

PATRICK LEE BROCKETT

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CURRENT POSITIONS AT THE UNIVERSITY OF TEXAS AT AUSTIN

Director, Risk Management and Insurance Program
Gus S. Wortham Memorial Chair in Risk Management and Insurance
Director, Center for Risk Management and Insurance
Director of the Certificate in Risk Management program
Full Professor with joint appointments in the Departments of Information, Risk
and Operations Management; Finance; and Mathematics
Global Research Fellow at the IC² Institute, University of Texas at Austin (-2020)
Affiliated Faculty Member, Division of Statistics + Scientific Computation
Fellow of the Humanities Research Institute, UT Austin

OTHER POSITIONS

Member of the Board of Directors, Texas Property and Casualty Guaranty
Association (1999-March 2020)
Editor, *North American Actuarial Journal*
Associate Editor, *Journal of Risk and Insurance* (-2020)
Associate Editor, *Journal of Insurance Issues*
Board of Advisors of the Center of Insurance and Risk Management Studies
(CIRMS), York University, Toronto, Canada
Board of Directors, Worth Casualty Insurance Company
Board of Directors, Danielson National Insurance Co.

EDUCATION

B.A. 1970, (Mathematics) California State University at Long Beach, California
M.A. 1975, (Mathematics) University of California at Irvine, California
Ph.D. 1975, (Mathematics) University of California at Irvine, California

EXTERNAL PROFESSIONAL HONORS AND AWARDS

The American Risk and Insurance Association, ARIA, (the premier academic association in risk management and insurance in the world) has endowed and named a research award in my name. **The Patrick Brockett & Arnold Shapiro Actuarial Research Award**, is to be awarded for the article published in one of the Society of Actuaries

or Casualty Actuarial Society's flagship academic journals (*North American Actuarial Journal* or *Variance*) that makes the best contribution of interest to ARIA risk management and insurance researchers. I served as Editor of *ARIA's Journal of Risk and Insurance* for 9 years, and as President of ARIA and am currently Editor of the *North American Actuarial Journal*. This award continues to be given each year.

In 2019 my co-authors and I were awarded the **Best 2018 North American Actuarial Journal Article Award**, from the Society of Actuaries for the article: Brockett, Patrick, Linda Golden, and Charles Yang, (2018), "Potential "Savings" of Medicare: The Analysis of Medicare Advantage and Accountable Care Organizations" *North American Actuarial Journal*, 22:3, 458-472.

In 2017 my co-authors and I were awarded the **2017 Spencer L. Kimball Prize** from the National Association of Insurance Commissioners, for the best article in *the Journal of Insurance Regulation* important to regulators. This was given for the article: Ai, Jing, Patrick L. Brockett, Linda Golden and Utai Pitaktong (2015) "How to Set Rates if You Must: An Efficiency-Based Methodology for Setting Promulgated Insurance Rates with an Application to Title Insurance" *Journal of Insurance Regulation* 34(7) 167-205

In 2017 my co-authors and I were awarded the **2016 Best North American Actuarial Journal Article Award**, from the Society of Actuaries for the article: Golden, Linda, Patrick Brockett, Jing Ai and Bruce Kellison, (2016), "Empirical Evidence on the Use of Credit Scoring for Predicting Insurance Losses with Psycho-Social and Biochemical Explanations" *North American Actuarial Journal* 20(3) 233-251. This is the most downloaded article from this top journal for several years running.

In 2017 the article entitled "The *Journal of Risk and Insurance*: Authors of Influence" by Steven W. Pottier, Jianren Xu, and Joshua D. Frederick (*Risk Management and Insurance Review*, December 2017, Vol. 20, No. 3, 339-362, DOI: 10.1111/rmir.12089) looked at authors who have published in the top tier *Journal of Risk and Insurance* from 1989 to 2010 based on the number of citations to these articles from 1989 to 2014. **I ranked #3 in the world in terms of number of citations** of articles published there, and #3 among all JRI authors in the world in terms of the number of non-insurance journal citations received.

In 2014 I was appointed as member of the National Academy of Sciences, Medicine and Engineering's Committee to investigate affordability and availability in the National Flood Insurance Program (2014-2015)

In 2013 a paper entitled "The Most Prolific Contributing Authors to the Leading Risk Management and Insurance Journals: 1984-2013" by Jean Heck (Social Science Research Network) identified the most prolific contributors to the world's three most elite journals in Risk Management and Insurance. In terms of the number of appearances **I was ranked #9 in the world over the last 30 years and when the impact factor of the journal was taken into account, I ranked #2 in the world over the 30 year history**. Also analyzed was the past ten years of contribution. In this I ranked # 2 in the world overall, and once

the impact factor of the journal was taken into account, I rose to #1 in the world.

In 2013 I was appointed as member of National Academy of Sciences' National Research Council Committee to investigate costs and benefits of reforms to the National Flood Insurance Program (2013-2014)

In 2011 I was awarded the **American Risk and Insurance Association's Excellence in Teaching Award**, August, 2011 at annual meeting in San Diego, California

In 2011 I was appointed as a member of National Academy of Sciences' Water Resources Board's panel to investigate risks in the levee systems in America and the National Flood Insurance Program (2011-2012)

In 2009 the article "Brockett, Patrick L., Richard Derrig, and Xiaohua Xia. "Using Kohonen's Self Organizing Feature Map to Uncover Automobile Bodily Injury Claim Fraud," *The Journal of Risk and Insurance*, June 1998. Vol. 65, No. 2, 245-274 was listed as tied with one other article in insurance, actuarial science, and finance for **the 8th most cited *Journal of Risk and Insurance* article** (See December 2009 issue *Journal of Risk and Insurance*, Table 8 p. 497).

Listed as the **Top Ten Most Published Researcher in the World in the 75 year history of *The Journal of Risk and Insurance*** (the premier academic journal in risk management and insurance in the world) in terms of the number of pages published. See Mary A. Weiss and Joseph Qiu (2008) "*The Journal of Risk and Insurance: A 75-Year Historical Perspective*," *The Journal of Risk and Insurance*, 2008, Vol. 75, No. 2, 253-274.

Ranked as the **12th most impactful scholar (non-tied ranking) among 1,376 management science (MS)/production and operations management (POM) professors in 225 American business schools in the USA** according to the H-index of scholarly productivity and impact. The H-index is a citation based methodology for determining the impact of a scholar which does not place undue emphasis on the "one hit" authors, or people who churn out numerous papers which are never cited by others, as might a simple web of science citation count. The H-index quantifies both the actual scientific productivity and the apparent scientific impact of a scientist. The index is based on the set of the scientist's most cited papers and the number of citations that they have received in other people's publications. The index was suggested by the physicist Jorge E. Hirsch as a tool for determining theoretical physicists' relative quality, was published in the *Proceeding of the National Academy of Sciences*, and is sometimes called the Hirsch index or Hirsch number. The MS/POM scholarly impact study research, which took almost a year to complete, was conducted at DePaul University by Bin Jiang and I was informed of the results via email in 2008.

Casualty Actuarial Society's ARIA Research Prize 2008 given to "the author(s) of that paper published by the American Risk and Insurance Association (ARIA) which provides the most valuable contribution to casualty actuarial science" awarded by the Casualty Actuarial Society. For the paper by Patrick L. Brockett, and Linda L.

Golden entitled “Biological and Psychobehavioral Correlates of Risk Taking, Credit Scores, and Automobile Insurance Losses: Toward an Explication of Why Credit Scoring Works,” *The Journal of Risk and Insurance*, 74(1), March 2007. 23-63.

Elected Fellow of the Institute for Risk Management (2008)

American Risk and Insurance Association Outstanding Achievement Award, August 2006, for furthering the science of risk management through the promotion of education, research and communication during my nine year tenure as editor of *The Journal of Risk and Insurance* from 1998-2006.

Member of the Board of Directors, Board on Mathematical Sciences and their Applications, National Research Council, The National Academies of Science of the United States, 2005-2008.

Elected Member of the International Statistical Institute 2006. This is a very prestigious election of only a select few statisticians worldwide.

RMIR Perspectives Award for 2006 for the most outstanding perspectives article published in the *Risk Management and Insurance Review* during 2005, given by the American Risk and Insurance Association August 2006 for the paper by Patrick L. Brockett, Mulong Wang, and Chuanhou Yang (2005) “Weather Derivatives and Weather Risk Management,” *Risk Management and Insurance Review* 8(1) 127-140.

Robert C. Witt Research Award 2005 for the most outstanding feature article published in *The Journal of Risk and Insurance* during 2004, given by the American Risk and Insurance Association August 2005 for the paper, by Patrick L. Brockett, John Semple, Ray Chang, John J. Rousseau, and Chuanhou Yang (2004) “A Comparison of HMO Efficiencies as a Function of Provider Autonomy,” *The Journal of Risk and Insurance* 71, 1 (March), 1-13.

Robert I. Mehr Award 2004 given by the American Risk and Insurance Association August 2004 “for that journal article making a ten year lasting contribution to risk management” and having “withstood the test of time”. Received for: Brockett, Patrick L., William W. Cooper, Linda L. Golden, and Utai Pitaktong (1994), "A Neural Network Method for Obtaining an Early Warning of Insurer Insolvency," *The Journal of Risk and Insurance*, September, 402-424

Casualty Actuarial Society’s ARIA Research Prize 2003 given to “the author(s) of that paper published by the American Risk and Insurance Association (ARIA) which provides the most valuable contribution to casualty actuarial science” by the Casualty Actuarial Society. For the paper by Patrick L. Brockett, Richard A., Derrig, Linda L. Golden, Arnold Levine and Mark I. Alpert entitled “Fraud Classification Using Principal Component Analysis of RIDITs,” *The Journal of Risk and Insurance*, 2002 69(3), 341-372.

Casualty Actuarial Society’s ARIA Research Prize 2001 given to “the author(s) of that paper published by the American Risk and Insurance Association (ARIA) which provides the most valuable contribution to casualty actuarial science” by the Casualty Actuarial Society. For the paper Brockett, Patrick L., Hung-Gay Fung, Gene C. Lai, Richard D. MacMinn, and Robert C. Witt. December 2000. “Great (and not so Great) Expectations: An Endogenous Economic Explication of

Insurance Cycles and Liability Crises,” *The Journal of Risk and Insurance*, Vol. 67, No. 4. (Dec., 2000), pp. 617-652

International Brian Hey Prize (Second Place) 2000 Competition held by the Institute of Actuaries in England and the Scottish Faculty of Actuaries, Second Prize. October, 2000. For the paper Brockett, Patrick L., Hung-Gay Fung, Gene C. Lai, Richard D. MacMinn, and Robert C. Witt. December 2000. “Great (and not so Great) Expectations: An Endogenous Economic Explication of Insurance Cycles and Liability Crises,” *The Journal of Risk and Insurance*, Vol. 67, No. 4. (Dec., 2000), pp. 617-652

David Rist Prize 1999 (Finalist) Competition is for the most outstanding paper on military operations research, by the Military Operations Society, 1999, for the paper Brockett, Patrick L., B. Golany, J. J. Rousseau, D.A. Thomas, and L. Zhou. 1997. “Forecasting and Allocation of US Army Recruiting Resources,” *Military Operations Research*, Vol. 3 No. 3, pp. 13-29.

Holder of the Thomas Boles Chair in Actuarial Science, Georgia State University, Atlanta, Georgia, 1998

Society of Actuaries Annual Prize, 1996 winner of Annual Prize for the Best Paper of the Year for 1996 from the Society of Actuaries for the article Brockett, Patrick L., S. Cox, B. Golany, F. Phillips, and Yun Song. 1996. “Actuarial Uses of Grouped Data: An Information Theoretic Approach to Incorporating Secondary Data,” *Transactions, of the Society of Actuaries*, Vol. 17, 75-99.

Franz Edelman Competition (Semi-finalist) for the most outstanding application of management science techniques in practice, Institute for Operations Research and the Management Sciences (INFORMS), 1995 for our work on US Army recruiting subsequently summarized in the paper Brockett, Patrick L., B. Golany, J. J. Rousseau, D.A. Thomas, and L. Zhou. 1997. “Forecasting and Allocation of US Army Recruiting Resources,” *Military Operations Research*, Vol. 3 No. 3, pp. 13-29.

