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Pursuing a Career in Actuarial Science

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What is an Actuary?

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8 National Vital Statistics Reports, Vol. 54, No. 14, April 19, 2006

Table 1. Life table for the total population: United States, 2003

Age	Probability of dying between ages x to $x+1$	Number surviving to age x	Number dying between ages x to $x+1$	Person-years lived between ages x to $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
0-1	0.008865	100,000	887	99,994	7,743,016	77.4
1-2	0.000469	99,313	47	99,290	7,643,622	77.0
2-3	0.000337	99,267	33	99,250	7,544,332	76.0
3-4	0.000254	99,233	25	99,221	7,446,082	75.0
4-5	0.000194	99,208	19	99,199	7,348,861	74.0
5-6	0.000177	99,189	18	99,180	7,246,683	73.1
6-7	0.000160	99,171	16	99,163	7,147,492	72.1
7-8	0.000147	99,155	15	99,148	7,048,319	71.1
8-9	0.000132	99,141	13	99,134	6,948,171	70.1
9-10	0.000117	99,128	12	99,122	6,850,036	69.1
10-11	0.000109	99,116	11	99,111	6,750,914	68.1
11-12	0.000103	99,105	10	99,100	6,651,803	67.1
12-13	0.000107	99,094	10	99,086	6,552,704	66.1
13-14	0.000223	99,078	23	99,067	6,453,618	65.1
14-15	0.000339	99,055	34	99,038	6,354,551	64.2
15-16	0.000460	99,022	46	98,999	6,255,513	63.2
16-17	0.000577	98,976	57	98,947	6,156,514	62.2
17-18	0.000684	98,919	68	98,885	6,057,566	61.2
18-19	0.000769	98,851	76	98,813	5,958,681	60.3
19-20	0.000832	98,775	82	98,734	5,859,868	59.3
20-21	0.000864	98,693	85	98,645	5,761,134	58.4
21-22	0.000954	98,605	94	98,558	5,662,485	57.4
22-23	0.000990	98,511	98	98,462	5,563,028	56.5
23-24	0.000997	98,413	98	98,364	5,463,486	55.5
24-25	0.000982	98,315	97	98,267	5,367,101	54.6
25-26	0.000960	98,219	94	98,171	5,268,836	53.6
26-27	0.000942	98,124	92	98,078	5,170,663	52.7

► Personal Definition:

Someone who quantifies risk

► Use statistics to estimate the likelihood of an event occurring, and this information guides business decisions

- How much should you be charged for car insurance?
- What is an employee's monthly premium for their retirement plan?
- If the economy changes or if there's a pandemic, how will this impact the profitability of my company? How can we protect ourselves from these events?



Why should I be an actuary?

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- ▶ Consistently rated as one of the best jobs in America
- ▶ Job security
- ▶ Employment outlook
 - Employment projected to grow 21% from 2021 to 2031
- ▶ Clear Professional Progression
- ▶ Work/Life balance
 - Low stress
 - Remote/hybrid work becoming more popular
- ▶ Salary
 - Median \$105,900

Source: US Bureau of Labor Statistics (bls.gov)

How do I become an actuary?

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- ▶ Two Governing Bodies in the US:
 - Society of Actuaries (SOA)
 - Life, Health, Pensions & Retirement
 - Casualty Actuarial Society (CAS)
 - Property & Casualty



How do I become an actuary?

Society of Actuaries (SOA)

