

Becoming an Actuary

A GUIDE TO A CAREER AS AN ACTUARY Updated: September 2023

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What is an Actuary?

An actuary is a business professional who works on problems that involve financial risk or future uncertainty.

Actuaries use mathematics and data to predict and manage financial risks. They have a real impact in helping individuals, companies, and governments with the financial risks they face. They influence and shape the financial world in different ways.

Actuaries can work in any area that involves future financial uncertainty and hold any position from trainee to CEO and beyond. The actuarial qualification is highly regarded, both nationally and internationally.

Most actuaries work in the financial services sector - including insurance, pensions, healthcare, corporate finance, risk management, investment, and banking – in technical, consulting, and general management roles. To do their work, actuaries use statistical and mathematical techniques to study past events and anticipate future events. Through their education and training, actuaries develop strong analytical skills together with a thorough knowledge of financial theory, economics and the legislation and regulation that applies to financial services.

If you are interested in pursuing an actuarial career, we recommend that you discuss it with an actuary. who should be able to answer any questions that you may have. Alternatively, by contacting the Society (info@actuaries.ie), we can put you in touch with a qualified actuary. Career guidance videos for the actuarial profession are available at https://web.actuaries.ie/about/sohow-can-i-become-actuary/careerquidance-videos. For a further insight, there are interviews with actuaries involved in different practice areas available to read at https://web.actuaries.ie/students/me et-actuary-interviews

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Where do Actuaries Work?

Life Insurance:

Actuaries are well established within the life insurance industry and are involved in many different areas including:

- product development,
- pricing,
- risk assessment,
- financial reporting,
- governance and
- marketing.

Life insurance actuaries also work as consultants providing professional services.

General Insurance:

The general insurance field continues to evolve, covering a wide variety of products. These range from the more traditional fields of motor and home insurance to new fields such as cyber insurance. General insurance actuaries work insurance and reinsurance companies, consultancies and broking operations in roles including pricing, reserving and financial modelling.

Investments:

Investment management has been a growing industry for actuaries in recent years. Actuaries' skills in identifying, analysing, and mitigating risk are ideally suited to the fastpaced world of investments. Actuaries are involved in analysing investment portfolios, buying and selling assets and managing portfolios of stocks and shares.

Pensions:

Pension actuaries work with other specialists to help pension schemes meet the needs of trustees, employers, and scheme members. The typical work undertaken by a pension actuary includes advising on funding, investment, scheme design, accounting for pensions, managing risk, corporate transactions, and individual benefits.

Wider Fields:

A growing number of actuaries are expanding into business areas such as data analytics, aviation finance and wider fields beyond financial services, where their analytical and risk management expertise add considerable value. 3

Why Become an Actuary?

Diverse practice areas:

Actuaries work in a variety of roles across a wide range of employment sectors including insurance, investments, corporate finance, banking, healthcare, aviation finance and risk management. As the skillsets of the actuarial profession are increasingly recognised and valued, actuaries continue to branch out from the traditional areas of practice.

A healthy work life balance:

An actuarial career allows the flexibility to balance professional obligations with interests outside of work. Many companies offer a hybrid work option allowing actuaries the flexibility to balance work and personal life even more.

Earning potential:

Salaries and employee benefit packages are generally very competitive, and the actuarial profession is regarded as one of the highest paid professions. The actuarial market is growing and expanding into new industries. This trend provides actuaries with even better job prospects and earnings potential.

Intellectual challenge & satisfaction:

Working as an actuary is an intellectually rewarding career. Actuaries combine technical analysis, commercial awareness, and expert judgement to solve complex problems, answer challenging questions, and bring lucrative opportunities to fruition.

Opportunity to work overseas:

Actuarial skills can take you anywhere in the world. The Society of Actuaries in Ireland has a number of mutual qualification recognition agreements in place with actuarial bodies around the globe. This allows you to practice as a fully qualified actuary in any of these countries under your existing qualification awarded by the Society of Actuaries in Ireland.

