

To Be a Professional

By William J. Falk, FSA, MAAA, EA, FCA
Chairperson, Actuarial Board for Counseling and Discipline

Athletes who are paid to perform are called professionals. As an actuary, is that all it takes to be a professional? Being paid for doing actuarial work? Of course not! But what do we mean by "profession" and "professionalism" when we apply them to actuaries?

Professions as we know them developed in the 19th century as a means for ensuring the quality of services the wealthy could expect to receive and safeguard the income of the profession's members. Law and medicine were among the early professions. Others soon followed. All professions have a few key characteristics, including:

- Expert skills and knowledge acquired through study and validated through admission criteria.
- Ethical behavior that places the professional's interests below those of others.

In exchange for being rewarded for providing professional services, members of a profession accept a responsibility to serve the interests of their principals (i.e., employers or clients) rather than their own interests and to act in ways that uphold the profession's reputation. In some roles, a professional may accept a responsibility to serve the interests of others, even if they differ from the principal's wishes.

Professionalism is the term we use for the concept that an actuary acts ethically and skillfully in performing actuarial services.

Professionalism begins with the Code of Professional Conduct adopted by the CAS (and all of the actuarial organizations in the U.S.). Every member of the CAS is expected

to follow the Code. The Code is further implemented through standards that codify or describe generally accepted actuarial practice or that clarify portions of the Code.

In order to maintain consistency and reduce confusion, the U.S. organizations have delegated certain professionalism roles.

- The American Academy of Actuaries is a focal point for professionalism activities. It is responsible for the Qualification Standards that describe how to determine when you are qualified to issue an actuarial opinion. The Joint Committee on the Code of Professional Conduct is an Academy committee consisting of representatives of all of the organizations.
- The Actuarial Standards Board (ASB), an independent board housed within the Academy, issues Actuarial Standards of Practice that guide how an actuary executes assignments.
- The Actuarial Board for Counseling and Discipline (ABCD), another independent board housed within the Academy, provides guidance to actuaries who have questions regarding the Code or ASOPs, investigates complaints against actuaries and, when warranted, recommends discipline to the organizations an actuary belongs to. Its activities are generally confidential.

All of the U.S. organizations have a role in educating their members on both practice and professionalism issues. In addition, each

→ turn to inside 2nd panel

The CAS Office is moving!

The CAS Office is relocating a few blocks from its current location in Arlington, Virginia. It is anticipated that the move will take place in early December 2005. The move will not affect the Fall exam registration or administration. Details will be provided on the CAS Web Site as the move date draws near.



Illustration: Dan Magnolia

Fall 2005 Exam Registration Deadlines

Exams 3, 6, and 9:
September 22, 2005

Joint Exams 2 and 4:
September 24, 2005

There is only one deadline for each set of exams. Late registrations will not be accepted.

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Change of Exam Center Deadlines

Exams 3, 6, and 9:
September 22, 2005

Joint Exams 2 and 4:
September 24, 2005

...

Summer 2005 Refund Request Deadline

September 30, 2005

...

Fall Exam Refund Request Deadline

December 31, 2005

...

Winter 2006 Exam Registration Deadline

VEE Exams: January 5, 2006

CAS Seminars and Meetings

Casualty Loss Reserve Seminar

September 12-13, 2005

The Boston Park Plaza Hotel
Boston, Massachusetts

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Limited Attendance Seminar on ALM and Principles of Finance

September 13-14, 2005

The Boston Park Plaza Hotel
Boston, Massachusetts

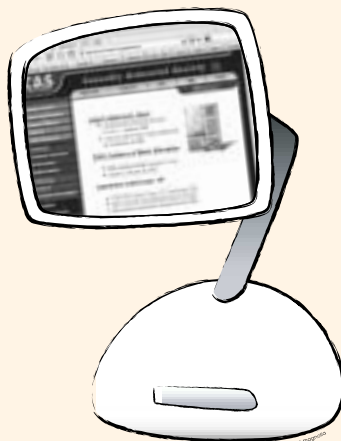
→ turn the page for more CAS Seminars

Dates to Remember Dates to Remember Dates to Remember Dates to Remember Dates to Remember

Exam Updates

& Web Resources

- Please check the "Admissions" section for:
 - Updates to the Syllabus of Basic Education
 - "Notice of Examinations"
 - "Verify Candidate Exam Status" to verify that joint exams and VEE credits are properly recorded
 - Grades are released between 3:00 p.m. and 3:30 p.m. EDT approximately eight weeks after the exam administration.
- If you have not received a confirmation of your registration for Exams 3, 5-9, and VEE exams two weeks before the registration deadline, please contact the CAS Office.
- Remember your Candidate Number! Candidates' Numbers will not be given over the telephone.
- Visit the "Regional Affiliates" section to find out about the activities of your local Regional Affiliate.



