

# Actuaries: Risk Is Opportunity

PRESENTED TO

**University of California, Santa Barbara**

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**STEVEN G. VERNON, FSA, EA, MAAA**  
President,  
Rest-of-Life Communications

**KEN GUTHRIE**  
Managing Director of Education  
Society of Actuaries

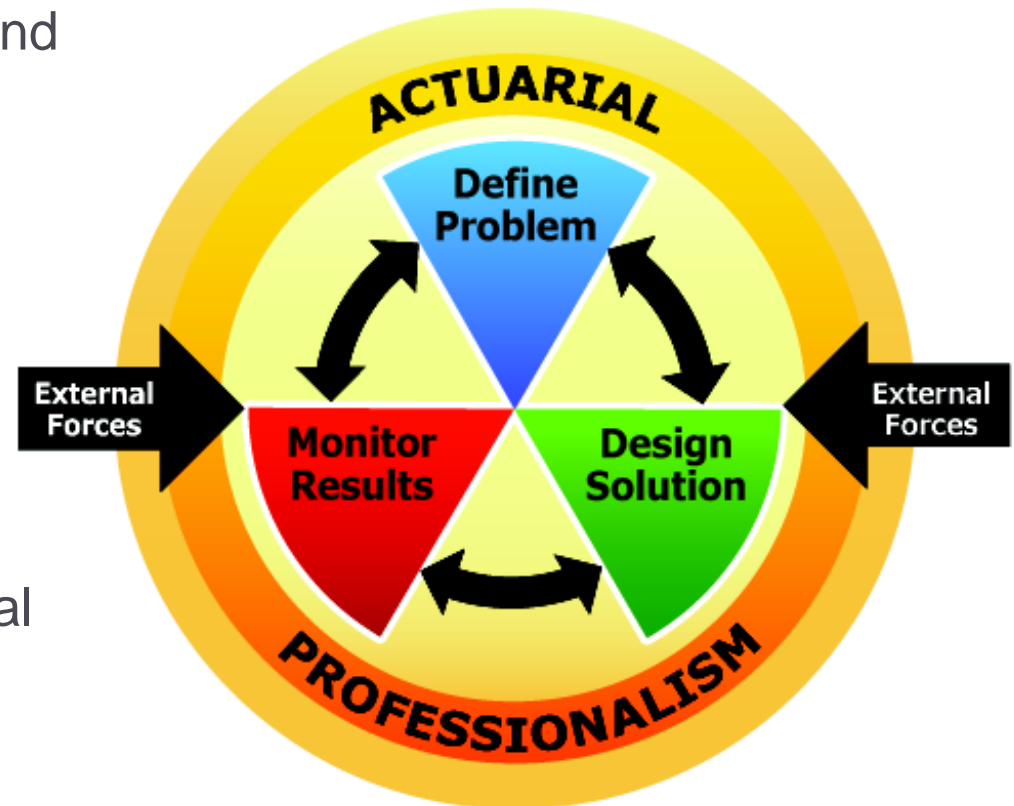
**LISAMARIE LUKAS**  
Director of Communications  
Society of Actuaries

# What is an Actuary?



# Actually, Actuaries...

- Analyze, measure, convert and manage risk into opportunity
- Use mathematical and statistical analytical skills, financial theory, business knowledge and an understanding of human behavior
- Develop and validate financial models to guide decision making
- Are creative problem solvers who see the “whole picture”



# What is Risk?

- *Old-School Webster Definition:*
  - Possibility of Loss
- *New-School Actuarial Definition:*
  - Opportunity



# The Actuarial Point of View

- Actuaries don't merely speak to what we can lose; they focus on what we can gain
- Actuaries decide whether to avoid, reduce, transfer or manage (exploit) an enterprise's risk



# Evolving Nature of Risk



**Credit Crisis, Auto  
Failures Just Side Shows**



**Risk Management Expert  
Added To BMO Board**



**US Health Care System:  
Righting An Inversion**



**Can you Afford to Retire?**



**Is Longevity Insurance  
Right for You?**



**Silent Virus likely  
to spark next pandemic**

# Opportunities For Actuaries

# Traditional Opportunities

- Health Insurance
- Life Insurance
- Property/Casualty Insurance
- Pension/Retirement



