ACTUARIAL RESEARCH CLEARING HOUSE 1996 VOL. 1

30TH ACTUARIAL RESEARCH CONFERENCE

University Park, Pennsylvania

August 17-19, 1995

Hosts

The Education & Research Section of the Society of Actuaries and the Penn State University

Sponsors

Actuarial Education and Research Fund American Academy of Actuaries American Society of Pension Actuaries Canadian Institute of Actuaries Casualty Actuarial Society Conference of Consulting Actuaries Society of Actuaries William Elliott Chair of Insurance Robert B. Schwartz Fellowship

PROGRAM

All sessions will be in The Penn State Scanticon Conference Center Room G - Main Floor

Thursday, August 17, 1995

REGISTRATION 11:00 a.m. - 2:00 p.m. - Main Lobby

COFFEE, JUICE & SODA available 7:30 a.m. - 5:30 p.m. outside Conference Room

Opening: Thursday 1:00 - 1:15 p.m.

Arnold F. Shapiro

"Welcome to the 30th Actuarial Research Conference"

Penn State University

J. D. Hammond

"Welcome to Penn State University"

Dean, Smeal College of Business

SESSION I: THURSDAY 1:15 TO 2:55 - Moderator: Arnold F. Shapiro "A Simulated SOA Home Page" David Scollnik University of Calgary "Actuaries on Line" **Judy Anderson** Society of Actuaries "A Regional Consortium for Actuarial Education" Matt Hassett & Mike Ratliff Arizona State University & Northern Arizona University "The Analysis of CCRC Data" **Bruce Jones** University of Iowa BREAK 2:55 to 3:25 p.m. - Located immediately outside this room. Beverage and munchies SESSION II: THURSDAY 3:25 - 5:30 P.M. - Moderator: Tom Herzog Gordon E. Willmot "Some Remarks on Statistical Independence and Fractional Age Assumptions" (presented by Xiaodong "Sheldon" Lin) University of Waterloo

Jacques Rioux & Andrew Luong "A Least Squares Estimation Procedure for the Grouped and Censored Proportional Hazards Model"

Universite Laval, Quebec

A. H. Sharif "Premium Calculation by Transformed Distributions" University of Waterloo

Sarah L. M. Christiansen "Representative Interest Rate Scenarios" The Principal Financial Group

Virginia R. Young "Credibility Using a Loss Function from Spline Theory" University of Wisconsin - Madison

RECEPTION Thursday 6:00 - 8:00 Nittany Lion Inn

FRIDAY, August 18, 1995

Coffee 7:30 (Continental Breakfast 7:30 - 8:00 a.m. Conference Room)

SESSION III: FRIDAY 8:00 - 10:05 A.M. - Moderator: Bruce Jones

Mark Saksonov "Stochastic Optimization Techniques for Pricing Callable Bonds"

New York Life Insurance Company

Gary Parker & Andrew Cairns "Pension Fund Modelling with Random Investment

Performance"

Simon Fraser University

Steven L. Craighead "Bootstrap Estimation of the Extreme Case in Solvency Testing"

Nationwide Corporation

David Promislow & David Spring

"Some New Observations About Uniqueness of Yield Rates"

"HIV/AIDS in Thailand: Insurance Risk"

York University

Suwanee Surasiengsunk &

Harry Panier University of Waterloo

BREAK 10:05 - 10:25 a.m. Beverage and bagels, muffins, fruit, yogurt, danish, etc.

SESSION IV: FRIDAY 10:25 - 12:05 - Moderator: Dick London

Donald Jones & Arnold Shapiro "Interactive Instructional Software for Actuarial Mathematics"

Oregon State University & Penn State University

John Beekman "Undergraduate Honors Theses in Actuarial Science" Ball State University

Russell Jay Hendel "Intuitive, Interactive, Comprehensive Writing: An Actuarial Problem Solving Approach"

University of Louisville

Ronald Crabb & Arnold Shapiro "Managing the Insurance Enterprise" University of Wisconsin & Penn State University

SPONSORED LUNCH FRIDAY 12:05 - 1:15 P.M. Garden Restaurant

Chuck Fuhrer Arnold Dicke

Report from E&R Council

"Life Insurance Practice - Research Topics"

SESSION V: FRIDAY 1:25 - 3:10 P.M. -Moderator: Sam Cox

Giovanni Di Meo

Robert Brown

"Equity Conversion Plans for the Elderly"

University of Waterloo

"Conclusions from Michigan Studies of Social Security

Financing"

Cecil Nesbitt, Alexa Merdrum & Sarah Clark

University of Michigan

"Retirement Income Security -- Is Full Funding the Answer"

University of Waterloo

A. K. Singh & R. Dalpatadu

"On Estimation of Parameters of the Pareto

Distribution"

University of Nevada

BREAK 3:10 - 3:30 P.M. - Located immediately outside. Beverage and munchies

SESSION VI: FRIDAY 3:30 - 5:35 P.M. - Moderator: Judy Anderson

Samuel H. Cox

"Scientific Publications Proposal: The North American Actuarial Journal, the Transactions, and the

Monograph Series"

Georgia State University

Bryan Hearsey

"North American University Actuarial Science Programs"

Lebanon Valley College

Esther Portnov

"The New SOA 120 Syllabus"

University of Illinois

Will R. Bagwell

"Risk and Insurance Student Instruction of DEFRA's

Life Expectancy for Installment-type Distributions

Eased by Using LOTUS 1-2-3"

North Carolina A & T State University

Robert Brown

"The SOA 100 and 110 Examinations"

University of Waterloo

RECEPTION:

Barbecue 7:00 p.m.

Location:

Shapiro's

637 Berkshire Dr.

SATURDAY, AUGUST 19, 1995

Coffee 7:30 (Continental Breakfast 7:30 - 8:00 a.m. Conference Room)

SESSION VII: SATURDAY 8:00 - 10:05 A.M. - Moderator: Esther Portnov

Shaun Wang

"Equitable Risk Loads In Life Insurance"

University of Waterloo

Otterbin College & Ohio State University

Zhung Huang & Lijia Guo

"Capital Allocation by Possibilistic Programming

R. Dalpatadu & A. K. Singh

"A Numerical Method for Computing the Probability Distribution of Total Risk of a Portfolio"

University of Nevada

"Quasi-Monte Carlo Methods in Numerical Finance"

University of Waterloo

Ken Seng Tan

Lijia Guo

"An Optimal Model for Asset Liability Management"

The Ohio State University

BREAK 10:05 - 10:25 A.M. Beverage and bagels, muffins, fruit, vogurt, danish, etc.

SESSION VIII: SATURDAY 10:25 - 12:30 P.M. - Moderator: Sarah Christiansen

Xiaodong "Sheldon" Lin "Nonexponential Bounds on Tails of Compound Distributions"

University of Toronto

Mary V. Kelly & Bent Jorgensen "Analyzing Accident Benefit Data using Tweedie's Compound Poisson Model"

University of British Columbia

Hailiang Yang "Martingales and Ruin Probability"

University of Waterloo

Claire Bilodeau "Variability of Pension Plan Cost Ratio and Funding

Level"

University of Waterloo

Charles S. Fuhrer "The Credibility of Group Long Term Disability

Experience and Some Related Topics"

Blue Cross/Blue Shield

FAREWELL LUNCH 12:30 - 1:30 P.M.