Winner of the "**Best Paper Award**" for 1994 from the International Insurance Society, June 19-23, 1994 Madrid, Spain for the paper Brockett, Patrick L., G. C. Lai, S. W. Pottier, and R. C. Witt. June 19-23, 1994. "Ambiguity, Risk Charges, and Insurance Pricing," *Proceeding of the International Insurance Society*, Madrid, Spain, pp. 298-311.

The Halmsted Prize for the Most Outstanding English Language Publication in Actuarial Science in the World (1993)," presented by The Society of Actuaries for my article "Information Theoretic Approach to Actuarial Science: A Unification and Extension of Relevant Theory and Applications," *Transactions of the Society of Actuaries*, Vol. 43, 73-135.

American Statistical Association Award for "Most Outstanding Statistical Application Article Published in any Journal, in any Field, and in any Language During 1990 or 1991," presented by the American Statistical Association (1992) for my article "Information Theoretic Approach to Actuarial

Science: A Unification and Extension of Relevant Theory and Applications," *Transactions of the Society of Actuaries*, Vol. 43, 73-135.

American Risk and Insurance Association's Award for "Outstanding Feature

Article Published during 1986 in *The Journal of Risk and Insurance* presented by the American Risk and Insurance Association for the article Brockett, Patrick L., S. H. Cox, Jr., and R.C. Witt. June 1986. "Insurance Versus Self-Insurance: A Risk Management Perspective," *The Journal of Risk and Insurance*, Vol. 53, 242-257.

American Risk and Insurance Association's Award for "Outstanding

Communication Published During 1983 in *The Journal of Risk and Insurance* presented by the American Risk and Insurance Association for the article Brockett, Patrick L. December 1983. "On the Misuse of the Central Limit Theorem in Some Risk Calculations," *The Journal of Risk and Insurance*, Vol. 50, No. 4, 727-731.

ELECTED PROFESSIONAL SOCIETY FELLOWSHIPS AND HONORS

The Institute of Risk Management (**Elected Fellow**)
International Statistical Institute (**Elected Member**)
The American Association for the Advancement of Science (**Elected Fellow**)
The Institute of Mathematical Statistics (**Elected Fellow**)
The American Statistical Association (**Elected Fellow**)
The Royal Statistical Society Fellow
(also elected Chartered Statistician by RSS)
The Operations Research Society of America (now INFORMS) (elected Full Member when it was ORSA)

OTHER PROFESSIONAL SOCIETY MEMBERSHIPS NOT LISTED ABOVE

Academy of Marketing Science
American Marketing Association
American Risk and Insurance Association (Past President)
Asia Pacific Risk and Insurance Association
Casualty Actuarial Society (Academic Corresponding Member)
European Group of Risk and Insurance Economists (EGRIE)
Institute for Operations Research and Management Sciences (INFORMS)
International Actuarial Association (Individual Life Member, ASTIN section)
Society for Marketing Advancements
Southern Risk and Insurance Association
Western Risk and Insurance Association

CURRENT EDITORIAL POSITIONS

2014 -- **Editor**, *North American Actuarial Journal* (Society of Actuaries' flagship journal and one of the top two actuarial journals worldwide)
2019 -- **Associate Editor**, *Journal of Insurance Issues*

PREVIOUS EDITORIAL POSITIONS

- 2007 - 2019 **Associate Editor**, *The Journal of Risk and Insurance* (American Risk and Insurance Association's flagship journal and the very top journal worldwide)
- 2008-2015 Editorial Board Member, *Journal of International Business and Entrepreneurship*
- 2000 -2014 Member of Distinguished Honorary Editorial Board, *North American Actuarial Journal*. This position is for a selected few who not only serve on the Editorial Board, but also have been chosen to give advice on strategy and directions to the Editor.
- 2011 Special Guest Editor of the *North American Actuarial Journal* Special Issue (January) on Longevity Risk and Capital Market Solutions (with David Blake, Samuel Cox, Richard MacMinn) Volume 15 Issue 2.
- 1984 - 2008 Associate Editor, *Insurance: Mathematics and Economics*, one of the very top journals in actuarial science and insurance mathematics published in Europe
- 1998-2007 Editor, *The Journal of Risk and Insurance*, the flagship journal of the American Risk and Insurance Association and the most prestigious academic journal in risk management and insurance in the world
- 2000-2004 Member of the Editorial Board, *Applied Stochastic Models in Business and Industry* (formerly *Applied Stochastic Models and Data Analysis*)
- 1999 Special Guest Editor of the *North American Actuarial Journal* Special Issue (January) on Genetic Testing and its Impact on the Insurance Industry
- 1997 Co-Editor (with W.W. Cooper, A. Berger, and J. Pastor) Special Issue of the *European Journal of Operations Research* on new methodologies and directions in the evaluation of financial institutions.
- 1995- 2000 Associate Editor, *North American Actuarial Journal*, the flagship journal of the Society of Actuaries and the most prestigious academic journal in actuarial science in North America
- 1995-1998 Associate Editor for Book Reviews, *North American Actuarial Journal*
- 1991-1993 Associate Editor, *Naval Research Logistics*
- 1979-1980 Associate Editor, Book Review Section, *Journal of the American Statistical Association*

UNIVERSITY PROFESSIONAL HONORS AND AWARDS RECEIVED

Global Research Fellow IC² Institute, University of Texas 1983-2019

Fellow of the Humanities Research Institute at the University of Texas (2011)

Deans Fellow: McCombs School of Business (Spring 2010)

Deans Fellow: McCombs School of Business (Spring 2005)

Dean's Fellow 1998, University of Texas at Austin College and Graduate School of Business

Outstanding Graduate Teacher Award (University-wide competition), by The University of Texas at Austin Graduate School, 1995.

Award for Research Excellence, presented by The University of Texas CBA Foundation Advisory Council (1992)

Faculty Research Assignment, University of Texas Graduate School (Spring 1991)

Award for Research Excellence, presented by The University of Texas CBA Foundation Advisory Council (1984)

OTHER UNIVERSITY PROFESSIONAL AWARD NOMINATIONS

Information, Risk and Operations Management Department Nominee for College-wide Career Award for Outstanding Research Contributions (2015)

Information, Risk and Operations Management Department Nominee for College-wide Career Award for Outstanding Research Contributions (2014)

Management Science and Information Systems Department Nominee for College-wide Award for Outstanding Research Contributions (2006)

Management Science and Information Systems Department Nominee for University-wide Outstanding Graduate Teacher Award (1993)

Finance Department Nominee for College-wide Award for Research Excellence, (1991)

Nominated for Outstanding Professor Award, The Graduate Business Council (1987)

Nominated for Friar Society Teaching Award (1987)

Finance Department Nominee for University-wide Outstanding Graduate Teacher Award, (1989, 1992, and 1993)

Nominated for Outstanding Researcher Award, Golden Key National Honor Society (1987)

Nominated for Outstanding Teacher Award, Golden Key National Honor Society (1985)

OFFICES IN PROFESSIONAL ORGANIZATIONS AND PROFESSIONAL SERVICE

2000-April 2020 Member of Board of Directors, Texas Property and Liability Insurance Guaranty Association (Appointed as a Public Member by the Texas State Commissioner of Insurance)

- 2009-2019 Member of the Committee to determine the Robert I. Meir Award for the most outstanding article published in *The Journal of Risk and Insurance* ten years previously which has “withstood the test of time”, given by the American Risk and Insurance Association,
- 2014-2023 Chair of the Committee to determine the Annual Prize Award for the most outstanding article published in *The North American Actuarial Journal* during the proceeding.
- 2016 Chair of the Patrick Brockett & Arnold Shapiro Actuarial Research Award Committee. The award is given annually by the American Risk and Insurance Association to the article published in one of the Society of Actuaries or Casualty Actuarial Society’s flagship academic journals (*North American Actuarial Journal* or *Variance*) that makes the most important contribution of risk management and insurance issues of interest to ARIA risk management and insurance researchers.
- 2010-2013 Member of the Theory of Risk Committee of the Casualty Actuarial Society,
- 2009-2014 Chair, ARIA Actuarial Research Award Committee, American Risk and Insurance Association. Raise funds for award
 Co-Organizer 6th Longevity Risk and Capital Market Solutions Conference, Sydney, Australia, September 2010
 Member of the Committee to determine the Robert I. Meir Award for the most outstanding article published in *The Journal of Risk and Insurance* ten years previously which has “withstood the test of time”, given by the American Risk and Insurance Association
- 2009 Member of the Theory of Risk Committee of the Casualty Actuarial Society, 2009
 Chair, Ad hoc committee on ARIA Actuarial Research Award, American Risk and Insurance Association
 Co-Organizer 5th Longevity Risk and Capital Market Solutions Conference, New York, New York September 2009
 Member of the Committee to determine the Robert I. Meir Award for the most outstanding article published in *The Journal of Risk and Insurance* ten years previously which has “withstood the test of time”, given by the American Risk and Insurance Association
- 2008 Member of the Theory of Risk Committee of the Casualty Actuarial Society, 2008
 Member of the Wright –Kulp Book Award Committee to determine the most outstanding contribution to the risk management literature, sponsored by the American Risk and Insurance Association
 Completed (with Professor Richard MacMinn) the raising of funds for the American Risk and Insurance Association (ARIA) to establish an

endowment for a research award titled “The Robert C. Witt Award” for the most outstanding feature article published each year in the *Journal of Risk and Insurance*. This Award is given by ARIA in honor of former UT risk management and insurance professor Robert C. Witt.

Member of the Committee to determine the Robert I. Meir Award for the most outstanding article published in *The Journal of Risk and Insurance* ten years previously which has “withstood the test of time”, given by the American Risk and Insurance Association

- 2004-2007 Member of the Board of Directors, Board on Mathematical Sciences and their Applications, National Research Council, The National Academies of the United States
- 2007 Member of the Committee to determine the Robert I. Meir Award for the most outstanding article published in *The Journal of Risk and Insurance* ten years previously which has “withstood the test of time”, given by the American Risk and Insurance Association
- 1998-2006 Co-Chair (with Richard MacMinn) of the Meir Award for the most outstanding article published in *The Journal of Risk and Insurance* ten years previously which has “withstood the test of time”, given by the American Risk and Insurance Association
- 2002-2003 Immediate Past President, American Risk and Insurance Association.
- 1999- 2003 Executive Committee Member for the Board of Directors, American Risk and Insurance Association.
- 2001-2002 President, American Risk and Insurance Association.
- 2002-2003 Chair, Officer Nomination Committee, American Risk and Insurance Association.
- 2000-2001 Chair, Finance Committee, American Risk and Insurance Association
- 2000-2001 Chair, Strategic Planning Committee, American Risk and Insurance Association
- 2000-2001 President-Elect, American Risk and Insurance Association
- 1999- 2000 Member of the Society of Actuaries Task Force on Education and Qualifications 20005
- 2000-2006 Liaison, Society of Actuaries with the American Association for the Advancement of Science
- 2000 Organizer of International Annual Convention, American Risk and Insurance Association (2000)
- 1999 –2000 Vice President, American Risk and Insurance Association
- 1996-2001 Member of Board of Directors, American Risk and Insurance Association

- 1998-2006 Co-Chair (with Richard MacMinn) of the Meir Award for the most outstanding article published in *The Journal of Risk and Insurance* ten years previously which has “withstood the test of time”, given by the American Risk and Insurance Association
- 2002-2003 Co-Chair (with Richard MacMinn) of the Robert C. Witt Award for the most outstanding article published in *The Journal of Risk and Insurance* during the previous year, by the American Risk and Insurance Association
- 1998 Organizer, Bowles Symposium on Genetic Technology and its Impact on Insurance Underwriting, Georgia State University, March 1998
- 1991 Member of the Committee to determine Kulp-Wright book awards given by the American Risk and Insurance Association
- 1990 Member of the Committee to Determine Stickler Teaching Innovation Award given by the American Risk and Insurance Association
- 1987-1988 Member of the Nominating Committee for the American Risk and Insurance Association
- 1985, 90, 92, Member of the Committee to Determine Awards for the *Journal of Risk 2008, 2009 and Insurance*, American Risk and Insurance Association.
- 1986-1988 Supervisor and organizer of the Society of Actuaries examinations for the Austin, Texas examination center
- 1985-1989 Member of the National Science Foundation Measurement Methods and Data Improvement Advisory Panel
- 1985 Member of the Program Coordinating Committee for the Annual Meeting of the American Risk and Insurance Association
- 1985-95 Member of the Society of Actuaries Committee on Relations With Statistical Societies
- 1984 Co-organizer (with S.H. Cox), Twentieth Annual Actuarial Research Conference, sponsored by the Society of Actuaries
- 1979 President, Austin Chapter of the American Statistical Association
- 1978 Vice President, Austin Chapter of the American Statistical Association

PUBLICATIONS

Books

Brockett, Patrick L., and A. Levine. 1984. *Statistics, Probability and Their Applications*, W. B. Saunders Publishing Co., (Reprinted in Japan, by HRW International, 1986).