# Emerging Trends

- Changes in accounting rules (e.g., principles-based)
  - Increase in demand for financial reporting actuaries
- Enterprise risk management (ERM)
  - Expanding traditional and non-insurance opportunities
  - CERA credential; SOA funding
- Broader Financial Services
  - Designing trading or hedging strategies or managing socialization risks
- Globalization
  - Opportunities for those understanding cultures, language, etc.
  - Unifying approaches, actuarial organizations, credentialing, etc.
- Health care
  - Changes in regulation may drive new opportunities for actuaries

# Enterprise Risk Management (ERM)

- There is a growing need for organizations to link their risks across their business units and adopt a more comprehensive framework
- ERM is the process of risk analysis and management across an entire organization



# ERM Professional Credential: Chartered Enterprise Risk Analyst (CERA)

- Developed in response to non-traditional business needs
- CERAs model future events by converting data that drives strategic decisions with a 360-degree view of an organization's risk profile
- To learn more about the CERA credential, visit [www.CERAnalyst.org/Campus](http://www.CERAnalyst.org/Campus)

**CERA**  
Chartered Enterprise Risk Analyst  
C R E D E N T I A L

# Benefits of a CERA Designation

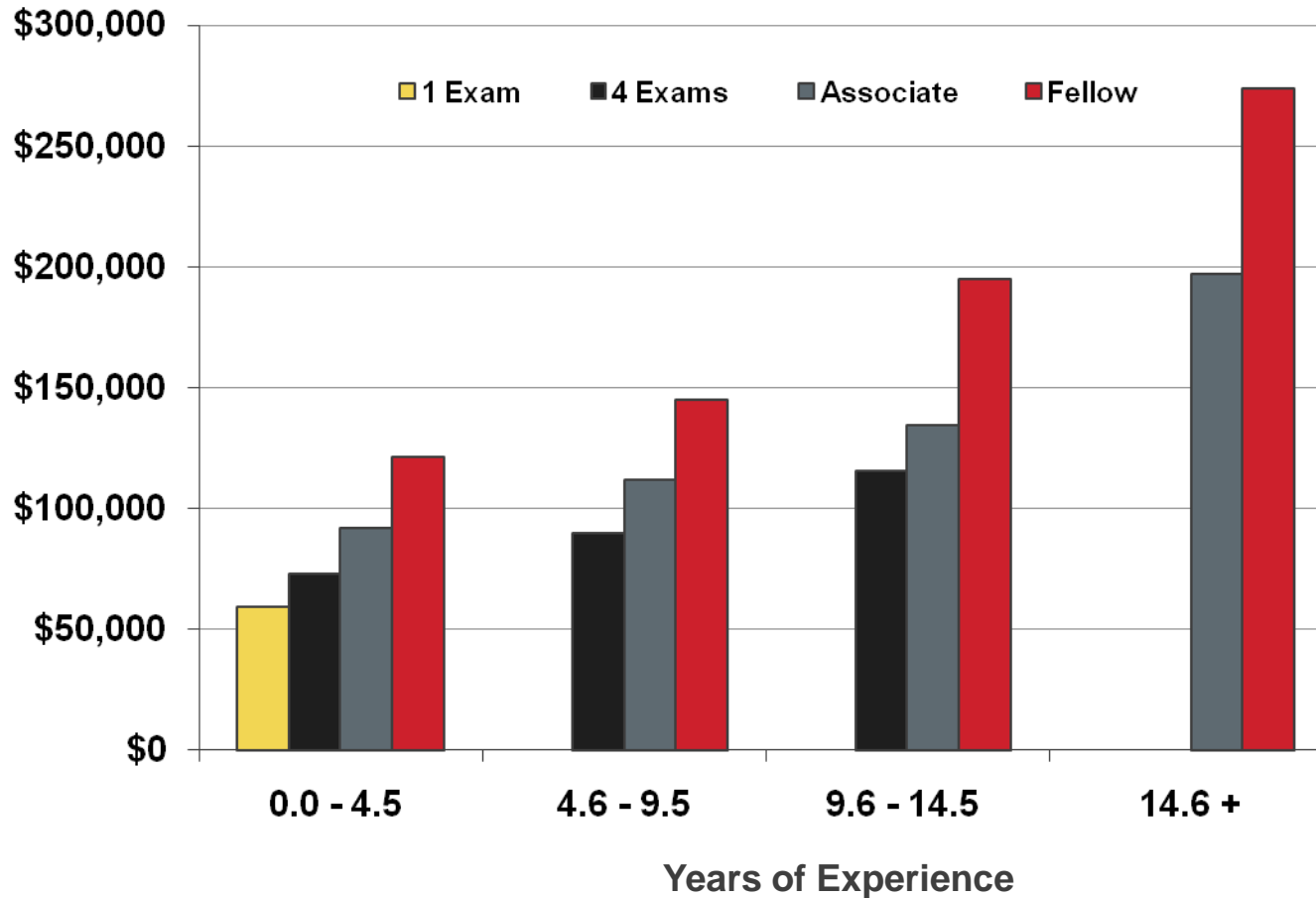
- The most comprehensive and rigorous ERM training available
- Enhance exposure to the C-suite
- Differentiates them from other risk professionals
- Advances the field of ERM
- Expands professional network by being a member of the SOA

