# RISKY BUSINESS

—News and notes on the Actuarial Studies Program—

Department of Mathematics

Spring 1994

The University of Texas at Austin

### From the Director



What an exciting semester!

I've got a bunch of great students, employers are almost tripping over one another scheduling job-interviews, and I *think* I'm managing to understand the material for a new course I'll teach in the fall.

But the most exciting news I've had in five years is the gift-matching program.

\$2.25 for \$1 is tough to beat. We have a rare chance to fund this program so as to attract top students and a dedicated leader long after I've hung up my chalkholder. One-time \$10,000 gifts from 20 companies that have not been contributing yearly will create \$450,000 in new endowment generating new income yearly forever.

The matching funds will be \$150,000 from The University and \$100,000 from an anonymous donor (husband and wife, actually), with proportionally less matching if less is raised. I wish that I could identify the donors to you so that you could express your thanks as well. But the best way for you to express that thanks is by helping get your employer to participate in this matching program. In the past two years we've gotten little financial support from the insurance industry. Now insurance companies and others can make one-time contributions that will provide remarkable support forever. Give the future a boost!

Jim Daniel, Director

## \$1.00 = \$2.25

No, that's not the result of a broken calculator. It's the "new math" that's available in a new drive to boost the endowment funds that support the actuarial program through the Paul V. Montgomery Professorship.

The University announced in February that it had selected the actuarial program as one of possibly the last few fund-raising efforts that will be partly matched by University funds.

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# Aid still big need: can we maintain last year's gain?

Student financial aid continues as the program's most pressing need. We all know the challenge of juggling actuarial exams, full time jobs, and personal lives. Actuarial students juggle exams, their "jobs" as students, personal lives, and—increasingly often—part time employment.

Increased financial aid can allow students to focus on schoolwork and actuarial exams. But nearly 100 actuarial students compete each year for just nine permanent

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## **Austin 150 Seminars planned**

Texas gets its own exam-preparation intensive seminar on the dreaded Actuarial Mathematics (Life Contingencies) SOA Exam 150 starting this fall.

Scheduled for the Radisson Hotel in Austin on 1–8 October 1994 and 1–8 April 1995, the eight full-day sessions run Saturday through Saturday and are intended to provide the well-prepared student the boost needed to pass the 150 exam. Sessions consist of: review lectures on fundamental concepts, formulas, and problem-solving techniques; demonstrations of problem solving; and guided practice solving problems. Jim Daniel will conduct all activities.

In order to keep costs to a minimum, the Austin 150 Seminar is being operated externally rather than through UT-Austin; registration is \$600.

With the addition of matching funds by an anonymous donor, the result is \$1.25 in matching for each dollar of the first \$200,000 contributed by August 1996. That could produce a total of \$450,000.

The primary aim of the drive is to raise new support by stimulating \$10,000 gifts from companies that have not made annual contributions to the program; contributions from regular supporters will of course be gratefully accepted.

The fund-raising drive is being coordinated by a task force consisting, as Risky Business is being sent to press, of Stephen Bickel, FSA (President of Variable Annuity Life Insurance), Myron Dye, FCAS (Vice President of USAA Insurance, and Chair of the Actuarial Studies Advisory Council), George Jordan, Jr., ASA (CEO of Columbia Universal Life Insurance), Karl Manchester, FSA (President of Columbia Universal Life Insurance), Roger Ray, ASA (The Wyatt Company, and Chair of the Paul V. Montgomery Committee that advises on the use of income from the endowment), and Ronald Tobleman, FSA (Principal at Rudd & Wisdom Consulting Actuaries). Other appointments are pending.

This rare chance to multiply contributions provides the opportunity to guarantee the financial future of the actuarial program by making it among the best-funded in the country, one to which not only strong students but strong future holders of the Professorship can be attracted. It is anticipated that new income from the endowment will be used to increase student financial support and to provide salary supplement for the Paul V. Montgomery Professor of Actuarial Mathematics.

Direct questions about gifts to Jim Daniel, or to any member of the task force.

#### Theresa Lee San Antonio

Junior math major graduating in May 1995.

Passed Exams 100, 110, 120, 140. Interested in music, reading, piano, and stamp collecting.

# Summary of financial aid

Financial aid awarded this year has been a mixture of scholarships, scholarship/internships, and loans. Brief sketches of the various awards follow. New awards can be created along these lines or in almost any manner desired by the donor.

