

## What does an actuary actually do?

*By: Mary Chen (Sunday Mail, 18 April 2004)*

THE actuarial profession is still not that well-known among the general public.

An actuary (plural: actuaries) is one who calculates insurance risks, rates and dividends.

The term "actuarist" is not correct, although it has been often mistakenly used.

Says Teh Loo Hai, President of the Actuarial Society of Malaysia: "The reason many people do not know about us is because there are fewer than 40 qualified actuaries in the country, and only around 35,000 in this profession worldwide." The way an actuary looks at the future is not through a crystal ball, but by using his mathematical and analytical skills to crunch numbers, assess data and statistics to design financial formulae that minimise the risk of uncertainties and variations of the future.

"Take life insurance: We really don't know when people will die or claim on their policies; that is the uncertainty.

Yet we must, among others, analyse statistics on life expectancy, death, illness and accident for the population before devising the appropriate premiums and contribution rates that minimise the financial risk to the company," says Teh.

"We need to also ensure adequate financial reserves to meet possible claims.

You might say we try to put the appropriate price tag on future financial risk for the company." Depending on his place of employment, an actuary may be required to design insurance policies, pension schemes and other financial contracts, or to assist with risk management and investment policy planning, or even the employee benefits schemes for his company.

After almost 17 years as an actuary, Teh feels he is still constantly learning and gaining new insights about his profession.

"It is not a boring desk-bound job.

The number-crunching is not a routine job because the variations are always there.

Events such as September 11, the Bali bombing and the SARS outbreak were not expected, but changed the economic landscape and require us to constantly update our techniques of assessment and calculation," says Teh.

"It is an intellectual challenge to analyse current trends to predict future probabilities and its impact on the financial risk of the company."

## **Rewards for those who persevere**

### How to qualify for this profession

You need a basic university degree, preferably majoring in mathematics, actuarial science, statistics, economics, business or finance.

However, having a degree in Actuarial Science does not make one an actuary.

You must also register with one of the relevant professional bodies and sit for the required series of professional exams before you can practice as an actuary.

These include the Society of Actuaries of the USA ([www.soa.org](http://www.soa.org)), Britain's Institute of Actuaries ([www.actuaries.org.uk](http://www.actuaries.org.uk)) and Australia's Institute of Actuaries ([www.actuaries.asn.au](http://www.actuaries.asn.au)).

Some universities may offer exemptions from certain papers, but most fresh graduates usually spend another few years working and studying simultaneously to complete the remaining exams.

There are some people who start sitting for these papers while in college, so perhaps the earlier you start, the earlier you qualify.

### Where to take exams/get training

Examinations are organised by the respective professional bodies, and the venues are usually the respective embassies/high commissions.

Self- study is required; materials are obtained directly from the professional bodies.

Employers who offer support for professional actuarial studies are probably still limited to insurance companies and actuarial consulting firms.

### Vital skills/personality traits

Strong mathematical skills, for one.

Also must have keen analytical, project management and problem-solving skills.

Then you also need good business sense and the ability to be logical and far-sighted.

Good language and communication skills (both oral and written), as well as computer skills, will be most useful.

Be disciplined, determined and persevering, especially with regards to self-studying for the professional exams!

### Job pros and cons

Incentive is usually given by employers when an examination is passed.

Most companies will also provide study support in the form of reimbursement for study materials, as well as paid study leave.

On the negative side, working and self-studying simultaneously is a huge challenge that requires much self-discipline and strong commitment.

### Career prospects

Traditionally, actuaries will work in insurance companies, financial and actuarial consulting firms.

There is, however, potential to specialise in the investment industry, pension, general and health insurance, risk management and consultancy services.

One may even become a lecturer in related subjects.

### Remuneration expected

The basic salary for a fresh graduate in this industry is between RM24,000 and RM30,000 a year, while a qualified actuary starts with RM100,000 per annum.

### Professional bodies to join, if any

Besides the three bodies mentioned earlier, there is also the Actuarial Society of Malaysia ([www.actuaries.org.my](http://www.actuaries.org.my)).

### Any personal advice?

In Malaysia, there is a great need for qualified actuaries.

On the other hand, there is a glut of graduates at the bottom rung of the actuarial industry.

The climb to the top is tough because getting the qualification is hard, and you may not pass the selection process, but for those who persevere and make the grade, the financial rewards can be great.

Career:	Actuary
Name:	Teh Loo Hai
Qualifications:	Bachelor of Economics, Macquarie University Fellow of Institute of Actuaries of Australia
Current positions:	Executive vice-president and head of customer management, Great Eastern Life Assurance (M) Bhd President, Actuarial Society of Malaysia