

What is an actuary?

- “A mathematician who uses statistics to calculate insurance premiums”
 - *American Heritage New Dictionary of Cultural Literacy, 3rd ed.*
- “A person qualified to calculate commercial risks and probabilities involving uncertain future events, esp. in such contexts as life assurance”
 - *Collins English Dictionary, 10th ed.*
- “A person who calculates insurance and annuity premiums, reserves, and dividends”
 - *Merriam-Webster online dictionary*
- “Actuaries are the analytical backbone of our society’s financial security programs”
 - www.beanactuary.org

What is an actuary?

- Actuaries are professionals who quantify risk and find ways to manage it
 - Insurance example: Setting premium rates for auto insurance
 - Consulting example: Managing the cost of pension benefits to be paid 40 years from now
- Actuarial work is critical to the financial well-being of governments, corporations, and individuals
- Consistently rated as one of the top jobs in the United States, based on criteria such as:
 - Employment outlook/job security
 - Income level
 - Stress/work environment

Two credential-granting societies in the United States

- **The Society of Actuaries**

- The Society of Actuaries is an educational, research and professional organization dedicated to serving the public and Society members.
- www.soa.org



- **Casualty Actuarial Society**

- The Casualty Actuarial Society is a professional organization whose purpose is the advancement of the body of knowledge of actuarial science applied to property, casualty, and similar risk exposures.
- www.casact.org



There's really only one way to become an actuary...

- Pass actuarial exams offered by the SOA and CAS!
 - Multiple-choice and written-answer
- Two levels of actuarial credentials:
 - Associate (ASA or ACAS)
 - Fellow (FSA or FCAS)
- Some other actuarial designations:
 - Chartered Enterprise Risk Analyst (CERA)
 - ASA-level designation offered by SOA
 - Enrolled Actuary (EA)
 - Designation for pension actuaries required to practice before IRS
 - Member of American Academy of Actuaries (MAAA)
 - Often required to attest to certain government filings
 - Indicates formal adherence to actuarial Code of Professional Conduct