Baranoff, Etti G, Patrick Brockett and Yehuda Kahane, *Risk Management for the Enterprise and Individuals*, Flatworld Knowledge Publisher, Spring 2009.
<http://www.flatworldknowledge.com/>

Baranoff, Etti, Patrick Brockett, Yehuda Kahane, and Dalit Baranoff (2019) *Risk Management for Individuals and Enterprises 2nd Edition*, (2019) ISBN: ISBN: 978-1-4533-9206-5 Flatworld Publishers

Monographs

Aird, Paul, Patrick Brockett, and Robert C. Witt. 1993. *An Analysis of Pricing and Availability Problems in the Texas Automobile Insurance Market*, National Association of Independent Insurers.

Brockett, Patrick L. and Patricia Arnold 2004 "Deregulation, Pricing and Availability Issues in the Texas Homeowners Insurance Market" (Fall) 2004 monograph, *Texas Public Policy Foundation*

National Research Council of the National Academy of Sciences. *Levees and the National Flood Insurance Program: Improving Policies and Practices*. Washington, DC: The National Academies Press, 2013 (I was part of National Research Council committee that wrote the monograph)

National Research Council of the National Academy of Sciences. *Affordability of National Flood Insurance Program Premiums -- Report 1*, Washington, DC: The National Academies Press, 2014 (I was part of National Research Council committee that wrote the monograph)

National Research Council of the National Academy of Sciences. *Affordability of National Flood Insurance Program Premiums -- Report 2*, Washington, DC: The National Academies Press, 2015 (I was part of National Research Council committee that wrote the monograph)

Articles on Risk Management and Insurance

Bertrand, W., Patrick L. Brockett, and A. Levine. 1979. "A Methodology for Determining High Risk Components in Urban Environments," *International Journal of Epidemiology*, Vol. 8, No. 2, 161-166.

Brockett, Patrick L., and R. C. Witt. December 1982. "The Underwriting Risk and Return Paradox Revisited," *The Journal of Risk and Insurance*, Vol. 49, No. 4, 621-627.

Arnold, B.C., and Patrick L. Brockett. 1983. "Identifiability for Dependent Multiple Decrement/Competing Risk Models," *Scandinavian Actuarial Journal*, 117-172.

Arnold, B.C., and Patrick L. Brockett. 1983. "When Does the β^{th} Percentile Residual Life Function Uniquely Determine the Distribution?" *Operations Research*, Vol. 31, 391-396.

Brockett, Patrick L., and S. H. Cox, Jr. 1983. "Adjusting Lifetables to Incorporate Pertinent Personal Profile Information," Actuarial Research Clearing House.

Brockett, Patrick L. December 1983. "On the Misuse of the Central Limit Theorem in Some Risk Calculations," *The Journal of Risk and Insurance*, Vol. 50, No. 4, 727-731. (This article won an award from The American Risk and Insurance Association for Outstanding Communication published in this journal in 1983).

- Brockett, Patrick L. 1983. "Risk Equivalent Return on Shareholders' Equity and Utility Assessment--a Comment on the paper by A. Longley-Cook," *Transactions of the Society of Actuaries*, Vol. 35, 341-348. (This article was a finalist for the Halmsted Prize given by the Society of Actuaries for the best English language publication of the year in the world in Actuarial Science).
- Brockett, Patrick L., and S. H. Cox, Jr. 1984. "Optimal Ruin Calculation Using Partial Stochastic Information," *Transactions of the Society of Actuaries*, Vol. 36, 49-62.
- Brockett, Patrick L. 1984. "General Bivariate Makeham Laws," *Scandinavian Actuarial Journal*, 150-156.
- Brockett, Patrick L., S. H. Cox, Jr. 1984. "Statistical Adjustment of Mortality Tables to Reflect Known Information," *Transactions of the Society of Actuaries*, Vol. 36, 63-75.
- Brockett, Patrick L., S. H. Cox, Jr., and R. C. Witt. December 1984. "Self Insurance and the Probability of Financial Regret," *The Journal of Risk and Insurance*, Vol. 51, 720-729.
- Arnold, B.C., Patrick L. Brockett, W. Torres, and A. L. Wright. 1984. "On the Inconsistency of Bayesian non-Parametric Estimators in Competing Risk/Multiple Decrement Models," *Insurance: Mathematics and Economics*, Vol. 3, 49-55.
- Brockett, Patrick L. 1985. "Using a Standard Distribution and Client Data to Obtain a Client Loss Distribution," *Conference of Actuaries in Public Practice*, Vol. 34, 503-511.
- Brockett, Patrick L. and S. H. Cox, Jr. 1985. "Insurance Calculations Using Incomplete Information," *Scandinavian Actuarial Journal*, 94-108.
- Brockett, Patrick L., S. H. Cox, Jr., and R. C. Witt. June 1986. "Insurance Versus Self-Insurance: A Risk Management Perspective," *The Journal of Risk and Insurance*, Vol. 53, 242-257. (This article won an award from The American Risk and Insurance Association for outstanding Feature Article published in this journal in 1986.)
- Brockett, Patrick L., and J. Zhang. 1986. "Information Theoretic Mortality Table Graduation," *Scandinavian Actuarial Journal*, 131-140.
- Brockett, Patrick L., and N. Sipra. 1987. "Linearity and Gaussianity of Interest Rate Data: an Empirical Time Series Test," *Actuarial Science*, (Festschrift Volume in honor of V. M. Joshi), 173-183.
- Brockett, Patrick L., Linda L. Golden and Paul Aird, 1990. "How Public Policy Can Define the Marketplace: The Case of Pollution Liability Insurance in the 1980's" *Journal of Public Policy and Marketing*, Vol. 9, 211-226.
- Brockett, Patrick L., and Robert C. Witt. 1990. "Linear and Nonlinear Stochastic Process Models in the Financial Theory of Insurance Companies," *Proceedings of the Business and Economic Statistics Section of the American Statistical Association*, 25-31.

- Brockett, Patrick L., Robert C. Witt and Paul Aird, 1990. "An Economic Overview of the Excess and Surplus Lines Insurance," *Journal of Insurance Regulation*, Vol. 9, No. 2, 234-258.
- Brockett, Patrick L., Robert C. Witt and Paul Aird. March 1991. "An Overview of the Reinsurance and the Reinsurance Markets," *Journal of Insurance Regulation*, Vol. 9, No. 3, 432-454.
- Brockett, Patrick L., and R. C. Witt. March 1991. "Relevant Distributions for Insurance Prices in an Arbitrage Free Equilibrium," *The Journal of Risk and Insurance*, Vol. 58, 13-29.
- Brockett, Patrick L. 1991. "Information Theoretic Approach to Actuarial Science: A Unification and Extension of Relevant Theory and Applications," *Transactions of the Society of Actuaries*, Vol. 43, 73-135. (This paper won the Award for the Most Outstanding Statistical Application Article published in any journal during 1991. The award is presented by The American Statistical Association at their 1992 annual meeting. It also won the Halmsted Award from the Society of Actuaries for the most outstanding English language publication in actuarial science.)
- Brockett, Patrick L., and Samuel H. Cox. 1991. "Discussion of Reitano's 'Statistical Analysis of Banded Data'," *Transactions of the Society of Actuaries*, Vol. 43.
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Kirchner T., Golden L., Brockett P. (2018) "Efficiency of Resource Usage in Arts Management/Marketing: An Application to the Symphony Orchestra Sector: an Abstract". In: Rossi P., Krey N. (eds) *Marketing Transformation: Marketing Practice in an Ever Changing World*. AMSWMC 2017. Developments in Marketing Science: Proceedings of the Academy of Marketing Science. Springer

Manika, Danae, Linda L. Golden and Patrick L. Brockett (Accepted August, 2020), "The Importance of Personally Relevant Knowledge for Pandemic Risk Prevention Behavior: A Multi-method Analysis and Two Country Validation," *Health Marketing Quarterly*.

Book Reviews

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Brockett, Patrick L., and Linda L. Golden. June 2001. *Law of the Internet* by George B. Delta and Jeffrey H. Matsuura, Aspen Law & Business Publishers 1999, Reviewed in *The Journal of Risk and Insurance* Vol. 68, No. 2, pp.372-374.

Brockett, Patrick L., March 2001. *Law of Insurance Contract Disputes, Second Edition* by Jeffrey W. Stempel, Aspen Publishers 2000, Reviewed in *The Journal of Risk and Insurance* Vol. 68, No. 1, pp.209-212.

Brockett, Patrick L. April 1997. *Mathematical Models in Finance*, Edited by S. D. Howison, F. P. Kelly and P. Chapman and Hall Publishing Company 1995, ISBN 0 412 63070 2, Reviewed in *North American Actuarial Journal*. Vol. 1, No. 1, p.110

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- Brockett, Patrick L., and M. J. Hinich. 1989. *Stochastic Processes in Underwater Acoustics*, by C.R. Baker, Springer-Verlag, Lecture Notes in Control and Information Sciences #85, Reviewed in *Journal of the Acoustical Society of America*.
- Brockett, Patrick L., and Antoine Laurence. 1989. *Managerial Decision Analysis*, by Danny Samson, Irwin Press, Reviewed in *The Journal of Risk and Insurance*, Vol. 57, p. 581.
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- Brockett, Patrick L. 1983. *Comparative Statistical Inference (2nd edition)*, by Vic Barnett, Reviewed in *Journal of the American Statistical Association*, Vol. 78, No. 382, 503.
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- Brockett, Patrick L. 1980. *The Asymptotic Theory of Extreme Order Statistics*, by Janos Galambos, John Wiley Interscience (1978), Reviewed in *Journal of the American Statistical Association*, Vol. 75, 473-474.
- Brockett, Patrick L. 1978. *Decomposition of Superpositions of Density Functions and Discrete Distributions*, by Pal Medgyessy, Halsted Press, Reviewed in *Journal of the American Statistical Association*, Vol. 73, 895-896.
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GRANTS AND CONTRACTS RECEIVED

- 2017-2018- I worked on a grant with the Texas General Land Office (GLO) to create models for determining unfunded losses associated with Hurricane Harvey. Professor Linda Golden was the Principal Investigator. A summary consequence of our research analysis appeared as Appendix F in *State of Texas Plan for Disaster Recovery: Hurricane Harvey-Round 1*, April 6, 2018 by Texas General Land Office (GLO), which is directly based on the work written by Linda Golden, Patrick Brockett, James Nolan and Alissa Walsh and is supported by extensive Excel data spreadsheets and based on Hurricane Harvey damage data supplied by FEMA and HUD and GLO.
- 2013 Securities and Exchange Commission, 16 hours of lectures on insurance and capital markets
- 2013 2015 Received AARP grant to study Medicare Fraud
- 2009-2013 Insurance Council of Texas, \$4,500 each year for faculty research support in risk management
- 2004-5 Graduate Student Research Support for Legislatively Mandated Credit Scoring and Insurance Study Texas Department of Insurance, about \$60,000
- Faculty Research Support for Legislatively Mandated Credit Scoring and Insurance Study, given by Texas Department of Insurance, about \$40,000
- Psychological and biological correlates of risk taking, given by Actuarial Education and Research Foundation (AERF). (with Linda L. Golden co-PI), \$22,500
- Research on Detection of Insurance Fraud in Insurance in Spain, given by the Spanish Government, about 15,000 Euros.
- 2002-3 Statistical Analysis of Credit Scoring and Insurance Losses, given by the Texas State Lt Governor's Office, about \$55,000 plus equipment (with Bruce Kellison).
- 1997-1998 Genetic Testing and Insurance.” Granting Organization: Actuarial Education and Research Fund (AERF), Society of Actuaries
- 1994-1995 “Revalidation and Upgrade of the Enhanced FAARS-SHARE Model.” Granting Organization: U.S. Army Research Office