# Why Become an Actuary?

- Combines passion for math with business
  - Wide variety of opportunities, career experiences and growth available
- U.S. Department of Labor
  - Employment of actuaries expected to increase by 24 percent through 2016
  - Less sensitive to economic cycles
- Financial Rewards
  - \$46,000-65,000 – Entry-level actuaries
- Education Benefits
  - Learn while you earn – Most employers provide full educational financial support while you pursue your credentials



# Earning Potential: Average Salaries



Note: Compensation may vary significantly according to specialty, years of experience, geographic region and responsibilities.  
Source: D.W. Simpson & Company, Inc., October 2009 *Salary Survey*. Visit: [www.DWSimpson.com/Salary](http://www.DWSimpson.com/Salary) for more information.

# A Strong Career Outlook

Through employer research, the SOA has found:

- The profession is becoming more relevant to the needs of larger companies
- Actuarial jobs remain steady
- High value of enterprise risk management (ERM)
- Role of Chief Risk Officer (CRO) opening up to actuaries



# A Strong Career Outlook



Doing the Math to  
Find the Good Jobs



Best Jobs for New  
College Graduates Now



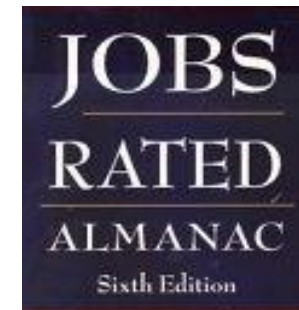
Ten Jobs That Pay \$80,000 a Year  
Ten Jobs For Math Whizzes



Actuary Ranked  
Best Job of 2009



One of the Best Careers in 2007



Ranked Top Four Careers in  
the Past Six Editions

# Day in the Life of Our Featured Actuaries



# What Employers Value

ACTUARIAL  
CREDENTIALS



CRITICAL  
BUSINESS  
SKILLS

# Advice for Actuarial Students

- Make learning a lifelong habit
- Develop disciplined study habits
- Acquire a well-rounded curriculum
- Sharpen your communication and business skills
- Take SOA/CAS actuarial exams while in school
- Obtain an actuarial internship
- Find mentors

# Making Risk Your Opportunity

**KEN GUTHRIE**  
Managing Director of Education  
Society of Actuaries

# The Society of Actuaries (SOA)

- Is the largest professional, actuarial organization in the world
- Serves over 21,000 members, 30,000 candidates and the public
- Works for actuaries to be the leading professionals in the measurement and management of risk
- Committed to:
  - Education
  - Research
  - The Profession

