Hello everyone and welcome to our 2012 Winter Issue for ASNA. Apart from the normal way these newsletters are distributed to you (i.e. online), if you are part of the lucky handful reading this as a printed copy, this means you are currently at our Convention in Niagara! If this is so, then we hope that you are thoroughly enjoying your weekend. This is our largest Convention yet in terms of attendance, and I am pleased to announce that we have several actuarial students from the United States here as well. Be sure to meet as many students as you can, because there is a high probability that you will run into them in the workforce in the future. The actuarial community, though large, is very tight-knit. If you are reading this for the first time electronically, then it is likely you have missed the Convention and have to wait another year until it returns. Either way, the year is new, and as usual there is already a mountain of tasks to be done.

Thus far, The Reinvented Actuary publication for ASNA has strived to provide you with an inside look of the non-traditional roles of the actuary, insight from industry leaders, and a bit of fun along the way. As this is our last issue for the 2011/2012 year, we have tried to strategically choose the best interviews and articles we could, so that there would never be a dull moment. Don’t skip a single page, because we can guarantee that there is something new in here for everyone!

Delegation Reminder: If you are attending the current 2012 ASNA Convention in Niagara, you are eligible to become an ASNA Delegate for your University for the 2013 ASNA Convention. More information about this will be provided by the your University’s current head delegate in the next few weeks.

The 2011/2012 Newsletter Committee for this year has been phenomenal to work with, and I would like to give them each a special mention for their contributions: Ritika Bhargava, Jonathan Lim, Claire Liu, Anson Lo, and Kevin He (our Guest-Writer for this issue). We have all been constantly working hard to provide you with the most interesting and relevant actuarial information. We would love your comments and suggestions on our final issue, so please e-mail uwasna2012@gmail.com. We hope you have as much fun reading it as we had making it. Enjoy the conference!

Manisha Dias
Newsletter Editor; ASNA ‘Future Actuary’
Actuarial Students’ National Association
Actuarial Consulting 101

Upcoming Week:
Monday, 9am: Meeting with ABC Company’s CFO and Chief Actuary in London
Tuesday, 8am: Meeting with XYZ Company’s Valuation team in Toronto
Wednesday, 11am: SOA research presentation in Chicago

Does this look like a page out of your future career? Then you should be an actuarial consultant! Consultants are professional experts who help their clients with their problems and needs. They typically have prior experience within the industry, but have accumulated a variety of knowledge and expertise to help various companies with their issues.

Actuarial consulting roles differ greatly in comparison to traditional roles in an insurance company. Actuaries in consulting companies typically work on a wider variety of projects which converge on broader based topics and high level thinking. Even within similar projects across different companies, there are numerous practices which result in distinctive actuarial work.

Depending on the company they are employed in, actuarial consultants manage a wide variety of consulting work. Examples include evaluating the effectiveness and usefulness of models for new products, building and improving on models to incorporate new accounting rules, and auditing actuarial reports to identify and solve potential issues. Actuaries in consulting companies are highly equipped to perform these roles because they are familiar with the best practices in the industry.

One exciting aspect of an actuarial consultant’s work is in the area of mergers and acquisitions. Actuarial consultants play the role of investment bankers in this case – appraising the value of the insurance company’s liabilities as well as examining the models and assumptions used in reserve valuation.

There is never a dull day in the world of an actuarial consultant. Every day brings unique challenges and there is rarely any routine work. For such an exciting and rewarding career, what skills would one need to possess to be a successful consultant?

Consultants need to possess effective communication skills. Since they work with many external clients as well as internal project team members, communication is a very crucial skill. Additionally, consultants also need to be quick thinkers and self-starters. Compared to an insurance company, consulting work is less well-defined and requires more creativity. Successful consultants are highly motivated and can think creatively on their feet.

Being able to multi-task is another crucial ability. This extends to their lifestyle because actuarial consultants have longer hours, and therefore need to be able to balance study time and a social life. The long hours and constant travelling mean that consultants must also be accustomed to a mobile lifestyle.

