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Actuarial JobSeeker

Spring 2006

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Contingencies

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By Sathnam Sanghera

Why Actuaries Count Themselves Lucky Not to Be Accountants

Say goodbye to old actuarial stereotypes

This article originally appeared in the Jan. 27 edition of the Financial Times. *Anyone who is considering a career as an actuary — particularly anyone who stands at the crossroads of actuarial work and accountancy — should read it. And take heed.*

This may sound like ranking Michael Bolton above Celine Dion in terms of musical merit, or expressing a preference between contracting bubonic plague and Ebola, but on refection, I think I would rather be an actuary than an accountant.

I realize this is a controversial viewpoint. If there is one thing we all know about actuaries, apart from the fact that most of us do not know very much about them at all, is that they are the dullest people around by some distance. Everyone has heard that joke about an actuary being someone who rejected accountancy on the grounds that it was too exciting.

For a long time, my views of actuaries went along similar lines. And when, last October, I spotted an advertisement in a newspaper recruitment supplement depicting an excited young woman exposing a section of midriff above a slogan that said, "The Actuarial Profession: Making Financial Sense of the Future," I laughed until my sides split open.


©iStockPhoto

After stitching myself back together, I asked the trade body behind the advert to put me in touch with this new generation of sexy actuaries. I cannot say I was all that surprised when, four months later, the number of names they delivered — to borrow some accountancy lingo — summed up to zero. Instead, to establish whether the reality matched the reputation, I made my own arrangements and went to see three senior actuaries at Mercer in the City of London a fortnight ago.

To be honest, I was looking forward to meeting Dick Strattan, Charles Cowling, and Jeremy Hill about as much as I look forward to having my prostate examined, and I made sure I drank a gallon of coffee beforehand, to prevent myself from passing out through sheer boredom. And when I met them — somber suits all round — while grateful that none of them had their midriffs exposed, a shadow passed across my heart.

However, an extraordinary thing happened when they started telling me what they did, beginning by explaining that while many actuaries worked for pensions and insurance companies, they operated as consultants, advising a range of clients. In short, I was not bored. I had not realized that:

• Many of the traditional areas actuaries operate in — evaluating statistics on things such as death, illness, and accidents for pension plans and insurance policies — are actually very interesting. After all, the pensions crisis is one of the most important issues of our time. And who is not interested in mortality? We all want to know how long we might be around for.

Not all actuaries are the dour merchants of mathematical probability they are renowned to be.

• Many of the new areas that actuaries work in — executive compensation, pricing energy, forecasting the growth of forestry, analyzing the decommissioning of nuclear power stations, and so on — are not exactly dull either.

• Not all actuaries are the dour merchants of mathematical probability they are renowned to be, not least because computers now do a lot of the number crunching. As Mr. Strattan explained: "When I started 35 years ago, we used to get an undergraduate in for a summer to calculate one table of factors. Now we just press a button. Which leaves us more time to interpret figures and offer advice."

Indeed, the actuaries I met were some of the most interesting and intelligent professionals I have ever come across, which is not surprising given that it can take up to six years to get through the professional exams, and that some stages of qualification have a pass rate of only 30 percent. My view of the profession improved yet further when I was told that senior actuaries can earn more than $178,000. I nearly coughed up my gallon of coffee when Dick told me what he earned.

I am not recommending that all the kissograms and professional acrobats out there retrain as actuaries. All I am saying is that not enough people know what they do — as the joke has it, an actuary is a place where dead actors are buried — and the (small) profession is more interesting than others.

But before I go any further, a caveat. A year ago I trashed an effort made by the accountancy profession to glamorize itself and got several violent e-mails in response, not to mention a friend who trained as one. So this time I would like to stress that: (a) I once wanted to be an accountant; (b) I make a living out of writing about accountants and actuaries, among other things, so I hardly consider myself superior; and (c) I realize I'm making a huge generalization, and that there are boring and interesting jobs/people within every profession.

Nevertheless, despite the jokes, it seems to me that what actuaries do is more interesting than what accountants do. Mr. Strattan put it best when he said: "I did have interviews with firms of accountants when I graduated but I found it was not for me. Being an actuary is about judgment — there are no wrong or right answers. Accountants tend to look at what happened within a very fixed framework."

Prognosticating, in my view, is intrinsically more interesting and more of an art than looking at what has happened already — the art of the actuary being demonstrated by the fact that the profession failed to pre-empt the solvency crisis that has engulfed savings providers such as Equitable Life.

And that is why, if it came down to a choice between being an actuary or an accountant, I would rather be the former. How much would I prefer it? Well, if you want to be actuarial about it: by 63.562 percent.

