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THE MAGAZINE OF THE ACTUARIES INSTITUTE

Actuaries DIGITAL

"...we are better at these things than most because of our training, our integrity, and the skills of individual actuaries and as a profession collectively"

- Michael Rice, 2017 Actuary of the Year

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The role of the Appointed Actuary and actuarial advice within insurers - APRA Insights Session

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The Critical Line – Volume 16

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IMPORTANT INFORMATION FOR CONTRIBUTORS
Actuaries Digital welcomes both solicited and unsolicited submissions. The Editorial Committee reserves the right to accept, reject or request changes to all submissions as well as edit articles for length, basic syntax, grammar, spelling and punctuation via actuariesmag@actuaries.asn.au

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Welcome to New Members

Welcome to the Institute's newest members!

Australia

Dean Alexander ARTHUR (VIC)

Yee Man CHONG (NSW)

James William John DE MATTIA (NSW)

Rene ESSOMBA (NSW)

Yusheng GAO (NSW)

Chun Kit Jenkin HO (NSW)

Jiayu HU (NSW)

Jiaming JIA (NSW)

Shabbir Juzer KHANBHAI (NSW)

Mengyang LIU (ACT)

Yidan LIU (VIC)

Huiyang LIU

Raveendran MENON (VIC)

Pradeesh NALLAINATHAN (NSW)

Cian Gerard O'REILLY (NSW)

Jason Brett POLLASTRINI (NSW)

Mashiyat Muhtasim RAAN (VIC)

Aloysius Halomoan REYNALDO (ACT)

Gemma Ellen SMITH (VIC)

Sijie SONG (ACT)

Varun SUNDAR (NSW)

Jared Tseng Wen TAN (WA)

Robert Pieter VAN DER WESTHUIZEN (NSW)

Reinier Meyer VAN ROOYEN (QLD)

Chengcheng WANG (NSW)

Lusen WANG (ACT)

Lucy Madeline WARD (QLD)

Lai WEI (VIC)

Gang WEN (ACT)

Jae Kyung WOO (NSW)

Bryce Walter WOODWARD (QLD)

Aliza YAU (NSW)

Yiqin YIN (NSW)

Zhongxiang ZHANG (ACT)

Overseas

Yudong CAO (Guangdong)

Jiajia LI (Guangzhou)

Tsz Wai TAM (Hong Kong)

Chieh-Yu WU (Singapore)

Ou YE (Jilin Province)

The role of the Appointed Actuary and actuarial advice within insurers - APRA Insights Session

By Amit Jeena

Amit Jeena covers the Institute's latest Insights session on APRA's paper the “Review of the role of the Appointed Actuary and actuarial advice within insurers”, presented by Peter Kohlhagen, senior manager in APRA’s policy development area.

The role of the Appointed Actuary has been a hot topic in the industry over a number of years. In June 2016, APRA released a paper entitled, “The role of the Appointed Actuary and actuarial advice within insurers” which sparked numerous responses from the industry. After reviewing the feedback received, APRA subsequently released the response paper on the “Review of the role of the Appointed Actuary and actuarial advice within insurers” on 28 September 2017.

To take us through the key points in the paper, the Actuaries Institute hosted an Insights session on Wednesday, 17 October 2017. The rationale of the original APRA paper, as described by APRA member Mr Geoff Summerhayes, was to take a "significant step forward in putting the role on a sustainable footing and ensuring that Appointed Actuaries are able to make their important prudential contribution". The updated paper aims to address any outstanding issues raised and encourage feedback going forward to ensure that the new standards are robust and encompass the views of all industry players.

You can find both APRA papers, draft prudential standards and guide, and industry responses to the first paper here.

Session Summary

The session was chaired by the Institute’s Elayne Grace and presented by Peter Kohlhagen who has been a senior manager in APRA’s policy development area since January 2015.

Peter’s presentation summarised APRA’s original views, industry comments received and APRA’s responses for the issues in the paper including:

- the purpose statement for Appointed Actuaries;
- the actuarial advice framework;
- management of conflicts of interest;
- reporting requirements; and
- the harmonisation of prudential standards across industries.

While the presentation did not delve into anything beyond the bounds of the response paper, the Q&A session raised many interesting questions of which two in particular stood out:

The first was on whether there would be enforcement by APRA for Appointed Actuaries to whistle-blow for breaches in the actuarial advice framework by the insurer. Peter’s response was that although this breach would not fall under the scope of the Insurance Act and so would not be enforced, it should be best practice for the Appointed Actuary to inform APRA of such a breach.

The second was on what transition period would be allowed to move to the new framework. Peter’s response was that APRA usually gives flexibility to insurers but transition time would normally be between 6 and 12 months. However, APRA is open to industry comments on transition time.

A copy of the presentation by Peter can be found here.

Personal Perspective

My perspective on the event was that not only was it an eloquent summary of APRA’s responses, it also demonstrated how open APRA is to listening to feedback from the industry. Peter began his presentation by saying that there is still more work to be done and that all of us need to work together to ensure the Appointed Actuary role remains a strategic and valuable one.

This key message clearly demonstrates how committed APRA is to creating and developing a framework that marks the strategic importance of the Appointed Actuary role. In doing so, it aligns with APRA’s vision of a safe and stable financial system.

APRA is requesting responses by 15 December 2017 from the Boards of Insurers, Institute working groups as well as Appointed Actuaries. In fact, APRA challenged the audience to think deeply about these issues and to challenge the status quo. In Peter's words, the paper should be regarded as the first step in the "evolution not the revolution" of the role of the Appointed Actuary.

It was also positive to see that questions raised by the audience on, for example, the wording of the purpose statement were met with tolerance rather than defensiveness – no response would be too trivial for APRA to consider.

My take-home message to you is to accept APRA's challenge and provide insightful responses to any issues you feel should be raised. It is not the responsibility of Appointed Actuaries or the Institute working groups to solely drive the responses– it is up to all of us. Speak to your managers and colleagues and let us drive the discussion to make a difference. After all, this is probably the last opportunity for responses before the final prudential standards and guide are published. As Bill Clinton once said, "the price of doing the same old thing is far higher than the price of change."

Iain Bulcraig is chairing a working group on behalf of the Actuaries Institute on this matter, please get in touch if you wish to discuss anything further at IBULCRAIG@scor.com

5 minutes with the IDSS Mental Health Plenary speakers

By Raewin Davies and Gillian Harrex

Mental health is a serious issue for Australian society, and for our injury and disability schemes. A plenary, session together with a number of concurrent sessions, will explore the complexities of this 'difficult problem', at the fast approaching 2017 Injury and Disability Schemes Seminar (IDSS). Here, Gillian Harrex and Raewin Davies interview the four esteemed speakers in the Mental Health Plenary.

The IDSS, on in Brisbane in November, provides up-to-date views from stakeholders on trends and approaches to mental health that are relevant to Schemes. Four panel speakers will share their knowledge and experiences in a plenary session:

Julian Williams (Founder, Cordius and Former Partner, PwC)

How does your own lived experience with mental health inform your approach to work and business?

Really good question. Firstly it has driven me to choose to follow my passion, which has resulted in me leaving PwC. More importantly, it has allowed me time and space to really think about what gives me a buzz and what my purpose really is. I want to work with people and organisations who are passionate about making a difference….a big difference. Probably more importantly it has taught me you need to look after yourself before you can help others.

One element of this is making a difference through collaborating with people and organisations who have a longer term view to solving social opportunities and are less constrained in their approach. I feel we have got to a stage that some of the social challenges we face cannot be solved by Government, Business or NGOs alone.

Eugene McGarrell (General Manager, Health and Community Engagement, icare)

How does your experience as a mental health nurse inform your understanding of the 'difficult problems' affecting vulnerable people in society?

As a community nurse I saw how difficult it was for people with a mental illness to access the supports they need. Most of us take it for granted that we have somewhere to live, a job, friends, food and a safe community to live in. We know how important it is for anyone's resilience to have their basic needs met, yet for many people with a severe mental illness these basic supports are out of reach.

Mental health is not a one agency issue, it is a whole of system issue. To achieve a whole of system approach we need to put our egos away and create authentic joint ways of working

Pamela Rutledge (Chief Executive Officer, Flourish Australia)

How far has mental health care come since you started your career?

The short answer is - a long way but not far enough!

