



International Actuarial Association
Association Actuarielle Internationale



Future Actuary: Handbook for FMAs & AMAs

Inspiration for messages, designing websites,
marketing materials to target wider audiences

Future Actuary Task Force

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Future Actuary: Handbook for Messaging

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Future Taskforce Background

- The IAA Future Taskforce drew inspiration from FMAs and AMAs to collate and share strong examples
- This document provides inspiration and examples for FMAs and AMAs to consider using for their marketing materials.
- It delves into the risks and opportunities that actuaries in your country may face
- It provides words that can be used to describe the actuary to different stakeholders

It is NOT mandatory for any FMA or AMA to use this document, it is inspirational only

[Previous Report:](#)

https://www.actuaries.org/IAA/Documents/CMTE_EXEC/Documents/IAA_FutureActuaryReport_13April2023_Final.pdf

The emerging risks and opportunities for Actuaries

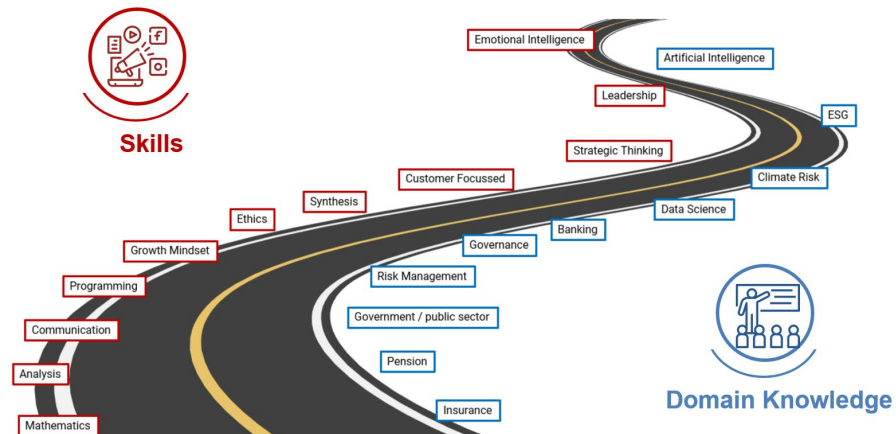




Tailoring The Actuarial Toolkit: Skills shift for Different Market Demands Over The Course of an Actuarial Career

The skills & domain knowledge needed varies by market.

Choose the words that apply the best to today and where you want to be tomorrow.



The work of actuaries is changing quickly.

Tools like AI, machine learning, and automation are now regular parts of an actuary's daily work. To succeed today, actuaries need to combine new technical abilities with their traditional skills.

Every actuary needs core skills in mathematics, data analysis, domain knowledge, along with the ability to explain complex ideas clearly. As they advance, focus on broader abilities like strategic thinking, strong ethics, and effective leadership. These skills help them tackle bigger challenges and work with diverse teams.

While insurance and pensions remain central to actuarial work, the field has grown significantly. Modern actuaries now work in banking, data science, and emerging areas like climate risk. They help companies understand not just financial risks, but also their impact on the environment and society.

The challenges actuaries face depend heavily on where they work.

In established markets, actuaries work within strict rules and often focus on aging populations. In fast-growing economies, they have more freedom to shape new practices, though this means handling rapid changes and uncertainty.



Key Risks in Mature vs. Fast-Growing Markets

The risks faced by actuaries in their day-to-day work can vary significantly depending on the maturity of the market they are operating in. A recent slide highlights the key risks identified through risk and opportunity scanning, underscoring the need for diversity in messaging across different markets.



Mature Economies

Some of the key risks include:

- **Data Privacy:** Strict data privacy regulations can limit how data is used, requiring actuaries to navigate complex compliance requirements.
- **Consumer Regulations:** Established consumer protections can impact how products are designed and priced, adding another layer of complexity to actuarial work.
- **M&A Activities:** Mergers and acquisitions reduce the number of available roles, creating a competitive environment for actuaries.
- **Outsourcing of Actuarial Jobs:** The trend of outsourcing certain actuarial functions can threaten local job markets and impact the development of future talent.

Fast-growing economies

The challenges are distinct:

- **Data Availability:** Reliable data may be scarce, making it difficult for actuaries to make informed decisions and requiring innovative approaches to risk assessment.
- **Regulation:** Regulatory frameworks are often in development, which can create uncertainty and demand flexibility from actuaries.
- **Grow at Any Cost:** Rapid growth pressures may lead to prioritizing expansion over risk management, putting actuaries in challenging positions to balance growth and sustainability.
- **Foreign Talent:** The need to bring in foreign talent can result in limited local development opportunities and high turnover, affecting long-term stability.

