

# Future Fellows



March 2002

For the Candidates of the Casualty Actuarial Society

Volume 8, No. 1

## Important Dates to Remember

### Spring 2002 Registration and Change of Center Deadline

Exams 5, 7, and 8: **March 28, 2002**

Exams 1-4: **April 1, 2002**

### Deadline for Refund Requests

**June 30, 2002**

## CAS Seminars and Meetings

### Seminar on Ratemaking

**March 7-8, 2002**

Tampa Marriott Waterside  
Tampa, Florida

### CAS Spring Meeting

**May 19-22, 2002**

Hotel del Coronado  
San Diego, California

### Seminar on Reinsurance

**June 3-4, 2002**

Westchester Marriott  
Westchester, New York

### Risk and Capital Management Seminar

**July 8-9, 2002**

Toronto Marriott Eaton Centre  
Toronto, Canada

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## An Introduction to the Quantitative Risk Analyst Concept

By Serhat Guven, Candidate Representative  
Student Liaison Committee

An international working group of English-speaking actuarial organizations is discussing the concept of a Quantitative Risk Analyst (QRA) designation. The CAS Future Education Task Force and an SoA task force with CAS representatives are carefully studying the QRA designation. Other organizations in the working group are the Faculty of Actuaries, the Institute of Actuaries (U.K.), and the Institute of Actuaries of Australia.

The working definition of QRA is "The Quantitative Risk Analyst has developed an understanding of the fundamental technical concepts of the analysis of risk and its quantification, and the application of mathematical models to real-world risk management issues." The definition was published in the SoA Report of the Task Force on Education and Qualification 2005 (available at [www.soa.org/eande/taskforce\\_2005.pdf](http://www.soa.org/eande/taskforce_2005.pdf)).

Continued on page 2

## CAS Establishes New Admissions Task Force

By Alejandra S. Nolibos, ACAS  
Student Liaison Committee

In 2001, the CAS called for volunteers for the new Task Force on Future Education that reports directly to the CAS Board of Directors.

According to the call, the purpose of the task force is to evaluate the CAS admissions process and recommend changes to ensure that the process:

- Provides basic education in all areas necessary to the education of all casualty actuaries
- Ensures that candidates for admission have demonstrated mastery of the critical components of casualty actuarial practice
- Consistent with the above, minimizes the expected amount of time required to achieve membership in the Society

Continued on page 4

### Facts about the Future Education Task Force

- The first meeting took place in Chicago in November 2001.
- All subtask forces have met at least once.
- The next meeting is March 2002 in Tampa.



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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.

**Postmaster:** Please send all address changes to: The Casualty Actuarial Society, 1100 North Glebe Road, Suite 600, Arlington, Virginia 22201-4798.

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## Quantitative Risk Analyst

From page 1

The report lists some of the major course requirements for the QRA designation:

- Probability and introductory statistics
- Corporate finance and compound interest
- Statistical methods
- Economics
- Investments and asset/liability management
- Modeling
- Professionalism course

Although many conditions are still under discussion, the educational requirements for the QRA designation would cover most of the topics currently on the preliminary exams. Another aspect of the QRA discussion is whether to grant credit for university courses on QRA topics, except for modeling.

The rationale for QRA includes recognition of nonactuarial risk management work, retaining entrants to the profession, and refocusing on the more mathematical techniques and tools of actuarial practices.

It is important to note that the CAS has **not** taken a stand on whether to adopt the QRA concept.

At this early stage in the policy-making process, it is useful to get insights and comments from people who will be directly affected by these decisions—the candidates. I spoke with many CAS candidates at the USAA and the Southwest Actuarial Forum and on the CAS Discussion Forum regarding this topic. The following summarizes the broad spectrum of positive and negative comments regarding the QRA concept.