Sathnam Sanghera *is a writer for the* Financial Times *in London.* ©Financial Times.

PRYOR Executive Search

Pryor Associates

Ask Pauline Reimer of Pryor Associates the key to her actuarial recruiting success, and she'll share a unique fact: Pauline is an Actuary herself! Achievement of her Associateship in the Society of Actuaries (A.S.A.) and completion of several Fellowship examinations were important milestones in her life as an Actuary. But the decade of "real world", hands-on experience Pauline gained while employed by major insurance and consulting firms as an Actuary gave her the in-depth understanding of the business that sets her apart from the typical Actuarial Recruiter. In addition, her appointment to the Executive Board of ASNY (Actuarial Society of greater New York) as the Vice President of Public Relations further enhances her involvement in the actuarial community.

Career Re-focus

It was 20 years ago that Pauline reassessed her personal and professional goals and joined Pryor Associates, a professional recruitment corporation established in 1969.

"While employed as an Actuary, I encountered the common experience with many of my colleagues of being contacted by various recruiters who often lacked the knowledge of the Actuarial field and especially of the Examination process."

Pryor Associates specializes in contingency and retained executive search and placement within the insurance and employee benefit industries and their related environments. The Actuarial Placement Division, which she has directed since 1986, services life, health, property and casualty insurance; pension and other employee benefits; systems, accounting and finance-related industries, domestically and internationally.

Dynamic changes in the marketplace, including globalization and capital markets, have resulted in Pryor's increased emphasis on these and other emerging trends as they impact the actuarial profession.

View from the Top

Pryor Associates has been named one of the top 25 regional recruiting firms by Dun & Bradstreet. According to Pauline, the agency's growth stems from successfully identifying and attracting Actuarial talent and matching candidates to each client's unique needs—all while scrupulously maintaining confidentiality, discretion and professionalism in an environment guided by the principles of "prompt follow-up" and "prompt follow-through." Each step of every client assignment is personally handled by Pauline Reimer herself. No client is ever relegated to just an Assistant. Pauline's knowledge, personal dedication to each search assignment and her exceptional "over-the-top" service—enhanced by state-of-the-art technology and a professional, experienced support staff—have resulted in an **impressive personal placement record of a 99% retention rate as well as a 100% success ratio in retained searches.**

Understanding the Market

Maintaining such high success and retention rates requires Pauline's involvement in various levels of the industry. To remain on the cutting-edge, Pauline participates in many and varied Actuarial seminars and conventions each year, increasing her familiarity with Actuarial talent and the evolving responsibilities of the Professional Actuary in the current and anticipated business environment. Furthermore, her dynamic speaking schedule at local universities is a crucial initial introduction to future actuaries where she has often been solely reponsible for initiating the actuarial careers of many of these students.

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Among her notable accomplishments is serving as Chairperson for the annual ASNY Career Fair, the largest such gathering of future actuaries and hiring sponsors worldwide.

Pryor's state-of-the-art technology has enabled them to assemble and maintain an internal database of actuarial talent ranging from recent graduates through chief executives, complete with up-to-date information of educational and professional credentials, as well as geographical preferences. This has been an invaluable tool in matching ideally-suited candidates with potential employment opportunities in the most efficient and timely manner.

It Takes One to Know One

"Developing long-term, mutually beneficial relationships is the key to my continued success in the Actuarial Recruiting business," Pauline said. First-hand experience, credentials, integrity, and dedication—synergies that result when "an actuary places actuaries".

Pryor Associates is a charter member of the INS (Insurance National Search, Inc.), a national search network serving the insurance industry. For more information about Pryor Associates and Pauline Reimer, including the agency's services and a partial list of past and present client assignments, please log on to Pryor's interactive website at www.ppryor.com.

By Max Rudolph

Risky Business: Careers in Risk Management

Calling all actuaries to limitless career possibilities

Actuaries pioneering risk management practices are developing skill sets that will transform the profession. While actuaries have always taken intense mathematics courses to obtain a designation, current practice relies on simplifying assumptions in financial models to make them understandable to non-actuaries. As model complexity evolves, that complexity must serve to improve real world representations. Those with current knowledge are best able to make it happen. These actuaries will be in demand.

Seasoned actuaries are already realizing the need to relearn skills they forgot years ago. This will be true in all practice areas — casualty, pension, health, life, investments, and finance. Each has had its own version of a crisis driven by reliance on point estimates and regulatory requirements.

Actuaries need to be able to think strategically, explaining the positive or negative implications of various scenarios. They need to understand when stochastic analysis is appropriate and when deterministic stress tests are preferred. This process, and the opportunities associated with it, will be accelerated as actuaries embrace principle-based approaches to determine economic value and fulfill regulatory requirements.