Consulting companies also look out for people who display a remarkable ability to pick up new skills and knowledge quickly. Consultants must be able to learn and know a little bit of everything. Constantly on the move. Meeting new people every day. Working hard and playing harder. If this is your ideal job description, consider becoming an actuarial consultant today!
Interview with Kim Yeoh

Chief Actuary of Prudential Life Assurance Indonesia

Kim is a Fellow of the Society of Actuaries (SOA) and the Canadian Institute of Actuaries (CIA), as well as a Chartered Financial Analyst charterholder. She graduated from the University of Waterloo with a degree in Mathematics specializing in Actuarial Science and Statistics.

Kim grew up in Malaysia, but undertook tertiary education and began her career in Canada with a major life insurance company. Since then she has worked in the United States, the Netherlands, Taiwan and Indonesia, or five countries in total, across three continents. Her roles have encompassed investments, corporate actuarial, and life insurance (valuation and pricing).

You have broad experiences in the actuarial field in Asia, what would be a good track to follow and avoid for someone who wants to work as an Actuary in there (in terms of job demand and career development opportunities)?

I personally see the exam track as just a starting point for an actuarial career. My exam track was Investments but I only worked directly in Investments for the first three years of my career. Since then my investment knowledge has proved useful but not completely necessary, but it was an interesting track to pursue! I think if one is set on working in Asia, then it might be wise to avoid tracks with very North American-specific readings. Having said that, a lot of actuarial jobs in Asia are in life insurance, so Individual Life and Annuities might be a good track to follow. Retirement Benefits in Asia is quite different from that in North America, so that might not be as useful. I think Finance/ERM and Investments are quite similar everywhere and personally I find those tracks quite interesting. I think the most important factor in choosing a track is whether you’ll find it interesting enough to be truly engaged and to be able to spend the time to study and pass. Follow your heart and the rest will follow.

Do you have any advice for students who want to pursue a managerial role within the Actuarial field?

Work on your non-technical skills – communication, leadership, teamwork, project management, etc. Try to get exposure to non-actuarial work but don’t lose sight of your technical expertise either.

Could you describe the insurance industry in Asia (i.e. is it competitive and are insurance products, such as life insurance, popular)?

The insurance industry in Asia is generally growing but it can vary from country to country. It can be competitive in that there are a fair number of multi-national and local players as well as many companies keen to enter the markets. Insurance penetration is still low, other than in the more developed markets of Japan, Taiwan, Hong Kong and Singapore, so the potential for growth is still significant. This combined with favorable demographics and a growing middle class in emerging markets makes Asia a very interesting place to be for business.

If you were to look at the insurance industry across Asia, the emerging markets like Indonesia and Vietnam are still in early stages of development while others have progressed further. Generally it is still a distribution-focused market. Tied-agency forces are very strong but alternative channels like bancassurance and telemarketing are gaining ground.

Some insurance products, like life insurance, tend to be sold not bought. What is quite popular in Asia though is health insurance, which you don’t see in Canada because in Canada we have universal health coverage. Quite often, you see the insurance industry developing around the social infrastructure of the countries. Policyholders tend to buy health insurance and savings vehicles for either retirement or children’s education and that is a direct consequence of the lack of universal healthcare, minimal pension or retirement benefits from governments or employers and limited access to public education.
Interview with Kim Yeoh
Chief Actuary of Prudential Life Assurance Indonesia

In light of the 2008 financial crisis, OSFI has slapped tighter controls on insurance firms with regard to reserve reporting. How has the financial crisis impacted Asian insurance practices and in your opinion, how do you see the Asian insurance market developing over the next decade?

At one point before the financial crisis, variable annuities and structured products were gaining popularity. Since the crisis, this has reversed as regulators and companies are both much more wary. Over the next decade, I think insurance in Asia will continue to grow. I believe customers will get more sophisticated in the products they demand and the market will respond. The distribution landscape will likely get more sophisticated. All this presents challenges to companies and actuaries working in them.

You have experience across various insurance companies, both traditional and consulting, what are some of your career highlights and how have they helped you get to where you are today?