- Candidates express concern about the purpose of the QRA designation. What problem is the QRA trying to solve? Many do not see value in another level of designation. Companies retain and promote nonexam-taking actuaries as an internal company policy. Companies are concerned with the value of an employee. Would another level of designation support this idea? Companies make market value decisions—not designation decisions—regarding employee retention and promotion.
- The QRA designation does nothing to solve the problem of the exam system itself. Candidates are leaving the profession because of frustration with the exam process.
- Many believe that an added designation level would promote exposure to the career and recognize the accomplishments of a significant number of candidates who may otherwise leave the profession.

The CAS would like feedback on the QRA concept. Direct comments to the Student Liaison Committee by using the feedback link in the “Exams” section of the CAS Web Site at [www.casact.org](http://www.casact.org). Comments will be forwarded to the CAS committees and task forces charged with making recommendations on the QRA designation. Venues for additional discussion include the CAS Discussion Forum and CASNET.√

### Student Liaison Committee Mission

The Student Liaison Committee communicates with CAS candidates, collectively and individually, who are taking CAS examinations. The Committee counsels 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 Student Liaison Committee at the CAS Office address.

## CAS Candidate Representative Sought Let Your Voice Be Heard!



The CAS Student Liaison Committee is accepting applications for a candidate representative to the committee. The candidate representative is an active participant on the *Future Fellows* editorial board and is responsible for presenting candidate views to the committee to help identify issues that should be addressed by the CAS. The candidate must meet the following

requirements:

- Be a candidate for the Casualty Actuarial Society;
- Be active in the examination process (must have sat for a CAS examination within the last two sittings);
- Be willing to serve a two-year term; and
- Participate in the Student Liaison Committee meetings (quarterly

telephone conferences and an annual meeting at the CAS Office).

The new representative will be selected at the Student Liaison Committee's June meeting. The two-year term will begin in September.

An application is available on the CAS Web Site or may be obtained by contacting the CAS Office. The application deadline is May 24, 2002.✓

## CAS Establishes New Scholarship Program

By J. Michael Boa, CAS Manager, Communications and Research

The CAS has established a new scholarship program for students pursuing a career in actuarial science. The CAS Trust Scholarship Program will award up to three \$1,500 scholarships to deserving students for the 2002-2003 academic year. The scholarship's intent is to further students' interest in the property/casualty actuarial profession and encourage pursuit of the CAS designations.

Applications are available in the "Academic Community" section of the CAS Web Site ([www.casact.org](http://www.casact.org)).

To be eligible, an applicant must

be a U.S. or Canadian citizen or permanent resident and admitted as a full-time student to a U.S. or Canadian educational institution. Applicants must also have demonstrated high scholastic achievement and strong interest in mathematics or a mathematics-related field.

Recommendations, transcripts, actuarial exam results, work experience, and written essays will all be considered in selecting the award recipients. Completed applications for the upcoming year are due by May 1, 2002. Additional details on application requirements

are available through the CAS Web Site.

Established in 1979, the Casualty Actuarial Society Trust affords CAS members and others an income tax deduction for funds contributed and used for scientific, literary, or educational purposes. Trust donations from 1997 to 2001 from D.W. Simpson and Company have totaled \$60,000 and helped the Trust balance reach a level that would support an annual scholarship program.✓



### Foundations Available

The fourth edition of *Foundations of Casualty Actuarial Science* is now available from the CAS. The textbook takes an introductory approach to basic actuarial concepts and is a beneficial addition to any student or academic's library. *Foundations* can be purchased from the CAS for \$75. Visit the CAS Web Site ([www.casact.org](http://www.casact.org)) and click on "Publications" to find a downloadable order form.✓

## 2002 Syllabus Updates

### Exam 1

The seventh edition of the calculus book by Anton has a new name. The updated citation is: Anton, H., *Calculus, Late Transcendentals Combined Version* (Seventh Edition), 2001, John Wiley and Sons.

