

Actuary, consultancy

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Job Description

Actuaries are problem solvers, who use their training to analyse and interpret data, create models of the future to assess risks and estimate outcomes. In essence, actuaries make financial sense of the future.

An actuary evaluates outcomes of events by conducting careful studies of similar events in the past, thus assessing probabilities and risk. They traditionally worked in the fields of life assurance and pensions but now work increasingly in other financial areas.

Actuarial consultants provide an advisory service, offering advice to organisations on employees' benefits, such as pension provision. Others provide advice to organisations on assurance matters.

Typical Work Activities

Actuarial consultants advise companies and other employers on aspects of pension arrangements and employee benefits. Some may offer broader management consultancy services including human resource (HR) management, investment, takeovers and mergers, healthcare, corporate finance and risk issues and damages.

Consultants also advise life offices which are too small to have their own actuarial department, or larger assurance companies which need specialist advice on particular problems. Some consulting actuaries advise on:

- the award of damages;
- the apportionment of trust funds;
- the assessment of capital projects;
- health matters, especially with the growth of trusts in The National Health Service (NHS).

Actuaries develop and use their knowledge of economics, accounting, marketing, legislation and business practice. Typical work activities include:

- using mathematical modelling techniques and statistical concepts to determine probability and assess risks;
- explaining the implications of this work to management and advising on risk limitation;
- advising on marketing and administration of pensions and life assurance schemes;
- carrying out actuarial valuations;
- working with IT professionals to develop systems to ensure compliance with the requirements of regulatory bodies;
- supervising staff.

Work Conditions

- Range of typical starting salaries for graduates: £18,000 - £26,000 (salary data collected Autumn 02). Starting salaries will vary according to specialism and location. For example, salaries are likely to be higher in actuarial consultancy in the London area.
- Typical salaries for a newly qualified actuary are in the range £41,000 to £55,000. Salary progression is then dependent upon the individual and their performance and the development of their career path. Senior positions can easily earn in excess of £100,000 (salary data collected Autumn 02).
- Working hours are according to need. Working in actuarial consultancy can involve long hours and occasional weekend work during a crisis or to complete a project. Long hours are less likely for more junior staff, eg student actuaries (graduate trainees) but they will be devoting time towards studying for the professional examinations.
- Self-employment is very unusual. There are a handful of actuaries who have their own actuarial consultancy firms, but most actuaries are employed by large actuarial consultancies.
- Flexible working conditions can be negotiated with some employers, eg part-time work and career breaks.
- Historically the occupation of actuary has been male dominated but this is changing. 85% of UK Fellows are male, whilst 15% are female, but this balance changes with the UK students, where 71% of students are male and 29% are female.
- Actuarial employers are usually located around London and the south east, Bristol and Edinburgh but there are opportunities worldwide. The Faculty of Actuaries and Institute of Actuaries publish a list of employers recruiting graduate trainees.
- Work/life balance is largely down to individual choice. More senior roles can require greater input eg long hours for those who choose to take the route to senior management. The life of an actuarial student is dominated by the professional examinations and in the run up to examinations it may be necessary to reconsider your social commitments.
- There is a professional responsibility to the job of an actuary. Those working in pensions for example have a responsibility for whether or not people can retire and live on their pension. They also have a responsibility to look after the interests of pension members.
- The work of an actuarial consultant is generally office based but there can be some travel to meetings, eg to visit clients. It is also possible to spend part or all of an actuarial career based overseas.

Entry Requirements

Any degree subject is acceptable but most employers prefer graduates from numerate disciplines eg:

- mathematics;
- statistics;
- economics;
- business;
- engineering.

However, graduates from other disciplines with a proven mathematical aptitude will also be considered. The minimum entrance requirement is a grade B at A-level in mathematics or equivalent. Any degree is acceptable. For holders of a second class honours degree or above, the mathematics A-level requirement is grade C. For those with a mathematics or actuarial science honours degree, mathematics A-level is not required. Contact the Institute of Actuaries or the Faculty of Actuaries for precise details of entry standards.

Entry with an HND is unlikely.

For those few who commence training straight from school, a grade B in A-level mathematics and a C in another A-level (or equivalent Highers) are the minimum grades required.

The majority of graduate entrants (including those few with a higher degree) have mainly studied mathematics, actuarial science or statistical subjects but a significant number enter with other - mainly numerate - degrees including physics, the sciences, engineering and economics. The Inside Careers Guide to Actuaries gives details of the employers' minimum academic requirements.

It is possible to study actuarial sciences to degree level at City (London), City (Dublin), University College (Dublin), Heriot-Watt (Edinburgh), Kent, London School of Economics, Southampton, Swansea, Warwick and York. Those who graduate with an upper second class degree or above in actuarial science may be eligible for exemption from the 100 series examinations and thus have the chance to qualify professionally in a shorter time. Oxford and Imperial College Universities have introduced actuarial modules into their mathematics or statistics degrees that offer the opportunity for exemptions.

Prior experience is not necessary but is always helpful. Skills required depend upon the specific area of work:

- good communication skills are important for consultancy, for example the ability to explain complex issues to clients who do not have an actuarial background;
- analytical skills are important as are creative problem-solving skills and the ability to apply skills to new situations and to react swiftly to changes (eg in legislation);
- effective team working is vital;
- for senior positions, the ability to manage is essential;
- IT skills matter too. There can be some programming and writing of spreadsheets for example, although training would usually be provided by the employer.