**AEGON-USA Actuarial Mathematics Scholarships.** \$500 per semester for one year (two awards per year). Juniors, Seniors, or first-year Graduate students; Texas residents (paying in-state tuition regardless of financial aid); Mathematics majors concentrating in Actuarial Studies; 3.5 GPA in Math classes.

William W. Hand Memorial Actuarial Scholarship (American Society of Pension Actuaries). \$1250 per semester for two semesters (one award per year). Concentrating in Actuarial Studies under any major.

Milliman & Robertson Standard of Excellence Actuarial Scholarship. \$1000 per semester for two semesters (one award per year). Junior, Senior, or Graduate student; concentrating in Actuarial Studies under any major; 3.25 GPA overall, 3.5 GPA in Mathematics classes; at least one SOA exam passed; intention to remain in Texas and become FSA; demonstrated communication skills, leadership and compatibility, creativity and ingenuity, integrity.

C. Mitchell Co. Actuarial Scholarship. \$500 per semester for two semesters (one award per year or two half awards). Full or part-time student concentrating in Actuarial Studies under any major; at least one SOA exam passed.

Rudd & Wisdom Actuarial Studies Scholarship. \$1000 per semester for two semesters (one award per year). Concentrating in Actuarial Studies under any ma-

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

# 1993-94 Honor Roll of financial aid

Outstanding students receiving merit-based financial aid from the actuarial program during the 1993–94 academic year included:

AEGON-USA Actuarial Mathematics Scholarships: Aaron Byrd (Spring), Robert Kane (Fall), and Sarah Thompson.

William W. Hand Memorial Actuarial Scholarship (American Society of Pension Actuaries): Christian Goodman.

Milliman & Robertson Standard of Excellence Actuarial Scholarship: Anmol Mehra.

C. Mitchell Co. Actuarial Scholarship: Theresa Lee (Spring), and Cynthia Woronow (Fall).

Rudd and Wisdom Actuarial Studies Scholarship: Jason Olson

Southwest Actuaries Scholarships: Faisal Chugtai, James Jones, Peter Latshaw (Spring), Farooq Omer, and Susan Van Horn (Spring).

USAA Actuarial Scholarship: Delbert Zamora.

The Wyatt Company Actuarial Scholarship: Sean Staggs.

Actuarial Studies Excellence-Awards (Fireman's Fund and USF&G merit-based loan program to assist the Texas Department of Insurance): Bruce Fuller (Spring), Christian Goodman (Fall and Spring), Shawn Howell (Fall and Spring), Tom Kenning (Summer 93), Farooq Omer (Fall and Spring), Jami Lee Stevenson (Summer 93, Fall), and Sarah Thompson (Fall and Spring).

Texas Department of Insurance Internship (Fireman's Fund and USF&G program to assist the Texas Department of Insurance): Cheng-Huan Chi (Summer 93), Christian Goodman (Summer 93), Robert Kane (Fall), Delbert Zamora (Fall), Shawn Howell (Spring), and Sherry Yeh (Spring).

jor; prefer graduate of Southwest high school.

USAA Actuarial Scholarship. \$500 per semester for two semesters (one award per year). Junior or Senior seeking an undergraduate degree; Texas resident (paying in-state tuition regardless of financial aid); concentrating in Actuarial Studies under any major; 3.0 GPA both overall and in Actuarial Studies core classes; demonstrated leadership and community or school involvement.

**Southwest Actuaries Scholarships.** Various amounts and numbers, depending on availability of funds. Full- or part-time students concentrating in Actuarial Studies under any major.

The Wyatt Company Actuarial Scholarship. \$375 per semester for two semesters (one award this year). Sophomore, Junior, or Senior seeking an undergraduate degree; concentrating in Actuarial Studies under any major; 3.0 GPA both overall and in Actuarial Studies core classes; at least one SOA exam passed; interested in consulting.

Actuarial Studies Excellence-Award Loan Program (Fireman's Fund and USF&G program to assist the Texas Department of Insurance). Up to normal total cost of education and normal living expenses each semester. Loans can be forgiven in full or in part for full-time actuarial employment at the Texas Department of Insurance. Full-time or part-time student in the Actuarial Studies Program.

Texas Department of Insurance Internship (Fireman's Fund and USF&G program to assist the Texas Department of Insurance). Awards vary in amount depending on exams passed and whether summer or long-semester position. Eligibility as for the Actuarial Studies Excellence-Award Loan Program.

#### Bob Geer San Antonio

Sophomore math major graduating in May 1996.

Passed Exams 100, taking 110 and 140 in May.

Interested in water skiing, biking, racquetball, and saxophone.