I started my career in Community Mental Health in the early 1970s. At that time, the dominant form of care and support was the large psychiatric hospitals, which meant that people who needed care were separated physically from their families and communities and, in the absence of local community-based models of support, often became institutionalised as a result. Community mental health services were embryonic.

Over the last 40 years we have seen a huge shift by governments around the world towards local community based services. This includes a shift to provide acute care in general hospitals, the establishment of local community mental health teams providing clinical care on an outreach basis to people in their own homes, and the investment in new models of service in partnership with the not-for-profit sector.

Tell us what 'co-design with people with a lived experience' is about?

We all know that whatever our field, the best ideas about the service or product come from the people receiving the service. We also know that people with a mental health issue or a "lived experience" are truly the experts in their own wellbeing and recovery. Co-design is a term which recognises these principles and aims to ensure that people with a lived experience of a mental health issue and primarily the people who access our services, and where appropriate their families and family carers,

are directly involved in the design, delivery, and evaluation of all our services and our policies and practices as an organisation.

Geoff Atkins (Director, Finity Consulting)

What are you looking forward to about IDSS this year given the significant changes happening in Schemes?

There is always so much to learn from what's happening, especially since the schemes are mostly state-based and there are eight states and territories. At IDSS you see people who truly know what's happening from the inside, are most are happy to share experiences in an honest way.

What new insights will you share – esp. on the Institute's new Mental Health Green Paper which you co-authored– during the Plenary?

Lots of insurance and compensation sectors struggle to deal effectively with mental health issues. The Green Paper goes across all insurance sectors, so this session is a chance to draw out the workers compensation and motor accidents components. As well as informing attendees we hope to stimulate initiatives that can improve outcomes for people with psychological injuries and improve sustainability of the schemes.

The shared learnings of our speakers at the IDSS represent a great opportunity for our schemes and their advisors to build knowledge and understanding of mental health, and work together on this complex problem.

ASOC Actuarial Pathways Networking Event - An Overview

By Mary Chen

Reading time: 3 mins

More than eighty aspiring young actuaries and eighteen industry leaders gathered at the Actuaries Institute on the 13 October for the 2017 ASOC Actuarial Pathways Networking Event.

A collaboration between the Institute and the Actuarial Society of UNSW, the event was designed for first and second year actuarial students seeking to gain a better understanding of various facets of the actuarial profession, ranging from exemptions to different routes their career can take.

Room full of students gathered for the ASOC Actuarial Pathways Networking Event

Session 1: What is an actuary?

The evening kicked off with a presentation from Eleanor Mazando, Education Manager of the Actuaries Institute, who broke down the qualification process for budding actuaries in the audience. After explaining the steps to become an Associate and a Fellow, Eleanor also revealed how to make the most of resources provided by the Institute by becoming a student subscriber. Students were surprised by the Part III pass rates, but as the saying goes 'You're not an actuary if you don't fail!' The high benchmark serves as a testament to the capabilities of actuaries today and why they can be relied upon to solve the most intricate problems.

Session 2: Diversity of Pathways

As our profession expands and adapts to the needs of the dynamic business landscape, graduates are branching out into different fields not traditionally associated with actuarial studies. According to a recent survey conducted by the Actuarial Society of UNSW, it was found whilst students continue to be interested in traditional fields such as Life Insurance, there is growing fascination in Non-Traditional areas like Banking and Analytics.

Amidst the increasing diversity in our profession, the age-old question resounds: what does an actuary do? The Industry Overviews segment provided an answer through the unique work of actuaries in nine different fields. Speakers from Aon Belfield, Taylor Fry, EY, Willis Towers Watson, Pacific Life Re and Mercer provided insights and advice for the students from their personal experiences. One memorable story told by Shen Liu, Analyst at Taylor Fry, depicted the amazing role Analytics and Artificial Intelligence played in taking a mere three seconds to process a man’s claim for a lost leather jacket.

Shen Liu (Taylor Fry) delivering his presentation on working in analytics

Other key insights from this session include:

- *Life insurance* work creates a feeling of purpose because you get to establish a more intimate and personal sense of connection with the client. If you enjoy making an impact and helping others, this is the field for you!
- You will enjoy *General insurance* for its wide spectrum of work including M&A, pricing, liability valuations and stress testing.
- Working in *Health* is meaningful as actuaries get the chance to apply quantitative skills to improve health policy, such as through determining the allocation of budgets to NSW LHDs, analysing provider behaviour or creating models of care and infrastructure.
- The importance of *Reinsurance* lies in that it is 'insurance for insurers'. Availability of and access to global market data enables reliable models to be made.
- If you are a fan of Finance courses, then *Banking* may be the right sector for you! You can get involved with derivative valuation, capital management and anything to do stochastic modeling.
- *Investment Consulting* involves creating investment portfolios for a diverse variety of clients. You will be building on fundamental concepts you've learnt at uni, such as diversification.
- You don't need superb coding knowledge to join the *Analytics* field, but the ability to think logically is essential. For those looking for a head start, a background in Python, R or Excel will bring opportunities.
- Those who excel in *Management Consulting* are known for their analytical thinking ability and value for client satisfaction. Work in this field is project-based and there are many opportunities to travel!
- Willis Towers Watson alone advices 134 defined benefit funds in Australia, revealing the abundance of job prospects in the *Superannuation* As the younger generation, we should strive for a greater understanding of the management of super and keep up to date with revisions of legislations and tax concessions.

Session 3: Network, network and network!

Phil Patterson (Willis Towers Watson) speaks to students about working in superannuation

Tim Yip (Taylor Fry) and James Yap (Deloitte) discussing careers as a general insurance actuary

No university careers event is complete without some networking! The *Rotational Networking Session* gave students the opportunity to satisfy their curiosity and ask questions to eighteen representatives from companies such as Deloitte, Quantium, CBA, AMP, RGA, Sophie Dyson, and Oliver Wyman.

"Coming to this event has really opened my mind to the different career pathways available to an actuarial student. I especially enjoyed talking to the reps and finding out about the journeys that took them to where they are today. It makes me excited to keep networking and exploring my options!" Tamim Bhuiyan, first year actuarial student.

Final Takeaways

As the official sessions wrapped up and food is served for casual networking, it became apparent that no single definition can fully encompass what it means to be an actuary. Instead, the actuarial degree is a key that opens the door to many different career options. As students, we should make the most of the time we have at university to study what we love and develop a flexible skillset. Finally, it is important to stay on top of industry changes through reading the news and networking widely. Pursue what interests you, and you will be satisfied, and perhaps surprised, by where you end up.

Eager UNSW actuarial students finding out about career opportunities

Thank you to our speakers, company representatives, Actuarial Institute, and the ASOC Careers Team for making this event a great success!

Young people and Volunteering

By Lily Meszaros

Reading time: 4 mins

With 55% of our members being younger than 34 years old, and only 20% serving on primary committees, the Institute has turned its focus to creating a genuine active dialogue on how we can create more opportunities to engage younger people in our key volunteer programs.

Our statistics tell us that 55% of our members are younger than 34 years old and only 20% serve on our primary committees (Council and Practice Committees). Our aim is to create a genuine, active dialogue among and between young members, and other volunteers, that represent our committee memberships and the Institute, about how we can better create more opportunities to engage them in our key volunteer programs.

Which generation makes better volunteers?

Whilst researching on what topic to cover in the October update I came across an article by a young volunteer in the USA called Emily Crenner, *Generational differences and volunteering, Millennials perspective*, 2012.

According to this article, we have four generational groups currently working and volunteering together (Traditionalists (born around 1925-1944), Baby Boomers (1945-1964), Generation X (1965-1984), and Millennials or Generation Y (1985-2004). Volunteer managers and recruiters around the world have suggested that these generations differ as volunteers.

Traditionalists are committed, competent, and loyal volunteers and they volunteer because they feel it is their civic duty. They tend to pick an organisation or job to commit to and stay with it for many years. They prefer communication over the phone, in written letters or in person.

Baby Boomers are ambitious, competent, and competitive workers. They want to know how they are part of the bigger picture, and if they are making an impact with their work. They want short-term, specific assignments and opportunities to use their special skills. They prefer to communicate through email, on the phone, or in person.

Generation X are adaptable, confident, self-starters, and very determined. They are technologically savvy and highly educated. They volunteer when they see a cause that impacts them directly. They communicate through email, text, and Facebook.