- “Alternative Technical Methods for Predicting Insolvency of Life and Health Companies” (with James Jarrett), from the Texas Department of Insurance
- “A Validation of the Texas Early Warning System” (with James Jarrett), from the Texas Department of Insurance
- 1991 "Reserve Forecasting and Allocation of Army Recruiting Resources Study -- Sequential Hierarchical Allocation of Resource Elements (FAARS-SHARE) Systems." Granting Organization: U.S. Army Research Office
- 1999-1993 “Development of a Vector Extremal Model for the Navy's Awaiting Instruction Problem,” (with Gang Yu). Granting Organization: Office of Naval Research
- 1993-1994 “An Analysis of Pricing and Availability Problems in the Texas Auto Insurance Market” (with Bob Witt). Granting Organization: National Association of Independent Insurers
- Research Grant from The Actuarial Education and Research Fund of The Society of Actuaries for “Operations Research in Insurance”
- 1990-1991 “An Analysis Focused Taxonomy of Risk, Uncertainty, Ambiguity and Incomplete Information in Modeling and Decision Making in Insurance Operations.” Granting Organization: College of Business Administration Summer Research Award
- University Research Institute-Small Research Grant (\$500)
University Research Institute - Faculty Research Assignment (One semester off with pay for Spring 1991)
- "Statistical Models for Early Warning Systems of Insurance Company Insolvencies," (with W.W. Cooper). Granting Organization: Texas State Auditor's Office
- 1989-1990 CBA Faculty Academic Development and Research Committee - Summer research award
- University Research Institute-Small Research Grant (\$500)
- “Information Theoretic Unification of Solutions of Problems in Actuarial Science: Research and Study Note.” Granting Organization: Actuarial Education and Research Fund (AERF), Society of Actuaries
- 1988-1989 CBA Faculty Academic Development and Research Committee - Summer research award

- 1987-1988 "Chebychev Systems of Functions as a Unifying Technique for some problems in Finance, Economics, and Insurance." College of Business Administration Summer Research Award
- 1986-1987 "Information Theoretic Analysis of Discrete Data." Granting Organization: College of Business Administration Summer Research Award
- 1986-1987 "Computation of Information Theoretic Statistics." Granting Organization: University Research Institute
- 1986-1987 "Computation of Information Theoretic Statistics." Granting Organization: IBM Project Quest (joint with L. L. Golden and R.A. Peterson)
- 1984-1987 "Non Gaussian Ocean Surveillance" (with the Applied Research Laboratories, The University of Texas at Austin). Sponsor: Office of Naval Research
- 1980-1984 "Characterization of Non-Gaussian Stochastic Processes in Underwater Acoustics and Development of Signal Processing Algorithms." (Joint effort with C. Baker, University of North Carolina, and the Applied Research Laboratories, The University of Texas at Austin). Sponsor: Office of Naval Research
- 1978-1980 "Statistical Tools for Determining Fitness to Fly." Contracting Organization: U.S. Air Force (Brooks Air Force School of Aerospace Medicine, San Antonio, Texas). Co-Principal Investigator: G. Shea
- 1978 "Statistical Analysis of Stochastic Processes with Independent Increments." Granting Organization: National Science Foundation
- 1976 "Admissible Transformations of Measures on Locally Compact Groups." Granting Organization: Tulane University Committee on Faculty Research

INVITED ADDRESSES, LECTURES, AND PAPERS PRESENTED

- 1974 "An Index for Convergence of Sums of Independent Random Variables," November 1974 meeting of the American Mathematical Society at the University of Southern California
- 1975 "A Methodology for Inverting Mixing Distributions," April 1975, University of Wisconsin-Parkside Mathematics Department

- "Estimating Mixing Distribution Functions via Moments," Tulane University Mathematics Department, New Orleans, April 1975
- 1976 "Limit Distributions of Sums Under Mixing of the Scale Parameter," Invited talk at March 1976 meeting of the Institute of Mathematical Statistics held at Texas A & M University
- "Admissible Transformations of Measures," January 1976 meeting of the American Mathematical Society in San Antonio, Texas
- "Support of Infinitely Divisible Measures on Hilbert Space," special session on probability and statistics, November 1976, meeting of American Mathematical Statistics in Albuquerque, New Mexico
- 1977 "Design and Mathematical Analysis of Questionnaires," Colloquium Lecture, Department of General Business, December 1977, The University of Texas at Austin
- 1978 "Approximating Moment Sequences to Obtain Consistent Estimates of Distribution Functions," January 1978 Annual Meeting of American Mathematical Society in Atlanta, Georgia.
- Chairman, session on Probability Theory and Stochastic Processes, January 5, 1978 Annual Meeting of American Mathematical Society, Atlanta, Georgia
- "A Methodology for the Analysis of Categorical Questionnaires," January 1978 lecture, Brooks Air Force Base, Biomedical Computation Division, San Antonio, Texas
- "A Characterization of Information Divergence with an Application to Questionnaire Information," American Mathematical Society Meeting, April 1978, San Francisco, California
- "A Mathematical Analysis of Questionnaires," Austin Chapter of the American Statistical Association, May 1978
- "Zeros of the Densities of Infinitely Divisible Probability Measures," Colloquium, Mathematics Department, Tulane University, October 1978
- "Information Theory and Statistics," Mathematics Department Colloquium, Tulane University, October 1978
- 1979 "Recognition of Trends in Health Monitoring Systems with Low Reliability Data," Austin Chapter, American Statistical Association, January 1979 meeting
- "Discriminant Analysis with Categorical Information," invited talk, April 30, 1979 meeting, Operations Research Society of America, New Orleans
- "Non-parametric Tests for Trends," Department of Mathematics Colloquium Lecture, Tulane University, May 1979
- "Information Theoretic Discrete Variable Selection," June 1979 meeting of the Institute of Mathematical Statistics, Los Angeles
- "Minimum Discrimination Information Estimation via Unconstrained dual Convex Programming," September 1979, Fifth Congress of the National

- Academy of Engineering of Mexico (National Academy of Sciences of Mexico),
Morelia, Mexico
- “Monitoring Adverse Reactions to Drugs by Non-parametric Statistical
Methods,” October 1979, Colloquium, University of Louisville, Louisville,
Kentucky
- 1980 “Discrimination Without Training Samples, with Applications to World Health
Organization Data,” February 1980, Department of Statistics Colloquium,
University of California, Riverside
- “High-Low Discriminant Analysis of Categorical Data Using RIDITS,” invited
presentation for session on discriminant analysis, Biometric Society Meeting,
March 1980, Charleston, South Carolina
- “Statistical Techniques for Determining Fitness to Fly,” March 1980, Brooks Air
Force School of Aerospace Medicine, San Antonio, Texas
- “Statistical Model for Survival Incorporating Time Dependent Covariates,”
Austin Chapter, American Statistical Association, May 1980
- “Unimodality of High Convolutions,” Department of Mathematics Colloquium,
October 1980, University of California, Riverside
- “Using Time Dependent Covariates to Assess Survival Probabilities with an
Application to Heart Disease,” December 1980, Colloquium, University of
California, Irvine, Community & Environmental Medicine, and Southern
Occupational Health Center
- 1981 “Analysis of Categorical Questionnaires with an Application to Marketing
Research,” Seminar in the Finance Workshop, January 1981, Graduate School of
Management, University of California, Irvine
- “A Periodic Check Up Statistical Model for Heart Disease in Air Force Fliers,”
February 1981 Colloquium, California State University at Long Beach
- “Periodic Check Up Survival Analysis Model,” April 1981 Colloquium,
Department of Statistics, University of California, Riverside
- 1982 “Self Insurance and Regret,” April 1982, Risk Theory Seminar (Sponsored by the
American Risk and Insurance Association), Columbus, Ohio
- “Identifiability of Competing Risk Models,” June 1982, Institute of Mathematical
Statistics, San Diego, California
- 1983 “Self Insurance and Disutility,” Southwestern Risk and Insurance Association,
January 1983, Newport Beach, California
- “Likelihood Detection for Infinitely Divisible Processes,” February 1983,
Department of Mathematics Colloquium, Tulane University
- “Non-Parametric Density Estimation,” June-July 1983, Non Gaussian Signal
Processing Conference (sponsored by the Office of Naval Research)

- “Optimal Choice Among Risky Assets for a Class of Utilities Containing All Common Utility Functions,” Operations Research Society of America, November 1983 Special Session on Quantitative Methods in Financial Decision Analysis
- “On Market Efficiency and the Lognormal Distribution of Returns,” Operations Research Society of America, November 1983 Special Session on Quantitative Methods in Financial Decision Analysis
- Organizer and chairman of Special Session on Quantitative Methods in Financial Decision Analysis, Operations Research Society of America, November 1983
- 1984 "Bispectral Analysis of Underwater Acoustical Data," Non-Gaussian Signal Processing Conference, Princeton, N. J., March 1984, sponsored by the Office of Naval Research
- "Constructing a Unimodal Prior Distribution," National Academy of Engineering of Mexico, Ciudad Obregon, Sonora, Mexico, September 1984
- "A Method for Constructing a Unimodal Prior Density," Actuarial Research Conference, Society of Actuaries, Berkeley, California, October 1984
- 1985 "An Empirical Statistical Test of the Linear and Gaussian Time Series Models for Interest Rate Series," May 1985 Symposia on Statistics and Festschrift for Joshi, London Ontario, Canada
- "Information Theoretic Methods for Insurance Calculations," August 1985, American Risk And Insurance Association annual meeting, Vancouver, British Columbia, Canada
- 1986 "Financial Consideration of Risk--Pluses and Minuses," Operations Research Society of America, November 1986, Special Session on Quantitative Methods in Financial Decision Analysis
- 1987 "Comparison of Risk Characteristics of Individual Decision Makers," (invited) International Risk Theory Symposium, Mathematics Institute, Oberwolfach, Germany
- "The Contributions of A. Charnes to Statistical Thought," (with L. Seiford), Symposium Honoring A. Charnes on his Seventieth Birthday, Austin Texas
- 1989 "A New Method for Identifying Asymmetric Relationships Among Variables: Information Theory Applied to Affect, Location Convenience and Patronage Frequency," (with Linda L. Golden and Mary R. Zimmer), Winter Educator's Conference of the American Marketing Association, February 1989, St. Petersburg, Florida
- 1990 "Linear and Nonlinear Time Series Models in the Financial Theory of Insurance Companies," (co-authored with Robert C. Witt), Invited lecturer at the American Statistical Association Annual Meeting, Anaheim, California. This session was jointly sponsored by the Business and Economic Statistics section of the ASA and by the Society of Actuaries