The road to qualification is long and arduous, so self-discipline and determination are important to cope with the pressure of work and the demand of the professional examinations.

Tips for entry include thorough research. It is important to have a good idea of what the work is about by talking to those in the job and, if possible, trying some work experience. Some companies are also prepared to give a period of vacation experience in the summer to students who are interested in the possibility of an actuarial career. Your careers service should be able to help you with suggestions about possible employers of vacation students. The Institute of Actuaries has regional careers advisers, who are qualified actuaries, available to be contacted for advice. It is also important to consider very carefully the commitment required, especially to complete the training.

There is no age limit for entry, but securing employment and subsequent sponsorship of the professional examinations may prove difficult. Many mature entrants choose to study for one or two of the examinations independently in order to improve their chances of employment. Gaining a position as an actuarial trainee at 40+ is unlikely.

Training

An essential element in becoming a professional actuary is to study, train and qualify to be a Fellow of either the Faculty of Actuaries (Scotland) or Institute of Actuaries (the rest of the UK). Each is of equal status and which of them you choose to qualify for is a matter of personal choice.

Since a large majority of actuarial students carry out their studies whilst in full-time employment, the support of your employer is important. In practice the chances are that if you are in Scotland you will join the Faculty and in other parts of the UK you will join the Institute, but there are Institute members in Scotland and vice versa.

Study leave is given by employers (usually one day a week or equivalent) but additional study, eg evening and weekends, is needed in order to pass the examinations. It is possible to qualify within three years, although the average time is five to six years.

Exemptions can be given from certain papers eg for those with an actuarial science degree or postgraduate diploma/MSc in actuarial science.

Career Development

Once qualified, actuaries can move quite quickly to managerial positions. In a consultancy, this may lead to a partnership with direct responsibility for a range of clients.

The Institute of Actuaries and Faculty of Actuaries encourage qualified members to undertake continuing professional development (CPD) and to keep a record of this. CPD is seen as vital in order to meet the challenges of change and to enable actuaries to enter new areas of work as they wish. CPD is both informal, for example reading papers, and formal through attendance at courses, seminars and conferences. Applicants for senior positions carrying statutory responsibilities are required to demonstrate that they have undertaken appropriate CPD.

Completion of the professional examinations and experience are important for progression into senior roles. Once qualified it is possible to consider moving between areas ie pensions, investment, general insurance.

At present, qualified actuaries are in demand and rewards can be high.

Typical Employers

About 43% of actuaries work in consultancies.

Consultancies provide advice on a wide range of areas, including employee benefits, acquisitions and mergers, corporate recovery and financial capital projects. Many consultancies also provide advice to clients on pension schemes.

The Government Actuary's Department (GAD) provides advice to government and other public sector bodies, for example local government and The National Health Service (NHS). This includes offering advice about occupational pensions.

The GAD is also responsible for producing the official population forecasts for the UK, reports regularly to parliament and monitors the financial condition of life assurance companies on behalf of their regulatory body.

Sources of Vacancies

- Prospects Today;
- Prospects Finalist;
- Financial Times;
- The Actuary;
- The Faculty and Institute of Actuaries List of Actuarial Employers in the UK and Ireland;
- Inside Careers Guide to Actuaries;
- Prospects Directory;
- The Hobsons Directory;
- careers service vacancy lists;
- national financial press.

Related Occupations

- Chartered accountant
- Insurance broker
- Insurance underwriter
- Investment analyst
- Operational researcher
- Pension fund manager
- Risk analyst
- Actuary, insurance company
- Statistician

Information Sources

Bibliography

AGCAS and Graduate Prospects products are available from higher education careers services.

Graduate Prospects Publications

Prospects Directory
Prospects Finalist
Prospects Today

Other Publications

The Actuary, Three Rivers Publishing Ltd, Monthly
Financial Times, Financial Times Group, Daily
TARGET City and Finance, GTI Specialist Publishers, Annual
Hobsons Guide to Careers in Finance, CRAC/Hobsons Publications, Annual
The Hobsons Directory, CRAC/Hobsons Publications, Annual
Inside Careers Guide to Actuaries, Cambridge Market Intelligence Ltd (CMI), Annual
The Faculty and Institute of Actuaries List of Actuarial Employers in the UK and Ireland, Institute of Actuaries, Annual

Addresses

The Association of Consulting Actuaries, No. 1 Wardrobe Place, London, EC4V 5AG Tel: 020 7248 3163
URL: <http://www.aca.org.uk>

Faculty of Actuaries, Maclaurin House, 18 Dublin Street, Edinburgh, EH1 3PP Tel: 0131 240 1300
URL: <http://www.actuaries.org.uk/>

Government Actuary's Department (GAD), New King's Beam House, 22 Upper Ground, London, SE1 9RJ
Tel: 020 7211 2600 URL: <http://www.gad.gov.uk>

Institute of Actuaries, Napier House, 4 Worcester Street, Oxford, OX1 2AW Tel: 01865 268228
URL: <http://www.actuaries.org.uk>

The National Health Service (NHS), Institute of Health Care Management, 7-10 Chandos Street, London, W1M 9DE
Tel: 020 7460 7654 URL: <http://www.nhs.uk>