All in a day's work

Five qualified actuaries relate the career paths that led them to where they are now.

Case study 1 Robert Chadburn

I'd been a lecturer at City University for ten years when I decided to join ActEd.

As I'd already worked in actuarial education, I could start teaching subjects I'd taught before immediately: subjects 104, 105, and 302. This is not a typical lead-in to a career with ActEd – most tutors come from other walks of actuarial life and tend to teach their specialist subject. Actuaries with pensions experience teach fellowship pensions, those with life experience teach specialist life, and so on.

You need much more than just an in-depth knowledge of your subject to teach successfully. You need a flair for teaching, enthusiasm for your subject, and a determination to help students to get the best out of themselves. That's why a good number of our technical subject tutors have a background in mainstream education.

I spend around a third of my working time in face-to-face tutorials with students. These sessions are usually very intensive, and getting the right balance between breadth and depth on the day is a continual challenge. No two tutorials are ever the same, because people are always different, with different needs, and ask different questions. You have to think on your feet, and if you get it wrong the students suffer, and so does your feedback!

Most of the rest of my time I spend helping to update ActEd's learning materials. I might be writing a new course, amending tutorial hand-outs, or writing ActEd's solutions to the profession's exam papers. Much of the time we work on our own, so self-motivation is a key requirement for an ActEd tutor.

Recently I had to create and deliver a 'kick-start' course for Subject 105, where students with no prior knowledge of the subject attend two days of interactive lectures. My job was to produce the worksheets, write the teaching notes, and deliver the course. It was hard work, but the buzz of thanks and smiles at the end of the course made it all worth it.

The most important skill required for the job is the ability to convert something that looks difficult into something that feels simple, even if it is actually difficult. I had some great practice at doing this in written form, when I was asked to contribute a few chapters to some course notes being produced for our US colleagues. It meant translating swathes of chunky textbook into intelligible English, but I was rewarded by knowing I had understood the text, gained new knowledge, and the feeling that someone out there might just be grateful for my efforts.

Case study 2 Melanie Cooper

I arrived in the actuarial profession by a somewhat non-traditional route – my degree was in electrical engineering from Imperial College, so the MEng on my business card is often commented upon. I first worked at Clay & Partners (now part of Aon) in its insurance division, then moved to Generali where I qualified. In 1999, I joined QBE International Insurance Limited and was transferred into the financial risks division (FRD) shortly afterwards.

The FRD writes non-traditional insurance business, but we specialise in two types of business: residual value and credit enhancement. Residual value is where the value of a core, income-producing asset is guaranteed at a future point in time. Credit enhancement is where QBE assumes the risk and in its place provides QBE's Standard &Poor's A+ rating.

Although there are only two types of business written, the risks they cover vary widely, from aircraft, to dairy equipment, to affordable housing. This variety is

Case study 2 *continued*

one of the most enjoyable aspects of the job, but also one of the most challenging as we need to understand the industry and assets in a short space of time.

Unlike traditional insurance, transactions that FRD typically write rely on specific recovery assumptions in the event of a default or claim. This is similar to subrogation, but unlike traditional insurance, these assumptions are a key element of the actuarial analysis and pricing.

As an actuary in my role, my main focus is on pricing, although I do some business planning and reserving work. The majority of my time is spent working with the underwriters and credit risk manager to understand the transactions, identify the key risks, and, where possible, model them. This modelling often involves looking at the cashflows expected to be generated by an asset or business and the variability associated with those cashflows.

QBE was recently involved in the first synthetic securitisation of a shipping loan portfolio. From my actuarial perspective, this involved two approaches: first, looking at the bank's historical losses on its shipping portfolio, and second, using a frequency–severity approach, based on the ratings of the obligors and the expected recoveries, ie, the expected future value of the ships. For this transaction, as with any other, I was involved in discussions with the arranging banks and relevant market experts, as well as with other FRD members, since we must verify all inputs.

I'm glad I am not in a traditional role. In FRD, you have to be flexible enough to operate in a non-actuarial team and must be a problem-solver and open-minded enough to work on a wide variety of assets and structures. The emphasis is on participating in getting the right transaction on the books. If that appeals to you, then I would happily recommend it.

All in a day's work...

Case study 3 Louise Pryor

One of the reasons I became an actuary was to have a professional qualification, letters after my name, and therefore always to have something to fall back on. This is obviously a sign I am risk-averse; for some reason, however, I seem to have ignored these basic instincts throughout my varied career.

I spent the first few years of my career in two firms of consultants, working my way through pensions, life, and general insurance. Although the actual mechanisms used for analysing risk varied between the fields, they all had one thing in common: we were looking at aggregate risk and the expected value of its effects. I spent much of my time programming and I found I was more interested in the software side of things than the actuarial side, so I went off to the US to do a PhD in artificial intelligence. During this time I was developing qualitative analyses of individual uncertainties, rather than quantitative analyses in the aggregate. In particular, I looked at reproducing common-sense behaviour in the face of an unpredictable world: how do you plan ahead if you don't know what is going to happen? I developed a couple of computer programs demonstrating my ideas, wrote them up in a thesis, and then came back to the UK as a university lecturer.

