



“Is it realistic to think that some of today’s actuaries might move during their careers into wider fields outside the traditional activities connected with pensions and insurance?”

A view from a member: **Chris Lewin**



Chris is a retired pensions director, who managed some of Britain’s largest pension schemes, including those of British Rail, Associated Newspapers, Guinness, Unilever and EDF Energy.

Actuaries and wider-fields

Is it realistic to think that some of today’s actuaries might move during their careers into wider fields outside the traditional activities connected with pensions and insurance? I believe it is entirely possible, because it has happened in the past and because there is a need in many different activities for the objective skills in risk and finance which actuaries can offer.

Wider fields in the past

Although only limited information is now readily available about the extent to which actuaries have worked outside traditional fields in the past, we do know that some have been employed in the banking, investment and transport industries, while a few have given advice to the Courts as expert witnesses in damages cases.

In 1925 Frederick Menzler said:

“If we desire our Institute to retain its position, we must, as in the case of other professions, be prepared to enter every field of activity for which our training fits us.”

He continued, and his remarks ring true today:

“The opportunities will only come to the actuary if the Institute, as a definite act of policy, takes such steps as may be appropriate to dissipate mistaken notions as to the narrow exclusiveness of the profession.” [Menzler (1925)]

Menzler himself had a wide-ranging career with London Transport: see Gunlake (1969). He was the organisation’s Actuary from 1930-39, Chief Financial Officer from 1939-45 and Chief Development & Research Officer from 1945-54. Moreover, he was the chairman of a committee which recommended building the Victoria Line, and took a strong interest in the development of operational research methods in the organisation. I only knew him slightly, after his retirement, but it was as a result of his influence that, as a young actuarial student, I became a member of the Royal Statistical Society (to which I still belong) and the Operational Research Society. The latter led later to the publication of a paper written by me in *Operational Research*



“... we should regard the actuary’s normal role as being to provide professional advice on questions involving risk and finance, as well as questions involving risk alone. However, some actuaries will probably continue to go into positions calling for a wider range of work than this.”

Quarterly – Lewin (1971). I would encourage all of today’s actuaries who would like a wider fields career to join another relevant professional body as well as the IFoA, since external publications broaden the mind. In particular the Royal Statistical Society’s magazine, *Significance*, is likely to interest many actuaries.

Another wider-fields actuary who worked for London Transport was Frederick Lloyd. His journey started in 1942, when the Royal Air Force made use of his actuarial training. His first assignment was to find out why the overall loss rate of Halifax bombers, equipped with four Rolls Royce Merlin engines, was roughly double that of Lancaster bombers with the same engines – you can read his fascinating account in Lloyd (1997). In 1966 he presented a paper on the statistical background to the extension of underground railway networks – see Lloyd (1967). It is worth noting that this paper was discussed at a joint meeting of the Royal Statistical Society, General Applications Section and the Institute of Actuaries Students’ Society – a practical example of co-operation with another profession. He went on to hold a number of important positions in the management of public transport systems in London and the West Midlands, at one stage fulfilling the role of Operating Manager of London’s central buses and eventually becoming the Director-General of the West Midlands Passenger Transport Executive.

The actuaries who went into investment work in the past have included Gordon Pepper, Jack Plymen and George Ross-Goobey, the latter being famous for having been the first to spot the attractions of equity investments in the 1950s. In 1973 Pepper wrote a paper jointly with R.L. Thomas, another actuary, on cyclical changes in investment markets. Plymen’s paper on the actuarial background to investment policy was submitted to the Faculty of Actuaries in 1987.