Society of Actuaries Education System

ASA Requirements

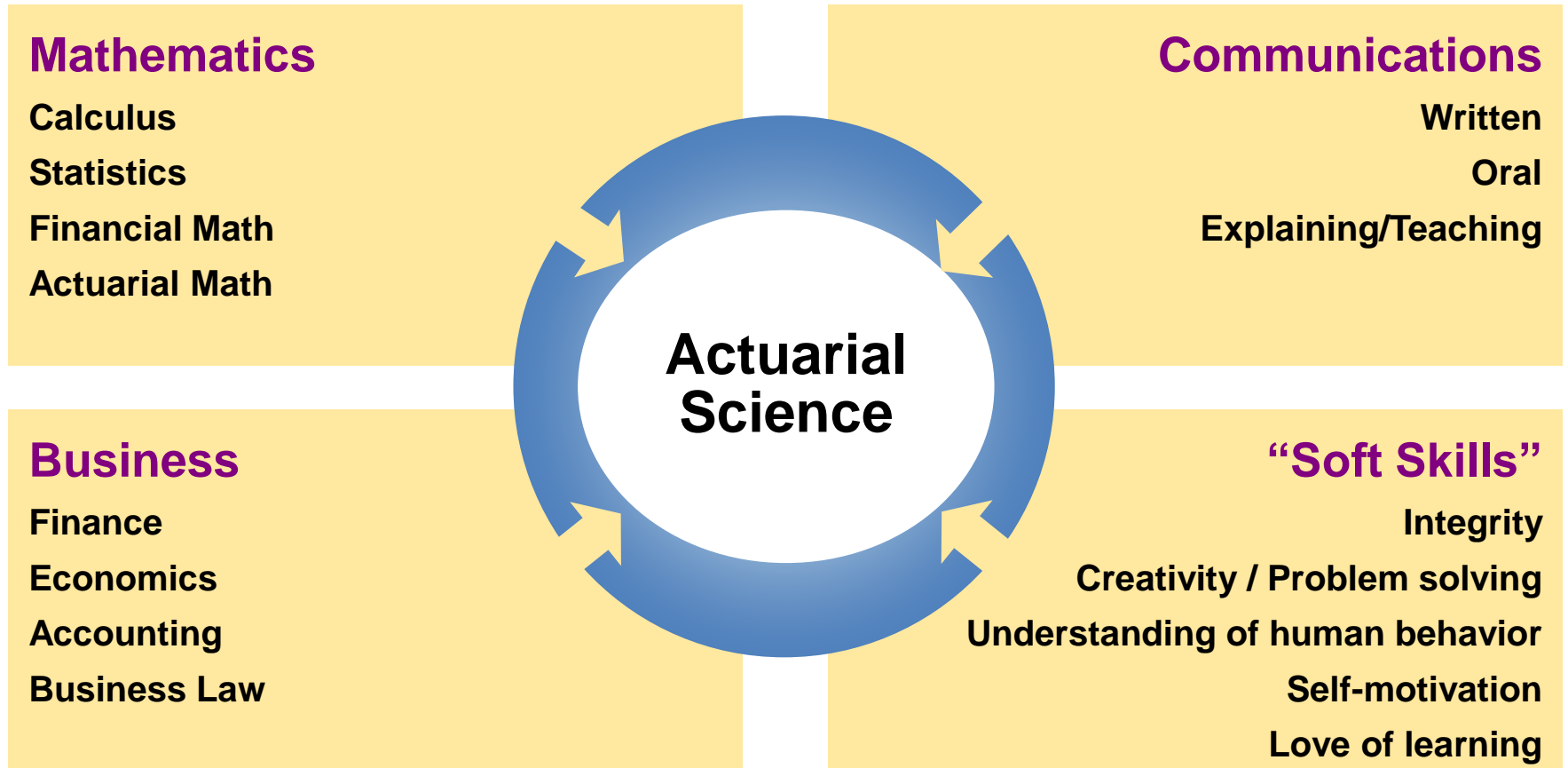
- Pre-requisites not tested directly – 5 subjects
 - Calculus, Linear Algebra, Introductory Accounting, Business Law, Mathematical Statistics
- Validated Education Experience (VEE) – 3 subjects
 - Economics, Corporate Finance, Applied Statistics
- Preliminary Education (PE) exams (5 exams)
 - Probability (P), Financial Math (FM), Financial Economics (MFE), Life Contingencies (MLC), Actuarial Models (C)
 - All exams are 3 to 4 hours in length
- Fundamentals of Actuarial Practice (FAP)
 - 8 interactive modules with 2 assessment exercises
- Associate Professionalism Course (APC)