Professional influence & integrity:

Applying their unique skills, actuaries are often involved in formulating strategies, developing policy, and shaping opinion at the highest levels of politics, commerce, and academia. Actuaries maintain the highest professional standards and are widely recognised for the ethical, professional, and trustworthy way they conduct their work. 4

How to become an Actuary?

It is worth noting that to qualify as an actuary a university degree in actuarial science is not essential, although many of the subjects taught under such degrees are of significant benefit to an aspiring actuary.

Employers are open-minded when it comes to the specific university degree obtained when considering candidates for actuarial positions. However, numerate degrees such as actuarial science, mathematics, statistics, economics, engineering, chemistry, or physics are more suited to the type of work that actuaries do, and so better prepare students for an actuarial career.

Some universities in Ireland have accreditation or exemption arrangements in place with the IFOA. Where this arrangement is in place, exams completed under these university degrees may exempt you from some of the professional exams required to qualify as an actuary with the IFOA dependent on the grades achieved. See table on following page for list of universities offering actuarial courses. Further information on the exemptions available for specific degree courses can be obtained directly from the relevant university faculty overseeing the degree. It is worth being aware of which degrees offer exemptions as this can save time in studying for exams. It is also worth considering if the degree offers any work placement.

To qualify as an actuary, students must complete several actuarial exams and meet the Personal and Professional Development (PPD) requirements. There is no Irish-specific examining body. Therefore, most Irish students qualify through the professional examinations and experience requirements of the Institute and Faculty of Actuaries (IFOA), based in the UK.

Full details of the actuarial exams are available on the IFOA website (<u>www.actuaries.org.uk</u>) in their 'Becoming an Actuary Guide'.

Typically, a student works as an actuarial trainee in a professional environment and studies for the exams in his or her spare time. Employers generally provide support for actuarial trainees in the form of paid study leave, membership of the IFOA and the Society of Actuaries in Ireland, on-the-job training, and support for study materials.

University Education

Details of some of the actuarial science and other relevant degrees including master's degrees aimed at graduates of non-actuarial courses available from Irish universities are as follows:

| University | Course Title | Faculty / School |
|--|--|---|
| University College Dublin | - Actuarial and Financial Studies - MSc Actuarial Science | School of Mathematics and Statistics |
| Dublin City University | - Actuarial Mathematics | School of Mathematical Sciences |
| University College Cork | Financial Mathematics and Actuarial Science MSc Actuarial Science | College of Science Engineering and Food Science |
| Queen's University Belfast | - Actuarial Science and Risk Management | Queens University Management School |
| National University of Ireland, Galway | - Financial Mathematics and Economics | College of Science / College of Arts |
| University of Limerick | - Financial Mathematics | Department of Mathematics and Statistics |

Skills/Traits for Aspiring Actuaries

- Critical thinking and problem-solving skills
- Interest in mathematics
- Effective communication skills
- Strong analytical skills.
- Attention to detail.

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• Interest in programming languages.

These are skills that actuaries will develop with their studies and professional experience. These skills help actuaries to navigate the challenges and excel in their career.

6 Society of Actuaries in Ireland

The Society of Actuaries in Ireland is the professional body representing the actuarial profession in Ireland.

The Society:

- Establishes and maintains professional standards, for the protection of the public.
- Regularly organizes meetings with guest speakers, professionalism courses, workshops, personal development training.
- Creates forums for discussion about contemporary and relevant issues.
- Promotes research and development of actuarial science.
- Makes informed contributions to the debate on issues of public interest.
- Publishes a Newsletter, regular eNews bulletins, blogs and other updates to keep members informed.
- Provides a member support service where student actuaries can receive advice and talk with a mentor.

Student Society - Society of Actuaries in Ireland

All students of the Society are automatically members of the Society's Student Society and receive emails about social events, tutorials, and other student matters.

As a member of the Society, you are entitled to apply for a Student Travel Card. This gives great discounts on rail travel, cinema tickets and student discounts in many shops. This card can be obtained by visiting any Student Leap Card agent.

Attending student events is the best way to meet other actuarial students. The student society organises social events throughout the year including Student and Recent Qualifiers Ball, Table Quizzes etc.