

RISKY BUSINESS

—News and notes on the Actuarial Studies Program—

Department of Mathematics

Spring 1996

The University of Texas at Austin

From the Director



Same ol' same ol': *another great year!*

The year's highlight was seeing the Endowment Drive reach its goal. All you alums and others in the profession are truly supportive of the UT-Austin program, and I thank you for it. I wish that I could identify for you the anonymous donor whose \$100,000 matching was essential to the creation of the drive so that you could all join me in a big *thanks*.

Of course since the endowment income is dedicated to special purposes, we still rely heavily on your annual contributions during the spring fund drive to finance our ongoing activities such as job placement, student wages, and financial aid; we need that support to continue.

This year's group of students seeking entry-level jobs is the strongest I've seen in my seven years (!) as Director. They've passed many exams (five have passed the life contingencies exam), have taken lots of business classes, have strong computer skills, are extremely personable. I'll miss them.

I hope that you'll find this issue of *Risky Business* interesting. As usual there's information on developments in the program, on present students, and some on recent students. I've included some information on the proposals for major changes in the SoA exam system, along with some of my own views. I'd very much like to hear from you, both with reactions to the proposals and suggestions on how the UT-Austin program might adapt to the changes if they are made.

Jim Daniel, Director

Look on pages 2-4 for:

New associates:	2
Exam proposals:	3
Student 'snapshots':	2, 3, 4
Photo collage:	4
Student news:	4

Endowment drive over the top!

The UT-Austin actuarial program has exceeded its goal of \$200,000 in gifts and pledges to the Paul V. Montgomery Professorship Endowment between May 1994 and August 1996. If the remaining few pledges are fulfilled by late July, this will result in the addition of \$100,000 matching from an anonymous donor and \$150,000 matching from The University—for a total of over \$450,000 in new endowment funds.

Thanks to gifts from 23 companies, 37 individuals, four foundations, and the two regional actuarial clubs, the income from the permanent endowment will aid the program forever. At the recommendation of the Paul V. Montgomery Committee chaired by Roger Ray, about half the roughly 5% annual return on the new funds will provide a salary supplement to the Director of Actuarial Studies; the remainder will allow a significant increase in the availability of student scholarships, so long as annual contributions continue at the level needed to support the regular activities of the program.

Credit for success of the endowment drive must be given to its Task Force: Steve Bickel, Bob Beisenherz, Frank Broll, Myron "Butch" Dye, Ed Hightower, George Jordan, Roger Ray, and Ronald "Toby" Tobleman. As of mid-March, they had raised \$203,620 in gifts and pledges. The main credit, of course, goes to all of you that started us off with early gifts, that kept us going midway, and that pushed us over the top in February; see below.

The following breakdown of gifts as of mid-March to the Paul V. Montgomery endowment drive includes corporate-matching contributions as corporate gifts.

\$20,000 or more

The Andrew Delaney Foundation
The Moody Foundation
USAA Property & Casualty Insurance

\$10,000 to \$20,000

American General Life Insurance
Columbia Universal Life Insurance
Coopers and Lybrand
The Deloitte and Touch Foundation
Rudd and Wisdom Consulting Actuaries
The Starr Foundation
State Farm Insurance
Variable Annuity Life Insurance (VALIC)

\$5,000 to \$10,000

Mercantile and General Reinsurance
Western National Insurance

\$1,000 to \$5,000

Actuaries Club of the Southwest
Stephen Bickel
Cologne Life Reinsurance
Gary Gross
KPMG Peat Marwick
Milliman & Robertson
Nationwide Insurance
Southwest Actuarial Forum
Towers Perrin
Turpin Consulting
The Zenith

Up to \$1,000

Actuarial Consultants
Actuarial and Computer Services
Allen Bailey and Associates
American Income Life
Anonymous
David Arzada
Betsy Barnes

Up to \$1,000 (continued)

V. Clark Beard
Adam Berk
Douglas Brown
Terry Brown
Aaron Byrd
Michael Carter
Cheng-Huan Chi
CreditRe Corporation
Peter Dahlberg
Jim Davis
Philip Dial
Kelly Dickens
Karin Doerr
Brian Frost
Bruce Fuller
Government Personnel Mutual Life Insurance
Cathy Griggs
Allen Gunter
Omar Haq
Hewitt Associates
Will Jackson, Jr.
Allen Jacobson
Jennifer Nei
Christopher Norman
James Norris
Raghu Ramachandran
Roger Ray
Judy Stolle
Susie Tankersley
Michael Teng
Glenn Tobleman
Susan Van Horn
Lorie Vordenbaumen
William F. White, Jr.