Each specialty discipline is going through major changes. Some are due to the availability of faster computers that support more analysis than ever before. Rigorous mathematics training is being leveraged to develop solutions. Actuaries have the skills to add value to employers, clients and the general public.

Each generation has its own comfort zone with technology. Younger generations expand upon the tactics developed earlier. Senior practitioners are unlikely to be the ones creating stochastic–on-stochastic models, but they need to conceptually understand it well enough to give accurate direction and analyze results.

Of course, computers and modeling are not replacements for skilled judgment and business insights. These skills must come from a strong core education and years of experience. Maintaining this education, with a focus on financial economics, provides actuaries with an analytical competitive advantage over many other disciplines.

The risk management career path is not for every actuary. Each industry and practice area has distinct risks and needs. The actuarial profession has the core technical skills to succeed in analyzing business risks. As actuarial pioneers in non-traditional positions are successful, they will lead the way for actuaries in similar positions.

Honing Your Skills

The actuarial profession has worked together to embrace the practice of enterprise risk management (ERM). The North American Actuarial Council, made up of the current president, president-elect and executive director of each actuarial organization on the continent, has made it a priority that efforts in this evolving practice area be communicated and coordinated. The Society of Actuaries' new path to associateship, recognizing enterprise risk management skills, will also help to open this door by announcing to the business community that actuarial professionals with this designation are serious about ERM and have prepared to succeed.

What are common features of the future actuarial skill set? The actuary needs to be able to move easily between the world of prescribed accounting (statutory, GAAP, and tax) and the world of cash flows.

Though it's necessary, the reality is that much of accrual accounting deals with timing and interim results. In the insurance industry, reserves start at zero and end at zero. Except for the timing of taxes, you still end up at the same place in the long run. This is important in evaluating annual performance, but it doesn't provide the entire picture. The actuary needs to be comfortable addressing the volatility of an assumption, using a distribution and a random process to generate a universe of results.

For example, actuaries tend to apply a single factor at all ages for mortality. But is mortality volatility at age 30 really driven by the same distribution function as age 80? What about morbidity? All financial modelers need to move beyond point estimates. The same tools, including stochastic analysis, will be used for best practice pricing, economic value, and principle-based approaches to reserves and capital.

There are many ways to create a personal development plan that does not conflict with the goals of your employer. As a student, passing exams isn't enough. Consider how you can use the knowledge gained in your daily work. This adds skills to your resume and competitive advantage for your firm.

If you're a practicing actuary, find articles on risk management topics. If you don't find any that are readable, be part of the solution by doing the research and writing one yourself. The profession has many outlets for these practical articles and is always looking for more. Practice continuous learning, including topics that are new to you but where you can "borrow" and adapt previously developed concepts from other disciplines.

While the professional actuarial organizations provide some resources, alternative options should also be considered. Communication skills are best developed by practicing them, as few people are naturally good communicators. Write a paper. Offer to make presentations to your work team, at church, to your local service organization or actuarial club. Each time, get input from your audience and review your experience. It will get easier and you'll improve each time.

Start building internal and external networks as early as you can. Sometimes an opponent in the company softball league becomes a great source of information in later years. Developing leadership skills and understanding the informal chain of command help prepare for a role as a successful risk manager.

Once you're well on your way to mastering these techniques, what jobs are waiting for you? The tools described above can cross over between pricing and valuation, life and casualty, pension and health. This will allow a future actuary to move more easily between practice areas, companies, and even industries. The positions described below focus on career opportunities related to risk management and financial reporting. It is up to the individual actuary to develop the skill set needed for tomorrow. Challenge yourself to develop communication skills and business acumen, and keep up with current best practices.

Jobs With a Future

There are many developing opportunities for actuaries that involve risk management; these include chief risk officer (CRO), financial engineer, market research and client relationship manager, modeler, and personal actuary. All are risk managers. Some might require additional licenses to practice, but the actuary has the appropriate skills. As experts in the mathematics of insurance, actuaries are a natural fit in companies selling insurance as well as large cap companies that buy insurance to mitigate hazard risks, self-insure their company health plan, or manage a defined benefit pension plan. Beyond insurance risks, actuarial skills can also be used to quantify operational risks.

Chief Risk Officer

The actuarial profession has focused much attention on the skill set needed for a CRO and how actuaries can fill this role in both financial and non-financial firms. The CRO needs to understand a wide variety of risk exposures within an enterprise. This senior executive role will likely focus on coordination and communication, but quantitative analysis is critical to the success of risk management activities. Companies with a CRO who knows how to optimize the risk-return relationship will have a huge competitive advantage as they develop strategic and tactical plans.

