



Becoming an Actuary

A GUIDE TO A CAREER AS AN ACTUARY Updated: September 2019



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About Actuaries

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

Actuaries can work in any area that involves future financial uncertainty and can hold any position from trainee to CEO and beyond.

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.

Their work includes:

- Calculating an appropriate price for insurance contracts
- Advising insurance and pension companies on how to invest so that they can make payments to customers when they fall due (which might be many years from now)
- Advising on the amount of savings needed in order to have a comfortable retirement
- Developing mathematical and financial models to help companies understand and manage their risks

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.

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.

The actuarial qualification is highly regarded, both nationally and internationally. As an actuary's career progresses, so too do the opportunities for a variety of intellectually and financially rewarding career paths, from specialising in technical research to focusing on more commercial activities.

The actuarial profession is an ethical profession with the highest standards of practice.

To become an actuary, you need to be hard working, confident with numbers and prepared for many years of study. However, if you enjoy problem solving and communicating your solutions to others, there are few careers with more to offer.

Why become an actuary?

There are many reasons why becoming an actuary is an attractive career.

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.

Earning potential

Salaries and employee benefit packages are generally very competitive, and the actuarial profession is regarded as one of the highest paid professions.

Intellectual challenge

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.

Intellectual satisfaction

Actuaries are problem solvers, conscious of emerging trends and issues, through their interpretation of statistical data and knowledge of social and economic systems.

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

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.

Professional integrity

Actuaries maintain the highest professional standards and are widely recognised for the ethical, professional and trustworthy manner in which they conduct their work.

A healthy work life balance

An actuarial career allows the flexibility to balance professional obligations with interests outside of work

Where do actuaries work?

Actuaries are involved in a diverse range of fields all over the world.

Over time, actuaries have been recognised for their wide range of skills and competencies. These skills include strong technical ability, sound judgement and effective communication. As such, actuaries have become involved in new and emerging sectors of the market whilst maintaining a strong presence in the more traditional fields of actuarial science. Even within the traditional practice areas, actuaries work in a wide variety of roles.

The categories below describe longstanding areas of employment for actuaries.

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. As well as life insurance itself, the life insurance sector incorporates other areas such as pensions, critical illness and income protection. Life insurance actuaries also work as consultants providing professional services in relation to the products above.

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 in many different types of companies such as 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. This can be attributed to the fact that actuaries' skills in identifying, analysing and mitigating risk are ideally suited to the fast-paced world of investments. Actuaries are typically 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. As schemes will be affected by the investment market, changing legislation and regulation, an actuary will be on hand to provide specialist advice. The typical work undertaken by a pension actuary includes advising the scheme trustees and companies on funding. investment, scheme design, accounting for pensions, managing risk, corporate transactions and individual benefits.

Actuarial Exams

To qualify as an actuary, students must complete a number of exams.

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, based in the UK.

The exams are held twice a year – once in the spring and again in the autumn. You may sit the exams in whatever order you choose.

On average, it takes 3 to 6 years to complete the exams, depending on the extent to which you can claim exemptions from certain subjects based on relevant third-level qualifications.

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 Institute and Faculty of Actuaries and the Society of Actuaries in Ireland, onthe-job training and support for study materials.

Full details of the actuarial exams are available on the Institute and Faculty of Actuaries website (www.actuaries.org.uk) in their 'Becoming an Actuary Guide'.



There are a number of routes you may take to qualify as an actuary.

As the future of the actuarial profession, actuarial students are highly valued. Actuarial students in Ireland are typically members of both the Society of Actuaries in Ireland, and the Institute and Faculty of Actuaries in the UK.

The actuarial profession has undergone many changes over the past number of years, including an updated exam syllabus introduced in 2019.

University Education

In the past, many actuaries began their careers from secondary school, working as interns in the larger insurance companies while simultaneously studying for the actuarial exams. However, in recent times the trend has been for school-leavers to attend university before applying for a graduate actuarial trainee position.

Details of some of the actuarial science and other relevant degrees - including master 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

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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.

In certain instances, universities in Ireland have accreditation or exemption arrangements in place with the Institute and Faculty of Actuaries in the UK. 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 Institute and Faculty of Actuaries.

Further information on the exemptions available for specific degree courses can be obtained directly from the relevant university faculty overseeing the degree.

Certified Actuarial Analyst (CAA)

This membership level of the Institute and Faculty of Actuaries gives a professional qualification to those who are interested in working in the financial sector but do not want to complete the full actuarial qualification. Further details of the CAA qualification are available on the Institute and Faculty of Actuaries website (www.actuaries.org.uk)

Associate

Students who become Associate members of the Institute and Faculty of Actuaries can describe themselves as an actuary. They are then entitled to apply for Associate membership of the Society of Actuaries in Ireland and can use the designatory letters ASAI.