The screenshot shows the Society of Actuaries website homepage. At the top right, the text "SOCIETY OF ACTUARIES" is displayed. Below it is a navigation menu with links for "PROFESSIONAL INTERESTS", "NEWS & PUBLICATIONS", "MEETINGS & EVENTS", "CAREERS", "EDUCATION", "RESEARCH", "ABOUT THE SOA", and "LEADERSHIP". The main header features the "Actuaries Risk is Opportunity." logo on the left and a large banner image on the right showing a person in a suit looking out over a city skyline. The banner text reads "Actuaries: Enabling smart, more confident decisions." Below the banner, there are several content blocks: "Quick Search" and "Actuarial Directory" on the left; "My Account" and "Exam Registration" in the middle; "Breaking News" and "Upcoming Events" on the right; and "Related Sites" and "Important SOA Information" at the bottom right. The "Breaking News" section includes a headline "SOA Announces Fall 2009 Advanced Finance/ERM Exam" and "SOA Announces New ASAs and CERAs for March". The "Upcoming Events" section lists the "Life Spring Meeting" and "Enterprise Risk Management Symposium". The "Related Sites" section includes links to "Chartered Enterprise Risk Analyst (CERA) Credential", "Image of the Actuary", and "Be An Actuary". The "Important SOA Information" section includes links to "New Publication: Risk Management Essays", "Continuing Professional Development", "Pay Membership Dues or Print Invoice", "2009 Board of Directors and Section Council Elections", and "Contact Us".

# Academic Studies

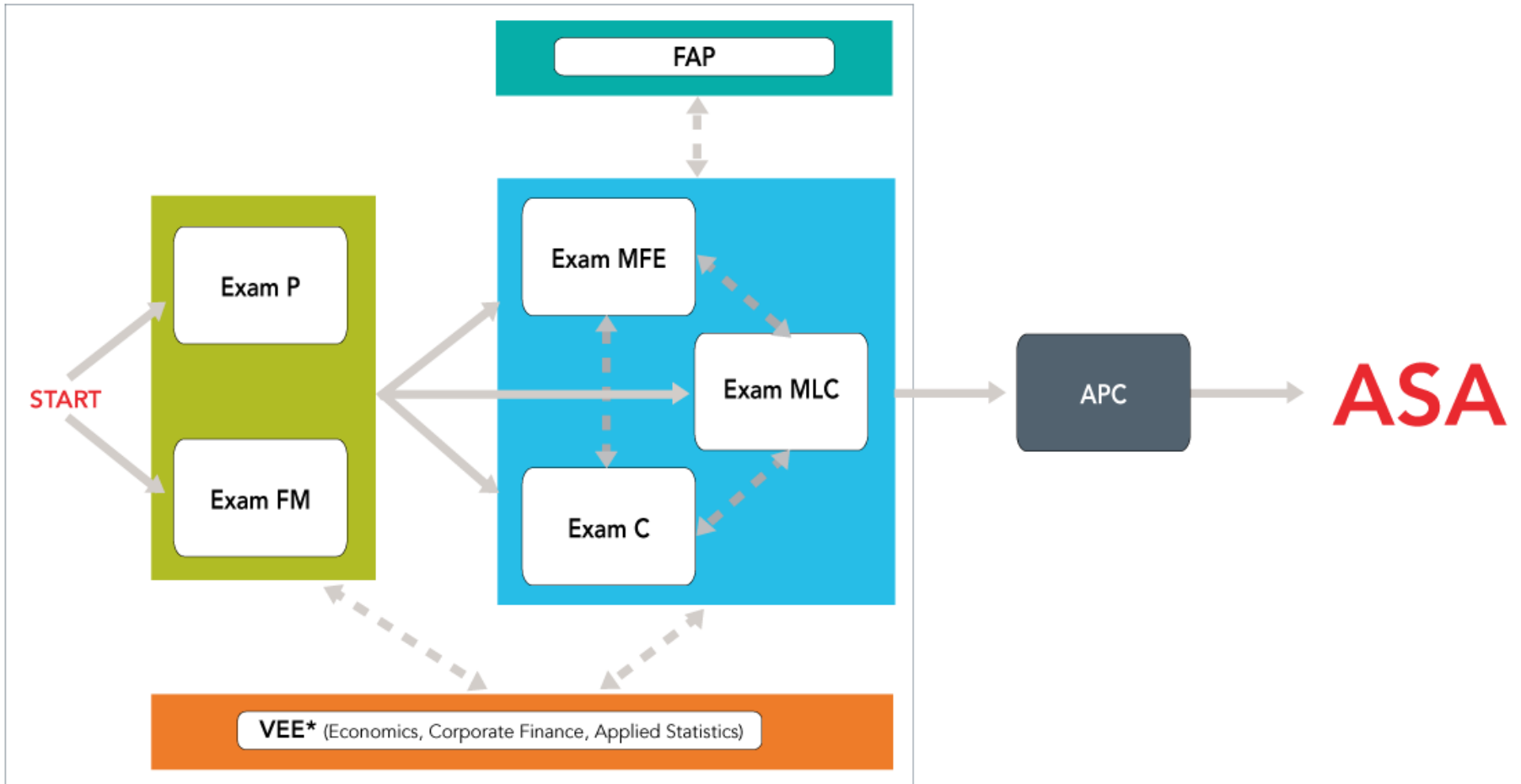
- Actuaries come from a range of disciplines including actuarial science, math, finance, statistics and engineering
- Students should complete courses in economics, applied statistics and corporate finance
- Other foundational coursework includes probability, calculus and business communications