### Exam 3

Study Note 3-23-02 by Stuart A. Klugman (available on the CAS and SoA Web Sites) replaces all of the current Course/Exam 3 material from Chapter 2 of *Loss Models* effective with the May 2002 exam. The study note covers the same concepts as the material it replaces, but presents them more clearly and is easier to read for self-study

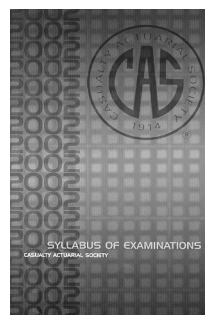
candidates. It provides a separate treatment of the Course/Exam 3 material, illustrates how the same structure underlies both survival models and loss models, provides many examples, and contains numerous problems with worked solutions from actual examinations from the last several years.

### Exam 7-Canada

The 2001 Insurance Expense Exhibit may be obtained from Bowne Insurance Division, 800 Central Boulevard, Carlstadt, NJ 07072, (800) 223-3103.

### Exam 7-US

*Official 2001 NAIC Annual*



*Statement Blanks, Property and Casualty*, (both individual and consolidated basis), pp. 2-13, 24; Notes 22-24, 26-29, 31; Schedules D (pp. 26-32 and E-08 thru E-14), DM (p. E-23), F (pp. 38-45), H (pp. 46-48), P (pp. 49-107). Candidates will be expected to have knowledge of other sections of the annual statement that are discussed in other *Syllabus* readings.

The 2001 *NAIC Annual Statement Blanks, Property and Casualty* and the 2001 Insurance Expense Exhibit may be obtained from Bowne Insurance Division, 800 Central Boulevard, Carlstadt, NJ 07072, (800) 223-3103.✓

## Task Force

### From page 1

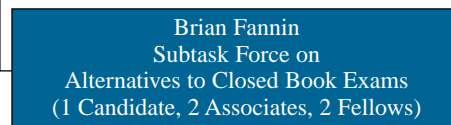
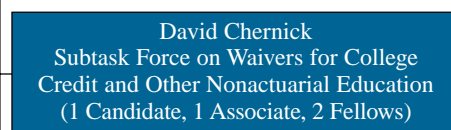
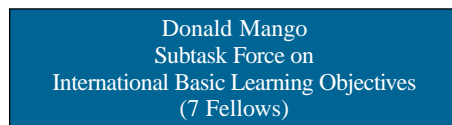
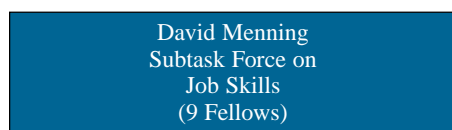
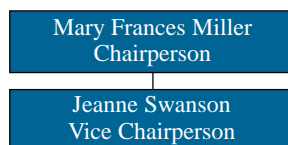
The CAS Board of Directors has encouraged the task force to coordinate its efforts with other actuarial organizations to the extent that CAS objectives are consistent with those of other organizations.

Twelve Fellows, two Associates, and two candidates responded to the original call. Another eight Fellows, one Associate, and one candidate offered to participate on a subtask force. The structure of the task force is shown in the chart above.

The task force will work inten-

sively during 2002, and is expected to produce a white paper in the first quarter of 2003. The CAS admissions process is obviously of great interest to CAS candidates. Although its deliberations are considered confidential, the task force will

periodically ask for feedback on specific topics from the CAS members and candidates. *Future Fellows* will follow the activities of the Future Education Task Force during the year and keep readers up to date.✓



## Cities Announced for COP

The June 2002 sessions of the CAS Course on Professionalism will be offered in Chicago and Toronto. At press time, exact dates and facilities had not been finalized. This information will be included in the electronic version of *Future Fellows* posted in the "Exams" section of the CAS Web Site ([www.casact.org](http://www.casact.org)). The Course on Professionalism is open to CAS candidates who have successfully completed five exams.✓

## Q & A Student Liaison Committee Responds

*CAS candidates may submit inquiries to the Student Liaison Committee members who then present the questions to the appropriate person or committee. Below are some abbreviated inquiries and the responses that were sent directly to candidates.*

**Q:** Outside help has been obtained by the CAS for the purpose of improving the quality of exam questions. Good! While working on this topic, look at the area of “mastery testing” that is best done without the tremendous time pressures imposed on CAS candidates. Actuarial exams should test actuarial skills, not exam-taking skills and how long it takes to work

the exam problems. Ask your outside experts, and listen to what they say!