*Janet Jardin
Plano*

Freshman math major. Interests are music, movies, reading, painting, and shoe shopping (!). Her father is an actuary.

Actuarial Studies Advisory Council

The ASAC meets each fall to provide advice on the operation of the program, hear a detailed report on the use of gift monies, brainstorm on future activities, and assist with fund-raising plans.

At the conclusion of the fall 1995 meeting, the following members rotated off the Council: Myron Dye of USAA Insurance, who has been chairing the ASAC, Fred Kilbourne of San Diego, and Mike Pressley of Towers Perrin. Their contributions have been great, and greatly appreciated.

Present ASAC members are: Malcolm Brachman of Northwest Oil, Dallas; Frank Broll of American National Insurance, Galveston (ASAC Chair); Phil Dial of Rudd & Wisdom, Austin; Brian Forman of Columbia Universal Life, Austin; Rich Gibson of TIG Insurance, Irving; Bob Greiving of Southwestern Life, Dallas; Tom Hope of William Mercer Co., Houston; Valerie Lopez of Towers Perrin, San Antonio; Norman Parrish of Hewitt Associates, The Woodlands; Roger Ray of Watson Wyatt Worldwide, Dallas; Diane Rohn of Towers Perrin, Dallas; Bruce Romig of State Farm Insurance, Austin; Tammy Shelton of Buck Consultants, Dallas; Mark Trieb of Milliman & Robertson, Dallas; and Debra Werland of USAA Insurance, San Antonio. One additional member is to be appointed by the President of the Actuaries Club of the Southwest.

*Stephen Dimiceli
Houston*

Freshman econ major. Interests are golf, and playing trumpet in the Longhorn Band.

*Sam Prasad
St. Louis, MO*

Senior math major. Passed exams 100, 120, 135, 140, 150; took 110 in February. Interests are racquetball, cycling, coin collecting, and darts.

Congratulations, new Associates!

Starting with the 1994 issue, *Risky Business* has attempted to identify all new Associates that have come through the UT program since its move to Mathematics. No attempt is made to recognize other important status changes, however: Fellowship, membership in the Academy, marriage, parenthood, Lotto winnings, and the like. This is just a one-person program, remember!

To the best of our knowledge, the following individuals that were UT actuarial students since fall 1989 have become Associates since last year's *Risky Business*; omissions are regretted, and corrections will be appreciated. The listing is in order of departure from UT.

Raleigh Skaggs, ACAS (& already ASA), Rudd & Wisdom (Austin)

John Gay, ASA, Hewitt Associates (The Woodlands)

Mike Mayberry, ASA, Milliman & Robertson (Dallas)

Brian Frost, ASA, Towers Perrin (Houston)

Christian Goodman, ASA, Milliman & Robertson (Dallas)

Congratulations one and all!

*Amanda Priesmeyer
Garwood*

Junior math major. Passed exam 100.

Interests are reading, clarinet, gymnastics, and baseball-card collecting.

*George Sanger
Seabrook*

Junior math major. Passed exam 100; took 110 in February. Interests are piano, cactus collecting, and computer programming for fun.

*Chris Groendyke
Houston*

Junior math/CS major. Passed exam 100. Interests are ping-pong, tennis, and music.

Actuarial program enters 'cyber-era'

The UT-Austin actuarial program has had a "page" on the World Wide Web since the start of the 1995-96 academic year: it's <http://www.utexas.edu/depts/acs/> for those of you with Internet access.

You'll find there an expanded version of the program's information handout as well as information on financial aid, student-club activities, job-placement success, companies interviewing students, course descriptions, class handouts for the latest offering of a class, and anything else that seems of possible interest—including an "informal photo of Jim Daniel".

Check it out and let us have any suggestions for changes or additions.

*James Jones
Dallas*

Senior math and finance major. Passed exams 100, 110, 120, 135, 140, 150, 160. Interests are aerobics, piano, and jazz.

*Shannon Eastman
Dallas*

M.A. art history student graduating in December. Interests are aerobics, running, fishing, and skiing.

Scholarships needed

While the success of the endowment drive means an increase in financial-aid funds if our regular annual donors continue their traditional support, increasing our scholarship monies nonetheless remains the program's biggest need.

