerging risks. Actuaries must continue to develop their insiders' knowledge of those risks.

In fact, a great strength that actuaries possess in the risk management field is their capacity to analyze risks that are unusual, ill-defined and difficult to trade. This is where actuaries can add value to the marketplace. This is where actuarial expertise is best utilized. Thus, this is why our traditional and non-traditional employers would want to hire us for the insight that we can bring and that the market can't trade.

In other words, actuaries as a profession should become the experts on the "non iid" risks, that is the non-independent, non-identically distributed risks, because the "iid" risks that we all learned in our actuarial studies are the risks that will eventually be securitized by the market. Since they are identically distributed, they can be packaged and sold to investors. Our expertise thus becomes less relevant at that point.

So, we need to be on the lookout for these new risks. Speaking of non-tradable risk, there is a list (See page 9) of interesting fields where actuarial input and perspective would be relevant.

## Conclusion

In the field of risk management, other professionals are claiming the field that actuaries consider theirs. Some actuaries consider that to be a threat. On the contrary, I believe that this represents an interesting opportunity to work with other professional groups. Other professions have done it for many years. For example, lawyers work alongside legal assistants; and dentists have specialized and work with hygienists, who are now performing acts that dentists used to do. For these professionals, working with other groups has increased and broadened the type of work that they do.

The same could be true for actuaries in the risk field. A possible paradigm shift could be to let those who possess other risk designations work in the known and technical areas of risk while the actuarial profession would specialize in the ill-defined and the non- tradable risk sphere. Thus, the profession could be become a great complement to the risk field and our value as risk professionals will be seen as improved and better defined.

Finally, actuaries could be branded and positioned as the inquisitive minds that help companies, individuals and society at large foresee, understand and help manage the risky 21st century!

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# OPEB: Dealing with the Elephant in the Room Creates Opportunities for Actuaries

by Michael L. Frank

*About the Author: Michael L. Frank, is president of Aquarius Capital, an organization that provides customized solutions in finance, insurance and risk management in the life, accident and health insurance fields. He has 20 years of experience in retiree benefits including valuing, designing and securitizing benefits including retiree benefits.*

With municipalities, school districts, state/local governments and other public entities dealing with the day-to-day struggles of managing their business, OPEB, which stands for Other Post Employment Benefits, is becoming an increasing issue to deal with. OPEB deals with the promise of providing coverage for post employment non-pension benefits such as health care and life insurance. This obligation is more than hundreds of billions, maybe a trillion dollars in this country, and has been relatively ignored. Actuaries will be needed to value this liability and may also provide services (e.g., consulting, products) to address this issue.

With the recent requirements of Government Accounting Standards Board No. 43 and 45, public entities are now forced to value and recognize that this obligation exists, a challenge and political nightmare from entities that are dealing with other challenges in their local community. If you are in a community experiencing rising taxes and raising of school district construction bonds to pay for upgrade of your schools, then the thought of your school district or local government having to recognize an obligation of tens to hundreds of millions is horrifying. This may be the largest liability that your local government and school district has to deal with.

The challenge for these entities is that these obligations have always been there or at least have been there for a long time through promises provided to employees when they retire and through collective bargaining. This is not a new issue, since traditionally large single employers have been recognizing today this OPEB under Financial Accounting Standards Board Statement No. 106.

***When will this happen?*** Over the next three years, public entities will be valuing and recording these liabilities. They will be hiring actuarial consulting firms to do these calculations. Entities with revenue of more than $100 million will be recognizing first, while entities with revenue under $10 million will be required to recognize these obligations by the third and final year of required implementation. Many of these organizations have already started the process of valuing this for both accounting and for management purposes since they want to both prepare for the bad news and well as required when applying for loans and bonds. The debt market and rating agencies are keenly aware of this issue and are requiring these items to be valued for entities that are applying for debt instruments.

The first step to solving the problem is recognizing the problem. Administrators, politicians and public entities are going to have to accept, whether they like it or not, that this is an issue. Once this is accomplished, then solutions will need to be made. Putting your "head in the sand" strategies of ignoring this problem can no longer be tolerated. America is aware of the health care issues today with increasing costs for health care with individual coverage potentially more than $4,000 per year and family coverage greater than $12,000 per year. With inflation (health care cost inflation or trend) growing in double digits, this complicates things further since future costs will be significantly greater than current cost.

***What has traditionally been done with OPEB?*** For the traditional public entity, these costs have been valued on a pay-as-you-go basis recognizing and budgeting costs as dollars are being spent. This approach unfortunately does not value the impact of vesting benefits for current active employees that are earning these retirement benefits nor is it reflecting the impact of inflation on this benefit. A public entity that spends $5 million a year in retiree benefits may have a liability more like $50 million to $100 million.