Generation Y also known as Millennials are also highly educated and extremely technologically savvy. They are enthusiastic, fun, and eager. They crave personal attention and lots of praise. Like the Traditionalists, they volunteer because they believe it is their civic duty and want to make a difference. Also, many students volunteer to gain professional experience. They are living in an age of social media and communicate through Facebook, Twitter, or text.

During April 6 to 8 last year, I joined the 700+ delegates who attended the National Volunteer Conference at the National Convention Centre in Canberra. We attended seven plenary sessions, 10 workshops, one (very entertaining) debate and all important gala dinner which was hosted by Jean Kittson - an Australian performer, writer and comedian in theatre and print, and radio and television. One of the sessions I attended was titled 'Which generation makes better volunteers?' and was moderated by Kittson. It was hilarious but also insightful hearing Baby Boomers, Gen X, Gen Y and Millennials battle it out on which generation makes the better volunteer. The panellists included: Lucas Patchett, Young Australian of the Year 2016; Nipuni Wijewickrema, ACT Young Australian of the Year 2016; Michelle Ewington, Vice President, Volunteering Australia; Andy Fryar, Australasian Operations Manager, Better Impact; Andrew Leigh MP, Federal Member for Fraser; and Evelyn O'Loughlin, Chief Executive Officer, Volunteering SA-NT.

Gen X won the debate. They managed to convince the audience that they are more adaptable, confident, proactive, doers, and very determined, and the same as Gen Y and Millennials - technologically savvy and highly educated.

Social researcher Claire Madden, widely regarded as a leading voice on multi-generational engagement and emerging social trends by corporations, the media and the wider community, argues that Gen-Y and Millennials had grown up in a world where social issues on a local and international scale were impossible to ignore. She says that they are the most globally connected generation we've ever seen. They are also the most formally educated, she continues to add, and because of this

they are very socially aware and are looking for a context and way to make a difference.

Yvonne Smith, Director and Head of Diversity at Hays in her blog 'How to attract Generations X, Y and Z to your business' said that by 2020 there will be five generations working side-by-side in many of our workplaces, and in some organisations, this is already the case. Such age diversity can be attributed to the fact that later retirement and longer life expectancy means that the Traditionalists (born prior to 1946) and Baby Boomers (born 1946-1964) will be working alongside Generation X (born 1965-1976), Generation Y (commonly known as millennials, born 1977-1995) and Generation Z (born 1996-present). She argues that without age diversity, a company will receive a narrow range of insights from people within the same demographic cohort, many of whom base their perspectives and interactions on the same cultural experiences and generational trends. In order words, organisations run the risk of 'groupthink'. This type of thinking only hinders innovation, threatening a business' ability to adapt to their ever-changing landscape.

So, the question is, what makes Gen Y and Millennials tick? How can we get them involved them in the Institute volunteer program?

In recent months, I've seen many young members come up with ideas on how to connect with the Institute. They have established informal social networking groups as well as the upcoming Actuarial Hackathon initiated by the the Young Actuaries Program team.

We would also like to hear stories of our young members who are volunteering for other organisations and any thoughts on this topic. Please communicate with us via volunteers@actuaries.asn.au .

Under the Spotlight - Rene Essomba

By Rene Essomba

In this article Rene Essomba, Analyst at Taylor Fry, goes under the spotlight to share his personal thoughts. He describes himself as a multifaceted individual and has a strong team spirit.

My interesting/quirky hobbies... I enjoy getting involved in activities that put my team spirit to good use. Whether it's on the basketball court, coordinating a social event, or working on a data science project… I'm always keen roll up my sleeves and join in.

The sport I most like to watch... I'm a basketball fan so I like to watch NBA games, and more recently NBL games. And if I'm not watching basketball, you'll most likely find me watching soccer.

With the Taylor Fry Basketball team (a.k.a Taylor Swifts)

The last book I read (and when) ... I'm not an avid reader but I've just started reading "Countdown to Zero Day: Stuxnet and the Launch of the World's First Digital Weapon", written by cybersecurity journalist Kim Zetter.

My favourite artist/album/film... I love Jazz, Soul and Hip-Hop (but no mainstream stuff!). My favourite artist is Erykah Badu — nothing beats her first studio album "Baduizm", released in 1997.

I'm most passionate about… R (the programming language), network analysis and probabilistic graphical models. I'm also passionate about the use of data science for social good — in other words, using data to help solve social issues within education, health, transport, economic development, etc.

What gets my goat… Social injustice and people with no empathy.

Not many people know this but I… Am a fashionista and a Christian.

With friends after dinner

Four words that sum me up… Happy, go, blessed (and 'perceptive', since I didn't even need a fourth word…)

If I hadn't become an actuary, I would be... A data scientist in the music or fashion industry, a university lecturer, or a music producer.

My work history... I first worked as a statistical data analyst at a local business intelligence company in Cape Town (South Africa). I then worked as a data scientist at TNS in South Africa, on projects in social network analysis. When I first arrived in Australia I worked as an analyst at Quantium, before moving to my current position with Taylor Fry.

What I find most interesting about my current role... What I'm enjoying most is the diversity of projects I get to work on. The work I do ranges from traditional actuarial work (e.g. valuation of a self-insurer), to deriving the net profit attributed to the entire future relationship between a large company and its customer base, to developing appropriate fraud detection algorithms using machine learning.

10 years from now, I will be ... Heading a team of professionals working on developing innovative data science products.

The most valuable skill an actuary can possess is ... The ability to provide longer-term perspectives on current scenarios while incorporating risk elements.

At least once in their life, every actuary should... Use their professional skills to give back to the community.

My best advice for younger actuaries... Explore, reach out, be open-minded.

If I won the lottery, I would... Be a philanthropist and invest in venture projects in Africa.

At the 2016 City2Surf

Michael Rice urges peers to promote and protect brand 'Actuary'

By Stephanie Quine

Michael Rice arrived at the Institute last week to accept the 2017 Actuary of the Year Award alongside an entourage of supporters from the firm he founded 30 years ago.

The CEO of independent consultancy and research house Rice Warner, was recognised with the Award for his leadership within the industry, and "fearless advocacy" for good public policy across Australia's superannuation and retirement sectors.

Michael stands with employees of Rice Warner who came to support him

"Michael is one of a handful of expert actuaries the media calls upon for considered commentary across retirement policy, Age Pensions and superannuation," said Institute President Jenny Lyon (pictured below with Michael).

"Many of you would have heard him interviewed on Ross Greenwood's 2GB radio program *Money News* and elsewhere, have read his blogs and interviews in newspapers and magazines."

High regard for actuaries

Michael took the opportunity after accepting the award to highlight the specialised skills of actuaries.

"Of all the related activities: research, public policy, the analysis of product or industry statistics, or even member outcomes; when I look at our competitors it's the actuarial firms that we regard highly," said Michael.

View the video here:
https://youtu.be/H4K3B1r9ko8

Michael urged his fellow actuaries to take on the challenge to "protect our brand" and make sure the name 'actuary' stands foremost.

Actuaries in Public Policy

Michael pictured with colleague Nathan Bonarius at the launch of 'For Richer, For Poorer'

Over the years, Michael has provided advice or research to virtually all financial institutions and major superannuation funds operating in the Australian wealth management industry, and has undertaken commissioned research for all the major industry bodies.

He has been involved in research ranging from Age Pension dependency, superannuation fund fees, projections of both the superannuation and personal investments markets, analysis of member choices, to evaluating retirement strategies for superannuation funds.

He has led Rice Warner's team making submissions to government on major reviews including the Henry tax review, Cooper superannuation review and Financial System Inquiry, along with submissions to Treasury, Senate Committees and the Productivity Commission.

More recently, Michael has advocated better outcomes for young savers wooed into higher-fee superannuation accounts by social media savvy marketers. He has also urged the superannuation industry to identify underperforming funds with a view to improving member benefits, and his firm has taken the battle for better retirement outcomes for women to the Human Rights Commission.

"I would encourage all of you who are interested in public policy to take part in it," said Michael, adding that in recent times, the Institute has focused on growing this aspect of its work, especially with support from current CEO David Bell.

"My personal interest [in public policy] grew when I was on Council in 1999 when our then-CEO was Jock Rankin, who was actually a journalist who came to the Institute and encouraged us to talk to the media."