Risk management is much more than trying to minimize downside risk. The effective CRO is a strategic partner with the CEO, CFO, and board of directors. Actuarial training provides a broad background of insurance risks and modeling that supports a company's risk management processes. Every actuary knows how to model contingent events and determine their present value.

As natural as these skills are for newly credentialed actuaries, they're what makes this profession distinct from the others seeking a role in risk management. Actuaries can evaluate unfamiliar risks just as quickly as other professionals, and understand the pros and cons of quantitative analysis as well. There are very few who can do the opposite — move into the actuarial expertise.

Actuaries have attained the role of CRO in many insurance companies. Whether they'll routinely fill the CRO position in banks and other non-financial firms depends on individuals enhancing their business acumen. The CRO must understand the critical drivers attributable to every part of the company. Communication and political skills are important.

Modeling

Proficient modelers are a niche market today, but future actuaries will be expected to understand business drivers and model the results. Those who can run vendor developed software but not evaluate the results will still be employable, but those who understand the impact of assumption changes will be sought out and rewarded with opportunities. This will be true for all practice areas. As companies with defined benefit plans try to determine their true cost, principle-based approaches will be used. Those with some expertise in extreme events will be highly valued, whether they focus on earthquake risk, pandemic influenza, or terrorism.

A consolidated modeler needs to understand correlations between risks and product lines. This person must leave their historical silo and think holistically. What types of internal hedges are in place? How can risk combinations be modeled dynamically? How do operational risks interact with financial risks?

This type of modeler can be either a technical expert or someone who's learning this knowledge on their way to something bigger and better, perhaps CRO or appointed actuary. This is where international standards for fair value will be implemented, with embedded value and cash flow testing leveraging off each other.

Financial Engineer

For someone who is very technically proficient, managing a derivatives portfolio or designing complex securities can be a rewarding career. Since the actuary understands the optionality and other risks inherent in many of today's insurance products, someone in this role can give a company a competitive advantage when dealing with these financial products. Be prepared for some intense mathematics and an ever-changing landscape of assets offered by Wall Street.

Software

A number of actuaries have done very well developing actuarial software. Most have leveraged this to include a consulting practice as well. Projection systems and reporting software are likely to merge in the near future as risk management and regulatory reporting converge using the principle-based approach. These vendors will likely try to expand into other financial industries such as energy and banks. There will initially be some consolidation, but for those who do it well, higher prices and a bigger market will pay financial dividends and create actuarial employment.

One of the fun jobs some actuarial pioneers have taken on successfully is keeping statistics for sports teams. These jobs do not require complex mathematics. The statistics generated measure risk, or cost, versus return. These stats are used to project future results by the teams themselves, fantasy league players, and individual players during salary negotiations. As with any entrepreneurial undertaking, passion and suffering usually go hand in hand. Those who succeed are outnumbered by the number who don't, but it can be very rewarding to be your own boss. There are similar jobs waiting to be discovered where actuaries add value through their discounted contingency analysis skills.

Appointed Actuary

The appointed actuary in an insurance company will take on additional importance as the industry moves away from formula-based reserves. More actuarial judgment and peer review will be required. Focus will be on why rather than what was done. Working in this area can provide an excellent learning opportunity by understanding the basics of contingency analysis and modeling.

Operational Risk

Basel II is currently driving operational risk analysis in the banking industry, but early attempts need to be improved. The necessary skills will sound very familiar; the ability to model contingent events and determine a discounted value across a range of scenarios. Very few universities offer programs in operational risk. The skills are generally add-ons to college-based statistics classes. By continuing to be lifetime learners with a solid base of financial economics, actuaries can be a key part of these developments.

Market Research

Actuaries have training that advances their opportunities in market research and client relationship management. These areas offer quantitative analysis incorporating utility theory, predictive modeling, and fuzzy logic to gain greater insight into consumer behavior regarding investment and insurance decisions. This will be a critical role based on convergence of the financial markets. Behavioral finance is waiting for an actuary to develop models that explain the way people really perceive risk and opportunity.

Personal Actuary

This is a concept whose time has come. Many actuaries, looking for part-time employment when they retire, take jobs as income tax preparers for individuals. Working as an advisor to individuals on financial matters is a natural progression, applicable for actuaries working full-time as well. This will evolve, and might be driven by practice areas that are losing clients, such as defined benefit pension plans. Whether as a solo practice or part of a family office, this trusted advisor will rely on knowledge of markets, both insurance and investment, and one-on-one communication skills to help individuals meet their financial goals.

Think about it. Do you know of a friend or family member who could use the help of an actuary to determine their best options for Medicare or their 401(k) plan? Research has shown that the public recognizes the actuarial profession as ethical. This is an opportunity to use that as a competitive advantage while enhancing that perception.