These differing risks mean that actuaries need to adapt their approach based on the market they work in. In mature economies, a focus on compliance, innovation within constraints, and maintaining competitiveness is crucial. In fast-growing economies, actuaries need to be adaptable, creative, and proactive in shaping emerging practices, while also addressing foundational challenges like regulation and data reliability.

Explaining the value and role of an Actuary





How Do Actuarial Organizations Present the Profession?

Review of FMA websites

The handbook is based on a review of how actuaries are described around the world by studying 28 websites from both Full Member Associations (FMAs) and other actuarial organizations.

The research focused on understanding what these organizations say about:

- What actuaries do
- Where actuaries work
- What skills actuaries need
- How actuaries are regulated
- Who can become an actuary

We wanted to see if actuarial organizations tell different stories about the profession. Some organizations focus on traditional roles like insurance, while others highlight newer areas like data science and climate risk. They also describe actuarial skills differently depending on their location and audience.

This research helps us understand how the actuarial profession appears to different groups - from students considering the career to business leaders looking to hire actuaries. By comparing these different approaches, we can suggest better ways to explain what actuaries do and why their work matters.

All observations are what Task Force members saw on the website. They approached it as an outsider. There may be discrepancies, or information missing if it wasn't easily found, or different website owner expectations.



Who do FMA websites target?



91% Current Members



59% Potential Students



27% Employers



18% General Public

Messages Demand for Actuaries is underserved (Employers and General Public)

Actuarial associations - both Full Member Associations (FMAs) and Associate Member Associations (AMAs) - play a vital role in explaining what actuaries do.

Their websites are often the first place people go to learn about the profession, find career information, and understand what actuaries contribute to different industries.

Most websites primarily target students interested in becoming actuaries. They explain career paths, required qualifications, and why someone might choose this profession. While focused on students, these websites also help the general public understand how actuaries contribute to society and business.

Some associations have taken this a step further. In countries like the US, Spain, Germany, and Australia, associations have built separate websites for different groups. Instead of one website trying to serve everyone, they create specific sites for:

- People interested in becoming actuaries
- Current actuaries looking for professional resources
- Companies and employers seeking actuarial expertise

This targeted approach has proven more effective at engaging each audience, resulting in clearer communication and better understanding of the profession's value across all groups.



Key messages are worded differently by different FMAs, but same key messages

Professional Experts

“high standards of practice and education”

Australia

“strict professional and ethical framework”

South Africa

“management abilities, communication skills, responsible, integrity”

Israel

Risk Assessment and Management

“a price tag on future risks”

Hong Kong

“the measurement and management of risk and uncertainty”

Kenya

“quantify and calculate risks and show the financial implications of these risks”

Netherlands

“Risk’s assessors, if quantifiable” and “The risks’ guardian”

Italy

Expertise in Mathematics and Financial Theory

“mathematics, statistics, economic environment”

Austria

“Math, statistic, economy, probability, finance”

Brazil

“experts” and “mathematicians”

France and Germany



Where do actuaries work?

Based on what FMA mention on their websites

Are We Telling the Full Story of Where Actuaries Work?

Emerging opportunities for actuaries from non-traditional employers is not as strongly communicated as the traditional core areas of insurance, pensions and risk management



Current Focus Areas

Insurance, pensions, and risk management dominate FMA websites. These traditional fields, where actuaries have long proven their value, receive the most attention in communications. The Australian and German associations, for example, strongly emphasize these core areas, highlighting actuaries' crucial role in managing financial risks.

Emerging Opportunities

New fields are beginning to be seen, though they receive less attention. Data analytics, healthcare, and regulatory compliance appear on some websites, showing how actuarial work is expanding. The US and Australian associations mention these opportunities, particularly in data science and healthcare, but often present them as secondary to traditional roles.

Communication Gaps

Explaining new and traditional actuarial roles requires different approaches. Areas like audit, healthcare, and academia receive less coverage, despite their growing importance. Even when mentioned, these fields often appear as add-on opportunities rather than core career paths.

Possible Future Improvements

Using multiple websites to reach different audiences, can help better communicate both traditional and emerging opportunities. This targeted approach shows promise in presenting the full range of modern actuarial work.