"Before that, actuaries were very introverted and back office, whereas I think you'll find that in many fields [now], particularly superannuation, the prominent media commentators are all actuaries."

"It's because they can come to us and know that they'll get an opinion, people may not agree with the opinion, but they'll know it's based on fact."

Michael urged actuaries to get involved in public policy work to flex their skills and make a difference to society.

"Not enough of us take the challenge of trying to promote the industry and get involved in public policy, which does shape society at the end of the day."

Michael is currently the Convenor of the Institutes' Public Policy Council Committee (PPCC). He was closely involved with the launch of "For Richer, For Poorer", the Institute's Public Policy Paper on Retirement Incomes, which he outlines in the below video.

Read more on Michael's work and contributions to the industry and find out more about the Institute's recent public policy work.

View the video here:
https://youtu.be/J152jACaJG0

The data analytics ‘meetup’ files - Introducing meetups

By Zeming Yu

Six months ago, Zeming Yu stumbled upon data analytics ‘meetups’ and he’s never looked back. Here, he outlines the wealth of learning (and pizza) he’s gained since making the discovery.

I'm always keen to learn more about data analytics. Having a look at my CPD hours, most of the activities are related to this field. This includes:

- doing Kaggle competitions
- learning courses on Coursera
- applying machine learning models at work
- reading machine learning textbooks

Despite doing so many different things, I always feel I'm missing something. What are other people in the industry are doing? What business problems are they solving? What tools are they using? What datasets are they looking at?

Answers to these questions are hard to find out. In the past, the only way is to go to industry seminars, which cost hundreds, if not thousands of dollars.

About six months ago, I discovered a way to do this for **free**! It's called "meetup", which you can visit here. Here's the Wikipedia description of meetup:

Meetup is an online social networking website/mobile app that facilitates offline group meetings in various localities around the world. Meetup allows members to find and join groups unified by a common interest, such as politics, books, games, movies, health, pets, careers or hobbies.

Benefits of meetup

For me, there are three key benefits:

1. **Learn new things**

You get to learn a lot of new things. Here's a random list of things that I would never know without going to a meetup:

- There are serious researchers in Facebook using something called "Poincaré Embeddings" for deep learning;
- there's a company called Nearmap that specialises in aerial imaging, offering a very rich layer of geospatial data covering all of Australia;
- in cloud computing, there's something called "serverless architecture" where you can run functions on demand without worrying about maintaining a server;
- in R, you can use the p_load() function from the R pacman package to install and load a package in one go;
- companies like IBM are investing a lot of money building tools like "IBM Data Science Experience" to make it easier to build and share R and Python notebooks; and
- automated model building is now a possibility with the help of DataRobot.

There are just too many new things to mention here. I will write about some of the interesting topics in future files.

2. **Meet new people**

Going to meetups is a great way to meet people interested in this field. Personally, I have met:

- Someone with lots of natural language processing (NLP) experience;
- a guy who is my father's age and despite having never done any data analytics before, was very keen to learn it as a hobby;
- an operations manager who's managed 300 people, and was again, very keen to learn; and
- a big data expert working at AWS.

3. **Eat and drink**

I often brag to my 3-year-old son that in the meetup's I go to, there are piles and piles of pizzas. As a result, my son thinks all I do there is eat pizzas all night. He now calls them "pizza meetups".

Moreover, he's genuinely sad that he can't go to any of these, to join in eating pizzas. As a consolation, his mum promised to take him to the local pizza restaurant instead.

Anyway, most (not all) meetups provide food and drinks. It usually depends on the budget - essentially whether or not there's a generous sponsor behind the meetup.

List of meetups I go to

The range of different meetups means that there's huge opportunity to pick and choose those of most interest. Apologies to the folks outside Sydney, this list only covers those in Sydney as that's where I'm based. I'm sure in your local area there'd be something similar.

Be warned that the list is quite long. Take a deep breath first if you wish.

Ready? Here's the list:

- Data Science Sydney
- Data Visualisation Sydney
- Insuretech Sydney
- Deepschool.io
- Sydney Python
- Amazon Web Services - Sydney User Group
- Sydney Users of R Forum
- Deep Learning Sydney
- Sydney Apache Spark User Group
- Big Data Analytics

Now you can see how I spend all my spare time and have very little of it left for my family! I probably go to too many of these.

My initial goal was to get a good understanding of what might be useful for my learning. Going forward I intend to focus on those that are most relevant to me, and the direction of my career and interests.

One key piece of advice to make learning via meetups sustainable is **Family first, learning second**. For the ones that I do go to, I'll be reporting back here at *Actuaries Digital* to share with you what I've learned, so that you'll get to have more time with your family!

APRA releases new paper on the role of the Appointed Actuary

By Jennifer Lang

Author of Actuarial Eye, Jennifer Lang, shares her views on APRA's recent release on the role of the Appointed Actuary. APRA released a consultation package with proposals on how the role should be changed and is asking for written responses by 15 December.

Regular readers will know I take a keen interest in the regulatory role of the Appointed Actuary. See my previous posts here, here and, most recently, here.

This week APRA released a consultation package with proposals on how the role should be changed to make the role fit better into the regulatory and management framework of life insurers. APRA is asking for written submissions in response by 15 December 2017. So you have a bit of time to read the detail.

At first glance, though, the package is similar to the high level proposals made last year, with some changes in detail and consideration of how the changes would fit into the existing prudential standards framework. As well as proposing draft standards and guidance notes, the big addition is the proposal to add private health insurance Appointed Actuaries to the framework, now that APRA regulates them also.

APRA has retained the overarching statement of the purpose of the Appointed Actuary, with some changes to words suggested by submissions:

The purpose of the Appointed Actuary role is to ensure that the board and senior management have unfettered access to expert and impartial actuarial advice and review. The role is intended to assist with the sound and prudent management of an insurer and ensure that the insurer gives appropriate consideration to the protection of policyholder interests.

The Appointed Actuary must have the necessary authority, seniority and support to contribute to the debate of strategic issues at a senior management level and provide advice that is considered seriously by the board. The Appointed Actuary plays a key role in, and provides effective challenge to, the activities and decisions that may materially affect the insurer's financial condition, as well as policyholder interests.

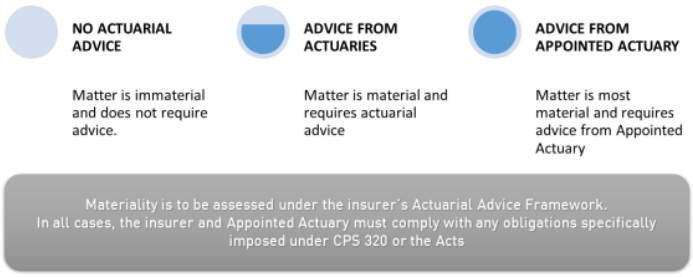
Having this overarching statement will be very helpful in helping stakeholders understand the role of the Appointed Actuary, emphasising as it does financial condition and policyholder interests.

APRA has emphasised in the proposed draft guidance note that this does not preclude the Appointed Actuary being an external appointment (as is common in general and health insurance, particularly for smaller companies). And while many submissions suggested that the Appointed Actuary should be a direct report to the CEO of the organisation, APRA prefers to leave organisation structure up to companies, rather requiring "necessary authority, seniority and support".

APRA has also proposed a very short list of items that are reserved for the Appointed Actuary to provide advice on:

- The Financial Condition Report
- The Actuarial Valuation Report, which is a widened Insurance Liability Valuation report (not required, but encouraged, for health insurers). This report is not required to be provided to the Board, but must be sent to APRA.

Each of these reports has a relatively short list of requirements that must be considered for inclusion.



And then each company must create an actuarial advice framework. As part of the framework, the company must consider, for a number of specific items, whether actuarial advice is required, and if so, whether that advice must come from the Appointed Actuary. For each type of insurer (each has its own list), this is broadly those items that are currently required to be the subject of actuarial advice from the Appointed Actuary:

- For all insurers – the various key methodology and assumptions requirements of policy liability and capital calculations (but each type of insurer has specific words and requirements here)
- For life insurers – pricing, investment strategy and reinsurance strategy
- For health insurers – a long list of business changes such as pricing, business plans, strategic plans and product development

My favourite section in the whole consultation package was this one from the draft Prudential Practice Guide:

APRA is aware of instances in which the Appointed Actuary of an insurer is temporarily absent, **and this has caused logistical challenges for insurers** *[my emphasis]*. In some cases the absence is planned, such as annual leave, and in other cases the actuary **may have been temporarily incapacitated** *[my emphasis]*. To alleviate these challenges, while respecting the requirements in the Acts that a single specified individual occupies the statutory Appointed Actuary role, a framework for temporary appointments of Appointed Actuaries can be created and documented as part of the actuarial advice framework.