The tools actuaries use in this new world are similar to those used by asset portfolio managers. These analytical skills, combined with common sense and patience, make many actuaries great candidates to be money managers for individuals. It's likely that actuaries will manage money for individuals and mutual fund type investments in the future.

Opportunities abound for the actuary using skill sets readily available to the profession. Make the most of them. The future is now.

Max Rudolph is a vice president and actuary for Mutual of Omaha Insurance Co. in Omaha, Neb.

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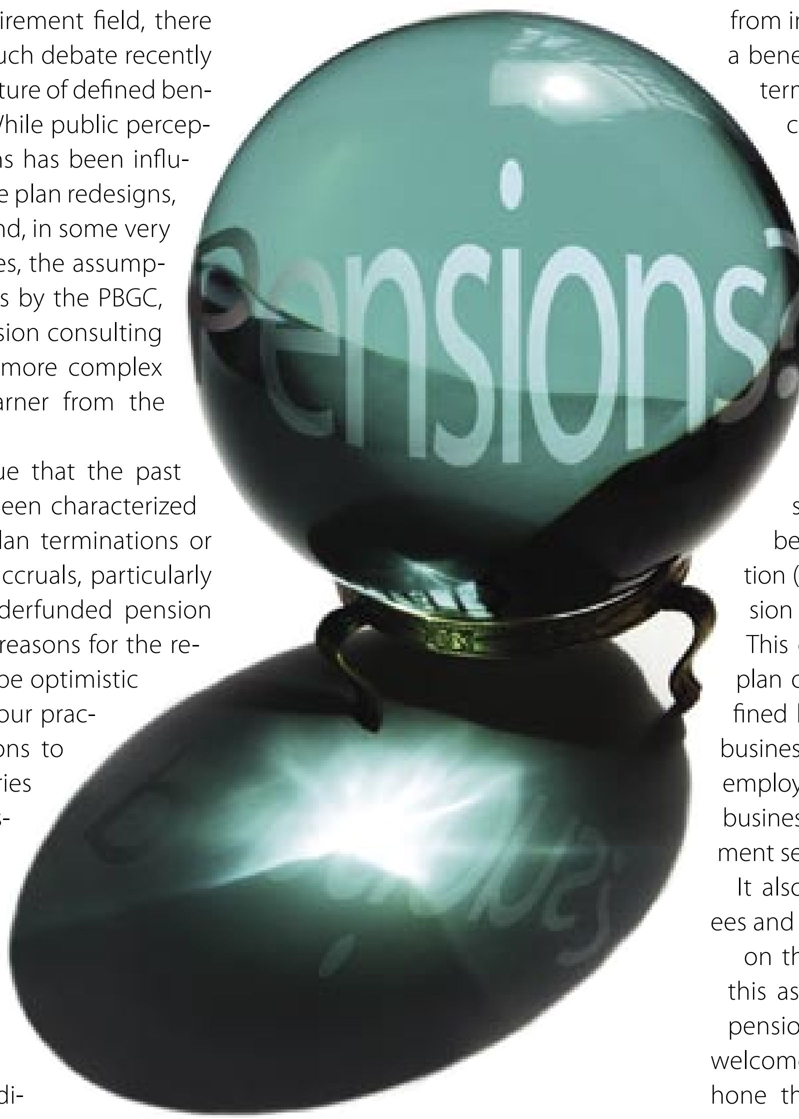
By Andrew Dalton

Advocating for Careers in the Pension Field

Are there reasons to be optimistic about the future of the defined benefit actuaries? You bet there are.



Within the retirement field, there has been much debate recently about the future of defined benefit pension plans. While public perception of pension plans has been influenced by high-profile plan redesigns, plan terminations, and, in some very widely reported cases, the assumption of plan liabilities by the PBGC, the state of the pension consulting profession is much more complex than one might garner from the mainstream media.

In fairness, it's true that the past several years have been characterized by an increase in plan terminations or freezing of benefit accruals, particularly among small or underfunded pension plans. But there are reasons for the retirement actuary to be optimistic about the future of our practice. There are reasons to believe that actuaries will play an increasingly large and valuable role in the retirement industry and, I would argue, there are significant opportunities for growth — from both an individual and a profession-wide perspective — within the pension consulting field.

Aside from ensuring that existing pension plans are adequately funded, our single most important responsibility as pension actuaries is to provide employers, and the public as a whole, with valid and compelling reasons why defined benefit pension plans are good for society and for business.

Defined benefit plans provide retirement security in a way that defined contribution plans or personal savings simply cannot. They shield participants from investment risk and they provide a benefit amount that can be pre-determined with a high degree of accuracy, allowing for individual retirement planning. In doing so, they ensure that future retirees have financial security in retirement and that retiree welfare doesn't become an undue burden on federal or state governments.