# So long Marty Livingston, but Hello Martin Battle

Marty Livingston this spring wraps up two years as the graduate assistant in the actuarial program. Martin Battle replaces him in the fall.

Marty obtained his ASA shortly before deciding to return to his Alma Mater to seek a Ph.D. in Mathematics; shortly after his arrival he succeeded Scott McNabb in teaching the exam-oriented drill-and-practice problem labs. Now uncertain about his plans to remain in the Ph. D. program, Marty asked to be replaced so that there was adequate time to identify his successor. Thanks for all the help, Marty, and best

#### Christian Goodman Centerville, IA

Senior math major graduating in May 1994.

Passed Exams 100, 110, 120, 140. Interested in his wife and baby boy, sports, and collecting comic books.

#### Scholarships ... from p. 1

scholarships; 120 Geology students, by comparison, compete for 36 scholarships. To continue attracting strong students that could find more support in other areas, we must expand our scholarship program.

As a result of last spring's emphasis on raising scholarship funds, the C. Mitchell Company of Austin established a new \$1000 scholarship while The Wyatt Company of Dallas awarded a \$750 scholarship. And gifts from nearly 100 individuals and businesses provided enough of a cushion over operating expenses to allow the award of eight one-semester Southwest Actuaries Scholarships for 1993-94. The challenge this year is to raise sufficient funds to continue covering operating expenses, continue funding such Southwest Actuaries Scholarships from individual contributions, and especially to create new permanent scholarships.

How can you create a scholarship? All we need is your commitment or your company's to fund the award each spring. Contact Jim Daniel if you wish to explore this. And see the article \$1.00 = \$2.25 for an exciting opportunity to multiply your endowment gifts.

wishes for the future!

Martin Battle received a B.S. in Mathematics from UT-Austin in 1992 and then entered the Math Department's M.S. program in Statistics. He has been a Teaching Assistant in the Department, where he won the Texas Excellence Award for Teaching.

Becoming interested in the actuarial program in the fall of 1993, Martin enrolled in the Actuarial Mathematics (Life Contingencies) class, and took and passed the SOA/CAS Exam 100 in November. He has also been working as an actuarial intern at Rudd & Wisdom Consulting Actuaries.

With his energetic enthusiasm and his excellence as a teacher, Martin is sure to be successful assisting students in their preparation for the actuarial exams. Welcome aboard, Martin!

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#### New fall class set

Next fall will see the first offering of M369J, Credibility Theory and Loss Distributions. This covers the content of CAS Exam 4B and also can be used as 20 elective credits in the SOA system.

The new course joins M369E and M368K in a set of three courses of which one is taught each fall, in rotation. M369E covers the content of SOA Exam 120 = CAS Part 3A on applied statistical methods, while M368K treats the material for SOA Exam 135 = CAS Part 3C on numerical analysis.

The courses on operations research and on risk theory are being dropped from that set of courses in order to cover material appicable to both the SOA and the CAS systems and to rotate through the set more rapidly.

Jim Daniel is spending his Fridays this semester and next summer mastering the 4B material so as to teach it in the fall. Fun!

#### How to reach us-

Jim Daniel can be reached at 512/471-7168: UT office 512/471-9038: office FAX 512/343-8788: home office 512/343-8788: home FAX daniel@math.utexas.edu

#### Lillian Cho Baton Rouge, LA

Sophomore math major graduating in December 1996. Passed Exam 100, taking 140 in

Passed Exam 100, taking 140 ii May.

Interested in scuba diving; volunteers as a Designated Driver.

## 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.

Present ASAC members are: Frank Broll of American National Insurance, Galveston; Phil Dial of Rudd & Wisdom, Austin; Myron Dye of USAA Insurance, San Antonio (ASAC Chair); Brian Forman of Columbia Universal Life, Austin; Bob Greving of Southwestern Life, Dallas; Gary Gross of Towers Perrin, Austin; Fred Kilbourne, Independent Actuary in San Diego; Norman Parrish of Hewitt Associates, The Woodlands; Mike Pressley of Towers Perrin, Dallas; Roger Ray of The Wyatt Company, Dallas; Diane Rohn of Towers Perrin, Dallas; Tammy Shelton of Buck Consultants, Dallas; Mark Trieb of Milliman & Robertson, Dallas; and Larry Wadle, Houston.

#### Sherry Yeh Taipei, Taiwan

Math M.A. candidate in May 1994. Passed Exams 100, 110, 120, 130, 140, 151, 162.