- "Stochastic Process Models for Ventured Capital Decisions," (with Samuel Cox, and James Gerberman), Business and Economic Statistic section of the American Statistical Association annual meeting, Anaheim, California
- "Risk, Return, Skewness and Preference," (with Yehuda Kahane), August 1990, The American Risk and Insurance Association Annual Meeting in Orlando, Florida
- Discussant of the paper "Fuzzy Trends in Automobile Insurance," by J. David Cummins and Richard Derrig, at the American Risk and Insurance Association Annual Meeting in Orlando, Florida
- 1991 "Fun With Moment Problems--The Schmitter Problem," (invited) International Risk Theory Symposium, Mathematics Institute, Oberwolfach, Germany
- "A Reexamination of the Relationship Between Moment Preferences And Utility," April 1991, the Risk Theory Seminar of the American Risk and Insurance Association, Penn State University
- "Event Frequency Modeling: A Unification of the Mixed And Compound Poisson Distributions With Application To Purchase Frequency Events," (with Linda Golden and Harry Panjer), invited presentation, July 1991, ORSA/TIMS/SOBRAPO Joint International Conference, Rio de Janeiro, Brazil
- "A Chance Constrained Programming Approach To Pension Plan Management," (with Abraham Charnes and Li Sun), August 1991, American Risk and Insurance Association Annual Meeting
- 1992 "Venture Capital Financing," Instituto Tecnológico De Monterey, April 10-11, 1992, Mexico City, Mexico
- 1993 "Superfund Reforms and the Impact on the Insurance Industry," July 1993, National Conference of Insurance Legislators (invited), Washington D.C.
- "The Genetics Revolution, Economics, Ethics, and Insurance," (with E. Susan Tankersley) August 1993, American Risk and Insurance Association Annual Meeting, San Francisco California
- "Using Neural Networks to Detect Early Warnings of Insurance Company Insolvencies," (with Linda L. Golden, Utai Pitaktong, and W.W. Cooper), August 1993, American Risk and Insurance Association Annual Meeting, San Francisco, California
- "Environmental Liability: The Role of Insurance," American Public Power Association (invited), October 1993, Austin, Texas
- Selected member of an eight-person international group of medical informatics specialists to go to Hungary (Budapest and Szeged) and Russia (Moscow and St. Petersburg) and meet with academic and scientific colleagues, and members of the Academy of Sciences in these countries
- Chairman of session on Issues in Business Education, Fourth Symposium on Cross-Cultural Consumer and Business Studies, December 1993, Kahuku, Hawaii.

- 1994 "New Approach to Event Study Methodology with an Application to Proposition 103," August 1994, American Risk and Insurance Association Meeting
- "Stochastic Process Models for Financial Time Series in Insurance," Meeting on Risk Theory, September 18-14, 1994, Mathematics Research Institute, Oberwolfach, Germany
- "Information Theoretic Applications to Actuarial Science," Meeting on Risk Theory, September 18-14, 1994, Mathematics Research Institute, Oberwolfach, Germany
- "Ambiguity, Risk Charges, and Insurance Pricing," (with G. C. Lai, S. W. Pottier, and R. C. Witt) the International Insurance Society, June 19-23, 1994 Madrid, Spain . This won the "Best Paper Award" at the conference.
- 1995 "Claims Made versus Occurrence: Debunking Some Myths and Developing Some Finance Pricing Models," January 1995, Western Risk and Insurance Meeting, Las Vegas, Nevada
- "Kohonen Feature Maps for Detecting Bodily Injury Fraud Claims in Automobile Insurance," January 1995, Massachusetts Automobile Insurance Bureau, Boston, Massachusetts
- "Risk Management for Software Development Companies," American Defense Preparedness Association Test & Evaluation Symposium XI, January 31, 1995, held at the IC² Institute, Austin, Texas
- "Rank Statistical Methods for Detecting Efficiency Differences in Intertemporal DEA Analysis," Computational Economics Society Meeting, May 1995 Austin, Texas
- "Information Asymmetries and Insurance Futures Options," The Bowles Symposium on the Securitization of Insurance Risks, May 24-26, 1995 Georgia State University, Atlanta, Georgia
- "Pattern Recognition Methodology: A New Approach for Identifying Fraudulent Claims in Government Programs," the National State Auditors Association Annual Conference, June 8-10, Phoenix, Arizona.
- "Information Asymmetries and Insurance Futures Options, American Risk and Insurance Association Annual Meeting, August 1995, Seattle, Washington.
- "Kohonen Feature Maps for Detecting Bodily Injury Fraud Claims in Automobile Insurance," American Risk and Insurance Association Annual Meeting, August 1995, Seattle, Washington.
- 1996 "An Application of Rank Statistics to DEA and OECD Country Productivity" (with Linda L. Golden and Shan Li) Presented to the Northeast Decision Sciences Institute annual meeting, St. Croix, V.I., April 1996.
- "The Use and Impact of Information Technology and the Internet on Risk Management and Insurance," Presented to the Austin Chapter of the CPCU, 1996

- “The Effect of Provider Autonomy and the Efficiency of HMOs,” (with John Rousseau and J. Semple) August, 1996, American Risk and Insurance Association Annual Meeting, Philadelphia, Penn
- Houston Marine Insurance Seminar, attended and received \$10,000 in scholarships for students in Risk Management and Insurance, Houston, Texas September, 1996
- “Provider Autonomy and the Efficiency of HMOs,” 1996, Health Care Management Seminar, University of Texas at Austin
- “Risk Management and Business Risk”, October 1996, Videotaped Interview for a PBS film documentary to be aired in 1997
- Society of Actuaries Annual Meeting, attended and received Annual Prize for most outstanding publication in the *Transactions of the Society of Actuaries* for the year 1996, Orlando, Florida, November 1996
- "Issues in the Deregulation of Commercial Lines of Insurance," presented to NCOIL (National Conference of Insurance Legislators) Annual Meeting in Austin, Texas, November 18, 1996.
- 1997 “An Evaluation of the Efficiency of Different Marketing Distribution Systems in the Insurance Industry” (With Linda Golden, John Rousseau and Yuying Wang), Western Risk and Insurance Association Annual Meeting, Santa Barbara, California, January 1997
- 2000 "Fraud Classification Using Principal Component Analysis of RIDITs" August, 2000, American Risk and Insurance Association Annual Meeting, Boston, Mass. August, 2000
- “Current Issues and Research Topics in Risk Management,” Actuaries Club of the Southwest, November 2000
- 2001 "Fraud Classification Using Principal Component Analysis of RIDITs" July, international Insurance Mathematics and Economics conference, invited Plenary Keynote address, Penn State University, State University Penn.
- "DEA Evaluation of Efficiency of Marketing Distribution Systems in the U.S. Property-Liability Insurance Industry: A Financial Intermediary Approach" Western Risk and Insurance Association annual Meeting, January, 2001, Santa Barbara, Calif.
- "Modeling and Predicting Automobile Insurance Fraud” Western Risk and Insurance Association Annual Meeting, January, 2001, Santa Barbara, Calif.
- "An Analysis of the Efficiency of Joint Service Advertising Versus Service Specific Advertising for Recruiting Success” (with William W. Cooper, Linda L. Golden, and Michael Kwinn) Military Operations Research Conference, West Point, June, 2001
- “The History and Future of Risk Research” Invited Presidential Address, American Risk and Insurance Association Annual Meeting, Indianapolis, IN. August, 2001

- 2002 “Mediation as a Cost Containment Mechanism in Insurance: Public Perceptions and Insurer Benefits,” (with Linda Golden) presented to the Western Risk and Insurance Association Annual Meeting, January.
- “Assessing Fraud with Unsupervised Learning,” (with Richard Derrig, Linda L. Golden, Arnold Levine), presented to the Conference on “Insurance Claim Fraud: Developing the Models and Mining the Data,” sponsored by the Insurance Fraud Bureau of Massachusetts and the Coalition Against Insurance Fraud and the Insurance Research Council, Newport, Rhode Island, November, invited.
- “Genetic Testing and Insurance” (with Richard MacMinn), Center for Risk and Insurance of the University of Nottingham Conference, London, England, April (Invited)
- “Efficiency and Title Insurance” (with W.W.Cooper and U.Pitaktong) presented to the Western Risk and Insurance Association Annual Meeting, January.
- “Technology and Risk Management” Session Chair at the Western Risk and Insurance Association Annual Meeting, January.
- “The Role of Howard Tucker in Graduate Education” at Festschrift for Howard Tucker’s 80th birthday Celebration, Irvine, California, October
- 2003 “Risky Business: Targeting The Chronically Uninformed in Risk Communication Campaigns,” (with Anderson, Ronald and Linda L. Golden), Western Decision Sciences Institute Annual Conference, Kauai, Hawaii, April 15-19, 2003, (refereed) in the “Consumer Behavior and Marketing Mix” tract
- “Genetic Testing and Adverse Selection” (with Richard MacMinn) Western Risk and Insurance Association annual Meeting, January, 2003, Maui, Hawaii.
- “Genetic Testing and Adverse Selection” (with Richard MacMinn and J.A. Raeburn) presented at the Southern Risk and Insurance Association Meetings in Clearwater, 2003,
- “Genetic Testing and Adverse Selection” (with Richard MacMinn and J.A. Raeburn) presented at the Asia-Pacific Risk and Insurance Association Meetings in Bangkok, 2003.
- “Economic Aspects of Genetic Testing” (with Richard MacMinn) presented at the European Group of Insurance Economist meeting, Zurich, Switzerland September 2003
- “Ethics, Genetic Testing and Insurance Underwriting” Invited Plenary talk, American Risk and Insurance Association Annual Meeting, August, 2003. Denver, Colorado.
- “Credit Scoring and Insurance Underwriting” Testimony before the Texas Senate, February, 2003

- “Credit Scoring and Insurance” Automobile Agents of Texas annual meeting,
Keynote speech, San Antonio, TX
- 2004 “Heavy Tailed Distributions’ Use in Enterprise Risk Management,” at conference
on Enterprise Risk Management, National Academy of Sciences, January 2004,
Washington DC (Sponsored by the Conference Board on Mathematical Science
and their Applications)
- National Academy of Sciences Moderator of Session on “Heavy Tailed
Distributions” at conference on Enterprise Risk Management, National Academy
of Sciences, January 2004, Washington DC
- “Up coming issues in insurance,” Annual Policy Orientation Symposium for the
Texas Legislators, sponsored by the Texas Public Policy Research Foundation
Austin, Texas, January 2004
- “Fraud Classification Using Principal Component Analysis of RIDITs,” Casualty
Actuarial Society Annual Conference, May, 2004 (invited to present our ARIA
Award winning paper), Colorado Springs, Colorado.
- “Chance Constrained Programming Approach to Pension Plan Management
Using Heavy Tailed Distributions,” The Second Erich L. Lehmann Symposium
on Statistics, May 19-22, 2004, Rice University, Houston, Texas
- “Detecting Insurance Fraud using Principal Component Analysis of RIDITS,”
Presented to the Austin Chapter of the American Statistical Association, Austin
Texas 2004
- 2005 “Legislative Issues in insurance Regulation” 4th Annual Policy Orientation for
the Texas Legislature, sponsored by the Texas Public Policy Research
Foundation, Austin, TX, January 2005
- “Information Theoretic Approach to Statistical Theory and Probabilistic
Understanding” Austin Chapter, American Statistical Association, February 24,
2005
- “Education and Research Directions in Actuarial Science in the United States”
University of Valencia, Spain, March 2005
- “Information Theoretic Approach to Statistical Reasoning with Applications to
Actuarial Science” University of Barcelona, Spain, April 2005
- “Overview of Trends in the US Insurance Market on Insurance Research”
Tsinghua University, China, May 23, 2005
- “The Relevance of Information Theory for Risk Analysis” A Unifying
Philosophical Approach to Thought and Risk”, Tsinghua University, China, May
23, 2005
- “Introduction to and Overview of Data Envelopment Analysis” Tsinghua
University, May 24, 2005
- “Using DEA to Assess the Efficiency of the Insurance Market” Tsinghua
University, May 24, 2005