# Three SOA Designations/Credentials

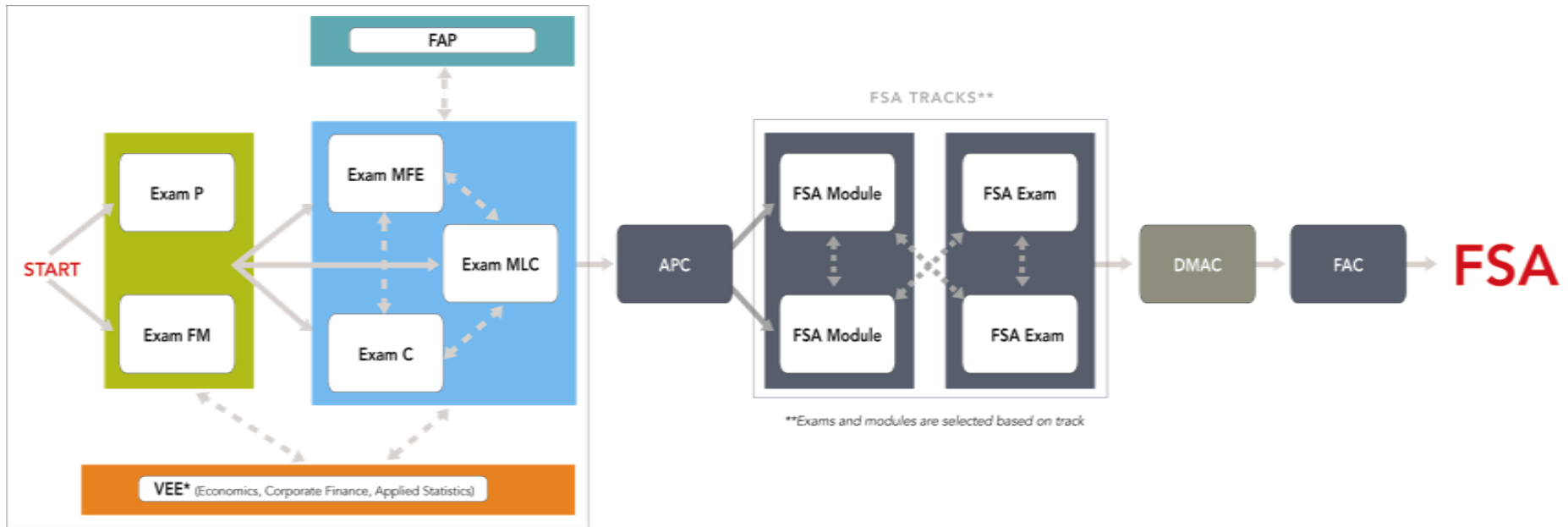
- Associate of the Society of Actuaries (ASA)
- Fellow of the Society of Actuaries (FSA)
- Chartered Enterprise Risk Analyst (CERA)