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ASA Pathway 2022

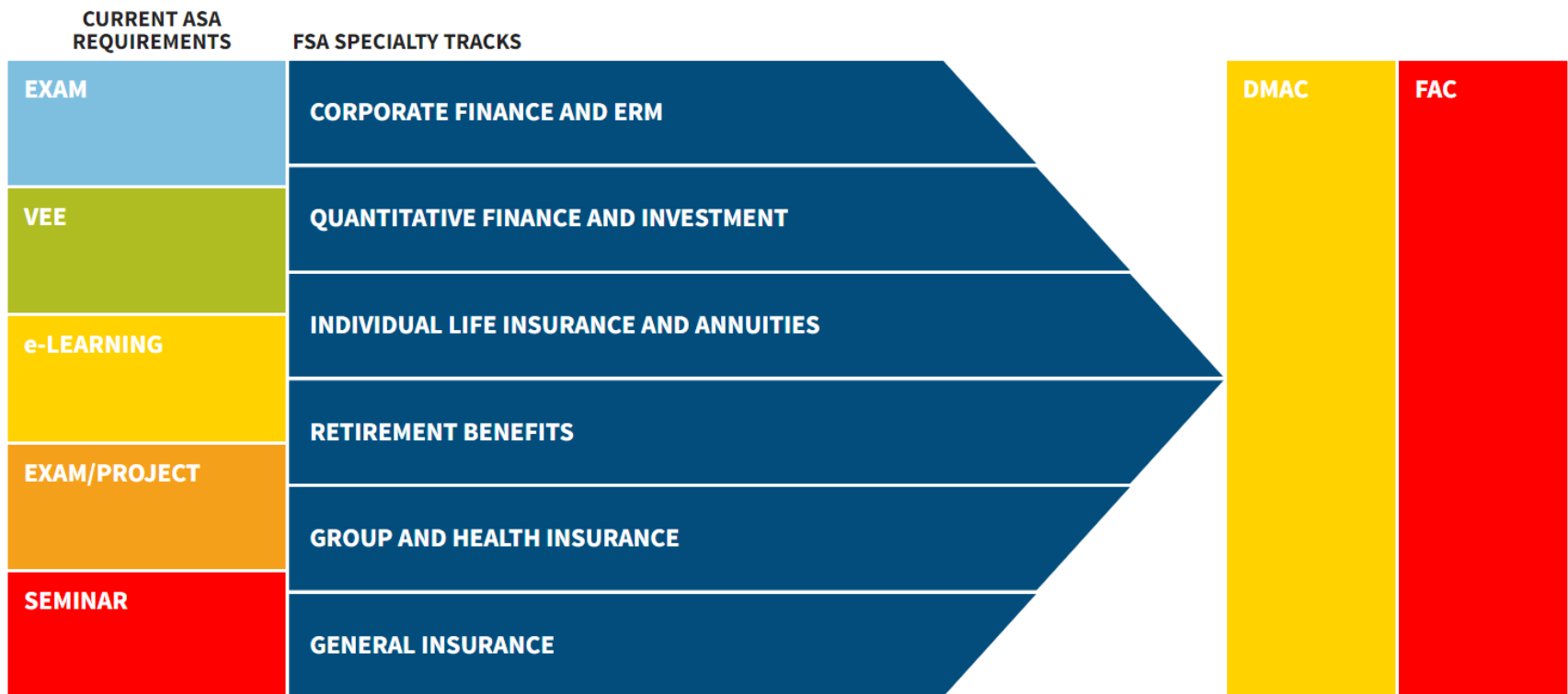
FOUNDATIONS	ACTUARIAL I	ACTUARIAL II	ADVANCED	PROFESSIONALISM
EXAM FINANCIAL MATHEMATICS	EXAM FUNDAMENTALS OF ACTUARIAL MATHEMATICS	EXAM ADVANCED LONG-TERM ACTUARIAL MATHEMATICS OR ADVANCED SHORT-TERM ACTUARIAL MATHEMATICS	e-LEARNING FUNDAMENTALS OF ACTUARIAL PRACTICE	SEMINAR ASSOCIATESHIP PROFESSIONALISM COURSE
EXAM PROBABILITY	VEE MATHEMATICAL STATISTICS			
VEE ECONOMICS		EXAM PREDICTIVE ANALYTICS	e-LEARNING ADVANCED TOPICS IN PREDICTIVE ANALYTICS	
VEE ACCOUNTING AND FINANCE	EXAM STATISTICS FOR RISK MODELING			
e-LEARNING PRE-ACTUARIAL FOUNDATIONS	e-LEARNING ACTUARIAL SCIENCE FOUNDATIONS			

How do I become an actuary?