This issue is not a completely new issue, since employers in the private sector had to value these benefits previously. This was done in the early to mid 1990s under Financial Accounting Standards Board Statement No. 106 (FAS 106). However, the obligations of those organizations in most cases did not have the same magnitude as anticipated for

continued on page 12

public entities under GASB 43 and 45. (Most companies that reflected FAS 106 recognized this liability as one of the largest obligations on their company, so it's still an issue for the private sector.)

The reason the FAS 106 liabilities, which are very large, were not as large as anticipated under the GASB 43/45 liabilities is that retirement benefits offered in the private sector were less generous and in most cases dealt with benefits for individuals receiving benefits after age 65 whereby these benefits were secondary coverage behind Medicare.

However, in the public sector, benefit eligibility may be much earlier, and individuals will be eligible in their 50s, or in some cases 40s (benefit eligibility may kick in at 20 to 25 years of service regardless of age), meaning that they could be receiving benefits 10 to 20 years prior to Medicare kicking in. Individuals in the public sector traded greater pay for richer retirement benefits. As a result, the magnitude of these OPEB liabilities, which would be valued as the present value of future benefits less the present value of future contributions (contributions made by the retirees), will be much greater. As an example, an employer may have an actuarial liability of 10 to 20 times their current pay-as-you-go number. The magnitude is material.

**OVER THE NEXT THREE YEARS, PUBLIC ENTITIES WILL BE VALUING AND RECORDING THESE LIABILITIES. THEY WILL BE HIRING ACTUARIAL CONSULTING FIRMS TO DO THESE CALCULATIONS.**

What are the key buzz words in GASB 43/45? Some of the keys terms are the Annual Required Contribution (ARC) and Unfunded Accrued Liability (UAL). The ARC is the employer's periodic contribution to the defined benefit OPEB plan, which reflects the service (normal) cost for benefits earned during the year plus the amortization of the prior liability earned prior to the initial implementation of GASB 43/45.

The UAL is the excess of the accrued liability of benefits, which would be the present value of future benefits less future contributions accrued and earned to date, above the assets funded for the plan. In many cases, these asset amounts are zero except in cases whereby entities were required to fund benefit due to collective bargaining purposes. The ARC and UAL are valued by actuaries. However, the most important take away for a reader is that these numbers are material and greater than the costs reported today, which is on a pay-as-you-go basis.

An important thing to know about GASB 43/45 is that it establishes standards for accounting and financial reporting. The decision and level of funding is determined by the public entity itself.

***What other issues exist in valuing OPEB?*** Clearly, there will be political issues. If your local community is experiencing increases in taxes (property and school), plus raising money for a school construction bond, then public officials are bracing themselves for the reaction of the community when communicating OPEB numbers plus the annual communication of its fiscal budget (some budgets requiring voting of the community). Reporting the millions (tens or hundreds of millions) of OPEB liability will be a tough one to swallow. The average individual does not understand that this obligation has always been here, and GASB 43/45 is solely the process of recognizing and valuing this obligation. There may be the unfortunate perception that their government officials are spending dollars they do not have.

Bond rating agencies are also going to require this so they can understand the debt obligation of the public entity for entities applying for financing. The employer will have to deal with the challenges of recognizing this number and understanding how to "spin" the results. Actuaries will not only be providing the bad news, but will also be needed for developing the solution.

***Now that we have identified the problem, what do we do?*** Start talking about it with the appropriate parties and develop a strategy. Some organizations have started discussions with employees, in particular during the collective bargaining process. The first reaction of unions during collective bargaining is their retiree benefits will be cut. But it becomes much more important than that, since leaving it alone could result in potential insolvency of the public entity down the road, so the promised benefits might not be there.

Some initial steps to be done for public entities would include getting file documentation in order. This would include locating and clarifying benefit levels, including obligations to retirees. It will also highlight areas with large cost structures, which might require the most immediate attention.

The next step would be to retain an actuary that can assist in valuing the liabilities. Some of the information needed by the actuary to value this benefit includes electronic census information (active and retired employees and dependents), plan design, plan costs (e.g., premium rates, other costs if self-funded), retiree contributions and assets.