Key questions for FMAs to ask themselves when updating their websites or other outreach materials

Key Points	Questions to ask
<p>Identity & Vision</p> <ul style="list-style-type: none"> • Need to balance current reality with future aspirations • Important for profession's evolution • Impacts recruitment and public perception 	<ol style="list-style-type: none"> 1. Does our messaging reflect our current strengths? 2. How well do we communicate our future direction? 3. Are we showcasing both traditional and emerging roles? 4. What image do we want to project in 5-10 years?
<p>Audience-Specific Messaging</p> <ul style="list-style-type: none"> • Different stakeholders need different information • Gatekeepers (parents, teachers) influence career choices • Students have different information needs than influencers 	<ol style="list-style-type: none"> 1. What motivates each audience group? 2. How can we address parents' and teachers' concerns? 3. What information do students need vs. influencers? 4. How do we make the profession appealing to different groups?
<p>Communication Approach</p> <ul style="list-style-type: none"> • Question of standardized vs. tailored messaging • Balance between consistency and flexibility • Need to maintain professional identity while being accessible 	<ol style="list-style-type: none"> 1. Should we use different definitions for different audiences? 2. How technical should our language be? 3. Can we maintain consistency while being audience-specific? 4. What core messages should remain constant?
<p>Field Coverage & Local Context</p> <ul style="list-style-type: none"> • Balance between traditional and wider fields • Statutory roles vary by country • Local market needs affect career opportunities • Need to reflect regional differences 	<ol style="list-style-type: none"> 1. How do we balance traditional vs. new opportunities? 2. What local context needs to be considered? 3. How do we highlight emerging fields without undermining core roles? 4. What regional factors affect our messaging?

Tailoring the actuarial message to different audiences





The Four Key Groups

Different audiences need Different messages

The Future Actuary Task Force has mapped out the groups that will drive our profession's growth. The framework shows us how different groups affect both the number of new actuaries (supply) and the jobs available to them (demand).

On the supply side:

- Students who could become actuaries
- Gatekeepers (like teachers and parents) who guide students' career choices

On the demand side:

- Traditional employers in insurance and pensions
- New employers in fields like technology and data analytics

The framework also shows that some groups know our profession well (internal view), while others need to learn more about what actuaries do (external view):

- Help more students choose actuarial careers
- Show employers new ways actuaries can help their business
- Build stronger connections with teachers and career advisors
- Open up new job opportunities in different industries

	Supply is the inflow of new (qualified) actuaries.	Demand is generally driven by employers, in the broadest sense.
Internal	Students	Traditional Employers
External	Gatekeepers: are people that can influence students to become actuaries	Non-traditional Employers



Building different messages for different stakeholders:

	Students	Gatekeepers	Traditional Employers	Non-Traditional Employers
Key Message	<p><i>Why would I want to become an Actuary?</i></p> <p>Actuaries can work in many fields and can greatly contribute to the public interest.</p> <p>Important to maintain the image that our profession has a good work-life balance.</p>	<p><i>Why would I encourage someone to become an Actuary?</i></p> <p>For many gatekeepers, generally parents or teachers, the job- and financial security that comes with the profession is most important.</p>	<p><i>Where can I use Actuaries more?</i></p> <p>Traditional Employers already know the profession and work with Actuaries.</p> <p>It is important to highlight to traditional employers that:</p> <ol style="list-style-type: none"> 1) Technological innovation would not diminish the demand for actuaries 2) Actuaries can be used in any field that needs risk assessment or quantitative problem solving. 	<p><i>Why do I need Actuaries?</i></p> <p>Non-Traditional Employers generally are not aware of Actuaries or not aware that we might be fitting for their companies.</p> <p>It is important to highlight to non-traditional employers that Actuaries can be used in any field that needs risk assessment or quantitative problem solving.</p>
Key Terms (no order)	Public interest, problem solver, financial, data, AI, multiskilled, analytical, math, work life balance, security	Security, math, Problem solver, financial, multiskilled, analytical, work life balance, profession	Problem solver, multiskilled, analytical, AI, proactive, data,	Problem solver, multiskilled, risk management, financial, profession, analytical, AI, proactive, data, public interest ¹⁴



Supply - Students

Why would I want to become an Actuary?

Supply (Internal)	Demand (Internal)
Supply (External)	Demand (External)

Elevator Pitch

Think of an actuary as a detective for risk, using clues from data to solve the mystery of future challenges and secure a safe outcome

Key Messages

Actuaries can work in many fields and can greatly contribute to the public interest.

Important to maintain the image that our profession has a good work-life balance.

Key Terms

Public interest
problem solver
Financial
Data
AI

Multiskilled
Analytical
Math
work life balance
security

Localisation Opportunities

- Different messages for students age 14-18 (Primary Education) versus 18-22 (University and Actuarial Students) may be required to reflect their perspectives and focus.
- Fast growing jurisdictions may focus on different messaging versus mature jurisdictions.
- Students are more active and frequent users of social media as a communication platform. These platforms should be utilized to drive these key messages.