An insurer may nominate an individual or individuals under this framework who can temporarily replace the Appointed Actuary if necessary. Only one individual may be the Appointed Actuary at any particular point in time. Any individual occupying the Appointed Actuary role is required to be appropriately qualified and satisfy the fit and proper requirements under CPS 520. An insurer may find it useful to complete a fit and proper assessment of the nominated individual(s) ahead of time, so that they can be expeditiously appointed to the Appointed Actuary role if necessary.

Right now, the Appointed Actuary regime, particularly for life insurers (with its requirement for actuarial advice before a company makes material pricing changes and before a company makes any changes to reinsurance), is the biggest source of key person risk to a life insurer. If an Appointed Actuary is sick, then there are a number of aspects of a life insurer's business that must stop until a new Appointed Actuary can be appointed, as delegation is not allowed by the legislation. It is good to see that this consultation package proposes to fix this in two ways – by allowing for actuarial advice from other actuaries in the business as part of an actuarial advice framework, and making it simpler to nominate a replacement in the case of planned or unplanned leave.

Overall, my first impressions are that the package is a good pragmatic response to the current inconsistent and task based regulatory regime for Appointed Actuaries in the various types of insurers. I first wrote about those inconsistencies (particularly for Life Insurance) early in 2012, So while I'm sure imperfections remain, I hope the next steps don't take too long, so that we can move reasonably quickly towards a more coherent framework.

Creating an appropriate environment for an Appointed Actuary to have the right level of influence in an insurer can't be done with a regulatory environment alone – the culture of the company, the capabilities of the incumbent and the reputation of actuaries in the company will all be important. That said, these proposals seem to be moving in the right direction – taking away the compulsion of the compliance parts of the role that don't require the strategic oversight of an AA. So I am supportive on the whole. I look forward to the next steps.

For this post, I am re-emphasising my disclaimer. While I am currently an Appointed Actuary of a life insurer, and the Appointed Actuary of a general insurer reports to me, this post consists of my own personal views, and does not necessarily reflect the views of either of those insurers, or my employers – past, present or future.

I was amused to see the proposals reported on in The Australian under the headline ***APRA seeks to grant actuaries greater powers***:

The prudential regulator has proposed giving actuaries unprecedented access to insurance company boards, auditors and senior executives as it looks to put companies on the hook if they ignore the advice of their boffins…

…The rules would see actuaries writing reports on the financial condition of insurers, which would be submitted to APRA. Insurers would be beholden to provide the actuaries with huge amounts of access to company committees, internal auditors, external auditors, senior management and others if requested by the actuary.

The actuary would advise companies on the value of their liabilities, the adequacy of their risk charges, the level of capital held and the calculation of stress-tested models.

Those aspects, picked up by the Australian, don't add any powers to the access and reporting already required from all Appointed Actuaries. As APRA says in its preamble, though, the intent is to increase the strategic contribution from Appointed Actuaries, particularly in life insurance, by removing or reducing some of the compliance reporting that really should be part of a well-regulated risk management framework without requiring actuarial oversight.

See the original article on Actuarial Eye here: http://www.actuarialeye.com/2017/10/03/apra-releases-new-paper-on-the-role-of-the-appointed-actuary/

Q&A on 2017 ERM Seminar: Responding to Risk

By Brett Riley and Nick Cowdery

On Wednesday 13 September the Actuaries Institute, with support from the Risk Management Practice Committee, held the ninth Enterprise Risk Management (ERM) Seminar. The conference was held the Forum at the Actuaries Institute's Sydney offices and included an impressive range speakers and strong media coverage. Here, Nick Cowdery, from the Seminar organising committee, speaks with newly appointed Chief Risk Officer Colin Weir about his view of the Seminar content and its value to those in a CRO role.

Like many in the profession, the members of the organising committee (pictured below) for this year's ERM Seminar are all extremely passionate about risk management. We are enthusiastic about the opportunities it presents for actuaries to use their core skills in another key practice area, and support an important function that protects the companies we work for. Of course, that isn't to say that the current education system fully prepares us for all the real-world practical challenges that ERM presents. However, the core analytical and risk management skills of actuaries are better formed than they are in most other feeder professions to risk management.

When we invite speakers to this event we are always mindful that they should address current topics in risk but also present some thought-provoking information about less well-known issues on the horizon. We aim for a balance between actuarial and non-actuarial speakers, and content that has a practical focus and is deliberately non-technical. This explains why over 50% of attendees to this seminar in recent years have been non-members.

For this piece, I thought it would be interesting to hear from an actuary who attended the seminar and who has moved into the role of Chief Risk Officer (CRO). Colin Weir is currently CRO with SCOR Global Life in Australia, but has previously held a variety of more traditional actuarial roles in global locations, including the UK, India, China and Hong Kong.

Given his experience, Colin is well placed to discuss the seminar content and the value the day provided to someone in a CRO role.

Nick Cowdery (NC): So Colin, overall, what did you take away from this year's seminar?

Colin Weir (CW): To me, the morning sessions gave the sense of a risk management discipline that has reached a point of self-reflection and evaluation. Having now established the basic principles, we seem to be pausing to 'look around' before embarking on the next phase of evolution.

This impression started with the initial **Keynote Address** from Ian Laughlin, whose Presentation **'(Fake)^{n} News, Social Risk, and more'** posed the question "is conventional risk management working?". Huge investments have been made in risk management and yet we see today unprecedented levels of customer dissatisfaction and regulatory intervention. Standards are admittedly higher than ever before and, through social media, society has a powerful voice, increasingly used as judge, jury and executioner.

How do we modernise our toolset for this fast changing environment and, as Ian describes it, how do we move from "risk monitoring" to "risk sensing"?

NC: Plenary One then discussed one of the major challenges facing Risk Management – **Conduct Risk.**

Edward Emanuel presented some shocking survey statistics. The one that stuck in my mind is that *"20% of the finance professionals surveyed would commit a crime if they knew they could get away with it".* It's no wonder then that that regulators nowadays have such a focus on the culture within an organisation. As such, it was very helpful to have **an update from both ASIC and APRA in Plenary Two** on the work they are doing in this area.

CW: As a Life Reinsurer, I was particularly interested to hear from Fahmi Hosain who provided an update on APRA's new approach to supervising Risk Culture within their regulated entities. While the approach is still being fine-tuned, it is likely to be extensive when it is implemented for all regulated entities: three weeks of on-site work, staff surveys, interviews across the organisation, and listening-in on management and Board meetings. Through multiple data points from a range of different sources, APRA will form a view of the risk culture of an organisation, though APRA describe this as "holding a mirror up to the organisation".

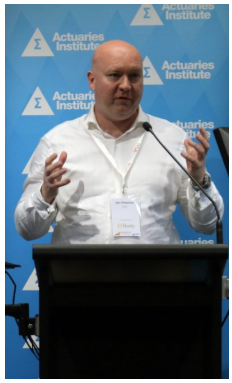


"Once again APRA appear to be leading the world in this area of supervision" Colin Weir

NC: That session brought us to lunch, after which there were some interesting presentations on different threats posed across industries.

CW: I enjoyed Eric Pinkerton reminding us that people are "Evil, Lazy and Unpredictable" and that Cyber risk is "100% a people problem".

Also, **Tony Harb's session on Crisis Leadership** was inspiring. This is an area where, thankfully, most of the audience had little experience. Tony is clearly an expert in this area due to his role with the State Emergency Services and in consulting to a range of clients on this topic.


NC: And we had an excellent panel for the **Final Plenary exploring the Role of the Board in Risk Management.**

CW: Nicolette Rubinsztein's introduction was itself like the "flashlight in a dark room" she described, extremely valuable for anyone interacting with the Board. (Furthermore, my daughter is currently reading "Diary of a Wimpy Kid" so her references to these books had extra appeal for me). This session nicely tied in with the theme of the morning, questioning the over use of quantitative analysis, which is easy to report. However, the real key to effective risk management lies in open conversations, often about risks which are difficult to quantify.