***What are some of the solutions?*** Some of the approaches taken include:

- Improved efficiency in managing benefits, including implementing cost containment measures.
- Competitively shopping for benefits (this might mean looking at new insurance carriers or brokers).
- Potential negotiation of benefit reductions for current and/or future retirees (though public sector elimination of these benefits may not be realistic).
- Improving integration of benefits with Medicare so Medicare benefits are exhausted prior to payment on the public entity's plan.
- Increasing retiree contributions for current and/or future retirees.
- Changing eligibility requirements.
- Establishing a special purpose trust like a VEBA may provide flexibility in establishing higher discount rates resulting in lower obligations (1 percent point increase in discount rate could lower liabilities 10 percent to 15 percent—a big number when dealing with $100 million-plus liabilities).
- Creative financing of benefits.
- Retiree buyouts, including selling off the obligations.
- Securitizing of benefits.
- Other solutions unique to a specific employer (larger insurance companies are spending significant energy to develop a solution for these public entities since the magnitude of dollars and opportunity is significant).

These solutions could be applied to legacy benefits or to current or future benefits. Each solution is unique to each organization. However, something will need to be done to manage the cost of future benefits, plus recognizing how these benefits will be funded. When dealing with public entities, the political implications are significant in addition to the dollars and cents, or in this case, tens of millions of dollars.

***What not to do as a public entity?*** Ignore this issue. It is a real problem and needs to be dealt with. Putting your "head in the sand" and hoping it goes away is not prudent and will not work. For those individuals saving for their children's college, you might not be able to fully fund college today, but every little bit helps and developing a plan for funding is important. Public entities will need a game plan and the debt and borrowing market will probably require it.

Because of new medical technology people are living longer, which is a great thing. However, the impact is that liability will only get larger as the baby boomers all retire and the next generations follow behind them. Tack on the cost of health care inflation, which is growing above 10 percent per year, and the risk of not funding or planning for this problem now means the potential for more uninsured people later as future public sector entities cannot meet their obligations.

The OPEB problem is not going to go away. As the population ages and we live longer, this obligation becomes more significant. Waiting for the federal government to solve the problem is not the answer since the likelihood of Medicare coverage being available to people below 65 years of age will be small with the more likely impact of the government needed to modify Medicare to raise the age limit in the future. These public entities will be looking for actuaries for guidance, though they may struggle with the initial news that the actuary provides, which is the first GASB 43/45 calculations that the actuary provides.

For public entities, some immediate steps would be to discuss there issues with your actuary, benefit consultant, financial advisors and even legal counsel. They can provide some further clarification on solutions available and provide guidance and estimates on current obligations as well as assist in the documenting of these retirement benefits.

Also, for those insurance professionals, such as brokers and benefit consultants, that have spent numerous hours to land a public entity as a client, they should be prepared to attack this issue and be proactive for their clients. Actuaries can provide a role for these individuals.

Michael Frank is credentialed as an actuary and licensed as a broker, reinsurance intermediary and managing general underwriter. For information on his company, please visit *www.aquariuscapital.com*. He can be reached at (914) 933-0063 or *michael.frank@aquariuscapital.com*.

# Environmental Scanning

by Sudha Shenoy and Kim Dwornick

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The Actuary of The Future hopes to have its finger on the pulse of the changing business environment and identification of early trends by launching a continuous environmental scanning process. These early trends would support further in-depth scanning and help future decision making at the SOA level, the Section level and the individual issue level.

The environmental scanning process ultimately impacts strategic direction since it shapes the critical response to an emerging trend that can impact future growth of the profession.

The goal of the environmental scanning process would be to conduct a broad scanning process to facilitate early identification of trends that could point to potential future employment or growth opportunities (i.e., new markets or new services) for the actuarial profession. It would also include a preliminary report on changes in business environment as it impacts the actuarial profession.

The objectives of the environmental scanning process are:

- Include diverse sources of information and diverse viewpoints
- Consider both external (i.e., economic, social, cultural, environmental, technological, industry, etcetera) and internal perspectives (i.e., customers of the Society of Actuaries)
- Identify needs and opportunities through measurements
- See micro and macro environment interactions
- Gather meaningful information (i.e., Not too superficial/global or narrowly focused)
- Develop decision criteria and have meaningful expectations

Successful scanning programs take three to five years to mature. This project is long range in nature. It is important to have a well documented and organized process so that others can easily understand what has been done in the past.

Data collected will be tested for relevancy. A method to organize and store information will be developed. After leveraging existing information, additional data gathering needs will be defined.

The Actuary of the Future desires to have broad participation and large amounts of insight from others.

Multiple "lenses" will be used to look at the same information or situation:

- economic, social, cultural, environmental, health, technological and political lenses
- immediate, near term, longer term considerations
- past, present and the future perspective

Once data is collected, additional analysis is typically needed to translate this information into actionable program ideas (i.e., Situational analysis, specific needs and opportunity assessment, concept mapping, SWOT, etc). This is the key step that will help shape the strategic direction of the issue being scanned. If this step is not appropriately handled this whole scanning process becomes an ideological exercise.

## Call for Help

We are very interested in your feedback, your willingness to get involved, and working with other sections. If you are interested, please contact Sudha Shenoy or Kim Dwornick.