# ASA Designation



*\*Must complete any two exams before applying.*

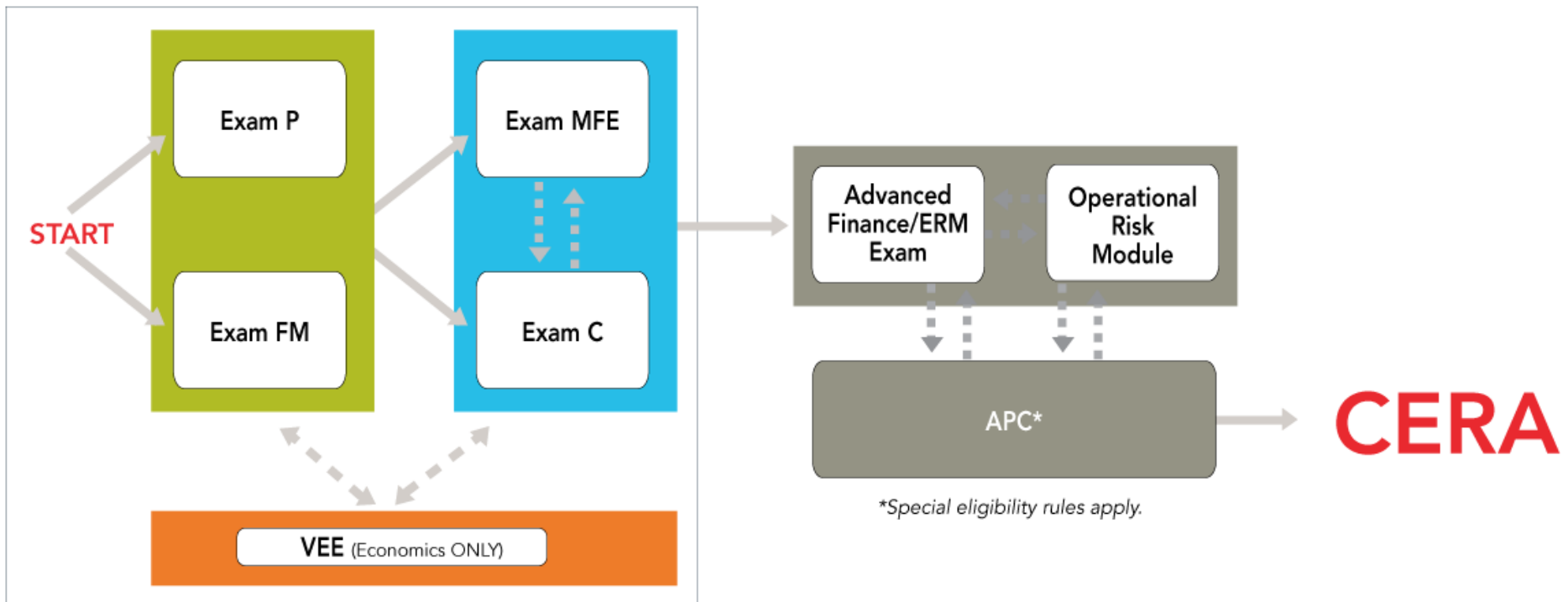
# FSA Designation



\*Must complete any two exams before applying.