Supply – Students Example

Supply (Internal)	Demand (Internal)
Supply (External)	Demand (External)

BE AN ACTUARY.

WHAT IS AN ACTUARY? ▾

WHY ACTUARIAL SCIENCE? ▾

HOW DO I GET STARTED? ▾

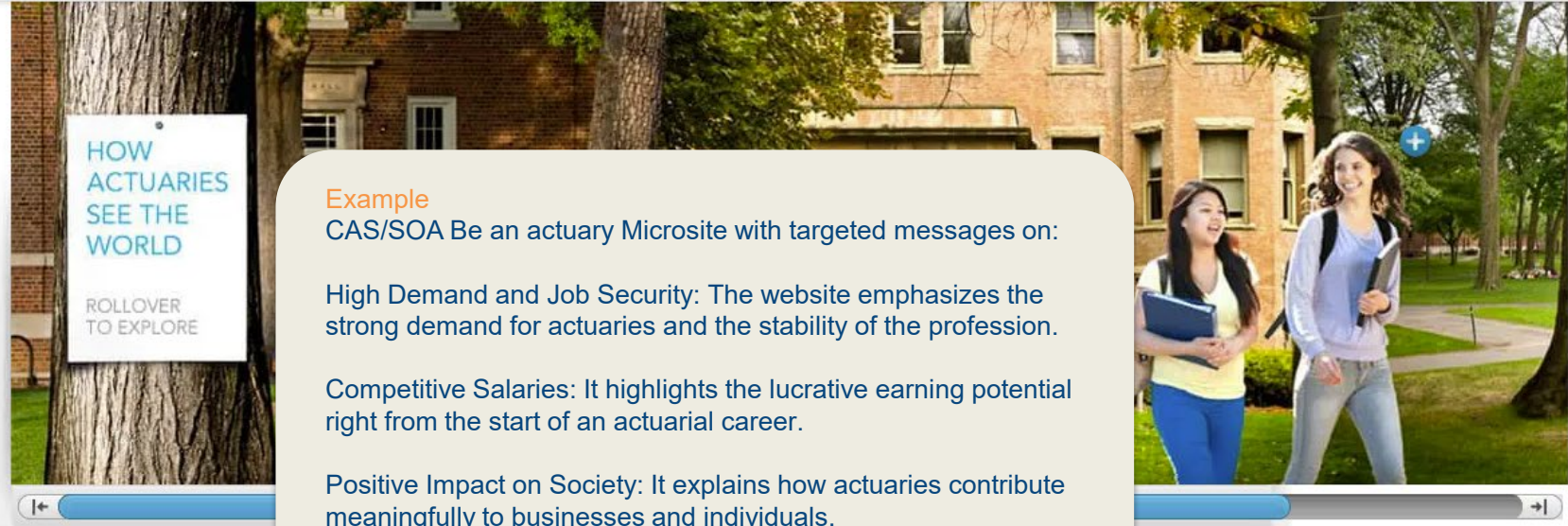
COLLEGE STUDY ▾

ACTUARIAL EXAMS ▾

FINDING A JOB ▾

DIVERSITY PROGRAMS ▾

NEWS & RESOURCES



DO THE MATH

Let X be a continuous random variable with density function



Supply – Gatekeepers

Supply (Internal)	Demand (Internal)
Supply (External)	Demand (External)

Why would I encourage someone to become an Actuary?

Elevator Pitch

An actuary is a good career for someone excellent in math, who is looking to make a difference in the world.

Key Terms

Security
Math
Problem solver
Financial

Multiskilled
Analytical
work life balance
profession

Key Messages

For many gatekeepers, generally parents or teachers, the job- and financial security that comes with the profession is most important.

Localisation Opportunities

- High school educators would need information on what actuarial science is
- Universities would be looking to enroll students into the program



Supply – Gatekeepers Example

Supply (Internal)	Demand (Internal)
Supply (External)	Demand (External)

University of Waterloo (Canada) & Heriot – Watt University (UK)

Predict the future — without a crystal ball

How will the stock market perform next February? How much will insurance companies pay out in claims next year? With an Actuarial Science degree from Waterloo, you'll have the answers.

In this program, you'll take courses such as the mathematics of finance, risk theory, and pension mathematics taught by professional actuaries in one of North America's top actuarial schools.

Meanwhile, adding computer science, arts, and various math electives will give you the combination of technical and communication skills that employers are looking for.

Whether you choose the regular stream or the co-op stream, you'll graduate ready to enter a great job market with great prospects and high starting salaries.

Our MSc Actuarial Science provides you with a fast track into the actuarial profession by providing up to six exemptions from the exams you must pass to become a fully qualified actuary.

