CAREER IN ACTUARIAL SCIENCE

Usha Albuquerque & Nidhi Prasad

Actuaries are experts in evaluating the likelihood of future events using numbers, not crystal balls.

If you enjoy Playing with numbers and Analyzing data, interpreting statistics and you are ambitious, then a career in Actuarial Science might be just what you are looking for. A choice that promises a successful career and a handsome salary.

Actuarial science is the discipline that applies mathematical and statistical methods to assess risk in insurance, finance and other industries and professions. Actuarial Science as a field is all about analysis, computation, logic and data. From designing insurance policies to solving business problems, Actuaries are in demand.

A course in actuarial sciences equips you to scientifically assess risk in various fields, but mainly in insurance, business and finance. Actuaries are an important component of risk-assessment as well as risk-management for any organization. They use various statistical, mathematical and computational methodologies to give their assessment. Some of the job responsibilities of this job profile in life and general insurance business include designing and pricing of policies, monitoring the funds, recommending fair rate of bonus where applicable, insurance risks like legal liability, loss of profit, etc

Actuaries are professionals trained in this discipline. An actuary is a business professional who analyzes the financial consequences of risk. Actuaries use mathematics, statistics, and financial theory to study uncertain future events, especially those of concern to insurance and pension programs. Actuarial science is one of highly paid profession.

What Actuarial Scientist Do?

If you have a car, you would have car insurance. How old are you? How old is your car? With every successive year, as the car ages, the value of the car also goes down. How does the rising price of petrol affect the usage of the car? What is the popularity with thieves, cost to repair etc. All these and more factors are considered by an Actuary.

Actuaries analyze different types of data to calculate and manage risk. They, thus, help companies form efficient policies by protecting themselves from uncertain and undesirable future events. Actuaries are required in any field where risk is involved, including banking, insurance, healthcare, and even non-financial areas.

Their ability to analyze data to understand risk makes them especially useful in the field of Insurance. Actuaries are the masterminds behind insurance policies. They analyze facts, figures, and trends to formulate various insurance programs.

The work responsibilities of Actuaries include the following:

- Designing financial policies and monitoring if there are enough funds in the company.
- Determining the rate of interest to be given to customers for insurance policies.
- Keeping a check on insurance risks to minimize losses.
- Predicting the occurrence of various illnesses such as heart disease, cancer, etc., among different groups, to incorporate these risks when designing insurance policies.
- Assessing risk for the financial planning of the company.

An actuary in India works in the following fields:

- Life Insurance
- General Insurance
- Health Insurance
- Reinsurance Companies
- Pension Funds
- Consultants
- Investments
- Government
- Academics
- Risk Management

The role that an actuary can perform in each of these sectors can be quite varied, such as product pricing, financial modelling, valuations, risk management, carrying out peer reviews, designing social security schemes, advise on the premium to be charged etc.

Continued on page 30

CAREER IN ...

Continued from page 1

How to become an Actuary? What you need to do to pursue a career in this field?

Here are the steps to become an Actuary in India:

The Institute of Actuaries of India (IAI) regulates the education & training of actuaries in India. When a student becomes a member of IAI by clearing the ACET exam Following are the eligibility criteria to become an actuary:

1. Take up Commerce with Maths or PCM after class 10th. - Actuarial Science as a field is all about data, numbers and statistics. Thus, it is very important to have a strong hold on Mathematics and Statistics to make a successful career in it. Commerce with Mathematics or Science with Mathematics (PCM) are recommended streams
2. Pursue your graduation in Maths, Statistics or B.Com or Actuarial Science or Those who have completed their post graduation in these subjects are also eligible for admission. Engineers in any discipline and those who have completed CA/ CS/CWA/ MBA (Finance)/MCA are also eligible to get admission to a course in Actuarial Science. There is no specific eligibility requirement for graduation, but B.Sc Mathematics and B.Sc Statistics are recommended courses. They will allow you to form a strong base in mathematics, probability concepts, analytical and problem-solving skills, and statistics, which all form the foundations of Actuarial Science.
3. Take the Actuarial Common Entrance Test (ACET)- The first step to becoming a member of the Institute of Actuaries of India (IAI) and becoming a practising Actuary is to clear their entrance exam - Actuarial Common Entrance Test (ACET). You can appear for the entrance just after your class 12th or even if you are a graduate/postgraduate.
4. There are other courses as well, ones that allow you to work in this field directly, including B.Sc. (Actuarial Science) and M.Sc (Actuarial Science). You can start working directly after these courses; however, it is advisable to clear Actuarial Science levels too.
5. Clear Actuarial Science Stages - There are 15 papers in all divided into four stages. One is required to clear all the papers (9 in total) from Core Technical, all 3 papers from Core Application, any 2 (out of 8) from Specialist Technical (ST) and any 1 (out of 6) from Specialist Application. After clearing all the papers in the first two stages, the candidate becomes an Associate and after clearing all the papers in all four series the Associate gets Fellowship status.
6. Since Actuarial Science is a professional course, you are required to clear different examinations/ stages to pursue this field. These are written as well as practical exams conducted by the IAI. There are no regular colleges or classes for this course, only examinations that you are required to clear.
7. Once you clear the first two stages, you are termed an Associate with the IAI. On clearing all 4 stages, and acquiring 3 years of experience, you become a Fellow. As a fellow, you can pursue further studies and research in the field.
8. Fully qualified members of professional bodies such as:

- The Institute of Chartered Accountants of India
- The Institute of Cost and Works Accountants of India
- Certified Institute of Financial Analysts of India
- Fellow of Insurance Institute of India

Exemptions from the ACET Exam

You can be allowed to skip the ACET exam in a few cases.

The Institute of Actuaries of India (IAI) has a mutual agreement with a few international actuarial bodies that allows students who have passed at least 3 subjects from these bodies, to skip the ACET exam altogether. These bodies include The Institute and Faculty of Actuaries (IFoA), UK; Casualty Actuarial Society and The Institute of Actuaries of Australia. Students in India prefer to apply for the IFoA as the papers offered are relatively easy, although the minimum pass percentage and the cost for taking exams are much higher.

SKILLS REQUIRED - Actuarial Science is not an easy route to follow, and the process of becoming an Actuary is long. So before you take the leap into this career, you should check whether you possess certain important skills or not.

You Should Pursue this Career if:

- You are able to work with numbers efficiently.
- You have a strong hold on calculus, statistics and probability concepts.
- You have strong analytical skills.
- You are comfortable dealing with huge amounts of data.
- You can work for long durations at a stretch.
- Actuaries are expected to be good at mathematics, statistics and possess good modeling skills.
- A very sound and thorough understanding of the business environment, economics, financial markets and accounts is a must.
- One should be equipped with good computer and communication skills.

SCOPE: Career Opportunities in Actuarial Science in following sectors

- Insurance Sector
- Business Sector
- Banking and Financial Services
- Health and Medical Sector

Actuarial Science is one of the most popular courses among those who have a knack for numbers, statistics and data. It is a field with immense scope if you have the right set of skills and analytical abilities.

You can work in multiple areas in both private and government sectors. Within the field of insurance, you can work in different areas, such as health insurance, vehicle insurance, life insurance, employee retirement and benefit plans, general insurance, etc. Besides insurance companies, one can work in Pension and Benefits firms.

An MBA in Insurance or Actuarial Science will give the expertise to manage insurance and risk projects and ensure their smooth functioning. One can even work as a consultant and advice companies in multiple areas such as life insurance, taxation, employee benefits, risk management, investment, etc.

SOME OF THE COLLEGES OFFERING COURSES IN ACTUARIAL SCIENCE

- Institute of Actuaries of India, Mumbai
- Christ University, Bengaluru (M.Sc Actuarial Science)
- Bishop Heber College, Tiruchirappalli (B.Sc. Actuarial Mathematics Science)
- Birla Institute of Management and Technology, Greater Noida (PGDM Insurance Business Management)
- AMITY School of Insurance and Actuarial Science, Noida
- University of Madras

Most people don't go into the actuarial profession without the intention to become a fully qualified actuary. The actuarial analyst job is a stepping stone on that journey. So, really, you have to think about whether a career as an actuary is right for you. You need to be goal oriented and persistent. Getting through all the actuarial exams can be quite a long and difficult process. It is one of the most difficult courses. As the scope of actuarial work has expanded tremendously, it has become all the more important to keep one-self upgraded on the latest calculating techniques and tools. All life insurers, reinsurers, actuarial consulting firms and general insurers are the leading employers. There are a few KPO/ BPOs, which are providing actuarial services to their clients abroad; they also recruit actuarial talent.

(Usha Albuquerque is Director and Nidhi Prasad is Senior Counseling Psychologist at Careers Smart, New Delhi) E-mail: careerssmart online @gmail.com

Views expressed are personal.