Society of Actuaries (SOA)

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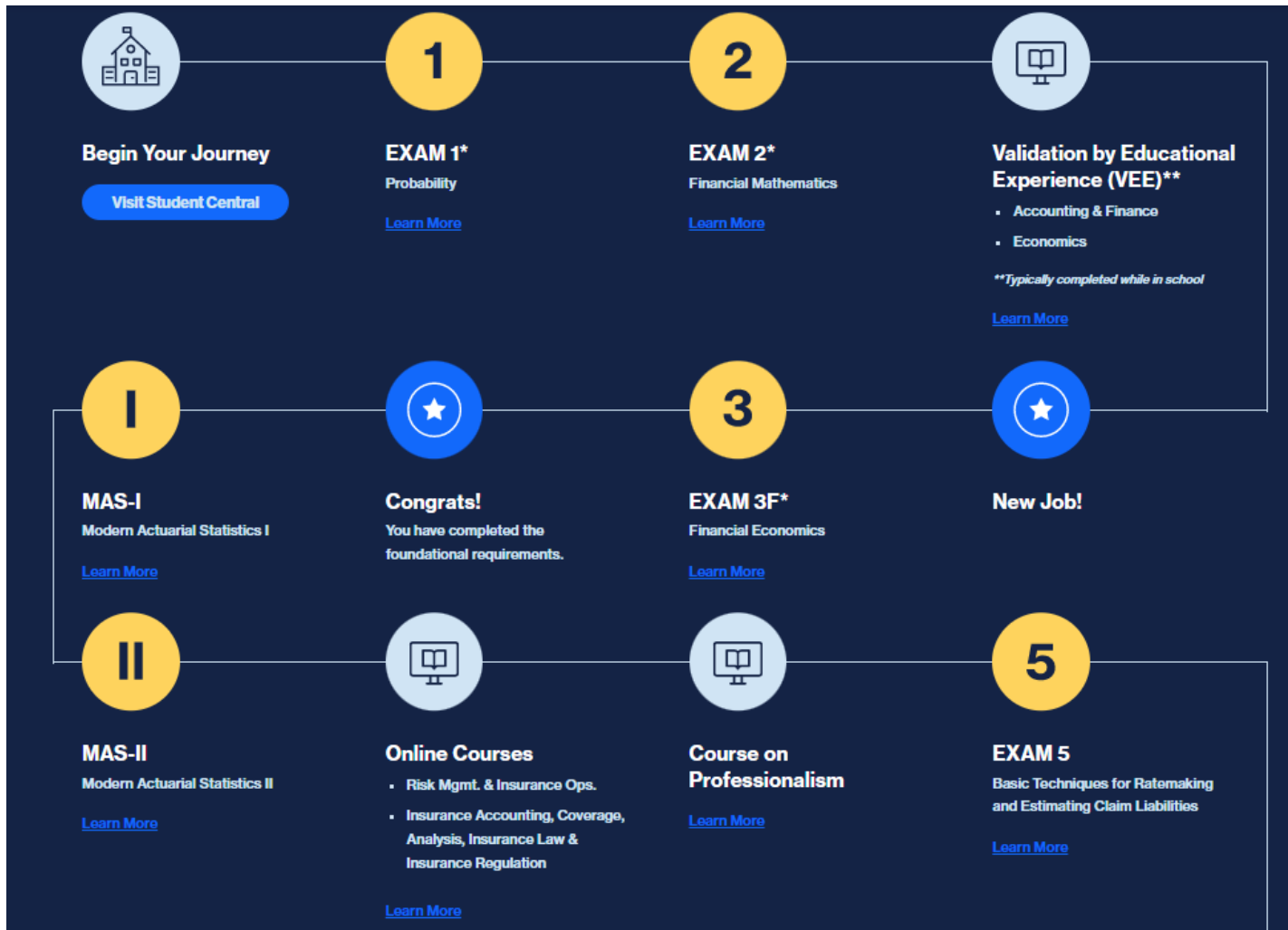
FSA Pathway



How do I become an actuary?