As an actuary, you are an expert in risk management. Actuaries work in areas like life insurance, pensions, investments, banking and more. With your data science skills, you are in high demand across the world.

Salaries are typically high and the work-life balance excellent. A newly qualified actuary in the United Kingdom usually earns between £55,000 and £60,000 each year, with salaries increasing significantly post-certification.

Example

Note the universities emphasises job security, salaries and work-life balance.



Demand – Traditional Employers

Where can I use Actuaries more?

Elevator Pitch

An actuary is a professional who uses mathematics and statistics to quantify risk and solve financial problems.

Key Terms

Problem solver
Multiskilled
Analytical

AI
Proactive
data

Key Messages

Traditional Employers already know the profession and work with Actuaries.

It is important to highlight to traditional employers that:

- 1) Technological innovation would not diminish the demand for actuaries
- 2) Actuaries can be used in any field that needs risk assessment or quantitative problem solving.

Localisation Opportunities

Traditional Employers already know the profession and work with Actuaries.

It is important to highlight to traditional employers that:

- 1) Technological innovation would not diminish the demand for actuaries
- 2) Actuaries can be used in any field that needs risk assessment or quantitative problem solving.

Demand – Traditional Employers Example

Supply (Internal)

Demand (Internal)

Supply (External)

Demand (External)



Example

While [Werde-Aktuar](#) is targeted at students, testimonials of actuaries who have taken on non-traditional roles in traditional companies, could be an effective marketing tool.



Demand – Non Traditional Employer

Supply (Internal)

Demand (Internal)

Supply (External)

Demand (External)

Why do I need Actuaries?

Elevator Pitch

Actuaries advise from any point of view, to inform any decision maker to understand (qualify or quantify) any risk, keeping in mind well being of society

Key Messages

Non-Traditional Employers generally are not aware of Actuaries or not aware that we might be fitting for their companies.

It is important to highlight to non-traditional employers that Actuaries can be used in any field that needs risk assessment or quantitative problem solving.

Key Terms

Problem solver
Multiskilled
risk management
Financial
Profession

Analytical
AI
proactive
Data
public interest

Localisation Opportunities

Non-Traditional Fields can be categorised into:

Type A – wider fields with actuaries participating. For example, ERM, Asset Management

Type B – 2-3 actuaries in the field. Only starting to show penetration, such as ESG

Type C – Zero actuaries in the field e.g., Project Management



Demand – Non Traditional Employee

Supply (Internal)

Demand (Internal)

Supply (External)

Demand (External)

DO
DATA
BETTER
WITH AN
ACTUARY

If you want to go deeper with data, you need the talent to surface the killer insight.

Discover more



OUR ADVANTAGE

STRATEGIES

TALENT

ETHOS

COMMUNITY

Example

Institute of Actuaries of Australia Microsite

Data Analysis Expertise: Focusing on skills in analyzing complex data to identify trends and insights. This can help businesses make informed decisions. *"Actuaries excel at transforming data into actionable strategies."*

Risk Management: They specialize in assessing and mitigating risks, which is valuable for any organization looking to navigate uncertainties. *"Understanding and managing risk is essential for sustainable growth."*

Regulatory Compliance: Their knowledge ensures that companies comply with financial regulations, avoiding legal issues. *"Stay ahead of regulatory changes with expert guidance."*

Strategic Planning: Actuaries contribute to long-term business strategies by evaluating potential outcomes. *"Plan for the future with confidence and clarity."*





Potential Universal Messages

Problem solver

Risk is universal, actuaries are critical wherever risk is present and needs to be quantified.

Actuaries contribute positively to societies all around the world.

Think of an actuary as a detective for risk, using clues from data to solve the mystery of future challenges and secure a safe outcome

Public Interest

Actuaries contribute to the public interest, not only by optimizing pensions and insurance.

Actuaries can be vital in fighting climate risk or using AI ethically.

Actuaries are risk's guardian.

Security

The actuarial profession has been proven time and time again to have great job- and financial security.

A good work-life balance

The need for actuaries will always remain, even in the changing environment



The following videos have been created using AI to support FMAs

- Please reach out to Amali and Meet if you would like to learn how to make your own
- [Why should you hire an Actuary?](#)
 - Audience: Non-Traditional Employers
 - Link
- [Careers for students good in math: Actuarial Science](#)
 - Audience: Gatekeepers, parents, teacher
 - Link
- [What Else can Actuaries Do?](#)
 - Audience: Traditional Employers
 - Link
- [Why would I want to become an Actuary:](#)
 - Audience: Students
 - Link



Thank you!

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