Building a successful Actuarial Career with the IFoA

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26 January 2016
Agenda

Making connections - getting your first job
The work, work, life balance
Developing your actuarial career
Areas of actuarial work
Hot topics from the insurance industry
Your chance to find out more
Biography
Who to Meet

The following chart shows companies who have previously recruited actuarial students:

Source: Centre of development and resources for students HKU
What to Consider & Do

First impressions matter
• Be on time and smartly dress
• Don’t cancel unless it’s unavoidable, second chances don’t come easy

Prepare for the meeting
• Know your CV and talk confidently about it
• Be prepared to answer typical questions

Differentiate yourself
• What makes you an individual?

Don’t be too nervous
• Some nerves are expected, but you need to be able to differentiate yourself
When to Start

The following graph shows the time taken to secure employment:

% Cumulative employment rate

Source: Centre of development and resources for students HKU

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## Why?

The money? Typical actuarial salary’s are shown in the table below:

<table>
<thead>
<tr>
<th>Title</th>
<th>Experience (Years)</th>
<th>Range of Annual Base Salary (HKD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department Head</td>
<td>10+</td>
<td>1.5m +</td>
</tr>
<tr>
<td>Manager / Senior Manager</td>
<td>6 – 10</td>
<td>600k – 1.4m</td>
</tr>
<tr>
<td>Assistant Manager</td>
<td>3 – 6</td>
<td>450k – 630k</td>
</tr>
<tr>
<td>Analyst / Senior Analyst</td>
<td>1 - 3</td>
<td>180k – 420k</td>
</tr>
</tbody>
</table>

*Source: Kelly Services Hong Kong 2014 Salary Guide*
The Interview

Put yourself in the other person’s shoes

You

• Maybe first interview
• Looking for good company and career prospects

Your Interviewer

• May not be the first interview of the day
• Looking for a good candidate
Interview Preparation

What’s your interviewer looking for?

Education and training

- Get good grades…
- Be interesting and passionate about something. Everybody likes interesting people and this helps you stand out
- Try and get an internship and related experience
- Have some exams under your belt helps
- Practice your communication skills, especially if it’s not in your first language

Learn about the industry, company and your interviewer

- Have a high level overview of the industry and anything topical
- Perform some research on the company, e.g. visit their corporate website, review recent news articles and do some basic searches e.g. Google, Facebook, LinkedIn
After the Interview

Feedback

• Ask your interviewer how the interview went
• Do they have any tips for you or careers suggestions

Follow up

• Provide feedback to the recruiter or HR representative quickly
• Send a professional thank you letter to your interviewer

Consider the positives

• You may not be successful at every interview, you’ve learnt something from the experience
• Don’t get discouraged, keep trying

Congratulations, you’re hired
Internships

Good or bad idea
The decision as to whether to do an internship is up to you, but internships:

- Are increasing becoming commonplace
- Provide practical experience of a role
- Give you the opportunity to try before to start a long career
- Allow you to develop and/or finalise your career plans

Some of the disadvantages many include

- Delays to your graduation
- Loosing touch with school friends
- Financial – internships themselves are not highly paid roles
Practice

You’ve prepared for the interview, but does what you’ve prepared work in an interview setting.

• Ask your friends, family members and teachers to ask you interview-style questions so you can practice giving your answers
• Think about how you’ll get your key messages across
• Have examples ready to illustrate and show your involvement
• Speak openly and freely about yourself and your experiences
• Don’t be afraid to ask questions, and if you don’t know the answer then sometimes it’s best just to say so and move on.
• Similarly, if you don’t understand the question then do ask for clarifications, many do not!
You Cannot Prepare for Everything!

Exercise

In pairs, or with the people around you, discuss the questions:

How many clocks are there in the world?

This isn’t a trick question, there are no right or wrong answers, remember you are trying to demonstrate:

• Communication skills
• Logical thinking
• Willingness to ask questions where appropriate
• Providing a range of answers
The work, work, life balance
A real juggling act

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Working & Studying

• The exams are completed through self-study
• This may be different to that which you are used to at school or university
• To qualify as a Fellow you need at least 3-year practical experience
• Although the exams can be completed more quickly!
• The most common time to qualification is around 3-5 year, taking all the exams

This may seem challenging at first, but you can do it. It’ll be important to identify what works for you so that you can balance the different demands on your time.
Your New Job

- Starting your first job is likely to be exciting if not a little daunting
- It’s likely to take up a significant proportion of your time and energy
- A plan for your long term career is important, you will need to consider how you balance your work, studies and personal priorities
- There’s no single to this problem, it’s important for everyone to identify their own balancing point

Life’s tough sometimes, but those who put in the effort will succeed.

If at first you don’t succeed, try and try again. You can do it.
Developing your actuarial career

Your formula for success

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Development Plans

You may have heard that planning is important a thousand of times before, maybe ignoring the advice at times, but in this case it really is important.

A career can last for 40-50 years, so you want to be going in the right direction and enjoying what you are doing.