NC: The seminar attracted a broad range of people from across risk management, with actuaries only comprising around half of the attendees. Do you think this mix of people brings different perspectives?

CW: I do, and it is nice to see the common themes of the risk management discipline rather than just an insurance industry view. I was surprised to see that members of the press were so visible and, although I enjoyed the skilful way Ian Laughlin dealt with a tricky question from one reporter, I think this presence did stifle the discussion in some areas. So I understood why some presenters asked for their sessions to be closed to the media.

Given the excellent program and the number of people working in risk management, it is a shame that the seminar didn't attract an even larger audience. Hopefully that is something the organising committee can build on for next year, to support better networking opportunities at the event as well (e.g. over lunch).


NC: So having personally made the move into a CRO position, what would you most like to see us address at the next event?

CW: This year, the seminar ticked all my boxes of "current hot topics" to be discussed, but it is difficult to predict what those topics would be in 12 months' time, especially given the regulatory and political events still unfolding. Global surveys indicate that Australia's focus on "regulatory change" risks stand out from the rest of the world, where risks relating to "technological innovation" and associated "change management" tend to dominate. This could be an interesting area to explore further at next year's event.

NC: Thanks to Colin for his views on the day and to all the speakers who were kind enough to give their time and energy for the event. Thanks also to the Institute, the organising committee and sponsors (pictured below) for their tireless efforts and for making the day a success.

Please don't hesitate to let us know if you have any feedback or ideas as to what you would like to see on the event program next year. Please send any feedback to me at Nick@interactsearch.org.

Audio and Video Recordings, plus the Presentation Slides from the Seminar are now available on the Program Snapshot Page of the ERM Seminar 2017 Microsite.

How to effectively influence and engage stakeholders

By Gloria Yu

Gloria Yu from the Institute's Risk Management Practice Committee reflects on an Insights session presented by Kate Lyons, Executive Manager Capital & Reinsurance of Suncorp, about how to effectively influence and engage stakeholders.

Risk culture has increasingly been the focus of boards and senior management in recent years. The release of APRA's information paper on risk culture further reinforced this direction. Yet, too often the term *risk management* conjures up in our minds "hard", quantitative elements such as risk identification, measurement, reporting, mitigation etc, while the "soft", human side of risk management is neglected.

This is one of the reasons the Institute's Risk Management Practice Committee (RMPC) partnered with the Leadership & Career Development Committee to focus a Risk Insights session on one aspect of the soft skills of risk management, namely: how to effectively influence and engage stakeholders.

View the Presentation, Audio and Video from this Insights session.

How often have you been in a business situation and saw the need for change, yet those around you either don't see the same need, or are too comfortable with the status quo to do anything differently? When you are faced with a large group of vocal stakeholders all with differing views, not to mention the mountain of inertia that is innate to many individuals, how do you get your voice heard and influence the outcome? How do you collaborate so that you instigate change as a team rather than as a lone force?

Whether we realise it or not, these questions are crucial to risk management.

Kate Lyons

Kate Lyons (Executive Manager Capital & Reinsurance of Suncorp) addressed these questions on 22 August 2017 as she considered her own experience in building relationships with underwriters, management, brokers, reinsurers and clients. The premise of her presentation is that actuaries need to be great communicators and influencers to make a difference, and key to this is the ability to convey complex issues in a simple and engaging manner.

Kate outlined a number of core elements to consider when we influence and engage our stakeholders:

- Trust;
- Believability and;
- Communication style.

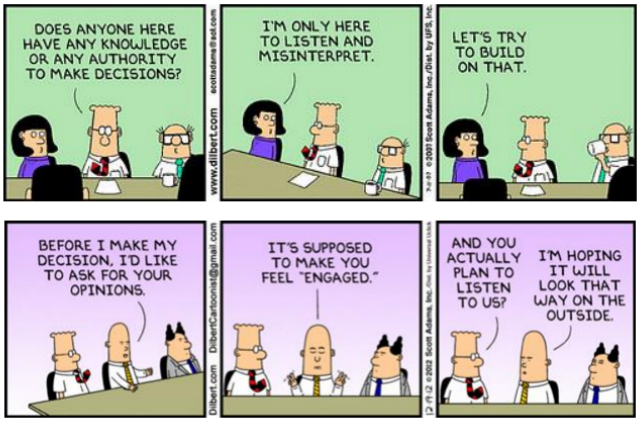
She suggests that we need to be authentic in our style and mean what we say, thereby building the trust of others. We need to be clear on our role in the organisation in relation to the issue at hand, and build our reputation and credibility on top of our technical expertise.

Actuaries face many stakeholders from different interdisciplinary backgrounds on a daily basis: fellow actuaries, product managers, underwriters, claims, IT, marketing, legal, risk, C-suite. Each stakeholder has different motivations and concerns. Influencing is about finding the common goal among stakeholders, for instance, what is best for the customer and finding a win-win solution for all involved.

Kate was keen to clarify that influencing is <u>not</u> manipulating, because self-serving activities and deception will only erode trust in the long run.

A key point that came out of the session was the importance of taking the time to plan. This includes planning the following:

- Who is our business sponsor?
- Who is relevant to the success of our initiative?
- Who are our collaborators? What is their knowledge base? Are they sufficiently diverse in their views?
- What do we expect from our collaborators? How can we make it easy for them to contribute? Put yourself in their shoes: what's in it for them? What are their personalities, emotions, expectations, organisation culture, knowledge base, time pressures?
- What communication styles would be most suitable?



A cartoon shared during Kate's presentation on how NOT to engage stakeholders.

Communication is a two-way street

Communication can take many forms: reports, emails, face-to-face discussions, conversations at the water cooler. When communicating, we need to clearly articulate the overall objective of the initiative at hand, the timing and outline of the overall plan.

At the same time, we need to have an open mindset, genuinely listen to others' views and collectively build on ideas. It is important to build a culture and environment whereby stakeholders feel comfortable to express their different opinions. Likewise, we need to guard against groupthink.

As actuaries, we need to ensure we highlight the "so what?" in our work, to help the end user understand how to use the insight. This is particularly important when our stakeholders are not from an actuarial background.

Other tips given at the session included:

- keeping things simple;
- starting with the big picture;
- using analogies (e.g. sport-related) that the audience understands;
- giving stakeholders the opportunity to ask questions; and
- using pictures where appropriate. Sometimes, a picture is indeed worth a thousand words, for example, a graph on the implications on profitability would very likely capture the attention of a CFO.

Understanding solutions

Kate shared with us a "solution-oriented" approach to influence and engage stakeholders:

Situation, Complication, Question, Answer.

She gave a simple example as follows:

Situation: An insurance portfolio has been performing very well over the past few years.

Complication: There is an observable deterioration in its claims performance and it is not caused by a data error.

Question: Is this just random bad luck or an early warning sign of poorer experience to come?

Answer: There are a number of options. Option 1 is to consider this a blip, ignore and revisit later. Option 2 is to consider this a new trend and reprice the portfolio. Option 3 and the recommended option is to understand what is driving this performance deterioration by doing a deep dive and re-convening to determine the next steps.

Kate finished her presentation with a photo of Donald Trump, contrasting his success in being voted in as the US President as he engendered trust in voters, with the misalignment of his decisions with his team. This, unsurprisingly, prompted some lively Q&As.

Effectively influencing and engaging stakeholders is clearly a topic that is dear to the heart of many of us, and no doubt we are all on a learning journey.

Financial advice research

By John De Ravin

Can actuaries develop a science of planning that provides a basis for the art of giving advice? Here, John De Ravin from the Actuaries Institute's Retirement Incomes Working Group (RIWG), details the findings of a survey of 65 financial planners from a range of different business environments, and subsequent interviews with dealer groups, to uncover the state of play in industry practice.

Personal financial advice is not a leading area of actuarial employment, however some actuaries are in fact actively practising in this area. Others also contribute significantly to research in the area. The advice landscape is changing; already there are personal financial apps receiving a lot of attention. There is also a trend towards "roboadvice" in various guises. But "roboadvice" needs a mathematical and a behavioural foundation; actuaries should be well placed to make a worthwhile contribution to these developments.