I can think of a few off the top of my head:
⇒ While working in Europe I represented my employer in several industry bodies. This involved working with people from different companies and countries drafting guidelines or official responses to regulation. I learned about dealing with different cultures and how to work to get compromise and consensus. Oftentimes the meeting venues were exotic – once we were meeting in a heritage building in St Mark’s Square in Venice overlooking hordes of pigeons and tourists while discussing the minutiae of accounting guidelines!
⇒ I’ve been actively involved in the International Actuarial Association committees and had the opportunity to again work with actuaries from different backgrounds, countries, speaking different languages. These opportunities gave me an appreciation for others’ points of view and the context of how they came up with those.
⇒ Other highlights to me would be working with other departments to complete certain projects – whether it might be Investor Relations or Marketing, there is always so much to learn! Everything helps.

What kind of differences can one expect transitioning from a Canadian workplace to an Asian workplace?

I think it depends on where in Asia one is thinking off. In some Asian countries, people may not be as direct as you’re accustomed to. And the workplace may be more hierarchical and formal. Still, there’s nothing that an open mind and a strong dose of humility can’t overcome!

Have you experienced any challenges as a woman in a senior leadership role?

Not really. I think generally people see me as an actuary first, and a woman second. (Perhaps my fake moustache and beard helped!) Seriously though, I think as a relatively rare technical expert, which a qualified actuary is, you get the benefit of the doubt — then, all you have to do afterwards is prove that you earned your credentials and you know what you’re talking about. I did (and do) get comments that I don’t look/act/come across like a typical actuary, but that just means I’ve helped to break some stereotypes of what an actuary should look/act/come across as.

What book has had the biggest impact on you?

I’m probably forgetting an important book from my formative years but I’ll say “Outliers” by Malcolm Gladwell. It explores the importance of practice and effort versus raw talent. It’s encouraging and helps me justify why I’m much better at being an actuary than an artist – because I didn’t put in the time to practice painting!

How do you spend your time after work?

I spend time with my daughter and husband, my daughter is 5 years old and her goal in life is to grow up to be like mummy. My husband has provided unwavering support during my time exploring all these different paths and countries in my career. We’ve had fun along the way!
Who Says Actuarial Students Don’t Have Style?
Back-to-School Fashion (& A Look at Your Newsletter Committee)

Left-Right: Immaneul Cruz, Manisha Dias*, Monojit Samanta

Left-Right: Stéphane Hamade, Claire Liu*, Kevin He*

Left-Right: Stéphane Hamade, Immaneul Cruz, Ritika Bhargava*, Monojit Samanta, Kevin He*

Left-Right: Immaneul Cruz, Monojit Samanta, Manisha Dias*, Claire Liu*, Ritika Bhargava*, Stéphane Hamade, Kevin He*

Anson Lo*

Jonathan Lim*

*ASNA Newsletter 2011-2012 Committee:
Ritika Bhargava, Manisha Dias, Jonathan Lim, Claire Liu, Anson Lo & Guest-Writer Kevin He
Master Your Actuarial Interviews

A very good friend of mine once said: “If you have been fortunate enough to land an actuarial interview, whether you get the job or not now is entirely in your own hands.” Excellent interview skills are a must for actuarial science students to stand out in the company interviewing process and get their dream jobs. This article will teach you how to master your actuarial interviews!

Before the interview:

There is certain preparation work needed to be done before heading to your interview.

- Research the company: Some employers will introduce their company to you and some like to start the interview by asking: “So what do you know about us?”. It is always better to do thorough research about the company before your interview.
- Read through your resume again: It is very important for you to remember all the items you have listed on your resume. Getting familiar with them helps you think quicker on the spot and helps prepare you for any questions employers will ask from your resume.
- Take a shower; look fresh and professional!

During the interview:

- Start with a firm hand shake: Show your confidence.
- Smile: Remember to smile and show enthusiasm during your interview, it works!
- Keep eye contact: Sometimes there will be two or more interviewers asking you questions. Though this increases the pressure, it is important to keep eye contact with each of them even if you may be answering a question from one of the interviewers. Keep your attention on them at all time.
- Be enthusiastic about the job: Show your passion towards the job and confidence in your own ability. Ask questions related to the position at the end of the interview to show that your interest is high.

