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Features



## Career Interview: Actuary

by Helen Joyce



In Issue 4 **Plus** talked to Scott Eason about [life as an actuarial student](#). Now senior actuary **Kathy Byrne** tells us about her career in insurance and financial consultancy.

**Plus:** The actuarial profession isn't particularly well-known. Why did you think of going into it?

**Kathy:** One of my uncles is an actuary, so it was something I always had in the back of my mind. I must have thought vaguely about a degree course in actuarial science, but I decided not to do that because it would close off my options, so in the end I did a maths degree at Imperial College, London.

**Plus:** Which subjects did you enjoy at school?

**Kathy:** All through school maths was one of my best subjects. You didn't have to work too hard. Things like history where you have to learn a lot of facts require a lot of time, whereas with maths if you can understand the concepts it's not so difficult to revise.

I liked both maths and sciences, so when it came to choosing A-levels, I did a very traditional double maths (pure and applied), chemistry, physics and general studies, as well as S-level maths. I took my A-levels in 1981 at Priestnall School, Stockport, Cheshire.

**Plus:** Then after your degree at Imperial, you went straight into actuarial work.

**Kathy:** Yes. I applied for jobs in my final year and got two offers, one from a life assurance company, the other from a consultancy firm called Hymans Robertson. I decided I'd join the consultants because I thought there would be more variety of work.

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I think I was quite lucky in Hymans Robertson, because when I joined it was a very small company and they did consulting on both life assurance and pensions, as well as a little bit of investment work. That meant I got experience in all the different areas of actuarial work, which was very good for me because I could decide which bits I liked and which bits I didn't, and I'd actually had the chance to work in them and see.

**Plus:** What sort of work were you doing day to day?

**Kathy:** When I started I was working mostly with the Life Assurance team. I'd be doing things like an annual valuation of an insurance company, which basically makes sure that they have enough assets to meet their liabilities. I'd work out the values of the liabilities and the values of the assets and take the first from the second. What that involved was getting a big piece of squared paper, drawing lots of columns, writing figures down, and adding them all up! It's the sort of thing that you'd do nowadays on a spreadsheet, but when I first started it was big pieces of squared paper. I guess it was fairly mechanical.

Then I moved on to work in the pensions section. If someone was leaving a pension scheme they'd need a transfer value calculated to take their benefits elsewhere, so I'd do the calculations, so the scheme would know how much to pay. There'd be a set formula, or I'd have to look at the Trust Deed and rules of the scheme and work out what the benefits were, and value them, and then give them to someone else to check.

**Plus:** It sounds like you were using school maths every day, rather than the maths you learned at university...

**Kathy:** That's true. Most of the stuff in the actuarial exams is fairly basic maths – A-level type stuff. Some people working in general insurance do a lot of mathematical modelling, which uses quite advanced statistics, but mostly it's adding numbers up and raising them to powers!

Actuarial work is more about *interpreting* the mathematical results you get and making commercial decisions based on those results. It's about combining maths with commercial realities and using it practically in applications – as the motto of the Institute of Actuaries says "making financial sense of the future". For example, if you're working out a premium rate for a scheme, and you want to charge £10 and everyone else is charging £5 ... Well, clearly that's not going to work, so you have to say "Why have I got such a different number? Have I made a mistake? Is it because this scheme's different or is it because I've been too conservative in the assumptions?" That's what appeals to me, using maths in a way that means something in the business sense.

**Plus:** Tell us how your early career progressed.



**Kathy:** I was at Hymans Robertson for two and a half years. From the work I'd been doing with them I knew that I preferred life insurance to pensions work. Citibank Life was one of Hymans' clients. I got approached by a headhunter to see if I wanted to join them. I wasn't even fully qualified as an actuary. I qualified while I was at Citibank Life.

I moved to Pinnacle Insurance in January '94, and was appointed a director of Pinnacle Insurance Management Services at the beginning of 1996. I've been here ever since.

**Plus:** You're quite quickly regarded as a professional in the actuarial world – even without all the exams you're quite valuable!

**Kathy:** Certainly at the moment there's a shortage of part-qualified students, so it's quite easy for them to find jobs. During the last recession people recruited fewer actuarial students and therefore there's more demand now. There are also some special circumstances, such as the work actuaries are doing in sorting out the pensions mis-selling scandal. This involves a lot of calculations which are ideally suited to actuarial students.