Casualty Actuarial Society

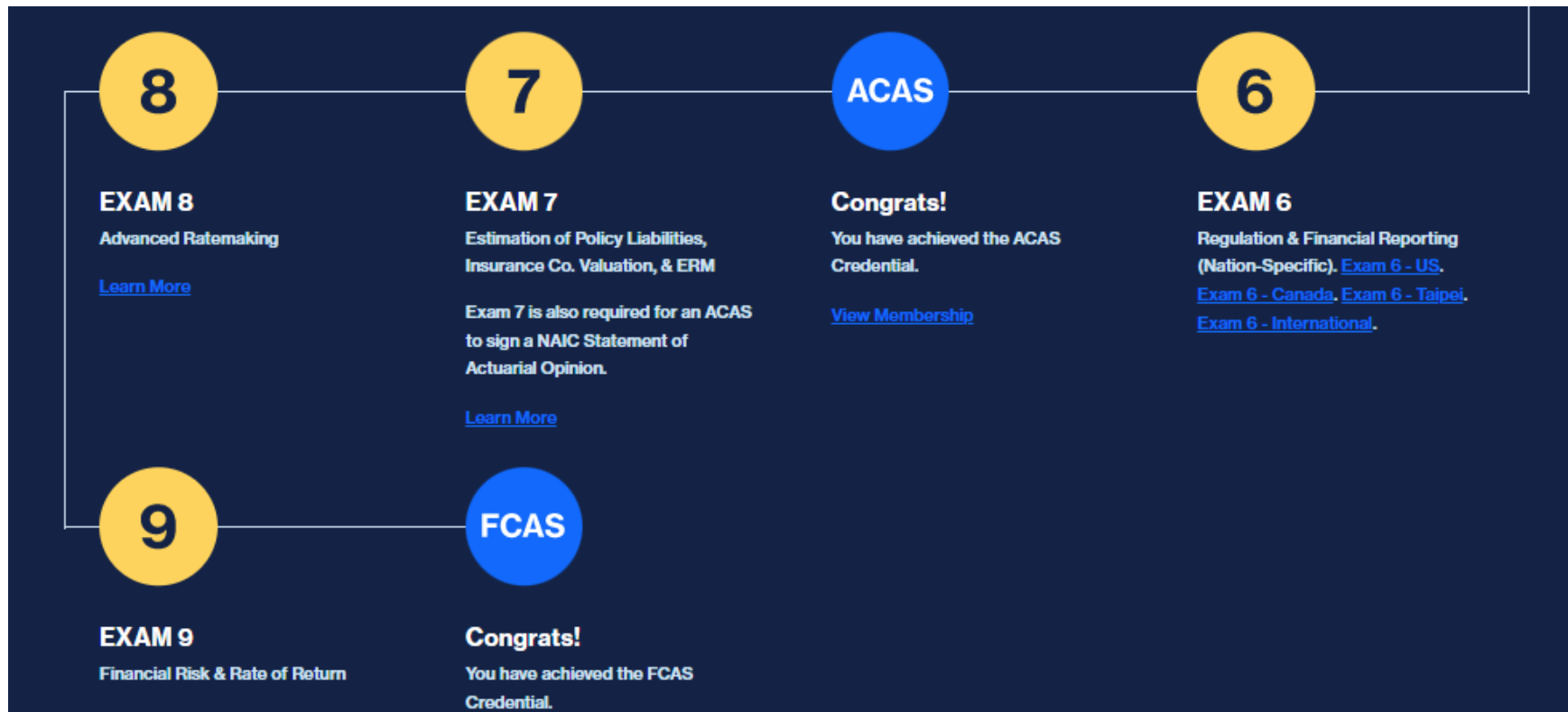
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How do I become an actuary?

Casualty Actuarial Society

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Who is Hannover Re?

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Key facts

- ▶ Established in 1966 in Hannover, Germany
- ▶ 3rd largest reinsurer with gross written premium of more than EUR 25 billion
- ▶ Transacting all lines of property & casualty and life & health reinsurance
- ▶ Highly rated:
 - Standard & Poor's AA- "Very Strong"
 - A.M. Best A+ "Superior"
- ▶ A network of more than 170 subsidiaries, branches and representative offices worldwide
- ▶ 3,000 staff across the globe