I realize that this concept is problematic when working with nonmathematical essay questions, because the answers will tend to get too long to grade. However, many essay questions and all multiple choice questions have short answers with no such problem. Exams can be split into two segments, with one segment rigidly timed, and the other segment with much relaxed time pressure.

Another possibility is to allow only so many words for the nonmathematical answers, but not limit their time so severely. Writing concise answers is a skill that

actuaries must possess and including this skill on an exam is justifiable as long as you give adequate time.

**A:** You have expressed some unique ideas on testing, especially in the areas of mastery of concepts. These ideas are worthy of discussion and are very timely. The CAS has formed the Future Education Task Force. It is charged with evaluating the CAS admissions process and recommending appropriate changes to ensure that the process, consistent with the CAS Basic Education Principles, provides basic education in all areas necessary to the education of all casualty actuaries, ensures that candidates for admission have

Continued on page 6

### Comic Relief

## Proposed Exam Questions

By Christopher Hurst, ACAS

As if we didn't have enough to study already! In the CAS Discussion Forum, several people added ideas for “potential” questions for future exams. These questions provided some comic relief during a time of stress and sleepless nights while preparing for exams. Listed below are a sample of some of the questions posted. Enjoy!

**1. A. (2 Points)**

Underwriting Profit = \$100,000  
Investment Profit = \$50,000  
Other Profit = \$10,000  
Statutory Income = \$160,000  
What is Statutory Income?

B. (5 points)

How are you feeling today?

**2. (1 point)**

The pass ratio for this exam will be set at:

a) 95%,

b) 90%,

c) 85%

d) 80%,

e) Oh, what the heck. Make it 100%.

**3. True/False (1/2 point each):**

- Some Insurance Expense Exhibits and Annual Statements have those bar-code thingies on them.
- The Annual Statement is published once every two years.
- A liquid asset is defined as a beverage with inherent value, such as an expensive bottle of wine.
- In the Hurricane modeling paper by Burger et al., the authors list limitations of the model.

**4. (1 point)**

Bouska and McIntyre offer which of the following as an alternative meaning of IBNR?

- Imagined but not real
- Insured but not reinsured
- Intelligent but not rational
- Icky but not radioactive

**5. (2 points)**

Of the 42 people listed on page VI on ASOP No. 13, how many are women?

**6. (3 points)**

Rank all the papers on the syllabus in descending order by the ratio of (percentage of sentences in passive voice)/(percentage of sentences containing more than thirty words).

**7. (4 points)**

Briefly explain ratemaking.✓



## Q&A

From page 5

demonstrated mastery of the critical components of casualty actuarial practice, and consistent with the above, minimizes the expected amount of time required to achieve membership in the CAS. Your suggestions have been forwarded to the task force for consideration.

**Q:** I am responding to “What Happened on Exam 8 This Spring” (*Future Fellows*, September 2001). This article was alarming and shows how out of touch the Examination Committee is with writing exams, or at least the author. When a defective question like the one mentioned is included on an exam, it can completely throw off candidates and ruin their chances of passing—especially if it is one of the first questions in the exam. Evaluating candidates out of 96 points instead of 100 does not take into account the demoralizing effect.

A statement like “In the actuarial profession, actuaries are asked to answer questions without having all the inputs required to answer the question on a day-to-day basis” is ridiculous. Any professional actuary would not give a binding statement without a caveat, which does not gain points in an exam. Nor would the time limit be so constrained. One knows in the real world that one may not have all the variables and that educated estimates are required. In the exam environment, however, the candidate should reasonably assume that all of the information is available in the question to answer it unless the contrary is unequivocally stated.