For a standard actuarial interview, there are certain questions employers like to ask:

- Tell me about yourself: This is a very simple question but also one of the most important! To answer this question we need to follow four steps: general information about you (university, year, and program), your extracurricular and volunteer involvement, previous work experience and personal interests and hobbies. The introduction should be very high-level and concise (usually under 90 seconds).
- Interviewers also like to ask a series of scenario questions: For example, consulting companies (due to the busy nature) like to ask “How do you finish multiple projects before deadlines?” or “Have you had a tight deadline and what did you do to ensure you met it?”. These types of questions emphasize your time management skills, so it is best to answer with a similar situation from previous work terms or school projects. Skills like leadership, logical thinking, and communication are often tested through various behavioral based questions. Hence, it is crucial to read your resume before your interview so that you will be able to think of examples from each item listed, for any type of scenario question.

To master your interviews, the key is preparation. Walking into an interview unprepared is simply a waste of your opportunity. Being prepared and confident in your interview will help you achieve your goals and get your dream job!
Interview with Bob Howard
Past President of the Canadian Institute of Actuaries (CIA)

Bob Howard graduated from McMaster University in 1971 summa cum laude with a B.Sc in Pure Math. Nonetheless after graduation he entered the field of Actuarial Science, taking a job with Mutual Life of Canada (now owned by Sun Life Financial).

Bob qualified as FSA and FCIA in 1974. He served as President of the Canadian Institute of Actuaries in 2009-2010. Bob recently retired from Sun Life Financial with 40 years of service. Bob has resided in Waterloo for almost 36 years.

Describe your career path and what has brought you to where you are today. Are there any notable keys to your success?

I did my undergrad at McMaster University. Choosing Actuarial Science was rather an accident than intentional. I was enrolled in the Pure Math program. At the time (1969) there was a shortage of ActSci students, and I worked two summers at the Confederation Life. I liked what I did there, and decided that I would become an actuary.

I started my career in 1971 with Mutual Life of Canada (Group Life and Health-Renewal Underwriting department) in Waterloo, the city I have worked in ever since. In 2000, Mutual Life went through a demutualization process and became Clarica, which subsequently was acquired by Sun Life in 2002. I have spent most of my career in the life insurance field.

How do you measure your success?

I had always sought to make a difference. It was essential for me to be able to work ethically and to continue to grow professionally. I have succeeded in all those. Success isn’t just in business; I am also very involved with church.

What would you consider as an alternative career if the actuarial profession was no longer an option?

I think you are asking me too late in my career. Enterprise Risk Management (ERM) would probably be my pick.

How have you seen the actuarial field evolve since you graduated and started working as an actuary? On that note, what do you see as the major challenges that actuaries will face over next few months and years and what do we need to do to adapt?

Virtually all calculations were done on mechanical calculators, there were no computers. Back then emphasis was on finding a good approximation. Companies did not perform sensitivity tests. Products were also less risky, and hence sensitivity was of low urgency. Over time, I noticed a huge increase in risk and guarantees. However, we didn’t have the tools to manage the risks generated by these products. People grew up working on intuition, and non-symmetrical risks are not intuitive. People faced a failure of intuition. Hence, a lot of actuarial emphasis has and will be placed on risk management.

There are many challenges faced by the actuarial community, I will talk about the two that would be of the most interest to students:

Pace of change: Throughout my career the rate of change has accelerated. What students are learning in university today, other than the true fundamentals of Actuarial Science, will be obsolete very soon. Students graduating dare not think that they are done their education. They must be humble enough to relearn everything in their career. Those doing that will do well.
Enterprise Risk Management: If ERM takes hold as we think it should, any large enterprise will see that it needs a risk manager and actuaries will be preferred. However, there will not be enough actuaries, of any specialty, to meet the demand. Organizations such as SOA, CIA have two responsibilities: to market the speciality to enterprises so that they see risk management as essential and to market the specialty to students so that they become skilled in it while the demand is still small.