With this in mind, Jim Hennington, Paul Scully and I, of the Institute's Retirement Incomes Working Group (RIWG), have been conducting research into the current financial planning process. Key research areas include:

1. What process is used to prepare advice to clients in the area of asset allocation?
2. Who designs the approach to asset allocation advice and retirement capital management, and to what extent is the role of the individual adviser constrained by the employer/ licensor?
3. What happens if the client's risk profile is not optimal for achieving the client's retirement goals?
4. What retirement duration is planned for and how is that duration determined?
5. What methodologies are used to advise clients on retirement capital and spending?
6. Where Statements of Advice include more than one projection of retirement assets, how are those other projections determined and characterised?

The RIWG conducted a survey of 65 financial planners from a range of different business environments, and to date we have also carried out four structured interviews with dealer groups to discuss the same questions asked in the survey. The results had some interesting messages.

Risk Profile Questionnaire usage

Many readers of *Actuaries Digital* will be familiar with the traditional processes of providing financial advice in relation to asset allocation: ask the client to complete a Risk Profile Questionnaire (RPQ) designed to measure the client's risk tolerance, then discuss the results with the client and map the resulting risk tolerance to an asset allocation. If the adviser wishes to recommend an asset allocation other than the allocation that flows from the RPQ, there may be some compliance rules that govern the conditions under which a departure may be recommended. These compliance rules are intended to protect both the client (against poor advice) and the dealer group (against possible legal liability if the recommended portfolio does not produce the investment returns the client expected).

Firstly, it became clear, in our research, that RPQs are still dominant, at least as the initial stage of determining the appropriate asset allocation - 83% of respondents were making use of RPQs. They are of varying lengths, from fewer than six questions (7%) to more than 25 (5%), with most (61%) being between six and 15. But the asset allocation that emerges from "adding up the points" in the RPQ is not necessarily the one that is recommended to the client: 48% of respondents said that the asset allocation determined from the RPQ was only used as a starting point. A further 10% also said they tended to use other approaches.

"…across all advisers and clients, we would guess that the advisers hold a view that the asset allocation emerging from the RPQ is appropriate roughly half the time."

Although the survey showed that RPQs are still a key tool in the industry, the structured interviews suggested that some dealer groups are moving away from RPQs as a critical component of asset allocation advice. For example, some dealer groups allow their more senior advisers, or advisers with a very longstanding relationship with the client, to proceed without an RPQ. Other dealer groups are moving towards a process by which clients are provided with some educational information about the way in

which different asset classes tend to perform (and the consequences of the alternative allocations) and the clients are then asked to select their own asset allocation (after discussion with their adviser).

Compliance and variation – is it worth it?

A key point of interest is the impact of compliance and the extent to which a corporate approach is imposed on advisers. Asked how difficult it was, from a compliance perspective, to recommend an asset allocation that is not completely consistent with the RPQ, one of 58 respondents said "very difficult or not possible". Equal numbers (19) opted for each of the following three responses:

- "There is extra compliance effort, but it is possible";
- "I have some discretion to vary slightly from the RP result"; and
- "I can recommend any asset allocation I think is best for the client".

Some of the comments by the planners who responded: "there is extra compliance effort but it is possible" were illuminating: one said, "why bother – too much compliance and you just get slammed at audit" and another, "there has to be a very good reason for the variation for compliance to be happy".

The responses to some later questions are also relevant to compliance. On the question of who designs the retirement approach, 45% of respondents said that they had full or significant discretion over the methodologies they use, and another 46% replied, "my employer/dealer group provides a preferred methodology that I TEND TO stick to". Only 9% replied that their employer/dealer group provided a methodology that they "MUST stick to".

Enjoying discretion

It appears that compliance is seen as a restricting factor for a minority of planners, but that many enjoy discretion in the approach to take. At this stage, there is no consensus on whether there should be one approach (at least to some issues) let alone what that approach should be. Perhaps it can be characterised as whether we can develop a science of planning that will provide a basis for the art of giving advice?

Advisers tended to think that the asset allocation that emerged from the RPQ was appropriate for the client "reasonably often" (39%) or "frequently" (29%), but some advisers responded "rarely" (5%) or sometimes (20%). Whilst we cannot exactly quantify terms such as "reasonably often", across all advisers and clients, we would guess that the advisers hold a view that the asset allocation emerging from the RPQ is appropriate roughly half the time.

Where the asset allocation that emerges from the RPQ is considered by the adviser to be sub-optimal, the majority of advisers (54%) discuss the situation with the client and attempt to persuade the client to adopt a different asset allocation but try to stay within one risk band of the RPQ result. Another 16% have the discussion and try to stay within two risk bands of the RPQ result. Yet another 16% ignore the risk profile as long as the client is prepared to sign a statement confirming the asset allocation that is discussed and agreed on. But 14% stick closely to the asset allocation that flows from the RPQ.

Life expectancy, the planning horizon and withdrawal rates

Financial plans are generally constructed for a duration related to life expectancy, with 17% being for average or median life expectancy, 29% for life expectancy plus a small margin (one to five years), 19% for life expectancy/median plus a larger margin of six to ten years, and 7% being to a fixed age (generally 90 or 100). The survey did not request information about how the margin over life expectancy was determined. Some respondents noted that the standard planning software packages used population mortality unadjusted for future improvements in mortality and the survey did not question how a client's own state of health was taken into account. Asked what they would do if their client could only achieve their target retirement lifestyle if high asset returns were achieved in future, 31% said that they would encourage the client to reduce their target and goals to align with what they can afford based on their asset levels. But 56% said that they would advise some combination of reduced target expenditure and a greater percentage asset allocation to growth assets. A further 13% said that they would invest according to the client's risk profile and let the client make their own spending decisions.

Advisers were asked how they determined their advice about spending to their most recent retiree client. Just over a quarter (27%) stick to the SIS minimum pension withdrawal rates, and a further 11% use a "safe withdrawal rate" approach. More than a third (35%) use a bucket strategy approach, investing in different asset classes for the three periods of retirement. Of respondents, 15% said that they had used a "floor and upside" approach by investing in a guaranteed income stream with part of the client funds and investing the remaining investments in relatively riskier portfolio. Twenty-two respondents (40%) said that they simply accept what the client says about the client's income needs and focus on portfolio construction to produce that amount of income.

Just over half (51%) of respondents said that their Statements of Advice (SOAs) do not contain alternative projections, they are solely based on the main estimate. But 16% said that they also included "optimistic" and "pessimistic" projections without much detail on how the assumptions for those alternatives were determined. However 15% of SOAs included alternative projections that were characterised in quantitative terms and 11% showed confidence intervals that were determined from stochastic models.

The next steps in the research project are:

- to continue an interview process with a select number of compliance and policy representatives of some of the financial advice firms;
- to prepare a paper for the 2018 Financial Services Forum; and
- ultimately, to make a worthwhile contribution to financial planning practice, particularly in a retirement incomes advice context.

More detail about the survey results, and many individual comments to the questions by survey respondents, may be found here.

Behavioural economics and fraud under microscope at IDSS

By Hugh Miller

Fraud poses a critical risk to the sustainability of injury and disability schemes across Australia. Behavioural economics is an emerging trend in encouraging better outcomes in schemes. Hugh Miller previews how these topics will be explored at the upcoming 2017 Injury and Disability Schemes Seminar (IDSS).

One of the nice features of IDSS, on in Brisbane in November, is that many of the talks provide up-to-date views on the new trends relevant to Schemes. Two of those issues are fraud and behavioural economics, which will both be well-represented at the conference.

Fraud and exaggerated claims

Fraud and exaggerated claims represent a significant risk to the sustainability of injury schemes, including compulsory third party (CTP) insurance, across Australia. Sue Freeman, Raj Kanhai and Geoff Atkins will be presenting on models of fraud, drawing on both local and international examples. They will also highlight particular risks for Australia, which has a relatively fragmented CTP system.

Jadon Fox will be presenting on the Injury and Disability Schemes Fraud Control Survey. The survey is an attempt to establish the extent of fraud across schemes, and how these costs can be reduced by applying fraud control and analytics. The survey also reveals differences in current practice for different types of schemes, and the opportunities offered by big data to identify, prevent and deter claim fraud.