It is obvious that none of the people on the committee did the exam prior to sending it out. That should be an absolute requirement, not only for finding mistakes, but to ensure that the exam can be done in the requisite time.

**A:** The Student Liaison Committee discussed your letter in a recent meeting. You state “...that none of the people on the committee did the exam prior to sending it out.” The normal process of review was followed. The Examination Committee Chair, the General Officer, and the Exam Consultants reviewed and independently worked out this problem. The defective question, however, was a result of human error in the very last stages of finalizing the examination when a part of the question was inadvertently dropped.

Your reaction to the statement that “actuaries are asked to answer questions without having all the inputs required” is understandable. When the Examination Committee discussed the Spring Exam 8 defective question, they decided that future candidate instructions should include a clear statement that instructs candidates to make appropriate assumptions if all the necessary information is not available. This will allow candidates to display their knowledge and judgment of the material.

**Q:** As an exam-taker with only two exams to go, I don’t really know why I’ve waited this long to ask what is the official reason that the CAS doesn’t include explanations to multiple-choice answers as part of the sample solutions?

Obviously, there must be an answer key with more information than just the letter-choice answer. I can remember times when I would get the right letter-choice answer but for entirely the wrong reason. From a learning perspective, does the CAS believe that “true students” will learn better by making “educated guesses” as to why a particular answer is correct (assuming they haven’t referenced any study manual)?

I figure any student who buys some form of study manual is

paying more for essay answers that are already provided by the CAS (despite the CAS’s lack of page number references or different approaches to the same question). What is so special about the multiple-choice answers that the CAS couldn’t share the detailed explanations?

**A:** The Student Liaison Committee discussed your idea of publishing explanations to the multiple choice and true/false answer keys during our recent meeting. Because of the limited resources of the various exam committees, the CAS does not currently publish these explanations or page references, although, as you noted, detailed explanations do appear in external vendor study manuals.

During the examination drafting process, writers of potential examination questions do provide answer keys, but not necessarily in a standard format that is easy to publish. This Committee agreed that the additional effort of compiling, verifying, and publishing page references or solutions to numerical calculations (as well as documenting alternative solutions) would be considerable. However, we also agreed that it would provide candidates with another valuable tool to prepare for future examinations. We have forwarded your suggestion to the Examination Committee for their consideration and will keep you informed of any developments.✓

## Check Your Exam Status

Verify your exam status in the “Exams” section of the CAS Web Site ([www.casact.org](http://www.casact.org)). It is important that credit for joint CAS/SoA Exams 1-4 is properly recorded.✓

# News from the CAS Regional Affiliates

## **CAGNY—Casualty Actuaries of Greater New York**

CAGNY held its fall meeting November 28, 2001, in New York City. Featured speakers discussed trends in directors and officers insurance, operational risk and the new Basel capital accord, generalized linear models, and mass tort litigation. Aaron Halpert presented his CAS prize-winning paper on evaluating reserves in a changing claims environment. Todd Bault and Meyer Shields discussed their views of the P&C insurance market as both actuaries and financial analysts.

The CAGNY 2002 Spring Meeting is tentatively scheduled for late May. For more information, contact Stewart Gleason at [sgleason@fairfaxinc.com](mailto:sgleason@fairfaxinc.com).

## **CAMAR—Casualty Actuaries of the Mid-Atlantic Region**

The CAMAR Fall 2001 Meeting was held in Philadelphia on December 4, 2001. Panelists discussed the impact of September 11, presenting several views of estimating the financial impact to individual companies and the industry, solvency concerns, and initiatives at the NAIC and federal levels. CAS President Robert Conger gave an update on CAS activities, including potential changes to the exam syllabus. The CAMAR meeting also featured a session on the actuary as an expert witness.

See the "Regional Affiliates" section of the CAS Web Site for details on CAMAR exam seminars and the Spring 2002 Meeting in Baltimore (date to be announced). For more information, contact John Forney at [jforney@pnat.com](mailto:jforney@pnat.com).