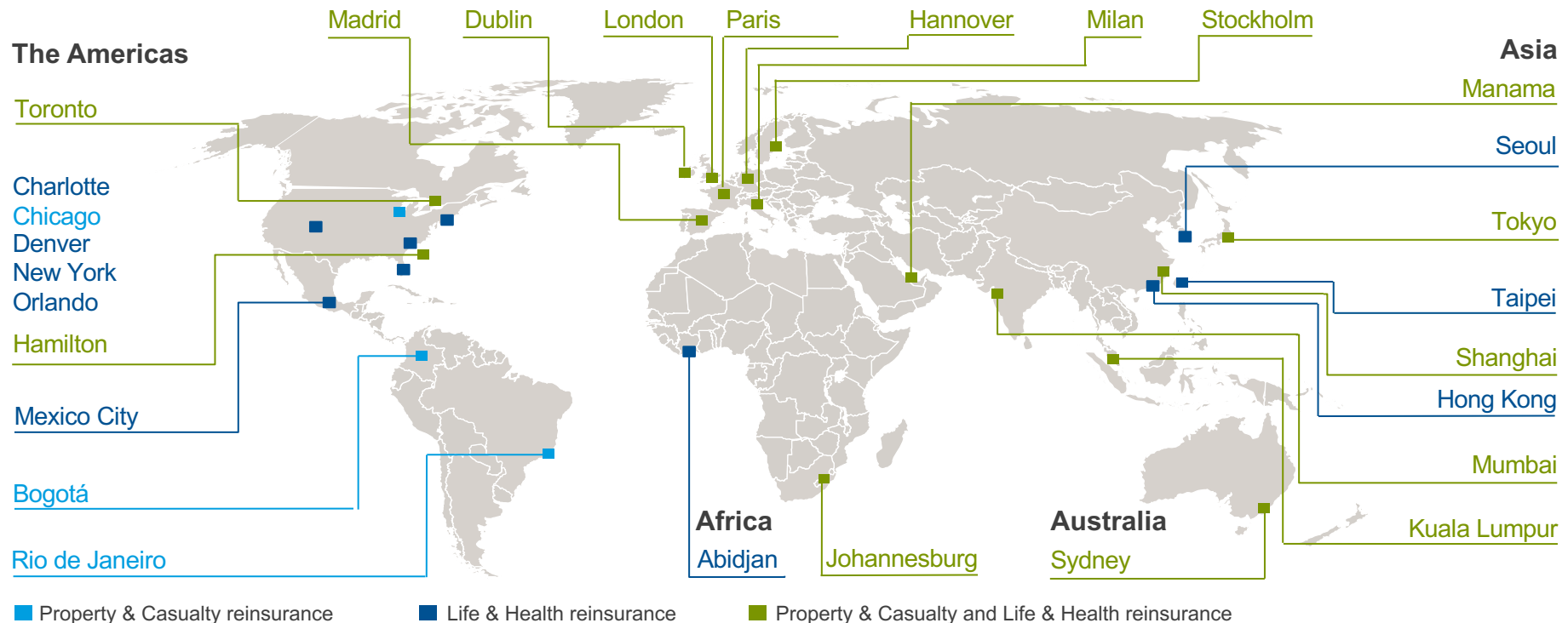
- ▶ Three U.S. offices with 270 employees
 - Orlando, Florida
 - Long Island, New York
 - Denver, Colorado
- ▶ Three lines of new business
 - Life Solutions
 - Annuity Solutions
 - Health Solutions
- ▶ Largest subsidiary with USD 2.2 billion in GWP



Who is Hannover Re?

Present around the World

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Who is Hannover Re?

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Benefits of working at Hannover Re

- ▶ Contributions to our local communities
 - Hannover Helps program, American Foundation for Suicide Prevention
- ▶ Accessible, approachable, and transparent leadership
 - Monthly “Eat with Pete”
 - Monthly “Quick Update” meetings
- ▶ Actuarial Development Program
 - Great study program
 - Rotational program
- ▶ ~30% of Employees are Actuaries
- ▶ Ability to work from anywhere
- ▶ ½ day Fridays!

There is no better place for an actuary to become a leader than Hannover Re.