My next move was from academia back into the harsh realities of industry. In fact, life was rather easier as a software engineer than it was as a university lecturer, and certainly more interesting. I was dealing with risk on a number of levels, both as a manager and within the products I was working on. For example, building a system to analyse the financial risks in a stock-lending portfolio drew on some of the techniques I had first encountered as an actuary. We even used the term 'risk premium' for one of the risk measures calculated. Throughout this period, I was also learning about risk in a very practical sense, as a project manager. An important aspect of project management is recognising and handling various risks, and with software project management the risk is usually that of not completing development on time because of bugs in the system. At a different level, I was running the risk that the small companies I was working for would run into financial trouble, and, like many others, they did.

I am now working as an independent consultant in operational risk and software – certainly not a move towards security! This brings together all my experience of risk in its various aspects, and uses both communication and analytical skills to the full. As a software engineer I understand the need for an effective risk management process, and as an actuary I understand what people are trying to do with their complex financial models.

Case study 4 Sue Hodges

My eight years working as a 'proper' actuary included six years in a life office, followed by business development roles, first in a derivatives consultancy, and then with a global reinsurer.

I had naturally migrated into roles utilising people skills rather than technical skills and, although enjoying internal and external client contact, I continually struggled to get excited about the projects I was involved in. Some actuaries can get enthused about the intricacies of new designs for a critical illness product or a guaranteed income bond, but I'm simply not one of them.

I contacted Acumen Resources for advice, and after several lengthy career-counselling sessions over the course of a few weeks, they helped me reach the conclusion that a standard actuarial role wasn't right for me. I needed a role with lots of people contact and plenty of variety – and so I decided to join the team of actuaries at Acumen as a recruitment consultant.

There are a surprising number of skills I can utilise from my previous roles. My relatively broad actuarial knowledge gained from the variety in my previous jobs is useful in understanding a candidate's technical experience, their transferable skills, and advising on the different working environments. I'm still in a business development role: meeting clients, marketing and advertising, and looking for new opportunities to expand our reach (both in the UK and overseas). Communication, listening, and perception skills are crucial in enabling us to help a candidate figure out which type of role is most suitable – it's often the hardest part of the process. Coaching skills, and at times, being fairly blunt, are also necessary as we help candidates with interview practice, career aspirations, and salary expectations.

By working for a small company I have a great deal of autonomy and influence on how the business is run and can easily see the effect on the bottom line. My days are spent meeting candidates and clients, helping candidates to get their ideal jobs, negotiating their packages, assisting in running a company, getting involved in marketing, advertising, and global strategy. It beats pricing term assurance and I highly recommend it!

Case study 5 John Taylor

After leaving university in 1979, I worked as an investment analyst at the Prudential for two years, followed by a spell in the group pensions actuarial department. I then moved to Legal & General and worked in several areas including special investment projects and individual life and pension product design.

Once I had qualified I soon realised it was the sales rather than the technical side that interested me. When I was approached by Barney Wilkins & Howard (an investment-orientated IFA), the idea of doing something different and being a large cog in a small machine appealed. Two of the directors were actuaries, so I knew they had a professional outlook and I liked the thought of having a measure of control over the company, while using my skills and knowledge to 'demystify' finance to the investing public.

The personal financial planning work I am involved in is largely for individuals, often looking after their total finances. Advising the general public on finance can be scary as the range of questions is often very wide: one meeting could easily cover pensions, inheritance tax, income tax, trusts, and investments. The advice required is sometimes superficial, sometimes very detailed . Initially I often needed to get technical help, but that has reduced as my knowledge built up.

Some clients' affairs can be complex and I have felt the need to sit further exams to improve my knowledge. I am currently working towards the fellowship of the Society of Financial Advisers. I sometimes feel my actuarial knowledge is not used much, but at other times it is vital in understanding investments and other products. It also helps with research, but mainly it gives my clients and contacts the reassurance they are dealing with a professional.

My most useful actuarial skills are from my time as an investment analyst and in product design. These help me to research and understand the products we recommend to our clients. My group pensions work is useful for getting to grips with pension transfers, amongst other things.

However, when I moved into personal financial planning, I really had to start afresh with basic understanding, but no detailed knowledge. Personal, company, and trust taxation, multiple tax jurisdictions, and investor psychology all need mastering, and there is little in the actuarial training to help. The other essential skill is a good bedside manner with the inevitable (and usually lovely) old ladies.

I feel I can make a real difference to people by taking a significant worry from them and therefore the job can be very fulfilling. However, the regulations can be tedious and it is not a route to riches, as individuals are unlikely to pay the fees needed to produce the income achievable by actuaries in corporate work.