As an actuary and an Associate, you will have a breadth of expertise that brings wide and varied career opportunities. Associates have the right to vote on matters affecting the future of the profession and the opportunity to be involved in membership forums, events and research.

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To become an Associate you must complete the Core Principles modules (CS1-2, CM1-2, and CB1-3), the Core Practices modules (CP1-3) and one year's worth of Personal and Professional Development (PPD) requirements. You will also be required to complete the Online Professional Awareness Test (OPAT) and attend a professionalism course. To transfer to Associate membership of the Society, participation in a Graduation Programme organised by the Society of Actuaries in Ireland will be required.

Fellow

Members of the profession who wish to continue their studies to an advanced level, or who wish to specialise in a particular actuarial field, may take further specialist exams to qualify as a Fellow. Fellows are highly sought after as experts in their chosen field.

Members will be admitted to the class of Fellow on successful completion of the Associate modules (Core Principles and Core Practices subjects), two of the Specialist Principles modules (SP0-9) and one of the Specialist Advanced modules (SA0-6).

Members must also have met the Personal and Professional Development (PPD) requirements and fulfilled the required professionalism training. These members will be eligible for Fellow membership of the Society of Actuaries in Ireland once they have participated in the Society's Graduation Programme.

The Society hosts Fellowship Ceremonies to celebrate the successful completion of the actuarial exams and confers new qualifiers with Fellowship of the Society of Actuaries in Ireland. Fellows can then use the designatory letters FSAI.

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CERA – Chartered Enterprise Risk Actuary

CERA is a global risk management qualification awarded to members of the profession who meet certain criteria. It is one of the most comprehensive and rigorous enterprise risk management qualifications available. It aims to address the urgent need for highly qualified risk management professionals worldwide, especially in the financial sector.

CERA is designed to equip actuaries to fulfil roles such as Chief Risk Officer (CRO) in fields such as insurance, reinsurance, consulting, energy, infrastructure, transport, manufacturing, technology, media and healthcare.

Importantly for complex financial institutions, CERA considers individual risk categories and how they interact. The qualification requires understanding of how to measure, model and manage risks, and how capital can be best applied.

There are two ways in which members of the profession can be eligible to receive the CERA qualification:

- become an Associate member and pass SP9, the Specialist Principles module in enterprise risk management;
- become a Fellow member and have passed SP9 as one of your SP modules for Fellowship or as an additional SP subject;

Attendance at a CERA seminar to enable investigation and discussion of more practical applications of enterprise risk management is also required.

Society of Actuaries in Ireland

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

The Society is dedicated to serving the public by fostering the highest standards of professionalism and competence in actuarial practice.

The Society:

- establishes and maintains professional standards, for the protection of the public
- provides continuing professional education
- 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 and Practice Committee Updates to keep members informed

The Society regularly organises meetings at which a member, or guest speaker, presents for discussion on a topical or academic issue. Professionalism courses, practice committee forums, seminars, workshops, personal development training and an annual convention are also organised by the Society. All of these events form part of the Society's Lifelong Learning Programme.

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 the Student Union Office in Trinity College Dublin (TCD). New Society students should bring along a copy of their Society membership acceptance letter together with photographic ID.

Attending student events is the best way to meet other actuarial students.

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, we can put you in touch with one of our Fellow members from the Careers Panel.

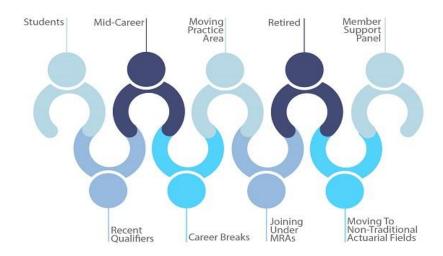
Society of Actuaries in Ireland

Member Support Service

Throughout the path to becoming an actuary, students are encouraged to take advantage of our Member Support Service. This is a group of recently qualified actuaries who provide students with mentoring and support as they study for the exams. This is a flexible service, and the mentee may decide if it involves one meeting or phone call with a mentor, or if periodic meetings over a more extended period might be preferable.

This 'buddy system' is a great opportunity for students to be partnered with a recent qualifier. The idea is for the mentor to provide guidance on study and work-related issues to those who are working through the exams. In being paired with a recent qualifier, the student will have the dual benefit of learning from someone who has successfully balanced work and study in order to qualify, but who also still recalls the specific challenges of being a student actuary.

Member Support Service



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