Actuary

**Industry Demand of Actuary**

* Insurance → Health and care, life insurance, general insurance, pensions
* Consultancy → Independendent contractor (business owner) instead of an employee
* Finance and investment → Risk management, investment management, banking, corporate finance

Employment of actuaries is projected to grow 18 percent from 2019 to 2029, much faster than the average for all occupations. As the world moves into the era of machine automation, the demand for insurance and protection will increase because society will be exposed to new risks. And this is where actuaries are most needed, as their main responsibility is to develop, price, and evaluate a variety of insurance products and calculate the costs of new, emerging risks.

**Salary (Range)**

* Entry Level Salary in the United States: $56,000 /year
* Mid Level Salary in the United States: $80,000/year
* Entry Level Salary in Indonesia: Rp 84,000,000/year
* Mid Level Salary in Indonesia: Rp 200,000,000/year

**Core Tasks**

* Collect and compile statistical data for additional analysis on the probability of an event occurring (risk) and the potential financial consequences of the risk
* Estimate probability and likely cost of events such as an accident, death, natural disaster or sickness
* Design, test, and administer policies to minimize risk and maximize the profitability of insurance policies, pension plans, and to produce charts and other exhibits to explain proposals and calculations
* Explain proposals and findings to various parties, from company executives to clients, shareholders, and government officials.

**Working Conditions**

Actuaries work mainly for insurance and finance companies, in an office setting. If working for a consulting firm, an actuary may need to travel to client offices.

**Skills Required**

* Analytical skills
* Computer skills (programming languages, spreadsheets, and statistical models)
* Communication and interpersonal skills
* Problem-solving
* Math skills (calculus, probability, statistics)

**Career progression data**

* Earn a bachelor’s degree in mathematics, actuarial science, or business. Coursework in statistics, economics, computer science, calculus, and corporate finance provide an excellent foundation for actuarial exams and entry-level jobs.
* Pass at least one or two of the initial actuary exams needed for professional certification before graduation.
* Start out as a trainee and prepare for the exams.
* After 4-6 years, earn the associate-level certification and after an additional 2-3 years, earn the fellowship status from either CAS or SOA.
* Complete continuing education requirements (usually training seminars).

**Possible University Major**

* Actuarial Science
* Statistics
* Mathematics
* Business Administration
* Finance
* Economics

**School subjects required**

* Mathematics
* Business
* Finance
* Economics