Costs of higher education continue to rise much more rapidly than inflation, while most of our scholarships have not increased since they were created; because of an imminent change of ownership of the donor company, a couple of our scholarships may even disappear.

Increasing numbers of our actuarial students must juggle full-time coursework, part-time jobs, and actuarial exam practice. Scholarship funds enable students to concentrate on their classes and their actuarial exams.

If your company wishes to establish a continuing scholarship in its name, contact Jim Daniel. You or your company can also boost financial aid by contributing to the yearly drive for discretionary funds, from which the Gene Wisdom Actuarial Scholarships are financed.

Proposed SoA exam changes

As mentioned briefly in last year's *Risky Business*, the Society of Actuaries is considering major changes in its exam system; a design team has been developing detailed plans for the change, and there are indications that the Casualty Actuarial Society may co-sponsor some of the exams and merge them into the CAS exam system. The CAS has recently appointed a committee to study the CAS exam system and address the co-sponsorship issue.

The proposals are based on four basic principles: 1) the exams should focus on essential material; 2) material should be presented in a business context; 3) contingencies other than life contingencies should be considered; and 4) models and applications should be presented in addition to those for pensions and insurance.

SoA exams or Courses would be of three types: *basic*, covering material needed by every actuary in every practice area; *advanced*, covering material specific to a particular practice area; and *professional development*, covering specialized areas of practice and highlighting current details relevant to the political and regulatory environment.

Most relevant to the UT-Austin program are four of the six proposed basic Courses. The traditional exams on general mathematics covered by undergraduate mathematics departments everywhere—calculus and linear algebra, probability and statistics—would no longer exist. The latest version of the Design Team's plans include the following (see the March 1996 issue of the SoA's *The Future Actuary* or the World Wide Web page with URL <http://www.beckley.com/actuary/desover.htm>):

Course 1, *Management and Quantitative Assessment of Risk*, covers what risk is, how it affects organizations and individuals, and mechanisms for managing risk. It emphasizes fundamental tools for assessing risk and requires knowledge of calculus and probability.

Course 2, *Interest Theory, Economics, and Finance*, tests interest theory, economic theory, fundamentals of finance and financial management, capital budgeting, strategic long-term decisions, and multinational financial management. It assumes mastery of calculus, probability, and statistics.

Course 3, *Actuarial Models for Contingencies*, provides the theoretical basis of actuarial models for contingencies, survival models, and analysis of survival data, and the application of those models to insurance and other financial risks. It requires the mathematical concepts from Course 1, the interest theory from Course 2, and a basic knowledge of statistics.

Course 4, *Methods of Actuarial Modeling*, introduces modeling and covers important actuarial and statistical methods useful in modeling, such as regression, forecasting, risk theory, credibility theory, loss distributions, and simulation. It assumes a thorough knowledge of calculus, linear algebra, probability, and statistics.

Early indications are that the CAS might co-sponsor Courses 1, 2, and 4.

Questions or comments on the proposals can be directed to the SoA's Education Executive Marta Holmberg (847/706-3580, 102234.2541@compuserve.com) or to the SoA Design Team's chairman Jeff Beckley (actuary@beckley.com or 74504.3453@compuserve.com).

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Jeff Sparling Houston

Junior math major. Passed exam 100.
Interests are soccer, running, and church-related activities.

Sarah Thompson The Woodlands

Senior math major. Passed exams 100, 110, 120, 140. Interests are horseback riding, jogging, and workouts at the gym.

Kendall Frost Las Vegas, NM

Junior math major. Passed exams 100, 110, 140. Interests are bowling, golf, skiing, and outdoor activities.

Expenses of *Risky Business* are paid from gift funds from friends of the program.

Commentary

Personally I agree strongly with the general principles behind the proposed changes, but I have two concerns about the impact of their implementation: on the profession, and on UT-Austin's program.

It's my impression that the profession in the U.S. has been well-served by its many members—possibly a majority—who were *not* the products of formal undergraduate or graduate actuarial programs. Many math and business graduates earned entry-level jobs based on their performances on Parts 1 and 2 (now 100 and 110 for the SoA). I'm concerned that employers will have no such criterion to use with such students, and that the profession will miss out on enlisting talented graduates of the many hundreds of schools lacking actuarial programs.

