



SOCIETY OF ACTUARIES

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Readers respond

“What is an actuary?” The long, the short, the humorous

by David M. Holland
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In the March issue of *The Actuary*, I asked what definitions you use when asked, “Just what is an actuary?” Judging by the number and speed of responses, this must have touched a sympathetic chord.

My question stemmed from two reports in the news media. One decided to call us accountants rather than try to explain what an actuary is. The other expressed overwhelming boredom with a definition the writer heard. So I asked for definitions of sound-bite length as well as more formal ones, and readers of *The Actuary* rose eagerly to the task.

Tom Reese, Harish Pawagi, and Daisy Ilagan said actuaries are “insurance mathematicians.” This is concise and communicates well. In fact, the German word for actuary (*Versicherungsmathematiker*) can be literally translated as “insurance mathematician.” Some may argue that this definition meets a sufficient condition, but not a necessary one. In other words, actuaries are involved in a lot of areas beyond pure insurance.

“An actuary is a professional trained in financial modeling and management, often working in insurance, pensions, or investments.”

Link Richardson suggested that an actuary is a “financial engineer,” and Brian Stricker said, “We are the engineers of financial security.” The concept of the actuary as an engineer

makes sense. An engineer is a responsible professional who practices in the applied sciences. The term “financial”

精算師

“Accurate calculating master”

is broad enough to cover insurance as well as benefit plans, health coverages, annuities, investments, and other areas in which we work.

Eric Klieber defined an actuary as “a professional expert in determining the current value of future contingent cash flows and applying this knowledge in insurance, finance, and other business areas.” Kenneth Faig said an actuary is “a mathematically trained professional who designs or evaluates products and services involving uncertain future events.”

Duncan Ferguson, president of the Institute of Actuaries, also has been concerned over how to describe the actuarial profession. For its 150th anniversary next year, the Institute has selected as its theme, “Actuaries Make Financial Sense of the Future” (see story, page 11).

The concept of risk appeared in many definitions. David Kerr of Australia sees an actuary as a “financial risk manager.” Wes Carver said, “An actuary is a professional trained to identify, evaluate, and respond to financial risks.” Denis Loring defined an actuary as “a business executive specially trained in the mathematics of risk.” Adrian MacKaay said an actuary

is “a financial risk specialist,” and Kip Headley said “someone who analyzes risk.” David Godofsky’s definition was “a mathematician who studies financial risk.” Willis B. Howard said an actuary is “someone who understands risks and their financial implications ... (and can also explain how risks should be considered in financial decisions.” Al Klein said, “An actuary studies complex financial and business-related risks and recommends appropriate solutions to management.” Bob Gabriel said, “An actuary is a professional trained in mathematics who evaluates insurance and other business risks.” Tom Hochstedler sees the actuary as “someone who assesses a company’s risks and liabilities in order to help management make profit-making decisions.”

Some people saw the actuary as a soothsayer who can use mathematical tools to look into the future. George Hogeman defined an actuary as “one who quantifies the future,” and Steven Altschuld said an actuary is “a professional estimator of future finances, populations, hazards, and events.” Elliott Weinstein considers an actuary to be “a professional who uses technical and business skills to predict insurance and other financial risk.”

To me, the most poetic definition is the Chinese word for actuary. This word consists of three characters, which interpreted individually say “accurate calculating master.” When I’m thinking about this topic pragmatically rather than poetically, I lean toward the short definitions for “actuary” such as “insurance mathematician” or “financial engineer.” (The latter label is part of a title for an SOA annual meeting session, “Financial Engineers: Who Are These Guys?”) Speaking with non-

actuaries, I might use, “An actuary is a professional trained in financial modeling and management, often working in insurance, pensions, or investments.”

With respect to humorous definitions, my own submission (although not necessarily original) would be “the Wizard of Odds.” Grady Catterall said an actuary is “someone who figures the cost of something that hasn’t happened yet.” Alice Underwood, Courtney White, and Chris Rose all identified actuaries as bookies. Alan Pennington identified actuaries as people who didn’t get enough exams in college. Dan Arnold’s wife said an actuary is

An actuary is a “Wizard of Odds.”

“a knight in shining armor who jousts with risk.” Bruce Jones identified actuaries as “the brains behind the insurance products.” Keith Passwater said an actuary is “a risk engineer, architect, wizard, magician, financing expert, and master of contingent events.” Rich Wright coined the word “ecountant” to signify the actuary as a combination of economist and accountant. David Lipkin said “an actuary is the professional who

should be around when money and probability collide.”

Finally, Jeffrey Smith said, “An actuary’s job is to make sure that an insurance company has enough money today, so that it will be able to pay off in the future all of the benefits it has been busy promising everyone in the past.”

My thanks to all who submitted responses.

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Perspectives from abroad

“Just what is an actuary?” (*The Actuary*, March 1997) brought a response from Duncan Ferguson, president of the Institute of Actuaries. Following is a definition being highlighted for the Institute’s 150th anniversary in 1998. It is based on the year’s theme, “Actuaries Make Financial Sense of the Future.”

“Actuaries are experts in assessing the financial impact of tomorrow’s uncertain events. They enable financial decisions to be made with more confidence by:

- Analyzing the past
- Modeling the future
- Assessing the risks involved
- Communicating what the results mean in financial terms

Enabling better decisions

“Actuaries add value by enabling businesses and individuals to make better-informed decisions, with a clearer view of the likely range of financial outcomes from different future events.

“The actuary’s skills in finance and in risk management are used

extensively in the areas of insurance, pensions, and investment. Within these industries, actuaries manage and lead in the design and pricing of products. Actuaries also advise on the overall management of insurance companies and pension schemes.

“Actuarial skills are valuable for any business managing long-term financial projects both in the public and private sectors.

“Actuaries apply professional rigor combined with a commercial approach to the decision-making process.”

Role and responsibility

“Actuaries balance their role in business management with responsibility for safeguarding the financial interests of the public. The duty of actuaries to consider the public interest is illustrated by their legal responsibilities for protecting the benefits promised by insurance companies and pension schemes. The profession’s code of conduct demands the highest standards of personal integrity from its members.”

Definition from Down Under Holland reports that the Institute of Actuaries of Australia has an extensive discussion of “What is an actuary?” on its Web site. The discussion includes a description of an actuarial career, reprinted here in part:

“Actuaries apply mathematical, statistical, economic, and financial analyses, which involve adding risk assessment to longer-term financial contracts, in a wide range of practical business problems.

“In addition, as career executives, many actuaries participate in the operational management of financial institutions.

“Insurance, superannuation, stock-broking, investment, banking, and government are the more readily recognized areas in which actuarial services are utilized.”

The Web page also lists nine specific major functions actuaries perform. For details, see the posting at www.actuaries.asn.au.