Nudging better behaviour

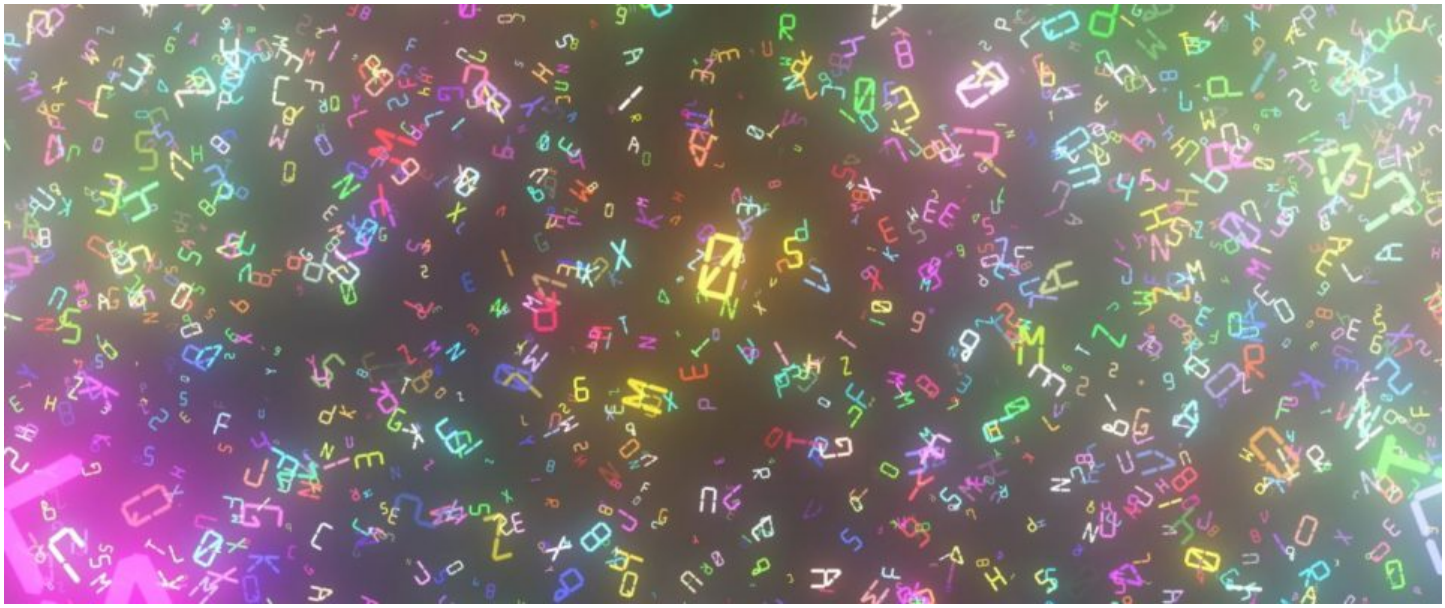
A second trending topic is behavioural economics, which formalises the study of human behaviour and encourages better choices through 'nudges'. These ideas have been used by governments and corporates in a wide variety of ways to improve results ranging from tax collections to water usage, and it is no surprise that there are interesting applications for injury and disability schemes too.

Katherine Gobbi, Alex Gyani and Kate Hunter will be talking about the results for behavioural economic strategies undertaken by EML and the NSW Government's Behavioural Insights Unit. Their trials focused on understanding psychological need and providing more tailored support to clients. While there were challenges, the program has delivered significant return to work outcomes.

Basem Morris and Kranthi Nekkalapu will also be presenting on behavioural economics, =showing how it has applications to both return-to-work outcomes and fraud reduction. Their presentation will introduce behavioural economics concepts and provide examples of how these have been applied effectively.

The topics above represent exciting developments in managing schemes, and IDSS promises to be a great forum to learn more about them and improve practices across the country.

Check out the 2017 IDSS Program and Register your place now.



The Critical Line – Volume 16

By Oliver Chambers

Our resident columnist Oliver Chambers delivers a perfect power puzzle for Volume 16 of The Critical Line.

Warming Up

1. Let $D(n)$ denote the sum of the digits of the integer n. For instance $D(1234)=1+2+3+4=10$. Find all integers n such that $n+D(n)+D(D(n))=2017$

Click to reveal/hide solution

SOLUTION:

Note that both n and the sum of the digits of n leave the same remainder when divided by 3. That is $n \equiv D(n) \bmod 3$. This means $n+D(n)+D(D(n)) \equiv 3n \equiv 0 \bmod 3$, however $2017 \equiv 1 \bmod 3$ so there are no solutions!

2. Does there exist an arbitrarily long sequence of perfect powers (i.e. numbers of the form n^m for some $n,m \in \mathbb{Z}$) that form an arithmetic progression?

Click to reveal/hide solution

SOLUTION:

The answer is yes! We construct such a sequence using induction. The base case is clear because any sequence of two integers is an arithmetic progression. Now assume we have an arithmetic progression of length k with a common difference of d

$$n_1^{m_1}, n_2^{m_2}, \cdots, n_k^{m_k}$$

Where $n_j, m_j \in \mathbb{Z}$. We will transform this into a new sequence of length $k+1$ by adding a new term $n_k^{m_k}+d$, and multiplying each term by an integer C. So we have

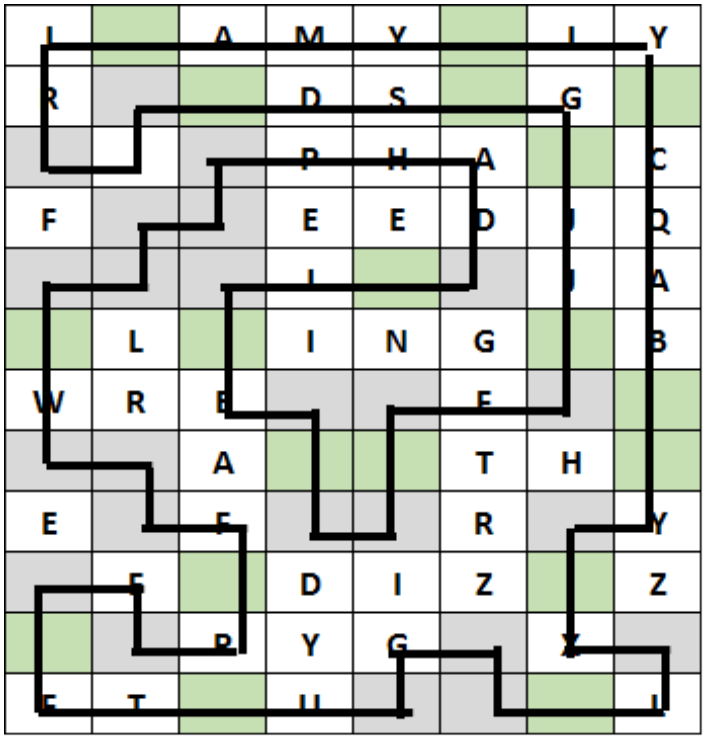
$$C \cdot n_1^{m_1}, C \cdot n_2^{m_2}, \cdots, C \cdot n_k^{m_k}, C \cdot (n_k^{m_k}+d)$$

This is now an arithmetic progression with difference $C \cdot d$ and we need to select C such that each term is a perfect power. We can make the last term a perfect power by setting $C=(n_k^{m_k}+d)^N$ for some integer N. If we set $N=m_1 \cdot m_2 \cdots m_k$ then each of the proceeding terms will also be a perfect power, so the inductive step is complete.

Another arithmetic progression

Let $D(n)$ denote the sum of the digits of the integer n. For instance $D(1234)=1+2+3+4=10$. Does there exist a (strictly) increasing arithmetic sequence with 1000 terms, $a_1, a_2, \cdots, a_{1000}$, such that $D(a_1), D(a_2), \cdots, D(a_{1000})$ is also a (strictly) increasing arithmetic sequence?

Critical Line Volume 15 - Solution:



Leaving a solution: FEELING RATHER DIZZY

Very sorry for the mistake indicating 15 letters instead of 18 made up the solution. And congratulations to all who still solved and sent through correct submissions! The winner, through entry in what must be close to record time, is Stephen Edwards. Well done, Stephen.

ACTUARIES INSTITUTE
ABN 69 000 423 656
LEVEL 2, 50 CARRINGTON STREET
SYDNEY NSW 2000 AUSTRALIA

t +61 (0) 2 9239 6100
f +61 (0) 2 9239 6170
e actuariesmag@actuaries.asn.au
w www.actuaries.asn.au