In addition to participating extensively in pension fund investment committees, I did some wider-fields work at one or two stages of my own career. In the early 1960s I worked for London Transport, where a small team of us carried out statistical investigations, including analyses of staff leaving service, Underground drivers passing signals at danger, public complaints about buses, and the length of life of bus components. The latter was interesting because engines, radiators, gearboxes and accumulators all had differing life patterns. Later on I worked for British Rail where, after managing the pension schemes for 10 years, I was seconded for a year to Michael Heseltine’s Inner Cities Initiative. There were about twenty of us from various organisations, in what was known as the Financial Institutions Group, and we were tasked with making recommendations to improve life in the depressed areas of the inner cities. Upon returning from this secondment, I went on to several years’ work connected with the interface between British Rail and the private sector, with the title Co-ordinator, Private Capital. This included the negotiation of contracts with private firms to franchise branch lines or to provide catering trollies, as well as the development of a plan to exploit commercially the organisation’s nation-wide telecommunications network. I was also the project manager for the then proposed sale of the Settle-Carlisle railway line to a private company.

I have engaged in another interesting activity on a voluntary basis. For more than 20 years I have led the joint risk-management initiative of the UK actuarial profession and the Institution of Civil Engineers. This has resulted in the publication of several guides on risk management, including *RAMP*, *STRATrisk*, and *Front-end Thinking*, as well as some recent work on how to avoid another Grenfell Tower disaster in existing buildings and infrastructure. The first two of these guides have formed the basis of the risk management system used by Crossrail, the organisation building a new underground railway in London.



“Actuaries are well-placed to participate, as members of institutional investment committees, in the formulation of long-term investment strategy and the appointment and monitoring of external investment managers.”

Future roles in wider fields

In 1918 Geoffrey Marks proposed the following definition of an actuary:

“One whose profession is to devise means to solve all questions involving the application of the theory of probability to human affairs, whether in conjunction with the rate of interest or not, and to apply them to the solution of practical problems.”

My own suggestion, somewhat in line with Marks, is that we should regard the actuary's normal role as being to provide practical professional advice on questions involving risk and finance, as well as questions involving risk alone. However, some actuaries will probably continue to go into positions calling for a wider range of work than this.

In thinking about the actuary's role, compared with the roles of other professionals, I suggest we should not follow T.Y. Strachan, an actuary of Newcastle-upon Tyne, when in 1888 he defined an actuary as being a 'scientific accountant'. Nor should we pay much attention to the old joke that an actuary will tell you now what an accountant will tell you in 20 years' time! I believe that an accountant's role, vital as it is, is entirely different from that of an actuary. Whereas the accountant assesses the past financial transactions of an undertaking and its current state, making provisions for known future liabilities and risks, an actuary is more concerned with the unknown future and how the undertaking may be able to keep afloat and prosper in a variety of future situations. The actuary, unlike the accountant, can model a range of scenarios and can advise on whether proposed risk mitigation options represent good value for money. Rather than actuaries and accountants regarding themselves as rival professions, I suggest they should see themselves as partners in developing statements of business risk. Perhaps the requirements for such statements, which were promulgated in 2014 by the Financial Reporting Council, will provide a stimulus for members of the two professions to work more closely together on wider business risk in future?

Investment work is a key opportunity for the future. Actuaries are well-placed to participate, as members of institutional investment committees, in the formulation of long-term investment strategy and the appointment and monitoring of external investment managers. There are also likely to be continuing opportunities for actuaries to work in firms offering investment management services, as some actuaries do today. If agencies that rate infrastructure bonds start to look more than just a few years ahead, they may have an increasing demand for actuaries. Insurance companies wishing to invest in infrastructure may also need to employ actuaries to carry out risk analyses on proposed investments, so that they can be placed in categories which need less capital to be held as reserves under solvency regulations.

Another interesting avenue which may emerge for actuaries is the opportunity to participate in joint activities or discussions with other professions, on a voluntary basis. There is every reason why our profession should seek to achieve, with the institutes of accountants, corporate treasurers, statisticians or risk managers, the kind of co-operation which has already been achieved with the Institution of Civil Engineers.