CERA is also going to change at a rapid pace since there is lots of room of room for growth.

As a past President-elect of CIA, what are the main issues/concerns that need attention?

The one of the biggest issues is Pension Plan Reform in Canada. There is a very big misalignment between the interests of the corporation and its employees. Actuaries are better positioned than anyone to help find a way to realign the interests. However, it is doubtful that we can do it without the cooperation of governments and the accountants.

Another related issue is the cost of Health Care. Health Care is run by the government; there is very little actuarial input. There is a significant value in applying the techniques of pension plan valuations and risk management. This area needs to be explored and CIA is looking into that.

During the time when I was the CIA President, the IFRS issue was coming to a head. The challenge was to bring actuarial expertise into play to a greater extent. If IFRS gets things wrong, there will be serious implications for insurance companies. The market value of companies is based on their financial reports, if we adopt IFRS, the financial reports will be far less useful for that valuation. When I started my career, the financial reports gave very little indication of a company’s real worth. We have made huge progress in the last three decades at making the financial statements more meaningful. We are at the risk of losing much of what we have gained.

You were heavily involved with the leadership activities of the Canadian Institute of Actuaries (CIA). What did you enjoy most about your involvement?

Working with good people on interesting and important problems. Volunteer work with the CIA helps one to grow professionally and to contribute on issues that are important to Canadians. Many companies encourage their actuaries to get involved. In the long run it is good for both the actuaries and the companies.

The idea of CIA granting exemptions for the preliminary exams based on university courses has been discussed for a long time now. Could you give us an update on where this process is currently at? What is your stance on it?

I believe this will be launching in September 2012 on a go-forward basis, not retroactively. I think it’s an excellent idea. I believe that the universities are able to produce better actuaries than self-study. It is a more robust learning environment. Most of the world does actuarial education either solely or partly through universities. After Canada adopts this, U.S.A will be the only country not granting exemptions for satisfactory university work.

The CIA’s proper role is to ensure that the syllabus is appropriate, and that students receiving the exemptions are really qualified. To rely on universities for education just makes sense.
Thoughts From an Actuary in Academia

Chris Groendyke is a Faculty member at the University of Waterloo in the Department of Statistics and Actuarial Science. His professional background is that of an Actuary and he has worked in the industry for several years before going to graduate school. Chris graduated from Pennsylvania State University in Statistics and has been part of the faculty since January 2011.

When did you first hear the term ‘Actuary’?

I first heard it in middle school - but I didn’t know what it was. I heard it from my mother – she only knew it was math related and that one of our neighbors was an actuary. Their house was also a lot bigger and nicer than ours. She suggested that I become an actuary but obviously I ignored her.

You switched out in your third year of university, what led you to make that decision?

I first majored in Computer Science but it wasn’t for me, I wanted to be able to apply math to real world problems and to go to work as a business person rather than a pure mathematician. It was a field that I thought I could succeed in because it had a lot of real world usage and required communication and soft skills I thought I could use.

Why did you choose to follow the academia route, after you had started in the industry?

It’s more of a lifestyle choice, since academia offers more flexibility in my opinion. When you are doing research, you can choose whatever topics you want; whereas in the industry, your area of tasks are more defined and preset. I also really like teaching. Since I have had industry experience, I still like to try to work with people in it. It is very important for actuaries in academia and those in the industry to work together, as there are sometimes opportunities (i.e. joint-projects between the two), so I try to keep that connection going.

What was something that you didn’t like about being an actuary?

Exams, exams, and did I mention more exams? Virtually everyone has some exams to take after graduation. Even while you’re in school, you’ll have to be studying while other people aren’t. When you’re at work – even though you’re given study time, it’s not easy. To put in however many hundred hours of studying and to come up just short is a huge negative.

Actuaries also aren’t as respected as they should be in North America as in other professions. This is not the case in industries that actuaries are heavily populated in, but in general, no one really knows what you’re doing.

If not an actuary, what would you be?

I would be a musician if I could be anything else. I grew up in Louisiana and I’m extremely fond of jazz music – I play the trumpet and I’ve played with different jazz groups.