**Plus:** What do you do now day to day?

**Kathy:** I'm Actuarial Director for Pinnacle Insurance, so I'm responsible for all actuarial aspects of the company's business. About 80% of our business is what is called *pricing*. Any business that we do, we have to make sure that the rates we set on the right basis. Our pricing work covers three main areas: the creditor market, investment products and annuities.

Pinnacle is a specialist in the creditor market. The biggest part of our work is setting scheme rates for creditor schemes. We write life cover, accident, sickness and disability cover and unemployment cover for lenders' mortgage and loan schemes. But you won't generally see our name on the application forms. You'll see the name of the lender and it'll say "Underwritten by Pinnacle Insurance" in the small print on the back.

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As well as pricing, we have *valuation* work, which is basically making sure that the company is holding the right assets and knowing what its liabilities are. We have to submit returns each year to the Financial Services Authority.

**Plus:** What would you say are the good bits and the bad bits of your job?

**Kathy:** If you like different things it's never the same from day to day. Things are always changing.

**Plus:** That's probably not the impression people have of actuarial work!

**Kathy:** Because of the different types of business that we're doing you're always getting different things coming up. It's the nature of insurance business that it's always changing.

Every one of the schemes we deal with is different. You might look at some claims experience for a block of business and think "That looks a bit odd" and then you've got to work out why that is. Is there something in the policy that means they're suddenly getting lots more claims? You have to try to work out why you're getting the results you're getting. This is what makes the work interesting, I guess. You have to enjoy problem-solving.

The only downside I can think of is that pressure of work is always a problem... But looking back I'm glad I decided to become an actuary and I don't think I would have changed that.

**Plus:** At a party, when you say "I am an actuary", what is people's reaction?

**Kathy:** You sometimes get "What's that?" and then I do my best to explain in a fairly concise way. "Making financial sense of the future" is a useful phrase ... or I say "I work for an insurance company. I set all our premium rates and I make sure the company's got enough assets to meet its liabilities so it can pay out its claims." Then you hope that they don't say "Oh, I had this motor claim once ..."!

**Plus:** What sort of career paths are there?

**Kathy:** All sorts... Most actuaries work in either pensions or life insurance. A growth area is general insurance which is where I'm mostly working now.

If people start in insurance companies they'll probably start off in the actuarial department, doing pricing or valuation work. Then they might move on and do product development, and might then move on to become valuation actuary. At more senior levels, they might become a director of a company like I have, or if they're more interested in the technical side they might become the appointed actuary of a life company.

If they're working in a firm of consulting actuaries, which is where most pensions consultants are, they'll start off doing similar things – day-to-day quotations and valuations. Then they'll probably move on to be a team leader, where they'll have other students working for them, and then the ultimate thing is to become a partner. There is a lot of room for career growth.

I've come across a few people who started the actuarial exams and never finished them. If you've got, say, halfway through the actuarial exams, then you've got a pretty good rounded education on how finance and how insurance work, and you're in a good position to take up a managerial role, perhaps in an insurance company. Some people also move into IT.

**Plus:** Some actuaries travel a lot with their work, don't they?

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**Kathy:** Definitely. For example, a lot of actuaries based in this country are travelling to Japan at the moment because a lot of the insurance companies there have gone bust, and so they're needing a lot of actuarial input into sorting them out and trying to sell them off to foreign companies. Because there isn't much actuarial expertise in Japan they're getting people over from the UK to do a lot of the work.

**Plus:** After all, this is the country where it all started ...

**Kathy:** That's right. The Equitable Life was set up in 1762 and was the first company to base life assurance on actuarial principles. They put into practice six actuarial principles that James Dodson had set down a few years earlier.

**Plus:** What are your interests outside the actuarial world?

**Kathy:** I've been involved in the Guide Association for most of my life. Over the last year, I've been working on Netguides, a new pilot scheme to run Brownies, Guides and Rangers on the internet for children that can't get to meetings. The idea is to hold virtual meetings for kids who can't get to meetings, maybe because there isn't a unit in their area, or because they're in hospital with a longterm illness.

My husband and I usually try to go on one big trip a year. We've just spent two weeks in New Zealand over Christmas. Then we flew to LA and went skiing for a week.

*Plus* isn't feeling sorry for overworked Kathy any more...!

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## About the author

Helen Joyce is one of the assistant editors on *Plus*.

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