Pete Schaefer, FSA, MAAA
President and CEO

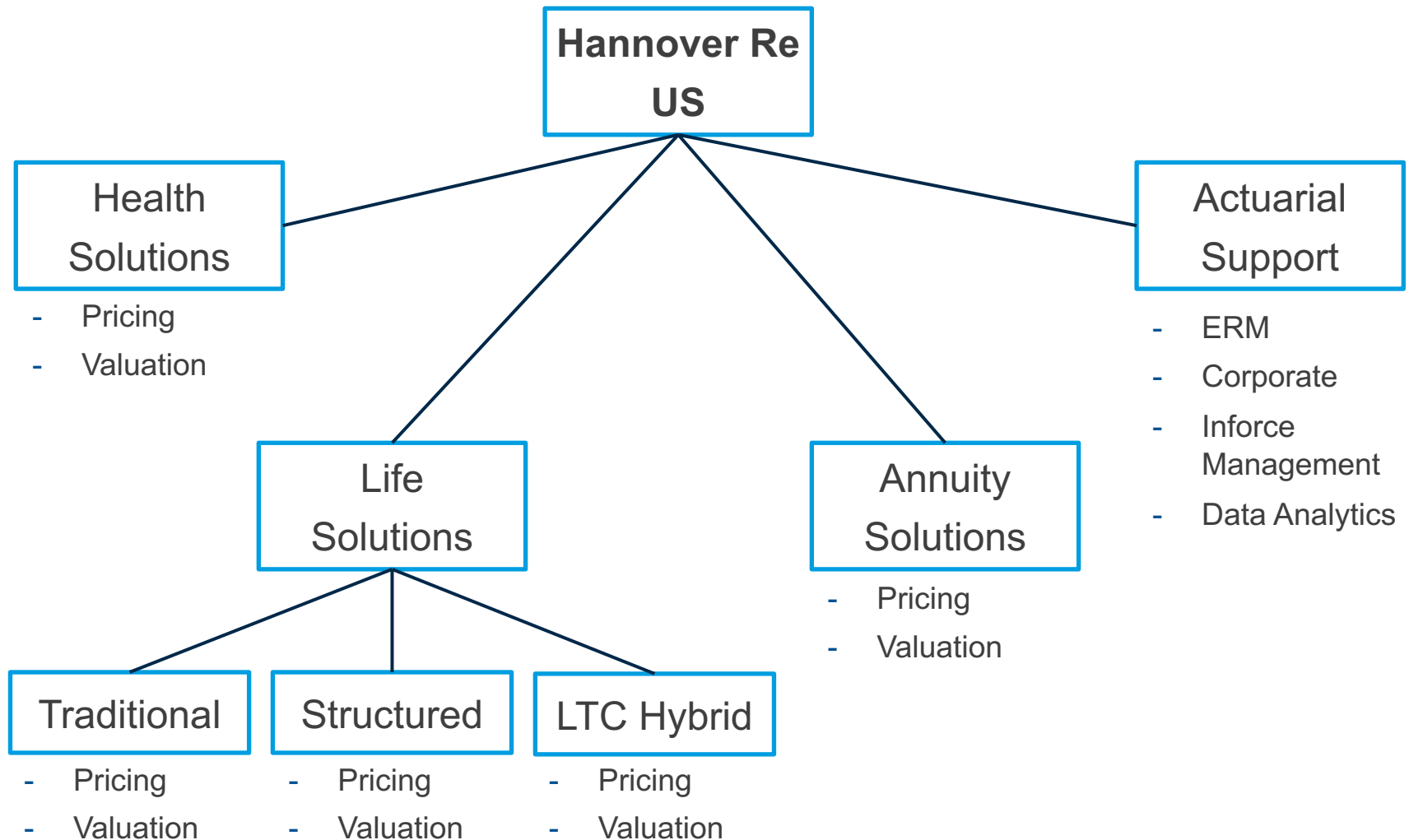


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Who is Hannover Re

High level structure

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Our Internship Program

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What To Expect

- ▶ Embedded in organization (not some program off to the side)
- ▶ Projects that provide concrete learning opportunities (not busy work/reading)
 - Work that we would do if we had the time
 - Tools that interns build are often used for years
- ▶ Hands on opportunities to build technical skills
- ▶ Interaction with industry leading experts throughout the organization
- ▶ Engaging culture both inside and outside of work
 - Great balance of working hard, but also enjoying the benefits of ½ day Fridays to maximize the weekend.
- ▶ Rewarding overall experience

Our Internship Program

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Skills you will develop

► Technical Skills

- Excel and VBA
- SQL
- Actuarial modelling software (Risk Agility, ALFA, etc)
- R, Python, etc.

► Soft Skills

- Effective communication
- Presenting
- Industry knowledge

► Networking opportunities

- Eat with Pete
- Lunch with FSAs
- Actuarial mixers

How to Apply

Email your resume to:

Madeline.Klein@hramerica.com

Brittany.Tillman@hramerica.com

Application Process:

1. Submit your resume to the emails above expressing interest
2. We will schedule an interview
3. Expect to hear back from us in a week or two following the interview



Hannover Re at a
Glance

Follow us

For updates on job opportunities, follow us:



www.linkedin.com/company/hannover-life-reassurance-company-of-america

My contact information:

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