Top 5 tips for a development plan

• Understand your career aspirations, know where you want to be in 5 years time
• Create a development plan
• Set realistic timescales and stick to them
• Ask for feedback
• Don’t be afraid to change your plans if they are not working for you
Building your Career

A successful career will hopefully await you as a Fellow of the IFoA, but you can also:

• Keep abreast of current issues in the industry
• Know the market and understand what is going on
• Gain a variety of technical skills
• Complete your professionalism training
• Don’t neglect the development of your soft skills, such as communication
• Be interesting and ensure that you are the person people want to call upon
Progression within the Workplace

- On the job training is a key element to the development of your actuarial career.
- Graduate programmes offer a balance between the development of theoretical skills still applied in exams and application of those ideas in real world settings.
- Steady progress through the actuarial exams is generally important as they’ll give you the valuable technical and theoretical skills that you need.
- Rotations within the workplace will help you develop a breath of experience.
- Attendance at conferences can help build knowledge and in Hong Kong there are regular affordable sessions.
Areas of actuarial work
The options open for you to explore
Typical Actuarial Careers

**Consultancies** - offering advice on issues such as acquisitions, mergers and financing capital projects, and auditing

**Investment** - involved in research and on the pricing and management of investments, particularly in mitigating the risk of investments

**Insurance** – investigate a huge range of numerical information, analysed and explained

**Pensions** - designing and advising on company pension schemes, especially placing a value on accumulated pension commitments
Actuaries at the Centre

Operations

Risk

Finance

Board

Distribution

Actuary
Life Company Roles

Product Team
- Design
- Pricing
- Bonus / dividend distribution
- Literature

Risk Management
- Operational risk
- Insurance risk
- Market risk
- Risk ID & assessment

Financial Reporting
- Experience analysis
- Statutory reserves
- Embedded value
- Realistic reporting
- Analysis of change

Investments Team
- Asset liability management
- Capital management
- Dividends to shareholders

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Work Examples

Reviewing actuarial models

Actuarial model

Spreadsheet/Testing model

Documentation of the calculation

Calculation

Compare the formulae in the spreadsheet and the actuarial model

Formulae in the actuarial model

<table>
<thead>
<tr>
<th>Core Formula</th>
<th>U_ANNUITY' Unit Annually Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 IF t &lt;= DUR_M OR t &gt; POL_TERM_M THEN</td>
<td></td>
</tr>
<tr>
<td>2 0</td>
<td></td>
</tr>
<tr>
<td>3 ELSE IF MULTI(t + 11, 12) THEN</td>
<td></td>
</tr>
<tr>
<td>4 U_VOU_BD(t) * ANN_BK(t) / 100</td>
<td></td>
</tr>
<tr>
<td>5 ELSE</td>
<td></td>
</tr>
<tr>
<td>6 0</td>
<td></td>
</tr>
</tbody>
</table>

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Work Examples

Financial Reporting

Actuarial model and calculations

Policy admin. system

Policyholder Data

Calculation Engine

Prophet model

Result analysis

- List of checks:
  - Reconciliation checks
  - Sample checks
  - Coding checks
  - Movement analysis
  - etc.

Extraction / Reporting

Policy admin. system

Financial Reporting

Actuarial model and calculations

Prophet model

Reporting templates

Risk Margin Analysis of Change [GBP'm]

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Work Examples

Business risk assessment

Steps undertaken:
1. Gather information from the business
2. Perform calculations in Excel
3. Illustrate the results to management

<table>
<thead>
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<th>Business Risk Assessment</th>
<th>Work Examples</th>
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<tr>
<td>1. Gather information from the business</td>
<td>2. Perform calculations in Excel</td>
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</table>
Work Examples

Advanced analytics and predictive underwriting

Who is driving?

Where?

Source of Business

What car?

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Work Examples

Non-insurance applications

This is a UK-focused example, but similar applications in Hong Kong include:

- Asia Miles
- Wellness programmes e.g. AIA Vitality or Manulife Move
- Park n Shop MoneyBack
Hot topics from the insurance industry
Building your own knowledge
Risk Based Capital

The International Association of Insurance Supervisors has around 200 member and covers 97% of the globe. Their principles state that:

The supervisor takes a risk-based approach to supervision that uses both off-site monitoring and on-site inspections to examine the business of each insurer, evaluate its condition, risk profile and conduct, the quality and effectiveness of its corporate governance and its compliance with relevant legislation and supervisory requirements.

As a result risk based capital is becoming increasingly important.

Risk Based Capital around the world

- Europe – Solvency II
- China – C-ROSS
- Singapore – RBC2
- Hong Kong – Risk Based Capital – coming soon
Big Data

Data in itself has limited value, but by analysing it we can gain insights into peoples behaviour’s, desires, movements etc. which businesses and other organisations can use and find valuable.

Technology is allowing the collection of more and more data, with advance computing power allowing it to be used.

How can actuary’s use big data

• Our analytical minds are ideally place to support data analysis
• Data could be used to identify life changing events for which insurance is required
• Health data can be used to reduce insurance premiums
• Credit card transaction could help develop a picture of someone’s lifestyle
Innovation

Insurance premiums are reducing so what’s next?

A shrink in insurance industry by 40 - 60% expected 15-25 years with changes in automotive industry and sustainability largely from customers demanding value leading to the need for innovation.

In the insurance industry these are:

• Long overdue, unlike technology industry.
• Can no longer do "more of the same" and expect to grow

For example, how will the insurance industry deal with:

• Self driving future. Reduce accidents by 80% in the next 15-25 years. Impact on the automobile industry
• Pay as you drive auto schemes popular in SA, UK and fast growing worldwide.
• Wearables changing health and wellness programs
Your chance to find out more

Questions

Comments

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