The liveliness of the big band swing style, from the 40’s and the 50’s. I believe music stretches your brain in a completely different way compared to academia; it can be just as challenging but in a different way. I’m no brain scientist but I think it’s great and amazing.

One statement that would benefit any student?

Maintain flexibility, a wise thing my father once told me — once you lose it, it’s hard to get back.
Property and Casualty Insurance
A Wealth of New Opportunities

There are approximately 22,000 members of the Society of Actuaries; the corresponding number for the Casualty Actuarial Society is 5,000. While many actuarial students are able to name many of the major life insurance and consulting firms, few are able to name a couple of property and casualty (P&C) insurers. In Canada, this is partially due to the amount of competition in the P&C industry resulting in no single company having a significant market share. As well, the P&C insurance industry is relatively new compared to the life insurance industry. With fewer members, higher competition between companies, and as a comparatively newer industry, the P&C industry could be a major source of actuarial opportunities in the near future.

Property and casualty insurance, also known as general insurance in some countries, is a growing area that offers non-life coverage. This includes (but is not limited to) automobile, property, and liability insurance. Automobile insurance in Canada is regulated at the provincial level. Across the country, both public and private auto insurance exist. Types of coverage include Third Party Liability, which covers payments for injuries to other people and damages to their property, and Accident Benefits, which covers personal injury expenses. The amount and type of coverage that a driver is required to purchase will depend on the province he or she resides in.

In addition to auto insurance, people with personal properties often purchase home insurance. This area includes not only homeowner’s insurance, but also specialized products that offer coverage for condominium owners and tenants. The goal of the coverage is to protect the property itself, cover any personal contents lost from theft, and provide liability protection.

Another major area of P&C insurance is business or commercial insurance. This includes property and liability coverage for businesses. It includes payments for damaged property and could also cover the loss of business income as a result of the damage. Other areas under this segment include coverage for equipment breakdown, inland marine (insures the transportation or storage of goods), crime and fidelity, and professional liability. Professional liability insurance is often purchased by professional individuals, such as accountants or doctors, to cover claims of negligence filed against them.

Since the P&C insurance is often regarded to offer insurance that is “non-life”, there are endless possibilities to new insurance products that could be offered in the future. With technology and demographics changing constantly, the insurance industry will need to continue to be innovative to offer the best protection for its consumers. For example, some companies have started to look into or offer coverage for identity theft. This is a direct result of the growth in technology and the Internet where personal information can now be compromised more easily.

Having provided an overview of the P&C industry, it is important to note the path to becoming a Fellow of the Casualty Actuarial Society (FCAS) is different than becoming a Fellow of the Society of Actuaries (FSA). Attaining the FCAS requires the completion of Exams 5 to 9 after the common exams (Exam P/1 to Exam C/4). As well, there are two modules and a professionalism course that are required to be completed in order to achieve the designation. Many are discouraged because the FCAS track has a few more exams compared to the FSA track; however, the P&C insurance has a wealth of potential opportunities that can prove to be rewarding. These opportunities range from developing sophisticated pricing techniques for insurance products that lack credible data to developing innovative products that can be offered in the growing market. If you are up for a challenging and rewarding actuarial career, it may be wise to become a P&C actuary!

Reference:
### Actuarial Sudoku Puzzle

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**ANÉA - ASNA**

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1825
Benjamin Gompertz observes a mathematical law which describes the age dynamics of human mortality - Gompertz’s Law of Mortality

1840
John F. Entz is the first Actuarial consultant in insurance policies and pensions

1866
Lucy Jane Wright is the first female actuary, employed by Union Mutual Life

1896
Actuarial examination system is first implemented, it becomes a series of industry-accepted educational and qualification tools

1662
John Graunt creates the foundation of life tables with patterns of longevity and death

1693
Edmund Halley devises the first mortality table, forming the basis for the actuarial profession

1988
Actuary is rated the best job in America by Jobs Rated Almanac

2002
Sarbanes-Oxley Act pushes Enterprise Risk Management, Actuaries are now assuming roles of strategic risk managers