- “Detecting Consumer Fraud using PRIDIT Analysis” Fudan University, China, May 23, 2005
- “Biological and Psychological Influences on Risk Taking” (with Linda L. Golden and Sandra Dunn), presented to the World Risk and Insurance Economics Conference held in Salt Lake City, August 2005. Papers are competitively reviewed.
- Chaired session and served as Discussant on paper on securitization of longevity risk at World Risk and Insurance Economics Conference held in Salt Lake City, August 2005.
- 2006- “The After-Effect of Deregulation of Insurance in Texas” Texas Public Policy Research Foundation Austin, Texas, January 2006 (Conference to prepare Texas Legislators on Issues in Texas)
- “Weather Derivatives and Risk Management,” in special invited session on Financial Engineering at the International Workshop on Applied Probability (IWAP), University of Connecticut, Storrs, Connecticut, May 15-22, 2006
- Chaired Invited Session at the 2006 Enterprise Risk Management Symposium and 8th Bowles Symposium, sponsored by the Society of Actuaries and the American Risk and Insurance Association, Chicago, Illinois, April 23-25, 2006
- 2007 “Biological and Psychobehavioral Correlates of Risk Taking, Credit Scores, and Automobile Insurance Losses: Toward an Explication of Why Credit Scoring Works,” in a special invited session at the Casualty Actuarial Society’s Predictive Modeling Seminar, Las Vegas, Nevada, October 10-12, 2007
- “A Psychological and Biological Explanation of Why Credit Scoring Works,” Faculty Research Presentation to McCombs students, November 6, 2007 (joint with Linda L Golden).
- “Active Fraud Detection”(with Jing Ai, and Linda L. Golden), presented at the INFORMS Meeting, Seattle, WA, November, 2007.
- 2008 “Quantifying Enterprise Risk Management using Chance Constrained Programming” (with Jing Ai, Linda Golden and William Cooper) Keynote address at the International Actuarial Conference honoring Harry Panjer’s retirement, University of Waterloo, Waterloo Ontario, Canada April 11-13, 2008
- “Biological and Psychobehavioral Correlates of Risk Taking and Credit Scores, Why Credit Scoring Works” (with Linda Golden) IMPACT 2008, conference by Fair Isaac, April 27-30, 2008 San Francisco, California
- “Quantifying Enterprise Risk Management Using Chance Constrained Programming” (with Jing Ai, Linda Golden and William Cooper) Seminar presentation at the University of North Carolina, Charlotte, North Carolina June 9, 2008.
- “Addressing Credit and Basis Risk Arising From Hedging Weather-related Risk with Weather Derivatives” (with Linda Golden, Charles Yang and Hong Zou)

- ASTIN 2008 Symposium of the International Actuarial Institute, Manchester, England July 12-16, 2008.
- “Enterprise Risk Management”, Invited academic conference on Enterprise Risk Management sponsored by the American Risk and Insurance Association and the Griffiths Foundation for Insurance Education, at Ohio State University, August 21-23, 2008
- “Weather Derivatives for Mitigating Weather Related Risks” (with Linda Golden, Charles Yang and Hong Zou) invited lecture at the 5th Conference in Actuarial Science and Finance, University of the Aegean, Samos, Greece September 1-6, 2008.
- “Sociopsychological and Biological Influences on Risk Taking: A Consumer Finance Perspective” (with Linda L. Golden) invited seminar presentation at the University of New Mexico School of Business, Albuquerque, New Mexico, November 7, 2008.
- “The Financial Crisis,” Guest Lecturer in the Korean Energy Power Company (KEPCO) executive marketing management course for IC² (Fall, 2008).
- 2009 “Biological and Psychobehavioral Correlates of Risk-taking,” (with Linda L. Golden) *Casualty Actuarial Society (CAS) Best Journal Article ARIA Prize Winner* Presentation at the CAS Annual Meeting, New Orleans, Louisiana, February, 2009.
- “The Origins and Implications of the Financial Crisis” invited seminar, University of Granada, Granada, Spain, April, 2009
- “On the Development of a Fraud Rate Estimation Method,” (with Jing Ai, Linda L. Golden and Montserrat Guillen) Asia-Pacific Risk and Insurance Association (APRIA) 2009 Annual Meeting, July, 2009.
- “Optimization Approach to Risk Management,” (with Jing Ai, Jing, Linda L. Golden, and William W. Cooper), presented at the Asia-Pacific Risk and Insurance Association (APRIA) Annual Meeting, Beijing, China, July, 2009.
- “An Investigation of Fraud Rate Estimation: Model Applications to the USA and Spain” (with Jing Ai, Linda L. Golden, and Montserrat Guillen), presented at the Asia-Pacific Risk and Insurance Association (APRIA) Annual Meeting, Beijing, China, July, 2009.
- “Trials, Tribulations and Trust: Addressing Issues in Internet Surveys,” (with Linda L. Golden), presented at the Academy of Marketing Science World Congress, Oslo, Norway, July, 2009.
- “On the Development of a Fraud Rate Estimation Method,” (with Jing Ai, Linda L. Golden, and Montserrat Guillen), presented at the American Risk and Insurance (ARIA) Annual Conference, Providence, Rhode Island, August, 2009.
- Chaired Research Session, at the American Risk and Insurance (ARIA) Annual Conference, Providence, Rhode Island, August, 2009

- “Modeling Risk in Catastrophe Mortality Risk Bonds,” Discussion at the 5th Longevity Risk and Capital Market Solutions Conference, New York, New York September, 2009
- “An Optimization Approach to Risk Management,” (with Jing Ai, Linda L. Golden, and William W. Cooper), presented at the Financial Management Association (FMA) Annual Conference, Reno, Nevada October 2009.
- “Internet Survey Research: Triumphs, Trials, and Tribulations -An Application to Swine Flu.” With Linda L. Golden, Faculty Research Presentation, November 12, 2009. This was the highest attended faculty research presentation ever according to a note we received afterwards.
- 2010 “Credit and Basis Risk Management Arising From Hedging Weather Related Risks Using Weather Derivatives,” (with Linda L. Golden and Charles Yang), Department of Finance, University of Hawaii, Manoa, February 5, 2010
- “Health Belief Model Implications for Motivating H1N1 Prevention Behaviors” (with Linda L. Golden and Danae Manika) Health Literacy: Communicating with Underserved Populations Research Conference, sponsored by Center for Health Promotion Research, University of Texas, Austin, Texas March 3, 2010
- “Identifying and Detecting Consumer Fraud” (with Linda L. Golden), Invited presentation, University of Granada, Granada, Spain, March, 2010
- “Consumer Risk Taking and Perceptions of Risk”, Invited presentation, University of Granada, Granada, Spain, March, 2010
- “The Global Financial Crisis: Origins, Perspectives, and Potential Future Course”, Invited presentation, University of Granada, Granada, Spain, March, 2010
- “Insurance Company Insolvency and Guaranty Funds: History and Trends” Invited presentation at the National Conference of Insurance Guarantee Funds, San Francisco, California April 27,28, 2010
- “Internet-Based Survey Research: Methodological Issues” Discussant for the session, Academy of Marketing Science, Portland, Oregon, May 29, 2010
- “A Strategic Allocation of Capital Approach to Enterprise Risk Management” (With Linda Golden and Jing Ai) 6th Conference in Actuarial Science and Finance, University of the Aegean, Samos, Greece June 1-6, 2010
- “Longevity/Mortality Risk Modeling and Securities Pricing” (with Yinglu Deng and Richard MacMinn), 2010 China International Conference in Insurance and Risk Management, Xining, China, July 18-22, 2010
- “Enterprise Risk Management Through Strategic Allocation of Capital” (With Jing Ai, Linda L. Golden, and William W. Cooper) World Risk and Insurance Economics Congress (WRIEC) 2010 Singapore Meeting, July 27 2010.
- “An Efficiency-based Methodology for Setting Promulgated Insurance Rates” (with Jing Ai, Linda L. Golden, Utai Pitaktong and Charles Yang) World Risk and Insurance Economics Congress (WRIEC) 2010 Singapore Meeting, July 25, 2010.

- “Longevity/Mortality Risk Modeling and Securities Pricing” (with Yinglu Deng and Richard MacMinn) 6th International Longevity Risk and Capital Markets Solutions Conference, Sydney, Australia September 2010
- “Dynamic Asset-Liability Management with Longevity Risk and Derivatives” (with Yinglu Deng and Richard MacMinn) 6th International Longevity Risk and Capital Markets Solutions Conference, Sydney, Australia September 2010
- “Using DEA to Assist the Regulator in Setting Promulgated Insurance Rates” (with Jing Ai, Linda L. Golden, Utai Pitaktong and Charles Yang) INFORMS Annual Meeting, Austin, Texas November 10, 2010
- 2011 “Developing Effective Public Prevention Messages: The Case of the H1N1 Flu” (with DanaeManika, and Linda Golden), presented at the Symposium for Innovation in Health Care Delivery Systems: Improving Systems for Improving Health and Health Behaviors, McCombs School, University of Texas at Austin, April.
- “Implications from the Health Belief Model for Disease Prevention Behaviors in Australia” (with DanaeManika, and Linda Golden), Academy of Market Science World Marketing Congress, Reims, France July 20-23, 2011.
- “Developments in Mobile Commerce: Economic Opportunities, Risk Analysis and Risk Management” (with Linda Golden, Danae Manika and Anji Song), 6th Annual International Symposium on Economic Theory, Policy and Applications, 25-28 July 2011, Athens, Greece
- “The Cross-cultural Impact of Prior Knowledge and Information Receptivity: It Is Not How Much You Know but How Much You Think You Know!” (with Linda Golden, and Danae Manika), 6th Annual International Symposium on Economic Theory, Policy and Applications, 25-28 July 2011, Athens, Greece
- “An Overview of Capital Market Solutions to Longevity Risk Problems with an Application to J.P. Morgan’s q-forward Derivative” (with Yinglu Deng and Richard MacMinn). American Risk and Insurance Association Annual Meeting August 7-10, 2011 San Diego, California
- “Usage of Credit Scores in Insurance Classification and Pricing” (with Jing Ai, Linda L. Golden, and Bruce Kellison, American Risk and Insurance Association Annual Meeting August 7-10, 2011 San Diego, California
- Invited Discussant of “Bond Insurers: Avoiding Capital Pro-cyclicality” by Xiangjing Wei, Shaun Wang, and Eric Ulm, Georgia State University, American Risk and Insurance Association Annual Meeting August 7-10, 2011 San Diego, California
- “Is the U.S. Life Insurance Industry in Danger of Systemic Risk by Using Hedging Derivatives?” (with Tom Sager, Bo Shi, and Etti Baranoff, American Risk and Insurance Association Annual Meeting August 7-10, 2011 San Diego, California

- “Longevity Risk and Capital Markets” Invited Presentation at the University of Hawaii, Department of Finance, August-September, 2011
- “Pricing Life Settlements” (with Yinglu Deng and Richard MacMinn), 7th Annual Longevity Risk and Capital Markets Symposium, Frankfurt, Germany, September 7-9, 2011.
- Invited discussion of the paper “Rethinking Age-Period-Cohort Mortality Trend Models” by Daniel H. Alai and Michael Sherris, presented at the 7th Annual Longevity Risk and Capital Markets Symposium, Frankfurt, Germany, September 7-9, 2011.
- “Behavioral Aspects of Credit Scoring” (with Jing Ai, Linda L. Golden, and Bruce Kellison), INFORMS Annual Meeting, Charlotte, North Carolina, November, 2011
- 2012 “Use of Credit Scores in Insurance Classification and Pricing,” (with Jing Ai, Linda L. Golden, and Bruce Kellison), Western Risk and Insurance Association (WRIA) annual meeting, Kona, Hawaii, January 2012
- “Developments in Mobile Commerce: Economic Opportunities, Risk Analysis and Risk Management” (with Linda Golden and Anji Song), University of Granada, Granada, Spain, March, 2012
- “Health care developments in m-commerce and associated issues for risk management,” (with Linda Golden, Ilya Dayter, and Danae Manika), presented at the McCombs School of Business Health Care Research Symposium at The University of Texas at Austin, Austin, TX, April, 2012.
- “Risk: Public and Private” Humanities Research Institute Fellows Program lecture, University of Texas at Austin, April 26, 2012
- “The Cross-cultural Impact of Prior Knowledge and Information Receptivity: It Is Not How Much You Know but How Much You Think You Know!” (with Linda Golden and Danae Manika), presented at *6th Annual International Symposium on Economic Theory, Policy and Applications, Athens, Greece*
- “How to Set Rates if You Must: An Efficiency-based Methodology for Setting Promulgated Insurance Rates” (with Jing Ai, Linda Golden, and Utai Pitaktong) 7th Conference in Actuarial Science and Finance, University of the Aegean, Samos, Greece May 28-June 3, 2012
- “Modeling and Pricing Life Settlements” (with Shuo-li Chuang, Yinglu Deng and Richard D. MacMinn), 16th International Congress on Insurance, Mathematics and Economics, Hong Kong, China, June 28-30, 2012
- “Modeling Mortality: History, Models and Uses” A three hour special invited presentation at the Tsinghua University Workshop on Insurance Research, Qingdao, China July 16, 2012
- “Capital Market Solutions to the Individual Consequences of Longevity Risk: Life Settlements” invited presentation, China International Conference on Insurance and Risk Management, July 18-21, 2012