Pension actuaries of the future must learn to advocate for plans that provide great societal value. Indeed, this will be an increasingly important function (and career opportunity) for pension actuaries in the coming years. This doesn't mean forcing a pension plan on an employer for whom a defined benefit plan is inconsistent with business goals; it means working with employers to design plans that balance business goals and participant retirement security.

It also means working with employees and the public to provide education on the value of pension plans. I see this as a continuing challenge in the pension consulting profession and a welcome opportunity for actuaries to hone their business and communication skills.

Total Risk Professionals

As the pension landscape changes, so must pension actuaries. Actuaries are increasingly involved in non-traditional pension work. The successful pension actuary of the future will reach beyond traditional valuation services, which are provided at lower and lower cost by more and more firms, to offer more value-added consulting services.

Actuaries, for example, are uniquely qualified to provide asset consulting services to corporate clients that sponsor a pension plan. Pension actuaries are perhaps the only professionals who thoroughly understand both the asset and liability sides of the equation. Pension actuaries, through the use of asset-liability management techniques or other financial risk management techniques, can help plan sponsors mitigate investment risk. One of our opportunities for the future is to establish ourselves as total risk professionals, capable of managing balance sheet risk, not just reporting on the liabilities of a plan.

Additionally, there are considerable opportunities for pension actuaries to establish themselves as human resource specialists. Pension plans have long been used to manage workforce requirements. Through the use of early retirement windows, plan sponsors can effectively manage their workforce without laying off workers. Similarly, benefit enhancements can be used to attract new hires to a growing, economically profitable industry.

Our challenge for the future is to help clients take full advantage of the workforce leverage that pension plans provide. Demographic projections can help employers proactively identify a future workforce excess or shortage. As the only professionals with expertise in population projection, we can and should be consulting with our clients on managing their workforce. This offers an excellent opportunity for actuaries to continue moving from the backroom to the boardroom and to become true business advisors to our clients. It also represents an important future career endeavor for an aspiring pension actuary.

The Personal Actuary

Other pension actuaries may choose to shift from a corporate-focused practice to an individual-focused practice. Traditionally, pension actuaries have provided consulting services to relatively large employers who sponsor a defined benefit pension plan. They have also been incidentally involved in defined contribution work or retiree welfare work. The common element in all cases was a large employee population to which the law of large numbers applied and on which traditional actuarial techniques could be used.

There is no compelling reason why actuaries must continue to limit their practices in this fashion. Much has been written over the past few years about the role of the personal actuary, which can be generally applied to any actuary consulting with an individual client. In the retirement field, a personal actuary would likely be involved in individual retirement planning or post-retirement financial management.

Again, as life expectancy experts with a thorough understanding of financial markets, we actuaries are uniquely positioned to help individual workers plan for retirement and to help current retirees manage their existing assets to ensure adequate income throughout retirement. Actuaries are beginning to establish practices in this area and much development is expected over the next several years.

Actuaries as Advocates

In addition to these new and developing practice areas, pension actuaries will continue to face opportunities created by the changing legislative environment. As Congress debates pension funding reform proposals, pension actuaries have an opportunity to help plan sponsors prepare for the future. Although there has been much debate about the pros and cons of the funding reform proposals, I'm optimistic that the current proposals will lead to better funded plans and simplified rules that can be more easily understood by plan sponsors (or potential plan sponsors).

In this light, the pension field may be one of the most dynamic and growing specialties within the actuarial profession. Beyond a doubt, there will be continued challenges associated with changes in the defined benefit landscape and competition from other risk professionals. By preparing ourselves for these challenges, pension actuaries can hope to do much more than sustain their practice into the future. We can and should look to expand our business into new and exciting areas.

The thoughts above are but a few of the opportunities that await the pension actuary. As consulting actuaries, our opportunities are limited only by our creativity.

Andrew Dalton is an associate with Towers Perrin in Parsippany, N.J.

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D.W. Simpson & Company, Inc.

Mission Statement

To be the premier executive search firm specializing in the placement of actuaries and related quantitative professionals; to be recognized for the best service, integrity and forthrightness that the firm brings to each and every business relationship; and to be willing at all times to sacrifice short-term gain for the long-term good of our clients, our candidates and, as a result, our organization.

