Actuarial science applies mathematical and statistical methods to assess risk in the insurance and finance industries, determine the premium of insurance plans and pension plans, minimize risk, maximize returns, and ensure sufficient funds to pay claims.

**Trends**
With its work environment, relatively low stress, and strong hiring outlook, actuary is frequently rank as a top job by publications such as US News and World Report and CNN Money. Employment of actuaries is projected to grow by 26% through 2022, which is much faster than average. It is a small occupation, however, and there can be a lot of competition for entry-level jobs.

**Education & Training**
Actuaries typically need a bachelor’s degree in math, statistics, or actuarial science. Successful completion of coursework in Calculus, Differential Equations, Linear Algebra, Probability, Statistics, Finance, Accounting, and Economics is important. Finally, regardless of the degree obtained, the ability to pass actuarial exams determines eligibility to enter the profession. If you are able to pass one of the preliminary exams, you will indicate to potential employers that you have the aptitude, interest, and commitment to be an actuary.

**Tips for Breaking In**
There are several tips for building a career in actuarial science. Participate in extracurricular activities to gain teamwork and leadership skills. Investigate internships or summer or part-time job opportunities, as these positions offer on-the-job experience and are a good way to see whether you’re suited to an actuarial career. Learn about the actuarial examination system and review the practice exams. Begin taking the exams with the goal of passing at least one exam before you graduate.

**Licenses & Certifications**
Actuaries in the U.S. and Canada achieve professional status by passing a set of difficult examinations prescribed by the Casualty Actuarial Society (CAS) or the Society of Actuaries (SOA). Most individuals begin taking the exams prior to graduation, via self-study or courses. Most actuaries begin work in the field before having completed all of the exams, and many employers support employees in completing the exams. The two levels of certification (Associate Level and Fellow Level) take about 3-10 years to attain. The SOA offers required and elective self-study courses.

**Earnings**
The median salary (2014) for actuaries was $96,700 with an overall pay range from $55,780 to $175,330.

**Types of Employers**
- Insurance Companies
- Financial Institutions/Services
- Computer Software Companies
- Government Agencies
- Consulting Firms
- Public Relations Firms

**Example Employers**
- The Hartford
- AXA Equitable
- Blue Cross and Blue Shield
- Wachovia
- Allstate
- Liberty Mutual
- Travelers
- Nationwide
- Towers Watson
- Mercer
- Aon Hewitt
- Milliman
- The Travelers Companies, Inc.
- Nationwide Insurance Company
- ISO
- PricewaterhouseCoopers

**Desirable Qualities, Interests, and Skills**
- Computer skills including standard statistical analysis software (SAS)
- Strong background in mathematics/calculus and general business, finance, and statistics; knowledge of accounting and economics
- Analytical and problem solving skills
- Strong oral and written communication skills
- Self-motivation, creativity, independence, and ambition
- Ability to work with others or independently

**Websites**
- Be An Actuary | [www.beanactuary.org](http://www.beanactuary.org)
- American Academy of Actuaries | [www.actuary.org](http://www.actuary.org)
- Society of Actuaries | [www.soa.org](http://www.soa.org)
- Casualty Actuarial Society | [www.casact.org](http://www.casact.org)
- International Association of Black Actuaries | [www.blackactuaries.org](http://www.blackactuaries.org)
- Conference of Consulting Actuaries | [www.ccactuaries.com](http://www.ccactuaries.com)
- Actuary.com | [www.actuary.com](http://www.actuary.com)

**Sample Job Titles**
- Actuary Trainee
- Consulting Actuary
- Associate Actuary
- Actuarial Analyst
- Chief Actuary
- Associate Actuary, Projection Modeling
- International Actuary
- Senior Pension Administrator
- Actuary
- Healthcare Actuary
- Senior Actuary

*Job market, salary, and other information on the How to Get a Job In... series is from O*Net Online and the Bureau of Labor Statistics’s Occupational Outlook Handbook.*