Dates to Remember Dates to Remember Dates to Remember

More CAS Seminars and Meetings

Special Interest Seminar on Predictive Modeling

September 19-20, 2005

Westin Michigan Avenue
Chicago Hotel
Chicago, Illinois

...

Limited Attendance Seminar on Reinsurance

September 26, 2005

New York Marriott
East Side Hotel
New York, New York

...

CAS Annual Meeting

November 13-16, 2005

Renaissance Harborplace Hotel
Baltimore, Maryland

...

CAS Course on Professionalism

December 2005 (Dates TBA)

Los Angeles, California
Washington, D.C.

Candidate Liaison Committee Mission

The Candidate Liaison Committee communicates with CAS candidates, collectively and individually, who are taking CAS examinations. The committee informs candidates as to appropriate courses of action available to them. Through periodic communication, this committee informs candidates of results of examination administrations, actions taken on complaints received regarding examination questions, and reasons for syllabus and examination changes being implemented. Communication encompasses existing policies and procedures as well as changes being considered. The committee should advise the CAS and its committees of the interests of the candidates regarding matters that come before the CAS and its committees. Candidates may contact the Candidate Liaison Committee at the CAS Office address.



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Subscriptions to the newsletter are complimentary to CAS candidates who registered for a CAS Examination during the previous two years.

For information, please contact the CAS Office. Send all letters to the editor to the CAS Office address.

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CLC Follows Up On Letter to the Editor

By Timothy K. Pollis, ACAS, Candidate Liaison Committee

A letter to the editor (*Future Fellows*, March 2005) from Kevin Cormier contained three suggestions for improving the current exam process. The members of the Candidate Liaison Committee (CLC) felt that it would be good to look into the issues that were raised. We contacted the Examination Committee for insights.

Suggestion 1: Set the pass marks in advance

The CAS has an official policy on pass marks on the CAS Web Site (see http://www.casact.org/aboutcas/president/passmark_policy.htm). The Examination Committee uses the following process. Prior to an exam being given, an independent panel of actuaries reviews the exam. Based on a common understanding of what a successful candidate will be able to demonstrate on the exam, the panelists are asked to determine what score they think a minimally qualified candidate will achieve on that specific exam. This is just one data point, however. Another data point is the pass mark that is recommended by the individual exam part committee. This pass mark recommendation is the result of statistical analyses to determine the relative difficulty and length of this exam and takes into account adjustments based on unforeseen interpretations of a question that may affect responses. The pass mark recommended by the panel is often very close to the pass mark recommended by the grading committee, but the results are mixed. In one instance, the pass mark selected by the panel would have reduced the number of passing candidates to as few as 12 percent.

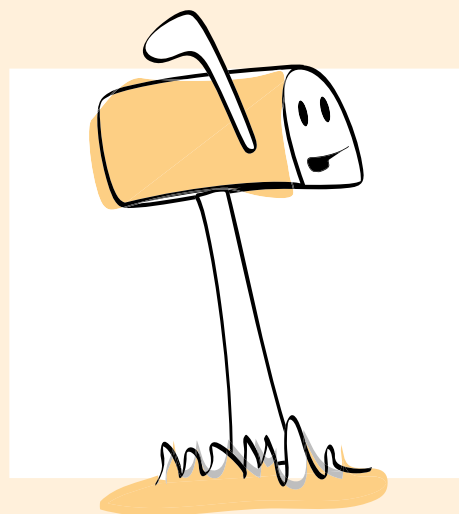
Suffice to say, setting a pass mark is challenging, particularly in free-response exams in which partial credit is allowed. Setting a rigid pass mark in advance risks ignoring the experience that hundreds of data points generate.

Since 2000, Exams 3, 5-9 have a mean and median pass mark of about 60% of total points. [These data are available at the first bulleted links under the specific exam in the Past Exams section of Study Tools in the "Admissions" section of the CAS Web Site (see <http://www.casact.org/admissions/studytools/PastExams.htm>).] Only once has the pass mark in those

years been as high as 70 percent (Exam 8, 2004). If a candidate wants to consider an unmovable target for a passing percentage, recent history suggests that it may (or may not!) be safer to assume that 70 percent of total points would be more appropriate as an estimated pass mark, which is not unlike most university classes.