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# Climbing the Corporate Ladder

By Mark M. Yu

The following are some of the highlights of session 84 at the 2006 SOA Annual meetimg Overall, this session was very well received. We had a great panel of speakers with various backgrounds and the session covered perspectives from a senior actuary, an actuarial recruiter and a senior executive on how actuaries can improve their market value and advance up the corporate ladder.

## Business Savvy Skills & the Future Image of the Actuary

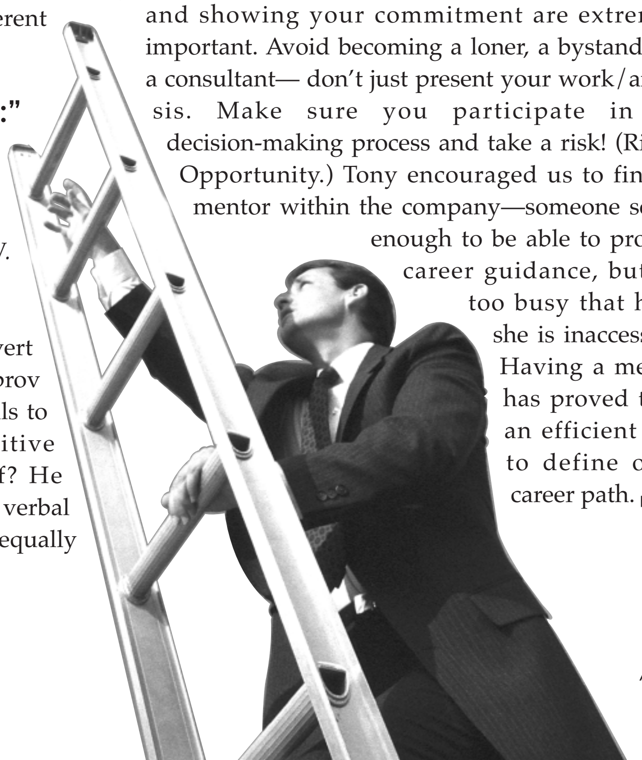
*Presented by Sim Segal, senior manager, Deloitte Consulting LLP*

Sim kicked off his presentation with an overview of the historical employment environment for the actuarial profession and the skills that were valued most, such as technical skills, integrity and exam success. He noted that the environment has changed, and in today's world, employers focus more on communication skills, big picture focus, business acumen and leadership. Leadership is not just about technical skills; it requires emotional intelligence, listening skills, mentoring and other psychological profiles. To develop these skills, Sim suggested joining SOA committees to work with actuaries with various backgrounds and present in industry conferences to improve communication and presentation skills. He recommended some good self-study books on these topics as well. He ended with a quote by Albert Einstein: "Insanity: Doing the same thing over and over again and each time expecting different results."

## Creating The "Dynamic Actuary:" A Guide to Improving Communication/Presentation Skills

*Presented by Bob Morand, partner, D. W. Simpson & Company*

Bob walked up to the stage as an introvert actuary (outside of the office, he is an improv actor in Chicago) and used his acting skills to demonstrate the importance of a positive image. How do you present yourself? He emphasized that communication has both verbal and non-verbal components and they are equally important. For verbal communication, we should focus not only on speaking but also on listening skills. Regarding non-verbal communication, enthusiasm, energy level and physical presence make a significant difference. To improve communication skills, Bob suggested we can take an acting/improv class, join a book club or take an on-camera class. He urged us to "follow our fear"—take steps outside our comfort zone to develop into a "dynamic actuary." He ended with a quote: "If you can't sell yourself, you are having a harder time selling your ideas!"



## Characteristics of Successful People and List of Do's and Don'ts

*Presented by Tony Galioto, senior executive, AIG Companies*

Tony talked about common attributes of successful people—genuine, trustworthy, confident, getting things done and caring about their people and their future. He emphasized that caring about your people and their future is particularly important to become a true leader. Tony told us to ask ourselves what we really want to do—be a senior executive or a number crunching actuary? Not everyone enjoys being a senior executive and the bottom line is that you have to love what you do. He shared his experience working with actuaries and recommended do's and don'ts for actuaries. He would like us to be experts at what we do, be open-minded and perhaps most importantly, be risk takers. He added that, being a good partner and showing your commitment are extremely important. Avoid becoming a loner, a bystander or a consultant— don't just present your work/analysis. Make sure you participate in the decision-making process and take a risk! (Risk is Opportunity.) Tony encouraged us to find an mentor within the company—someone senior enough to be able to provide career guidance, but not too busy that he or she is inaccessible. Having a mentor has proved to be an efficient way to define one's career path.

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