

Actuarial??

Actuarial Practice - Introduction¹

Professor Benjamin Avanzi



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- 1 What is an actuary?
- 2 What do actuaries do?
- 3 References

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What is an actuary?

- Being an actuary is being part of a profession
- The role is so multi-faceted, that it is hard to define
- One way of approaching the challenge is to discuss:
 - • The sort of techniques they use
 - • The sort of areas / industries they work in
- We will use both angles to answer the question
- Also, take some time to browse the website Be an actuary, which is very well done

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What do actuaries do?

- Traditionally actuaries have first worked in life insurance, and the technical side of this introductory course focuses on this as an example
- Today there are a number of established areas of practice, but actuaries work in all sorts of other, “non-traditional” areas

2 What do actuaries do?

- Actuarial techniques *← blue*
- Actuarial practice *← green*
- Future of the profession

Actuarial techniques

blue

The idea is simple: the origins of actuarial work were in life insurance, which included two major aspects:

- long durations: hence the time value of money;
- uncertainty: we did not know when people would die.

Some of the earliest actuarial work was pioneering on those two dimensions.

We will learn about both, then combine them into the valuation of contingent payments, that is, payments that happen in the future **if** something happens (with a probability we assume we can describe). Finally, we will use this to discuss how simple life insurance products are priced and managed.

2 What do actuaries do?

- Actuarial techniques
- Actuarial practice
- Future of the profession

Actuarial practice

The idea is simple: as hinted above actuaries essentially deal with

- money;
- uncertainty.

Some of the jobs actuaries do are called “traditional” (typically related superannuation and insurance), but the actuarial skillset is useful anywhere those two elements are involved. We will touch on a number of those in this component of the course.

The Australian Actuaries Institute website lists the following practice areas:

- Climate Risk
- Data Analytics
- General Insurance
- Health
- Life Insurance
- Risk Management
- Superannuation and Investments

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The list and grouping changes regularly - we'll touch on most of those in the "Actuarial Practice" component of the course.

2 What do actuaries do?

- Actuarial techniques
- Actuarial practice
- Future of the profession

Future of the profession

- What are the immediate issues / opportunities / open questions in relation to the actuarial profession? What are the next big themes?

This article from Actuaries Digital touches on some of those:

- Changing work: data, dynamic, prevention, technology
- Climate change: not just physical risks, but also transitional risks (e.g. to a low carbon future)

(Hayne)

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References

Atkinson, M. E., and David C. M. Dickson. 2011. *An Introduction to Actuarial Studies*. 2nd ed. Edward Elgar.