Company Overview

D.W. Simpson & Company serves the Actuarial profession Worldwide in all disciplines - Life, Health, Pension, and Property & Casualty - and at all levels, from Entry-level through Fellowship. We work with clients on both retained and contingent searches. Established in 1989, D.W. Simpson & Company is the largest firm dedicated to Actuarial Search and has a working relationship with most firms that employ Actuaries. In addition, D.W. Simpson & Company works with Actuaries and other Quantitative professionals in non-traditional areas such as Risk Management, Data Mining, Derivatives, Financial Engineering, Credit Policy, Investments, and Systems.

We have a staff of 45, who comprise 18 recruiting teams, and have completed over 700 searches in the past three years. In addition to our home office in Chicago, we have U.S. locations in Pittsburgh, Lexington, Milwaukee, Atlanta and Los Angeles. Internationally, we have offices in Hong Kong, London, Mumbai, Sydney and Melbourne.

We provide candidates information on career opportunities, as well as general employment and compensation trends, so that they can maintain up-to-date industry knowledge and weigh specific career options. In turn, D.W. Simpson & Company provides qualified candidates to our client companies. We keep in daily contact with the Actuarial community so that our clients have access to the full spectrum of candidates available for their positions, rather than having to rely solely on individuals generated through advertising responses, unsolicited resumes or networking.

D.W. Simpson & Company believes that by being highly specialized, we are able to maintain a thorough and current knowledge of the Actuarial field and other quantitative professions, and thereby provide the best service to candidates and client companies alike. Our objective is to be the foremost resource for actuarial talent, worldwide.

Salary Survey

Visit the D.W. Simpson & Company Salary Survey on our website at www.dwsimpson.com. The survey provides comprehensive salary ranges for actuaries at all levels of their careers, i.e., by years of experience and exam achievement. These salary ranges are derived from updated conversations with candidates and the most current offers (accepted and declined) for the various levels of actuaries.

Recruiting Teams

Listed to the right are the D.W. Simpson & Company recruiting teams. All of our recruiters have substantial knowledge and experience in actuarial recruiting and are positioned to facilitate the recruiting process with the utmost in efficiency. All recruiters, from senior- to junior-level, work diligently to further both candidates' and clients' goals, and do so in a friendly, forthright and professional manner.

D.W. Simpson & Company - U.S.

- Dave Simpson/Valorie Etheridge
- Patty Jacobsen/Danny Pudi
- Bob Morand/Ellen Hoppenjan/ Kristyn Sakelaris
- Sally Ezra/Bryan Duffy/Jody Eastman
- KC Cho/Lindsay Juon/Angie Allen
- Aaron Benton
- Steve Marshall
- Laura Santoro
- Barclay Burns
- Dan Karrow
- Kimberly Skora
- Marianne Westphal
- Derek Mulder
- Lindsey Nelson/Tom Munar

D.W. Simpson & Company - Asia Pacific

- Lesley Traverso/Joanna Robins
- Steve Young

D.W. Simpson & Company - India/UK

- Alex Babic

D.W. Simpson & Company - Europe

- Ivan Clarke

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WHO'S YOUR RECRUITER?

(See Back Cover for Answers.)

Dave Simpson/Valorie Etheridge • Patty Jacobsen/Danny Pudi • Bob Morand/Ellen Hoppenjan/Kristyn Sakelaris
Sally Ezra/Bryan Duffy/Jody Eastman • KC Cho/Lindsay Juon/Angie Allen • Steve Marshall • Aaron Benton • Barclay Burns
Laura Santoro • Dan Karrow • Kim Skora • Lindsey Nelson/Tom Munar • Marianne Westphal • Derek Mulder
Lesley Traverso/Joanna Robins/Steve Young/Alex Babic/Ivan Clarke • Claude Penland/Tom Troceen • Rhonda Glick/Robert Hicks

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D.W. SIMPSON & COMPANY

GLOBAL ACTUARIAL RECRUITMENT

By David P. Friedlander

Consider a Career in Actuarial Software

Looking for a change in direction? Software may be calling your name.

Half of my job as a chief actuary at a software company is to help design software that complies with the Actuarial Standards of Practice and the applicable laws and regulations. Then I have to make sure the end product is in accordance with the designs. The other half of my job is to train and support the software users.

Today, nearly all actuaries use computer software and most use software tools that are designed specifically for actuaries. Some are at least partly designed by their fellow actuaries. However, actuaries are also frequently involved in the design of software tools that are used mainly by non-actuaries. If you're an actuary who enjoys working with computers, this could be the career path for you.

Communication Skills Are Key

My own firm is always looking for the few people who have that elusive combination of actuarial, communication, and technology skills that makes it possible to work smoothly with both the technology professionals who actually develop the code and the clients who use it. For our company, those end users are employee benefits professionals. However, other software firms that employ actuaries produce tools used by life insurance actuaries, casualty actuaries, underwriters, and others.