- “Predicting Individuals’ Insured Losses: Psychology, Responsibility, and Quantitative Correlates, (with Jing Ai, Linda L. Golden, and Bruce Kellison), Asia Pacific Risk and Insurance Association annual meeting, Seoul, Korea, July 2012
- “Modeling and Forecasting Mortality Rates” (with Daniel Mitchell, Rafael Mendoza-Arriaga and Kumar Muthuraman) 47th Actuarial Research Conference, University of Manitoba, Winnipeg, Manitoba, Canada August 3, 2012
- "Modeling and Pricing Longevity Derivatives with Stochastic Mortality Using Esscher Transform" (with Shuo-Li Chuang) 8th Annual Longevity Risk and Capital Markets Solutions Symposium, Waterloo, Canada, September 7-9, 2012. , refereed.
- 2013 “The Securitization of Longevity Risk and Its Implications for Retirement Security" (with Richard MacMinn, Jennifer Wang, Yijia Lin, and Ruilin Tian) 2013 Pension Research Council Symposium: Recreating Sustainable Retirement: Resilience, Solvency, and Tail Risk, April 25-26, 2013, invited.
- "A New Approach to Pension Risk Management" (with Jing Ai and Allen Jacobson), 9th Annual Longevity Risk and Capital Markets Solutions Symposium, Beijing, China, September 6-9, 2013, refereed.
- 2014 “Academic Research: A Discussion on Producing Quality Research and Journal Processes” (with Linda Golden), University of Granada, Granada, Spain, March, 2014.
- "Understanding NFIP premiums: Or is the NFIP an insurance program or something else?" Presentation to the National Research Council committee on analysis of costs and benefits of the national flood insurance program – phase 1, National Academy of Sciences, Water Resources Board, Washington, DC, March 27, 2014, invited.
- “The National Flood Insurance Program” Presentation to the National Research Council committee on risk-based methods for insurance premiums of negatively-elevated structures in the national flood insurance program, National Academy of Sciences, Water Resources Board, Washington, DC, May 12, 2014, invited.
- “Overview of the North American Actuarial Journal,” 49th Actuarial Research Conference session on Dependence Modeling & Copulas, University of California at Santa Barbara, Santa Barbara, California July 14, 2014, invited.
- "Optimal Enterprise Risk Management and Decision Making with Shared and Dependent Risks" (with Jing Ai and Tianyang Wang) ,” 49th Actuarial Research Conference, University of California at Santa Barbara, Santa Barbara, California July 14, 2014, refereed.
- Chaired Session on Risk Modeling, 49th Actuarial Research Conference, University of California at Santa Barbara, Santa Barbara, California July 15, 2014
- “PRIDIT is a Useful Technique for Detecting Consumer Fraud When No Training Sample is Available” (with , Linda Golden, John Betak, Mark Alpert, and

- Montserrat Guillen) Academy of Market Science World Marketing Congress, Lima, Peru August 5-10, 2014, refereed.
- "Optimal Enterprise Risk Management and Decision Making with Shared and Dependent Risks" (with Jing Ai and Tianyang Wang) American Risk and Insurance Association Annual Meeting August 5, 2014 Seattle, Washington, refereed.
- "All Things Considered: An Integrated Framework for Multidimensional Longevity Risk Concerns," (with Jing Ai, Linda Golden and Wei Zhu), 10th Annual Longevity Risk and Capital Markets Solutions Symposium, Universidad Diego Portales, Santiago, Chile, September 3-4, 2014, refereed.
- 2015 "Risk Management as a Permeating Topic in Business Education" AACSB Teaching Effectiveness Seminar, March 4-11, 2015, Tampa, Florida
- "Using DEA to Determine the Optimal Efficiency Mix of Combined Category and Brand Specific Advertising" (Linda Golden, Patrick Brockett, and Michael Kwinn, Jr) presented at the 13th Annual International Conference on Marketing held in Athens, Greece June 29-30 and July 1-2 , 2015, refereed.
- "Health Care Expenditure Shocks and Optimal Annuity Considerations of Longevity Risk," (Jing Ai, Patrick Brockett, Linda Golden and Wei Zhu) World Risk and Insurance Economics Congress Munich, Germany August 2nd – 6th, 2015, refereed.
- "Understanding Longevity Risk Annuity Decision Making: An Interdisciplinary Investigation of Financial and Nonfinancial Triggers of Annuity Demand," (Ai, Jing, Patrick Brockett, Linda Golden and Wei Zhu), 11th Annual Longevity Risk and Capital Markets Solutions Symposium, 2015, Lyon, France, refereed.
- 2016 "The Effect of Longevity Changes and Possible Future Health State Transitions on the Optimal Level of Annuity for Retirees" (a paper co-authored by Jing Ai, Patrick Brockett, Linda Golden and Wei Zhu), Department of Finance, University of Hawaii at Manoa, Honolulu, Hawaii April 18, 2016.
- "Understanding and Estimating Fraudulent Activities in Healthcare," (with Jing Ai and Robert D. Lieberthal) Biennial Conference of the American Society of Health Economists, Philadelphia, PA, June 2016.
- "Information Theoretic Approach to Assessing Asymmetrically shared Relationships Between Variables," (a paper co-authored by Linda L. Golden, Patrick L. Brockett, Danae Manika, and Theresa Kirchner), 19th AMS World Marketing Congress, Paris, France, July 19-22, 2016. refereed
- "Integration of Insurance Mathematics and Economics Through Application Driven Theory" Keynote invited address July 26, 2016 at the 20th International Congress on Insurance: Mathematics and Economics, Georgia State University Atlanta, Georgia, July 24 – 27, 2016
- "Comparative versus non-comparative advertising effectiveness on social networking sites. A cross-cultural analysis," (a paper written by Salvador del

- Barrio Garcia, Linda Golden, Patrick Brockett and Juan Miguel Alcantara Pilar), XXVIII Congreso de Marketing 20016 AEMARK, Universidad de Leon, Leon Spain September 7-9, 2016.
- “The Impact of Financial Literacy on Long-term Care Insurance and Annuity Decision-making: Product Innovation Implications” (a paper written by Jing Ai, Patrick Brockett, Linda Golden and Wei Zhu), 12th Annual Longevity Risk and Capital Markets Solutions Symposium, 2016, Chicago, Illinois, September 29-30, 2016, refereed
- 2017 “Measuring the Efficiency of Nonprofit Marketing, Development and Operations Resource Usage in Producing Social Benefit: An Application to the Performing Arts Sector,” (with Theresa Kirchner and Linda L. Golden), 14th International Conference on Arts and Culture Management (AIMAC), Peking University, Beijing, China June 25-28, 2017
- “Efficiency of Resource Usage in Arts Management/Marketing: An Application to the Symphony Orchestra Sector: an Abstract”. (with Theresa Kirchner and Linda Golden) Academy of Marketing Science 20th World Marketing Congress, Christchurch, New Zealand, June 27-July 1
- “Potential Savings of Medicare: The Analysis of Medicare Advantage and Accountable Care Organizations (ACOs),” (with Charles Yang, and Linda Golden) American Risk and Insurance Association Annual Conference, August 6-9, 2017, Toronto, Canada
- “Early Damage Estimation Using Archival Data and Iterative Learning from Temporally Separated Actual Loss Data” (co-authored with Rajiv Garg, Patrick Brockett, Linda Golden and Yuxini Zhang), Advances In Predictive Analytics conference, November 30, 2017 University of Waterloo, Waterloo, Ontario, Canada (Invited keynote)
- “Public Policy, Marketing, and the Determination of Marketplace Acceptance/Viability of Public Programs” (Invited). Academy of Marketing Science 20th World Marketing Congress, Christchurch, New Zealand, June 27- July 1 Special Session on Creating Value for Public Entities Through Marketing
- 2018 Invited speaker in the panel on “the environment of constant change and rapid transformation that is creating more complex, volatile, and interconnected risks for businesses, and the analytics, technology, and risk management strategies that organizations can apply in order to understand and face the challenges presented by climate resilience, cybersecurity, the digital revolution, and more”. April 16, national **Risk and Insurance Management Society (RIMS) Annual Conference** in San Antonio.
- “Transdisciplinary Research in Insurance and Risk Management,” (Invited). 2018 ATLAS Transdisciplinary-Transnational-Transcultural (T3) International Conference, Babeş-Bolyai University of Cluj-Napoca, Romania. June 3-6, 2018. invited,
- “Rapid Assessment of Customer Marketplace in Disaster Settings Through Machine Learning, Geospatial Information and Social Media Text Mining” (with

- Rajiv Garg, Linda Golden, Yuxin Zhang), 21st World Congress, Academy of Marketing Science, Porto, Portugal June 26-29, 2018, invited, I presented
- Invited discussant of the paper “To Buyout or Not to Buyout? by Yijia Lin and Tianxiang Shi, In the Longevity Risk Special Session, American Risk and Insurance Association Annual Meeting, Chicago, Illinois, August 5-8, 2018, I presented.
- “A Predictive Modeling Approach to Fraud Management in Medicare Claims” (with Jing Ai and Robert Lieberthal), American Risk and Insurance Association Annual Meeting August Chicago, Illinois, August 5-8, 2018, presented by co-author
- “Rapid Estimation of Disaster Relief Fund Distribution: Iterative Learning with Diverse Geospatial Data Inputs” (2018), (with Rajiv Garg, Linda Golden, Yuxin Zhang), The POMS 29th Annual Conference, Houston, Texas May 4-7, 2018 presented by PhD student.
- Invited discussant of the paper “To Buyout or Not to Buyout? by Yijia Lin and Tianxiang Shi, In the Longevity Risk Special Session, American Risk and Insurance Association Annual Meeting, Chicago, Illinois, August 5-8, 2018
- “Modeling Stochastic Mortality for Joint Lives through Subordinators” (with Yuxin Zhang), 14th Annual Longevity Risk and Capital Markets Solutions Symposium, 2018, Amsterdam, the Netherlands, September 20-21, 2018.
- “Medicaid Managed Care: Efficiency, Medical Loss Ratio, and Quality of Care”, (with Linda L. Golden, Charles C. Yang and David Young) Southern Risk and Insurance Association Annual Conference, Orlando, Florida, Nov 18-20, 2018.
- 2019 “Predicting Cryptocurrency Movement: Analysis of Blockchain Transaction Graph (Rajiv Garg, Linda Golden, Yuxin Zhang) “Statistical Challenges in Electronic Commerce Research (SCECR) Conference, Hong Kong, China June 10 – June 12, 2019. Presented by PhD student Yuxin Zhang
- “Medicaid Managed Care: Efficiency, Medical Loss Ratio, and Quality of Care” (with Linda L. Golden, Charles C. Yang and David Young) American Risk and Insurance Association Annual Meeting August San Francisco, California, August 3-6, 2019. I presented.
- “Modeling Stochastic Mortality for Joint Lives through Subordinators” (with Yuxin Zhang), American Risk and Insurance Association Annual Meeting August San Francisco, California, August 3-6, 2019. Presented by PhD student Yuxin Zhang.
- “How Industry and Higher Education Can Work Together to Benefit the Actuarial Profession” invited special panel member (with Ian Duncan and Runhuan Feng). Society of Actuaries Annual Meeting, Toronto, CA October 28, 2019.
- “Accelerated Underwriting - - Benefits and Concerns about Technological AI Advances in Underwriting” Invited Sole Speaker in Special Session on Accelerated Underwriting at the National Association of Insurance Commissioners Annual Meeting, Austin, TX December 8, 2019.