Not all actuaries are suited to wider-fields work. For those who are, and who are prepared to develop the necessary skills and expertise, and can work and communicate effectively with other professionals, the opportunities may turn out to be considerable in the years ahead. Our training in risk and finance is applicable to difficult questions in many fields and, even if it is relatively expensive to employ an actuary, I believe that



“Another interesting avenue which may emerge for actuaries is the opportunity to participate in joint activities or discussions with other professions, on a voluntary basis.”

more employers will gradually come to realise that this can represent good value for money. Moreover, unlike many other practitioners, actuaries belong to a professional body which has important ethical values and their advice can therefore be trusted to be objective. I believe that the IFoA will be making a sustained effort to get these messages out to the wider world, with the aid of the recently- published Statement of Actuarial Risk Principles, which can be downloaded at <https://www.actuaries.org.uk/learn-develop/attend-event/ifo-a-launch-event-actuarial-risk-principles>.

Can you help?

There must be many other examples of actuaries who are currently working in wider-fields or who have engaged in wider fields work at some time in the past, not necessarily as a phase in their main career. If you are in this category, Dawn McIntosh at the IFoA would love to hear your story, as it will help to build up an overall picture of the opportunities which may be available. Email: Dawn.McIntosh@actuaries.org.uk

References

- Strachan, T.Y. (1888). “The Accountant and the Actuary”, Lecture to the Chartered Accountants’ Students’ Society of London, 3 April 1888. [Pamphlet in IFoA Library].
- Marks, Geoffrey(1918). Presidential Address, 16th December 1918, *Journal of the Institute of Actuaries* 51 (1918-19), 185-210.
- Menzler, F.A.A. (1925). “The future of the actuarial profession”, *Journal of the Institute of Actuaries* 57 (1926), 88-126.
- Lloyd, Frederick J. (1967). “Statistical background for the planning of extensions to existing underground railway networks”. *Journal of the Institute of Actuaries Students’ Society* (1967) 18 (2): 115-135.
- Gunlake, J.H. (1969). “Menzler, Frederick August Andrew (Memoir)”, *Journal of the Institute of Actuaries* 95 (1969), 177-181.
- Lewin, C.G. (1971). “A Manpower Planning Study”, *Operational Research Quarterly*, Vol. 22 no. 2, June 1971, 99-116.
- Pepper, G.T. and Thomas, R.L (1973). “Cyclical Changes in the Level of the Equity and Gilt Edged Markets”, *Journal of the Institute of Actuaries* 99, 195-247.
- Plymen, J. (1985). “The Actuarial Background to Investment Policy”, *Transactions of the Faculty of Actuaries* 40 (1985-87), 445-489.
- Lloyd, Frederick J. (1997). “Air Force actuary”, *The Actuary*, November 1997: 24-25
- STRATrisk (2006). *Strategic Risk – A Guide for Directors*, 2006, published for the Institution of Civil Engineers and the Actuarial Profession.
- See video at www.stratrisk.co.uk
- RAMP (2014). *RAMP – Risk Analysis and Management for Projects*, 3rd edition, 2014, sponsored by the IFoA and the Institution of Civil Engineers.
- See <https://www.ice.org.uk/knowledge-and-resources/best-practice/risk-analysis-and-management-for-projects> and <https://www.ice.org.uk/eventarchive/risk-analysis-and-management-for-projects>



“For those who are prepared to develop the necessary skills and expertise, and can work and communicate effectively with other professionals, the opportunities may turn out to be considerable in the years ahead”

Financial Reporting Council (2014). “Guidance on Risk Management, Internal Control and Related Financial and Business Reporting”, September 2014.

See <https://www.frc.org.uk/getattachment/d672c107-b1fb-4051-84b0-f5b83a1b93f6/Guidance-on-Risk-Management-Internal-Control-and-Related-Reporting.pdf>

Front-end Issues (2017). *Major Infrastructure Projects: Key Front-end Issues*, published for the IFoA and the Institution of Civil Engineers, 2017.

Can be downloaded at <https://www.actuaries.org.uk/search/site/Major%20Infrastructure%20Projects%20Key>