Those of us who work with software firms find ourselves both training and supporting the actuaries and actuarial assistants who use the software. These people are usually well versed in actuarial principals but often know very little about computers. We also need to provide design specifications to technology professionals who know far more than we do about computers but may not know the difference between an actuary and a mortuary. Therefore, we need all of the communications skills that a consulting actuary needs as well as an understanding of computers.

In order to communicate actuarial principals to technology professionals, we need to have a very thorough understanding of those principals. It's the same kind of understanding required to pass actuarial examinations, although, unlike some other environments in which actuaries work, software firms usually consider the quality of their work much more important than examination-based credentials when they judge their employees.

A software product has to anticipate many different scenarios, some of which probably were not included in the limited number of questions that could be included on an examination. For example, a product that calculates optional forms of pension benefits has to account properly for the participant whose benefits are the regulatory maximum benefit under the normal form of payment but not under the selected optional form and vice versa. On the other hand, it also has to account properly for the person whose benefit is so small that the option isn't permitted at all, along with the vast majority of cases that fall between these extremes.

As an actuary who has been in the software development environment for 30 years, I've witnessed incredible changes in the data processing environment. In this field, the one thing that's certain is change, so one has to be very flexible.

In the 1970s, almost all actuarial software resided on mainframe computers, often the so-called super computers (far from "super" by 2005 standards) that were manufactured by the now defunct Control Data Corporation. In those days, programs were laboriously created on punch cards, one instruction per card, and woe to anyone who dropped one of those decks if the cards weren't properly numbered!

By the early 1980s, much of the software had migrated to mini-computers manufactured by other poorly remembered companies such as Prime Computing and Digital Equipment Corporation. I still remember authorizing a purchase in 1982 for a 300 megabyte disk drive that was the size of a desk, had a removable disk platter weighing more than 50 pounds, and cost about $20,000. (Today, a $300 MP3 player has 100 times more disk space, fits in my shirt pocket, and weighs 4 ounces.)

Later in the 1980s, the tools appeared on DOS-based personal computers. Of course, personal computers still dominate today, although DOS is nearly forgotten and has been replaced by various versions of Windows. Each of these advances, along with the well-known changes in the regulatory environment, has required that the software tools be largely rewritten and, therefore, has created new opportunities for those of us in the software development field.

In addition to these changes, the tools themselves have become far more complex, so that it now requires a team of technology professionals to write the actual code. By comparison, as recently as the 1980s, actuarial software firms were often staffed entirely by technology savvy actuaries and employed few or sometimes no technology professionals. In those days, all that was expected of the tools was that they produce the correct answers. Output didn't need to be attractive because it was manually transcribed before delivery to the end user and nobody expected results to arrive in less than an hour.

Working at a software company is a choice to consider if you're a strong technical actuary with excellent communication skills.

Today, we expect instant results that can be conveyed to the end user and with almost no work to be done by the operator of the tools. We also expect everything to run remotely via the Internet. What all this means to actuaries who work at software firms is that we have to communicate our science to technology professionals instead of write code. Communications skills have become more important to us than programming skills.

None of this means that anyone can work at a software environment without understanding data processing. We still have to know how to write programming specifications that are acceptable to technology professionals, and this requires an understanding of database technology. Modern databases are accessed using a tool called SQL (sometimes pronounces as Sequel) and it's very helpful for actuaries in this environment to know that tool. It's also very useful to be able to read and "debug" actual code and even to be able to write small patches of that code (often referred to as "entry point programming").

Breaking the Code

Programming code is written using tools called programming language, so these skills require a familiarity with those tools. The most modern code is written in the following languages: C++, C# (pronounced C-Sharp), DELPHI, Visual BASIC, and FORTRAN. However, we often also have to work with older code that can be more economically maintained than rewritten. This code is also written in FORTRAN, BASIC (the predecessor of Visual BASIC) and PASCAL (the predecessor of DELPHI). However, it may also be written in dying languages such as COBOL and APL, so it's useful to know those too.

It's also worth noting that the majority of actuaries who work in software development companies are either enrolled actuaries or associates of the Society of Actuaries or the Casualty Actuarial Society, rather than fellows of those organizations. Because it's one of the areas in which an actuary can work without passing as many examinations, the extra time we spend learning about computers may be at least partially offset by fewer hours of formal studying.

To summarize, working at a software company is a choice to consider if you're a strong technical actuary with excellent communications skills, you're able to deal with frequent changes to the environment in which you work, and if you enjoy working with computers and know more about them than most of your fellow actuaries. It's an option that may not require completing all of the fellowship examinations if you have technical strengths that offset a lack of credentials.

David P. Friedlander is principal and chief actuary at Lynchval Systems Worldwide in Chantilly, Va.