Of course, this could benefit UT-Austin in that more employers might focus on the graduates of the 65 or so actuarial programs in the U.S. and Canada. On the other hand, some aspects of the proposal would not help us. I regularly use the interest-theory course and the interest-theory and calculus exams as mechanisms for letting students test the actuarial waters and become familiar with the demands of the exam system; freshmen and sophomores regularly take their first exam and come to the program in this way. Eliminating the calculus exam and creating a new first exam that requires calculus (two or three semesters), and probability (one semester) means that most students won't have the material for an exam until their junior year—a little late for exploring.

Finally, I suspect that I may need to teach exactly the same four courses each year to help students prepare for the new exams, as opposed to the set of six or seven courses that I now cycle through over time. And I wonder whether I will still be able to guarantee that I only offer classes that prepare students simultaneously for a CAS and an SoA exam.

But whatever happens, the program will adapt appropriately with guidance from its Actuarial Studies Advisory Council. If any readers have comments on the proposed changes or on how the UT-Austin program might adapt, please let me know.

Jim Daniel, Director



Focus on students

Financial aid honor roll

Outstanding students receiving merit-based financial aid from the actuarial program during the 1995-96 academic year included:

AEGON-USA Actuarial Mathematics Scholarships: Robert Geer, and Erika Massell.

William W. Hand Memorial Actuarial Scholarship (American Society of Pension Actuaries): James Jones.

Milliman & Robertson Standard of Excellence Actuarial Scholarship: Farooq Omer. C. Mitchell Co. Actuarial Scholarship: Lillian Cho.

Rudd and Wisdom Actuarial Studies Scholarship: Jennifer Hill.

USAA Actuarial Scholarship: Sarah Thompson.

Watson Wyatt Actuarial Scholarship: Vadim Katz.

Eugene Wisdom Actuarial Scholarships: Martin Battle (Spring), Joe Lopez (Fall), Shariq Minhas (Fall & Spring), Xiaoying Ni (Spring), Sam Prasad (Fall & Spring), and John Rosilier (Fall).

Actuarial Studies Excellence-Awards (Fireman's Fund and USF&G merit-based loan program to assist the Texas Department of Insurance): Vadim Katz (Fall & Spring), Scott Keane (Fall), Ashfaque Mahmood (Spring), Shariq Minhas (Summer, Fall & Spring), Xiaoying Ni (Summer & Fall), Sam Prasad (Fall & Spring), and Sarah Thompson (Fall & Spring).

Texas Department of Insurance Summer Internship (Fireman's Fund and USF&G program to assist the Texas Department of Insurance): Diana Merrett, Shariq Minhas, and Richard Rhode.

Texas Department of Insurance Long-semester Internship (Fireman's Fund and USF&G program to assist the Texas Department of Insurance): Fall— Bob Geer, Sam Prasad, and Yun Song; Spring— Linghong Cai, and Xiaoying Ni.

Student club active

In my second year as president of the Actuarial Science Club, I was once again impressed by the number of companies who donated their time and expertise to us. We had a number of fine speakers representing USAA Insurance, the Texas Department of Insurance, Mercer, Hewitt, Milliman & Robertson, Western National Insurance, Watson Wyatt Worldwide, TIG Insurance, State Farm Insurance, and The Partners Group.

Club membership was even higher than last year, with 55 members. Instrumental in the club's success this year were Erika Massell as Treasurer, and Mark Guajardo in his second term as representative to the Natural Science Council. Overall, thanks to the students who participated, the companies who donated their people and resources, and Dr. Daniel as head of the program, we had a very successful year. Everyone connected with the club gained some insight about opportunities and responsibilities in the actuarial field.

Sam Prasad, President



Alums aid students

Thanks to the continuing work of founder Valerie Lopez of Towers Perrin (San Antonio), the UT Actuarial Alumni Association (UTAAA) serves present students while keeping recent alums in contact with one another.

Valerie created the UTAAA in 1993. What started as an informal learning session at Mr. Gatti's has blossomed into two regular programs put on by the UTAAA.

A Career Info Panel was held last fall to teach current students about the different lines of business in the actuarial world. In the Spring semester, mock interviews were held to prepare students for those all-important job interviews. Each of these programs has been well-received by both alumni and current students.

The UTAAA is recruiting members and creating a member directory. Members should have taken coursework since 1989

Collage of present and past students at the Daniels' fall open house, 1995



Mary Regan
Detroit, MI

Junior math major. Interests are Texas varsity crew, and golf.

when the actuarial program moved to the Mathematics Department under the direction of Jim Daniel. Departing students can obtain a membership form from him, while recent alums should contact Valerie Lopez at 210/344-0220 to get on the mailing list.