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FSA Exams & Modules

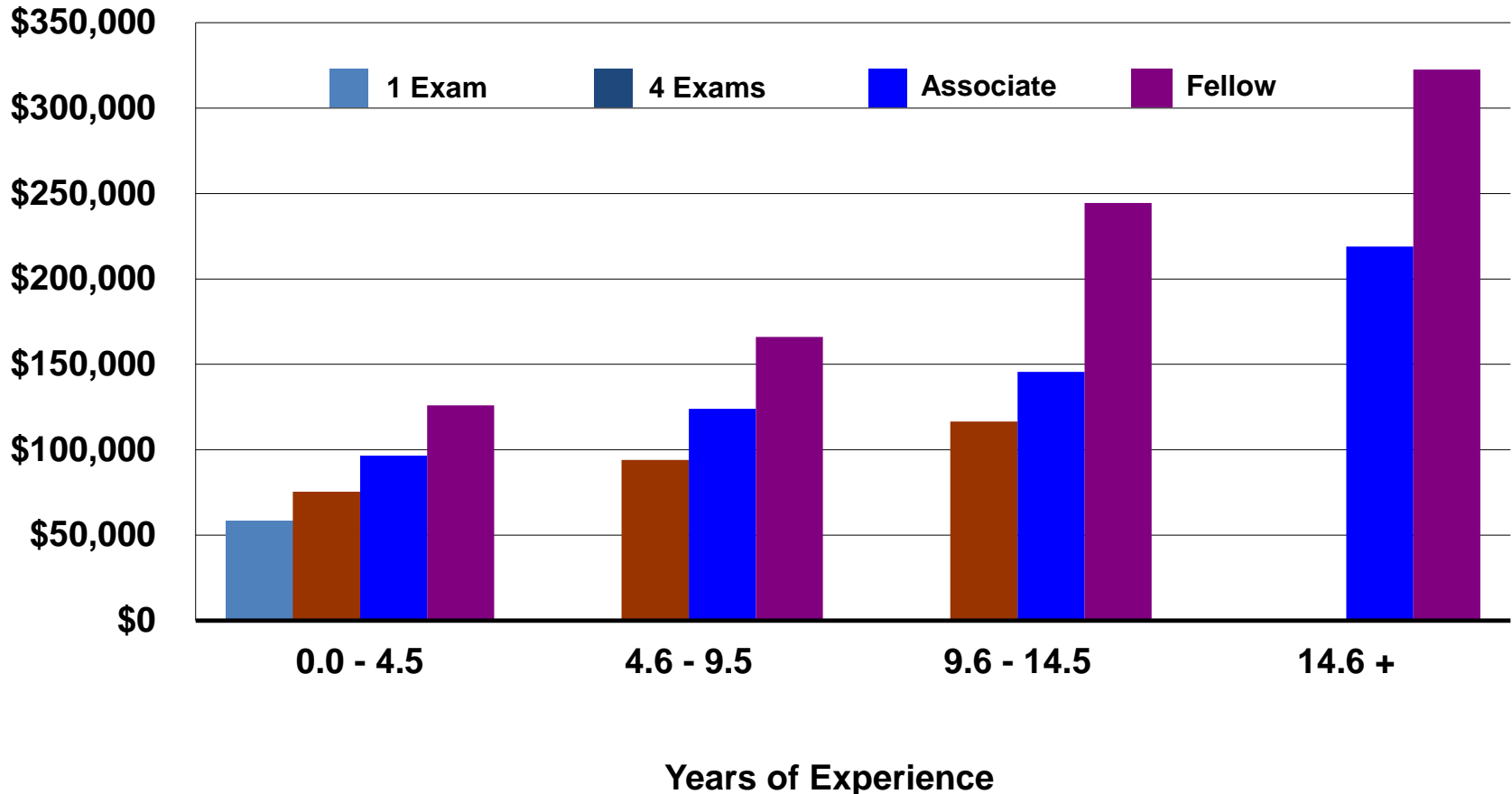
Tracks	Corporate Finance and ERM (CFE)	Quantitative Finance and Investment (QFI)	Individual Life & Annuities	Retirement Benefits	Group & Health	General Insurance
Exams	ERM	QFI Core	Life Pricing	Funding and Regulation	G&H Core	Intro to GI
	Foundations of CFE	QFI Advanced	Life Finance and Valuation	Design and Accounting	G&H Advanced	Intro to Ratemaking and Reserving
	Strategic Decision Making	Investment Risk Mgmt or ERM	Life Risk Mgmt or ERM	Retirement Inv/ Risk Mgmt or ERM	G&H Specialty or ERM	Advanced Topics in GI or ERM
						Fin / Reg Environment
Modules	Enterprise Risk Management				Health Foundations or ERM	Enterprise Risk Management
	Advanced Topics in CFE	Financial Modeling	Regulation and Taxation	Social Insurance	Pricing, Reserving, Forecasting	Applications of Statistical Techniques
	Financial Reporting		Financial Economics			
Capstone Experience	Decision Making and Communication (DMAC) Module					
	Fellowship Admissions Course					

Skills needed to become an actuary



Just passing the exams will make you an actuary. Possessing many of the qualities above will make you a successful one.

Estimated median compensation for actuaries (salary + bonus)



Note: Compensation may vary significantly according to specialty, years of experience, geographic region, and responsibilities.

Source: D.W. Simpson & Company, Inc., 2013 *Salary Survey*. Values represent midpoint of 10th-90th percentile ranges represented for all positions. Visit www.DWSimpson.com/Salary for more information.