Suggestion 2: Develop solutions along with questions

Mr. Cormier indicated a desire for complete solutions with text references to be published along with the full credit solution(s) currently published. This



would allow a glimpse at a full credit answer(s), and candidates would then also see the source(s) of the model correct answer. In addition, the annotated solution would be free of errors.

We learned from the Examination Committee that the question writers develop a model answer key along with the question. Because this key will be one element that the graders will use to grade the exam, it tends to be very detailed—generally much more detailed than the committee would expect candidates to be able to produce in an exam setting.

For the sample answers posted on the CAS Web Site, the Examination Committee selects candidate answers for which full credit was given to show what a candidate was able to do given the time constraints. Candidates will note that these are not always pretty or "perfect," but they do represent what was deemed by the Exami-

nation Committee to have demonstrated mastery of the material being tested. The committee has recently begun publishing multiple sample answers on questions for which candidates could go in many directions and still earn full credit.

Two issues may make it hard for the CAS to publish these annotated solutions. One is that it would only increase the amount of work required of volunteers, who already give quite a bit. The graders evaluate whether the candidate provided a correct answer, not whether the candidate provided the expected answer. The model answer serves only as a guide for the grader, but the Examination Committee expects the grader to accept any answer that is correct, even if the question writer did not identify it as a correct answer when the question was originally drafted. In addition to including all possibly correct answers, the committee would have to take more time to make sure that the updated model answer is properly edited for publication. The second possible hurdle is the ever-changing nature of the syllabus. As articles move on and off the syllabus, or text books are updated with new editions, the references may lose relevance. It is interesting to note, however, that commercially produced study guides often cite a reference source.

Suggestion 3: Communicate changes from past practices

When deciding whether to announce a change to the exam structure or rules, the Examination Committee's first consideration is "What might candidates do differently based on this information?" For example, when the committee first made the *Exam 9 Experience Rating Plan Manual* and *Retrospective Rating Plan Manual* available during the exam, the committee recognized that candidates might study differently knowing that these would be available, and this change was announced as soon as possible. They have taken similar approaches in other cases. At the other extreme, experience has shown that announcing minor formatting change to the exam creates unnecessary anxiety without adding to the education process for candidates.

The CLC thanks Kevin Cormier for his letter and the Examination Committee for providing feedback.  

Readers Share Views

By Benjamin W. Clark, FCAS, Candidate Liaison Committee

In the March 2005 issue of *Future Fellows*, the Candidate Liaison Committee announced a survey for all readers to provide comments on this publication. We received 47 responses and would like to provide a summary. Over half of the respondents (27 of 47) read at least 75% of the publication. Less than 20% of the respondents read less than 25% of the newsletter (9 respondents).

The top three features of the newsletter in order of preference are:

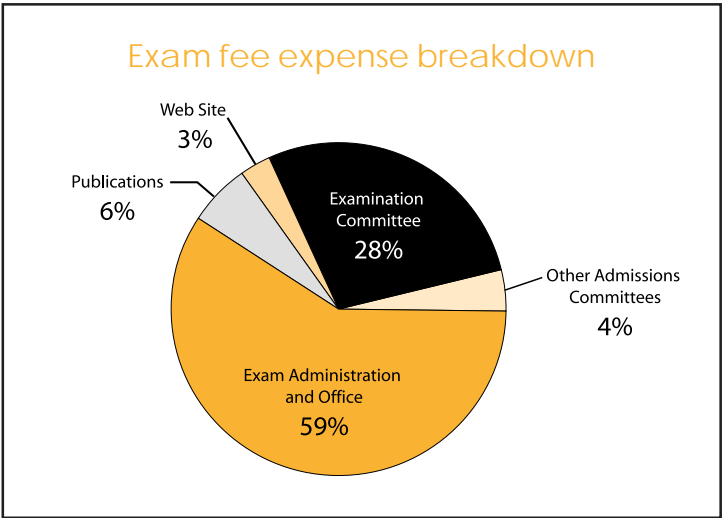
1. Updates to the admissions process,
2. Explanations of the exam process, and
3. Interviews with practicing actuaries.