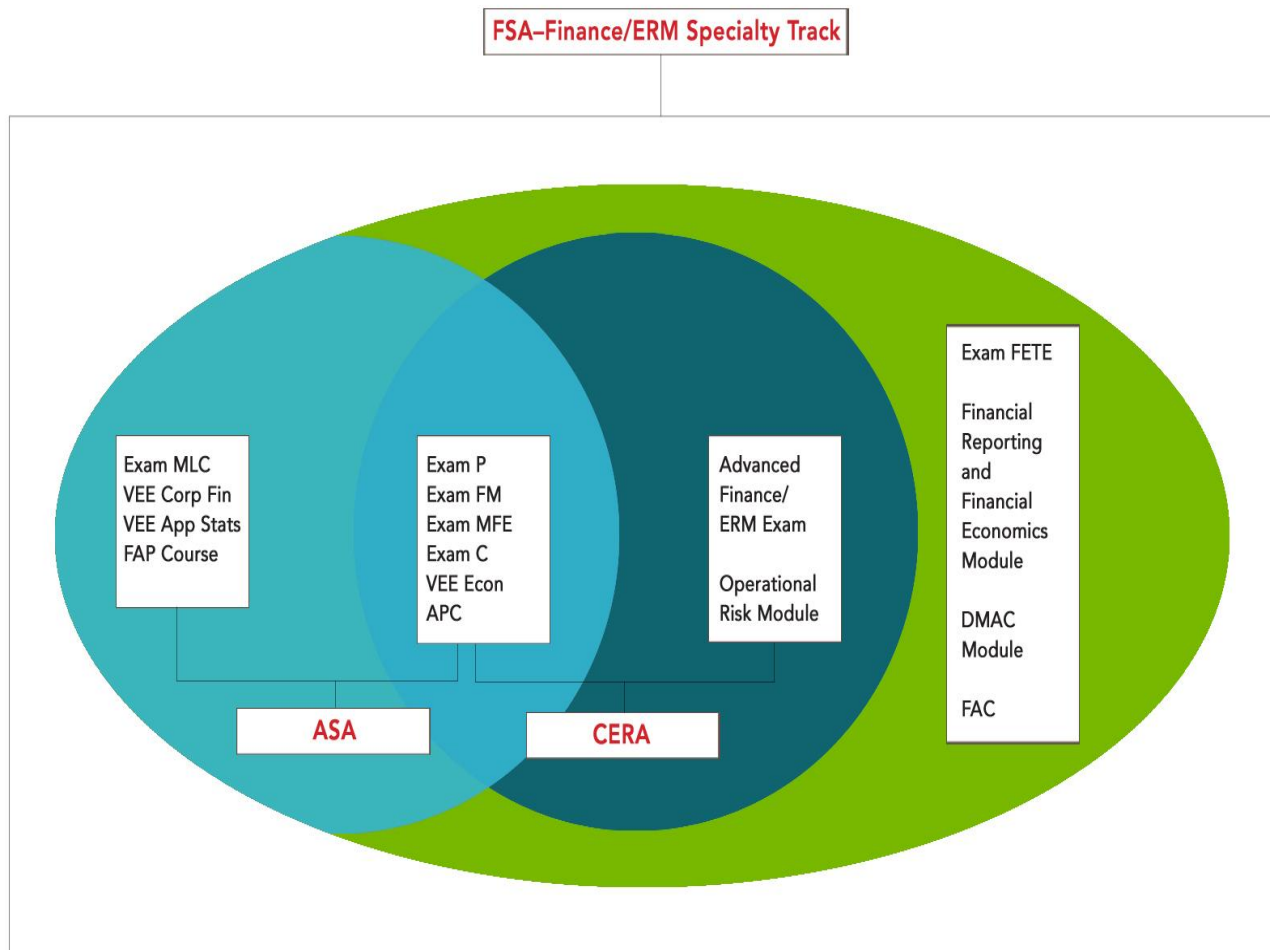
\*\*Exams and modules are selected based on track

# CERA Credential



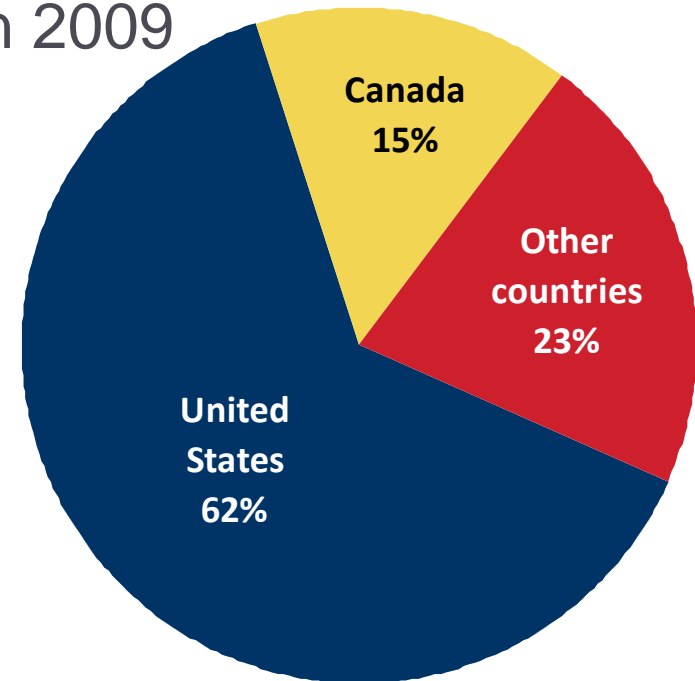
\*Must complete any two exams before applying.