Interested in travel, music, cooking.

## Thanks!

During the last 12 months, over 100 individuals and businesses have contributed general-purpose funds, scholarships, time, or ideas to support the actuarial program's students and activities. In Jim Daniel's view and that of the Actuarial Studies Advisory Council, those contributions are used well. And rest assured that they are appreciated. On behalf of the students—the real beneficiaries of your efforts—we thank you all.



## Focus on students

#### **Recent students are Associates**

Some products of the UT-Austin actuarial program during its almost five years in the Mathematics Department with Jim Daniel as Director have been obtaining Associateship status in either the CAS or the SOA. *Congratulations to these young actuaries!* You've accomplished an enormous amount in a short time.

Starting with this issue, *Risky Business* will attempt to identify all new Associates that have come through the UT program since its move to Mathematics. No attempt will be made to recognize other important status changes, however: Fellowship, membership in the Academy, marriage, parenthood, Lottery 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; omissions are regretted, and corrections will be appreciated. The listing is in order of departure from UT.

Allen Jacobson, ASA, Hewitt Associates (The Woodlands)

Kah-Lee Wong, ASA, William M. Mercer (Atlanta)

Karen Nowiejski, ASA, William M. Mercer (Houston)

Judy Stolle, ACAS, USAA Insurance (San Antonio)

Terry Brown, ASA, Hewitt Associates (The Woodlands)

Vi Nguyen, ASA, Towers Perrin (Houston)

Adam Berk, ASA, Milliman & Robertson (Denver)

Mark Callahan, ACAS, Milliman & Robertson (Boston)

Karin Doerr, ASA, American National Insurance (Galveston)

Scott McNabb, ASA, Milliman & Robertson (Dallas)

Raleigh Skaggs, ASA, Rudd & Wisdom (Austin)

Joe Chiu, ASA, training as a Christian missionary

Although he wasn't a student hear in the latest five years, *Risky Business* congratulates Glenn Tobleman, FSA, class of 1978, who just joined the ranks of the elite (and masochistic!) 100 or so members of *both* the SOA and the CAS. Glenn Tobleman, FSA, ACAS, MAAA.

Congratulations one and all!

# Student Club's new activities

The 40-member Actuarial Student Club once again has had a tremendous year. With leadership by James Jones (President) and Susan Van Horn (Treasurer), the Club ventured into new areas while continuing traditional activities.

As usual, presentations have been made several times this year by actuaries from various types of business and areas of practice. Club members and other students were also invited to attend a special Career Paths session at the fall meeting in Austin of the Actuaries Club of the Southwest.

One new activity this year was a presentation by some of the Club's own members on internships they had held.

Thanks to recent graduates of the program that volunteered their time, the Club worked with those graduates and the College of Natural Sciences Career Center to schedule half-hour mock job interviews. The recent graduates conducted the interviews and then provided those interviewed with feedback on their performances. We especially appreciate the work of recent alum Valerie Lopez in putting this together.

James Jones, President

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### Entry-level jobs found in all areas; outside interest increasing

With the actuarial program completing its fifth year in the Mathematics Department, there's enough data to examine where the students have been finding entry-level jobs. The diversity is impressive.

Excluding the 15 to 20 students presently in the throes of job-interviews, 74 students have obtained entry-level actuarial positions in the past five years. With respect to broad practice area, eighteen have taken positions in areas for which they take CAS exams; that's 24%, compared with the 12% of total North American Associates and Fellows and 18% of total new Associates in 1993 that are CAS members.

With respect to employer type, 40 have gone to consulting firms, 30 to insurance

companies, and four to State government. In the most recent couple of years, there has been an increase in insurance-company hirings compared with consulting-company hirings.

Most students have taken jobs in Texas, with only six going out of state. This December Travelers hired one of our graduating seniors, and this spring Aetna offered positions to two; both of these companies of course are in Hartford. UT was one of only six universities at which The Principal Financial Group (from Des Moines) conducted interviews this spring, and we expect to see some offers result from that. Both Travelers and The Principal Financial Group have recently offered internships to

our students. It's beginning to appear that in-state employers are going to get competition for our students from some prestigious out-of-state companies.

The job market this year seems strong—probably up a bit over the previous two years. All hope it remains true—as in the previous five years—that all students with two exams by February, who have completed the life contingencies courses, and who can work permanently in the U.S. find entry-level actuarial positions. About a third of the one-exam students usually find such posts.

Starting salaries appear to be rising slightly faster than inflation, if the early offers this year are indicative.