The least preferred articles are:


1. Interviews with Candidate Liaison Committee members, and
2. Nonactuarial pursuits.

We found that most respondents read the print version (45% solely read it, 43% read both print and Web version) and most prefer the print version (66%). We also received several comments about possible future articles that we will take into consideration. We appreciate the input from all of those who responded.

Since we only received 47 responses out of over 4,900 publications sent out, we are opening up this survey again to get additional input from you, our faithful readers. Please take just a few minutes to fill out this survey (it should only take you five minutes to open the link and answer the seven questions).



We plan to use this survey as a portal into providing additional communications in areas that interest the actuarial candidates. To continue to provide current and beneficial information, we need input from you, the actuarial candidate.

As an example, one candidate was curious where the \$525 exam fee goes. The pie chart shows a breakdown of expenses. It is important to note that the value of volunteer time is estimated to be greater than the out-of-pocket expenses that are reflected in the chart. There are approximately 280 CAS members who volunteer their time on the Examination Committee each year. 


What Do You Read in *Future Fellows*?

The Candidate Liaison Committee would like to have your feedback about *Future Fellows*. Please use the Readers' Survey in the "Admissions" section of the CAS Web Site to indicate what you like, dislike, and would like to see in upcoming issues. The CLC will use this feedback to properly serve the actuarial candidate community.

To Be Professional

from cover page

organization has a process for reviewing recommendations from the ABCD and imposing discipline on its members. Professionalism in Canada is very similar to the U.S., starting with the Rules of Professional Conduct of the Canadian Institute of Actuaries. The CIA takes on all of the roles assumed by the Academy, ASB, and ABCD in the U.S. A significant difference is that its investigation process is much more public than in the U.S., involving public tribunals to adjudicate complaints. Note that under a cross border discipline agreement the CIA investigates complaints of U.S. actuaries who perform work for delivery in Canada and the ABCD investigates complaints against CIA members who perform work for delivery in the U.S. For a more complete discussion of professionalism in the actuarial profession, I urge you to read the American Academy of Actu-

aries discussion paper "Structural Framework of U.S. Actuarial Professionalism" that appears at http://www.actuary.org/pdf/prof/framework_04.pdf.
Editor's notes: Beginning in 2006, the CAS will require candidates taking CAS-specific examinations (i.e., Exams 3, 5-9) to abide by the CAS Code of Professional Conduct. The Code is available online (see <http://www.casact.org/aboutcas/codememo.htm>).
Mission of the ABCD: The Actuarial Board for Counseling and Discipline (ABCD) was formed to serve the five U.S.-based organizations representing actuaries. The ABCD considers complaints and questions concerning possible violations of the Code(s) of Professional Conduct. Organizations served by the ABCD include the American Academy of Actuaries, the American Society of Pension Actuaries, the Casualty Actuarial Society, the Conference of Consulting Actuaries, and the Society of Actuaries. The ABCD also serves the Canadian Institute of Actuaries relative to practice by its members in the United States. In addition, the ABCD responds to inquiries by actuaries concerning their professional conduct and, when requested to do so, provides guidance in professional matters. 

Nontraditional Options: P&C Actuaries in Derivatives* Pricing

By Erica W. Szeto, FCAS, Candidate Liaison Committee

New York – About a year ago, when Converium announced the run-off of their North American operations, Maria Morrill, ACAS, sat at her desk in their finite reinsurance pricing division and called a recruiter.

“The recruiter sent me a list of jobs and a financial modeling position at Munich American Capital Markets (MACM) caught my eye.” Morrill admits that at the time, she had little knowledge of finance or derivatives — she had not even sat for CAS Exam 8 on finance yet. What Morrill was most attracted to was the nontraditional nature of the actuarial opportunity.

MACM, an affiliate of reinsurance giant Munich Re, assumes risk via financial derivatives on portfolios of risks. Examples of these structures include weather derivatives, portfolios of project finance loans, asset-backed securities, and media and entertainment financings. “Many reinsurance companies are now positioning themselves to transfer insurance risk via the capital markets,” Morrill said, “and Munich Re is one of them.”

MACM was looking for someone with an actuarial pricing background to model the risk-return expectations and profit-loss distributions of various capital markets transactions. The results of the analysis would be used in deciding in which deals to participate.

Morrill’s reinsurance pricing experience and problem solving skills proved to be valuable assets. “The models I used to price finite reinsurance risks are actually quite similar to the models I’m now using to evaluate these capital markets transactions. The only difference is that I model the behavior of assets rather than liabilities.”