# CERA Credential



# Examinations

- 350 exam centers worldwide
- 49,500 Exams administered in 2009
- More than 9,000 candidates were new



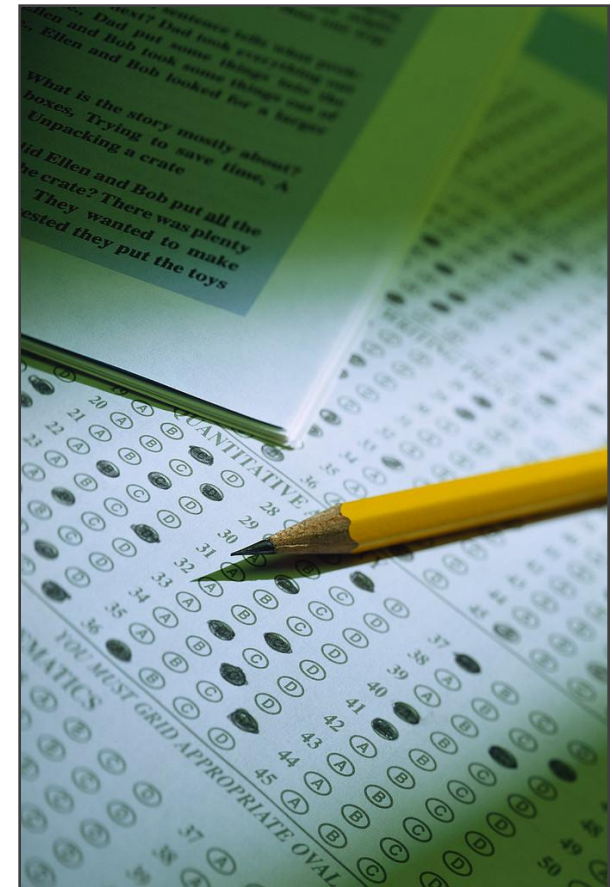
# CBT Advantage

## Computer-based testing (CBT) expanding

- Exams P, FM, & C now offered via CBT
- Exams MFE & MLC to follow

# Grading – Multiple Choice

- ACT and SOA volunteers/staff
- Checks & balances
- All potential question flaws reviewed by subject experts
- Pass mark reflects expected knowledge level
- Pass rate is not pass mark



# Education – The Rules

- Rules/regulations for exams
- Terms/conditions for e-Learning
- Penalties imposed for violations
  - Writing after time
  - Plagiarism on e-learning components
  - Copying from neighbor



# High Standards and Ethics

- We do not attempt to restrict membership
- We DO take our role of determining who has met the membership standards very seriously
  - Protection of the credential
  - Insurance for future actuaries

# High Standards and Ethics

## Candidate Code of Conduct

- Emphasizes importance of ethical behavior on the part of those pursuing an actuarial credential

# What's new in SOA Education

- **e-Learning education continues to evolve**
  - Continuous review/revision of modules (FAP and FSA level)
  - New Financial Economics module (July)
    - ◆ Now 3 FSA modules for each track
    - ◆ Providing much needed exposure to financial economics issues for all candidates

# What's new in SOA Education

- FSA-level exams offered 2x per year
  - Beginning Fall 2011.
- Help with exam preparation
  - Looking into providing additional guidance on study approach
  - Pilot study in 2010

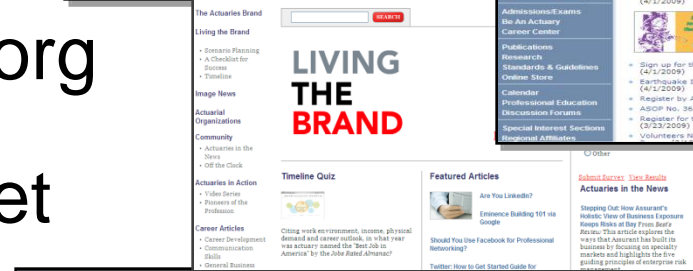
# Professional Development

Once you become an actuary you can:

- Continue your professional development
- Network with other actuaries
- Experience career growth
- Take advantage of volunteer opportunities

# Resources for Students

- BeAnActuary.org
- CASACT.org
- ImageoftheActuary.org
- RiskisOpportunity.net
- SOA.org



**Questions?**

**Thank You!**

**[www.SOA.org](http://www.SOA.org)**

**[www.RisksOpportunity.net](http://www.RisksOpportunity.net)**