2020 “The Impact of Cost-Related Factors on Medicare Advantage Health Outcomes” (with Linda Golden and Charles Yang) presented at the World Risk and Insurance Economics Conference changed to be held virtually due to COVID-19 pandemic, August 2020. Papers are competitively reviewed.

Ph.D. STUDENTS SUPERVISED

Name	Dissertation Title	Year
Sipra, Naim	<i>Essays on Financial Models: Portfolio Performance Measures, Capital Market Equilibrium with Redundant Assets, and Intertemporal Fisher Hypothesis</i>	1986
Sun, Li (Co-Chair, A. Charnes)	<i>On Some Problems of Chance Constrained Programming</i>	1990
Chang, Yang Chun (Co-Chair, A. Charnes)	<i>Chance Constrained Programming and Chebychev Systems with Applications</i>	1990
Dalle Molle, John William (Co-Chair, M. Hinich)	<i>Higher Order Spectral Analysis and the Trispectrum</i>	1992
Pitaktong, Utai (Co-Chair, J. Mote)	<i>Data Envelopment Analysis and Applications</i>	1993
Chen, Hwei Mei	<i>A Dynamic Model for Event Study Methodology: An Examination of the Reaction to California's Proposition 103</i>	1993
Zhang, Changning	<i>Stochastic Programming and Optimal Salesforce Compensation Schemes</i>	1994
Li, Shan	<i>A New Approach to Sensitivity Analysis of the DEA Models and Their Applications to Ranking and Productivity Growth</i>	1995
Xia, Xiaohua	<i>The use of Artificial Intelligence Methods in Insurance Modeling</i>	1996
Song, Yun	<i>Information Theoretic Approaches to Actuarial Science</i>	1996
Swan, Scott (Co-Chair, M. Katabe)	<i>Essays on Robust Design: An Elaboration of the Typology, An Examination of Situational Performance Implications and a Conceptual Extension</i>	1997

Jang, Jaeho	<i>Comparative Analysis of Statistical Methods And Neural Networks for Predicting Life Insurers' Insolvency</i>	1997
Wang, Yuying	<i>Efficiency in the Property and Liability Insurance Industry</i>	1997
Magee, David	<i>Neural Network Method for Actuarial Claim Reserving</i>	1998
Zhou, Li	<i>The Navy's Awaiting Instruction Problem</i>	1998
Kang, Yu (Frank)	<i>Risk, Ambiguity and Insurance</i>	1998
Kwinn, Michael (Co-Chair, W.W. Cooper)	<i>Efficiency of Joint versus Service Specific Advertising for Armed Service Recruiting</i>	2000
Wang, Mulong (Co-Chair, R. MacMinn)	<i>Financial Derivatives in Corporate Risk Management</i>	2001
Deng, Honghui (Co-Chair, W.W. Cooper)	<i>Congestion and Efficiency in the Chinese Economy</i>	2003
Yang, Chuanhou (Charles)	<i>The Use of Weather Derivatives in Corporate Risk Management</i>	2003
Ai, Jing (Co-Chair, L. L. Golden)	<i>Supervised and Unsupervised PRIDIT for Active Insurance Fraud Detection</i>	2008
Deng, Yinglu (Co-Chair, R.D. MacMinn)	<i>Longevity Risk Modeling, Securities Pricing and Other Related Issues</i>	2011
Chuang, Shuo-Li	<i>Stochastic Mortality Modeling and the Pricing of Mortality/Longevity Linked Derivatives</i>	2013
Zhang, Yuxin (Co-Chair, Rajiv Garg)	<i>Three Essays on Business Analytics: Applications of Data-driven Decision-making in the Context of Finance</i>	2020

MASTER'S STUDENTS SUPERVISED

Mark Leone	[Mathematics/Statistics]
Candi Wolfe	[Mathematics/Statistics]

John Dalle Molle	[Mathematics]
Antoine Lawrence	[Economics]
Kenny Kan	[Accounting/Risk Management]
Mark Jones	[Mathematics/Actuarial Science]
Chris Neely	[Mathematics/Statistics]
Moses Kim	[Mathematics/Actuarial Science]
Sandra Neto	[Mathematics/Statistics]
Xinan Li	[Mathematics/Statistics]
Junsheng Ma	[Mathematics/Statistics]

UNIVERSITY AND COLLEGE SERVICE

Interview candidates for Assistant Professor positions in Engineering, attend their talks, and write recommendation letters, 1977-1979, 1983, 1987

Chair--CBA Ad-Hoc Committee on the Mathematics requirement, 1982

Member--Center for Statistical Studies Advisory Board, (U.T. campus-wide coordinating committee), 1983-1992

Faculty Ad-Hoc Committee to Investigate Formation of a Department of Quantitative Methods, College of Business, The University of Texas at Austin, 1984

Admissions and Registration Committee of the General Faculty, The University of Texas at Austin, (1984-1986)

Member--CBA Faculty Academic Development and Research Committee, (1985-1986)

Member--Ad-Hoc Committee to Formulate Discussion Material On Statistics in the Business School for the CBA Faculty Retreat, 1985

Recruitment of High School Football Players: Help Athletic Department by showing recruits around the Business School and answering questions, 1985

Member--Presidential Committee for the Evaluation of the Dean, 1992

Member--MBA Revision Task Committee, 1992

Member--Planning Committee for Evaluating and Developing an Employee Assistance Program for The University of Texas at Austin, 1992

Member--Advisory Committee for UT Employee Assistance Program, 1992

Faculty Senate and University Council, 1992, 1993

CBA College Retreat Member 1992

University Police Department Advisory Committee, 1993

Member--University Research Institute Grant Evaluation Committee, 1993, 1994, 1995

Member--University Committee to Evaluate Small Research Grants, 1995

Member--University Faculty Welfare Committee, 1996-98, 2002 – 2007, 2016-2018

Member Faculty Council 2004-6

Member, Rules Committee of the Faculty Council 2004

Member—Dean’s Advisory Committee 2005-2008

Member—Dean’s Endowed Professorship Selection Committee 2007- 2008

Member CBA Hall of Fame Committee 2019, 2020

DEPARTMENTAL SERVICE

Budget Council Representative for Associate & Assistant Professors of Finance, 1982-86

Executive Committee Member, Department of Finance, 1986-1995

Actuarial Science Program Director, 1986-September 1989

Actuarial Science Advisor, Undergraduate and MBA, 1981-September 1989

Risk Management and Insurance Advisor, Undergraduate and MBA, 1989-2018

Member--Ad-Hoc Committee to Formulate Policy on Evaluating Full Professors, 1984

Member--Ph.D. Review Committee, 1984.

Chairman--Committee to Implement An Executive Committee for the Finance
Department

Member—Finance Department Ph.D. Admissions Committee, 1985-1988

Actuaries Club of the Southwest Scholarship Committee

Member--Wortham Chair Scholarship Committee

Actuarial Science Program Review Committee Finance Department

Finance Department Teaching and Research Awards Committee (acting chair 1984; chair 1985, co-chair 1986, member 1987 and 1992, chair 1993, member 1994))

Committee to Nominate Finance Department Internal Chair Candidates, 1985

Department Undergraduate Curriculum Committee (member 1985 and 1987, chair 1986)

Departmental Representative to University Human Subjects Committee

Director, Risk Management and Insurance Program, 1995-2018

Chairman, Risk Management and Insurance Scholarships 1995-2018

Member MSIS Department Budget Committee, 1995-2004

Chair, Risk Management Faculty Search Committee 1999-2001

Several Ad hoc Department Review Committees (Promotion reviews, Dean's Fellow Recommendation Committee, Post tenure reviews, etc.) 2000-2019

Executive Committee Member, Department of Information, Risk and Operations Management, 2019, 2020

MAJOR AREAS OF INTEREST

Risk Management and Insurance

Managing Financial risk

Actuarial Science

Productivity Analysis

Decision Analysis

Management Science/Operations Management and Research

Statistical Analysis and Applications in Business

Information Theory

Probability Theory and Applications in Business

Stochastic Processes and Nonlinear Time Series

Mathematical Finance

COURSES TAUGHT:

Crisis and Risk Management (Graduate)

Risk - The Final Frontier: A History of Risk Through the Ages (Undergraduate)

Managing Environmental Risk (MBA course)

Managing International Risk (MBA course)

Managing Employee Risks and Benefits (Undergraduate)

Managing Corporate Risk (MBA course)
 Managing Property and Liability Risk (Undergraduate)
 Mathematical Risk Theory (MBA and PhD course)
 Risk Analysis and Management (MBA course)
 Mathematical Theory of Risk (PhD course)
 Introduction to Risk Management and Insurance (Undergraduate)
 Economic and Financial Aspects of Risk Management and Insurance (MBA course)
 Life and Health Insurance (Undergraduate)
 Pension Theory (Undergraduate)
 Property and Casualty Insurance (Undergraduate)
 Actuarial Science: Theory of Interest (Undergraduate)
 Actuarial Science: Single and Multiple Decrement Life Contingency Theory and Applications (Undergraduate)
 Stochastic Calculus in Finance and Business (PhD course)
 Questionnaire Analysis (Graduate)
 Mathematical Statistics (Both at Graduate and Undergraduate Levels)
 Mathematical Probability (Both Graduate and Undergraduate)
 Games, Gods and Gambling (History of the People and Ideas Responsible for the Development of Probability and Statistics) (Undergraduate)
 Information Theory (PhD course)
 Biostatistics (Graduate)
 Numerical Analysis (Undergraduate)
 Differential Equations (Undergraduate)
 Calculus (Undergraduate)
 Linear Algebra (Undergraduate)

PROFESSIONAL ACADEMIC POSITIONS

1999 - Director, Center for Risk Management and Insurance, University of Texas at Austin
 1995- Director of the Risk Management and Insurance Program, University of Texas at Austin
 1995- Gus S. Wortham Memorial Chairholder in Risk Management and Insurance, University of Texas at Austin
 1992-2000 Janey Slaughter Briscoe Fellow, IC² Institute, The University of Texas at Austin
 1998 -1999 Director, Center for Management of Operations and Logistics, University of Texas at Austin
 1998 Holder of the Thomas Bowles Chair in Actuarial Science, Georgia State University, Atlanta Georgia

- 1996-1998 Senior Associate Director, Center for Management of Operations and Logistics, University of Texas at Austin
- 1992-1996 Director of the Center for Cybernetic Studies, The University of Texas
- 1989-1995 Joseph H. Blades Professor of Risk Management and Insurance, The University of Texas at Austin
- 1987-1989 Paul V. Montgomery Centennial Professor of Actuarial Science, The University of Texas at Austin
- 1986-1992 Senior Research Fellow, IC² Institute, The University of Texas at Austin
- 1986-1989 Director, Actuarial Science Program, Department of Finance, The University of Texas at Austin
- 1986-1989 Professor of Finance and Actuarial Science, Department of Finance, The University of Texas at Austin
- 1984-1986 Richard Seaver Centennial Research Fellow, IC² Institute, The University of Texas at Austin
- 1984-1986 Paul V. Montgomery Centennial Fellow in Actuarial Science, The University of Texas at Austin
- 1982-1986 Associate Professor of Finance and Actuarial Science, Department of Finance, The University of Texas at Austin
- 1981-1982 Assistant Professor of Finance and Actuarial Science, Department of Finance, The University of Texas at Austin
- 1981-2002 Research Scientist, Applied Research Laboratories, The University of Texas at Austin
- 1981 Winter Quarter Instructor of Biostatistics, Department of Community and Environmental Medicine, The Medical School, University of California, Irvine Extensions
- 1980-1981 Visitor, Department of Statistics, University of California at Riverside, Riverside, California
- 1977-1980 Assistant Professor, Departments of Mathematics and General Business, The University of Texas at Austin

1975-1977 Assistant Professor, Department of Mathematics, Tulane University, New Orleans, Louisiana

1970-1973 National Science Foundation Traineeship, Department of Mathematics, University of California at Irvine, Irvine, California