Morrill holds a Ph.D. in mathematics from UCLA, and spent six years teaching at the College of the Holy Cross in Worcester, Massachusetts before joining the actuarial profession, but claims that her new job does not necessarily require that level of academic achievement. “There’s a lot of problem solving involved, a skill I would venture to say most actuaries have. I am constantly thinking about the best way to model an underlying process — that process might be the default behavior of an asset-backed security as opposed to the insurance claims-paying process that a traditional actuary might model.” The models she builds are in Excel, using VBA to run Monte-Carlo simulations.

When asked about the greatest difference she has come across in her transition from the insurance market to the capital markets, Morrill jokes, “Underwriters don’t take me out


drinking anymore!” Morrill claims that the transition has not been painful at all — there are many parallels between the two markets that have made her transition relatively easy.

“At MACM,” she explains, “the client liaison is called a structurer, who functions like an underwriter for capital markets deals.” Morrill works closely with the structurers, similar to her reinsurance pricing days when she worked regularly with the underwriters.

“Actually, the greatest challenge was getting up to speed with regard to deal terminology,” Morrill said, “We meet with counterparties and clients, and getting familiar and conversant with the lingo of finance and derivatives was the number one challenge.”

Morrill continues to be excited about her new position at MACM. She appreciates the opportunity to continuously learn new things and be able to participate in a variety of unique transactions, such as modeling the cash flows of financing pools for major motion picture movie studios. “I really like the idea of having an arsenal of actuarial tools, which can be coupled with the tools developed for capital markets and bringing it all to bear on the financial markets opportunities,” Morrill says.

The work environment at MACM is relatively sane. Morrill sometimes works long hours, but claims not as much as consultants or investment bankers. MACM fully supports her pursuit of Fellowship with the CAS. Morrill currently reports to the head of the Structured Products group, who has a background in economics and risk management. Morrill is currently the only actuary in her group, but has opportunities to interact with actuaries at Munich Re and the Munich Re subsidiary, American Re.

As the popularity for reinsurance companies to transfer risk to the capital markets increases, Morrill expects to see more opportunities for actuaries to grow into this field. “It is in our best interest as actuaries to claim all areas of work where the actuarial skill set can be utilized and add value. We should keep an open mind when it comes to categorizing jobs as being actuarial or not.” 



Maria Morrill, ACAS

* Derivatives are financial instruments whose promised payoffs are dependent on the value or occurrence of something else (called the underlying).

February 2006 VEE Exams

The Winter 2006 Transitional VEE Exams on Applied Statistical Methods, Corporate Finance, and Economics will be held on Thursday, February 16, 2006. The application form will be available in the “Admissions” section of the CAS Web Site on September 30, 2005. The registration deadline is January 5, 2006.

Results of Spring 2005 CAS Examinations

Summary of Spring 2005 Examinations

Exam	Number of Candidates	Number of Passing Candidates	Number Below 50% of Pass Mark (Ineffective)	Effective Pass Ratio
1/P	6374	2485	802	44.6%
2/FM	5275	3857	186	75.8%
3	339	136	52	47.4%
4/C	1580	835	62	55.0%
5	679	313	53	50.0%
7-Canada	60	25	0	41.7%
7-US	405	182	21	47.4%
8	311	131	21	45.2%

Summary of Spring 2005 Student Examination Survey

Exam	Percent Responding	Syllabus Coverage <i>Inadequate (1) to Adequate (5)</i>	Exam Clarity <i>Not Clear (1) to Very Clear (5)</i>	Exam Length <i>Too Short (1) to Too Long (5)</i>	Exam Difficulty <i>Easy (1) to Difficult (5)</i>	Exam Quality <i>Poor (1) to Excellent (5)</i>
1/P	6.26%	3.61	3.64	3.25	3.82	3.57
2/FM	7.43%	4.05	4.05	2.84	2.45	3.39
3	41.59%	3.04	3.22	3.35	3.62	3.27
4/C	10.82%	3.41	2.83	3.34	4.55	2.74
5	27.84%	3.76	3.47	4.34	2.88	3.36
7-Canada	38.33%	3.04	2.83	3.43	3.82	3.00
7-U.S.	38.52%	3.08	3.05	4.12	3.66	3.05
8	41.16%	2.50	2.07	4.70	4.39	2.02

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