## **New! CSAF—Central States Actuarial Forum**

CSAF launched its inaugural meeting on October 1, 2001, in Kansas City, Missouri. CSAF offers membership to any CAS member residing or working in Colorado, Iowa, Kansas, Missouri, Nebraska, North Dakota, or South Dakota. Subscribership is open to professors and teachers of insurance or actuarial mathematics, persons performing work of an actuarial nature, and actuarial students in these states. CSAF officers are President Margaret Sherwood, Vice President Jeremy Benson, Treasurer Michael Brannon, and Secretary Alan Hapke.

CAS President for 2001, Patrick Grannan, reported on CAS issues including exam restructuring, travel time, and membership requirements. New FCASs and ACASs within the CSAF jurisdiction were recognized. Brooks Clark presented his findings on the use of credit and other demographic data in pricing, underwriting, and marketing insurance products. Rich Hofmann discussed key workers compensation issues, including reserve and price inadequacies, medical inflation, the September 11 tragedy, reinsurance firming, and California workers compensation problems. Thomas Chesbrough discussed the next generation of business intelligence and problems with traditional data warehousing. He demonstrated analytical tools that rest on a data warehouse and showed how insurers are receiving business intelligence value through Web-based and hosted solutions. Alan Hapke gave a user's perspective on these tools for actuarial, underwriting, marketing, and claims management applications.

The next CSAF meeting is planned for Des Moines, Iowa, in the fall. For more information,

contact Jeremy Benson at [jeremy.benson@ercgroup.com](mailto:jeremy.benson@ercgroup.com).

## **OCCA—Ontario Conference of Casualty Actuaries**

Members of OCCA held their annual meeting in Toronto on November 26, 2001. Two speakers addressed the group. Jean-Louis Masse, president of the Canadian Institute of Actuaries, updated the group on CIA activities. François Dagneau of Aon Re Canada spoke of the state of the reinsurance marketplace in the wake of the World Trade Center attacks. Elections were held, and the following new officers were inducted: Ernest Segal, president; Elaine Lajeunesse, vice president; Christopher Cooney, secretary-treasurer; and Asif Sardar, university relations liaison. For information on OCCA activities, please contact Craig Allen at [allenc@lpic.ca](mailto:allenc@lpic.ca).

## **SWAF—Southwest Actuarial Forum**

The SWAF 2001 Fall Meeting was held on November 29, 2001, in Austin, Texas. Sessions included presentations on Texas mold, update on CAS activities, World Trade Center losses, and the Texas Public Insurance Counsel. Officer elections were also held. For the upcoming year, SWAF officers will be Chuck Pearl, president; Wendy Germani, vice-president; Susie Guven, secretary-treasurer; Eric Vaith, college relations officer; and Chris Norman, education officer.

The SWAF 2002 Spring Meeting is tentatively scheduled for June 2002. Details will be e-mailed to southwest regional actuaries when they become available. For more information, contact Susie Guven at (210) 498-2197 or [susie.guven@usaa.com](mailto:susie.guven@usaa.com). ✓

# Results of Fall 2001 CAS Examinations

## Summary of Fall 2001 Examinations

Exam	Number of Candidates	Number of Passing Candidates	Number Below 50% of Pass Mark (Ineffective)	Effective Pass Ratio
1	3,508	1,178	401	37.9%
2	2,115	860	114	43.0%
3	1,450	605	124	45.6%
4	1,149	491	92	46.5%
6	596	208	131	44.7%
9	308	135	34	49.3%

## Summary of Fall 2001 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	9%	3.6	2.9	3.5	4.2	3.3
2	10%	3.5	3.0	3.3	3.9	3.2
3	8%	3.5	3.3	3.5	4.0	3.3
4	9%	2.9	2.5	3.0	3.8	2.8
6	19%	3.2	3.6	3.2	3.7	3.3
9	23%	3.9	3.3	3.9	3.7	3.4

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