

**Economics 248/Public Policy 448  
Risk and Insurance  
Fall 1996  
Harkness 329**

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Our objective is to learn the basic analytics of the economics of risk and insurance. We will apply the techniques that we learn to a variety of issues including public policies toward health and safety. Almost half of the classes will be lectures. The rest will be seminars in which we will discuss specific readings or topics – it is very important that you come prepared to these classes. The last few weeks of the course will be set aside for discussion of your research papers.

Research papers should focus on topics that allow some application of the course material to a substantive issue. An aspect of the insurance industry, the operation of futures markets, the legal and illegal gambling industries, the government provision of insurance, or the regulation of health and safety could be an appropriate topic. See that attached list of topics from recent years.

The course may be used to satisfy the College of Arts and Science upper-level writing requirement. All written work will be graded on presentation as well as substance. Class size will be limited to permit presentations of projects. Please observe the following due dates for written assignments:

September 10	Memorandum on the Shed Load Decision (1 to 2 pages)
October 1	Short Essay on behavioral criticisms of expected utility theory (2 to 3 pages)
October 10	Statement of proposed research topic (2 to 3 pages) with preliminary bibliography
November 7	First draft of research paper (15 to 30 pages)
November 7	Summary of paper for distribution to class (2 pages)
December 10	Final draft of research paper (15 to 30 pages)

Classes in late November and December will be devoted to presentations of projects. While I expect regular class attendance throughout the semester, I require it once presentations begin. If you miss a presentation session, then I expect you to borrow copies of the presenters' drafts and write a two-page comment on each one with copies to me.

Grades will be based on research projects and associated assignments (40 percent), class participation and homework (20 percent), and the midterm examination (40 percent). The midterm will be held on October 29. There will not be a final examination.

I urge you to purchase the following materials from the bookstore:

Howard Raiffa, Decision Analysis (Reading, MA: Addison-Wesley, 1968)

Emmett Vaughan and Therese Vaughan, Essentials of Insurance: A Risk Management Perspective (New York: John Wiley & Sons, 1995).

Course pack assembled by bookstore.

### Outline<sup>1</sup>

#### 1. Introduction

The Shed Load Decision (case by Robert D. Behn)

Vaughan and Vaughan, Chapter 1

#### 2. Decision Analysis

Raiffa, Chapters 1, 2, 4, and 6.

David L. Weimer and Aidan R. Vining, Policy Analysis: Concepts and Practice (Englewood Cliffs, NJ: Prentice-Hall, 1992), Chapter 12: "Benefit-Cost Analysis in Bureaucratic Settings: The Strategic Petroleum Reserve"

#### 3. Basic Elements of the Economics of Uncertainty

J. Hirshleifer and John G. Riley, "The Analytics of Uncertainty and Information: An Expository Survey," Journal of Economic Literature, Vol. 27, no. 2, 1979, pp. 1375-1421.

Anthony Boardman, David Greenberg, Aidan Vining, and David Weimer, Cost-Benefit Analysis: Concepts and Practice (Englewood Cliffs, NJ: Prentice Hall, 1996), Chapter 6: "Dealing with Uncertainty: Expected Value and Sensitivity Analysis" and Chapter 7: "Option Price, Option Value, and Quasi-Option Value."

#### 4. Behavioral Criticisms of Expected Utility Theory

\*Amos Tversky and Daniel Kahneman, "Judgment under Uncertainty: Heuristics and Biases," Science, Vol. 185, no. 4157, 1974, pp. 1124-1131.

\*W. Kip Viscusi, "Prospective Reference Theory: Toward an Explanation of the Paradoxes," Journal of Risk and Uncertainty, Vol. 2, no. 3, 1989, pp. 235-264.

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<sup>1</sup>Items marked with an asterisk are included in the course pack; other items are on reserve.

## 5. Theory of Insurance

Vaughan and Vaughan, Chapters 2, 3, 4, and 7

\*Isaac Erlich and Gary S. Becker, "Market Insurance, Self-Insurance, and Self-Protection," Journal of Political Economy, Vol. 80, no. 4, 1972, pp. 663-648.

J. David Cummins, "Statistical and Financial Models of Insurance Pricing and the Insurance Firm," Journal of Risk and Insurance, Vol. 58, no. 2, 1991, pp. 261-301.

## 6. Health Insurance

Vaughan and Vaughan, Chapter 17

Charles E. Phelps, Health Economics (New York: Harper Collins, 1992), Chapter 10: "The Demand for Health Insurance" and Chapter 11: "Health Insurance in the Marketplace."

## 7. Positive Theories of Insurance

Vaughan and Vaughan, Chapter 5

\*David Mayers and Clifford W. Smith, Jr., "Ownership Structure Across Lines of Property-Casualty Insurance," Journal of Law and Economics, Vol. 31, no. 2, 1988, pp. 351-378.

## 9. Regulation and the Insurance "Crisis"

Vaughan and Vaughan, Chapters 6 and 8

\*Richard N. Clarke, Frederick Warren-Boulton, David D. Smith, and Marilyn J. Simon, "Sources of the Crisis in Liability Insurance: An Economic Analysis," Yale Journal on Regulation, Vol. 5, no. 2, 1988, pp. 367-415.

## 10. Automobile Insurance

Vaughan and Vaughan, Chapters 22 and 23

\*Benjamin Zycher, "Automobile Insurance, Regulation, Direct Democracy, and the Interests of Consumers," Regulation, Summer 1990, pp. 67-77.

Scott E. Harrington and Helen J. Doerpinghaus, "The Economics and Politics of Automobile Insurance Rate Classification," Journal of Risk and Insurance, Vol. 60, no. 1, 1993, pp. 59-84.

## 10. Product Quality and Information Asymmetry

Aidan R. Vining and David L. Weimer, "Information Asymmetry Favoring Sellers: A Policy Framework," Policy Sciences, Vol. 21, no. 4, 1988, pp. 281-303.

## 11. Gambling

Charles T. Clotfelter and Philip J. Cook, "On the Economics of State Lotteries," Journal of Economic Perspectives, Vol. 4, no. 4, 1990, pp. 105-119.

### Recent Research Paper Topics

1996

Daniel Burchill	Interest Rate Swaps as Risk Reduction Tools
Krishna Chivukula	Cost-Effectiveness of Renal Transplantation
Nina Lam	Effects of the Russian Presidential Race on Russian Markets
Kristen Layman	Decision Analysis of the FDA New Drug Approval Process
Wesley Wai-Choi Leung	The Market for Exotic Options and Its Regulation
Wanda Lim	Cost-Effectiveness of Testing for van Willebrand's Disease
Pat Lind	Adverse Selection into HMO Asthmatic Management Programs
Brian Lopes	Relative Effectiveness and Safety of Norplant
Katia Kardash	Does the Transition to Democracy Reduce Country Risk?
Ahmed Kassim	Market Responses to Information Asymmetry about Insurer Solvency
Jong Ho Kim	Single Market versus Global CAP Models
Marissa Kuhn	Empirical Investigation of the Effectiveness of DWI Policies
Shannon Short	Oregon's Health Care Rationing System
Merissa Spencer	Social Health Care Maintenance Organizations
Christina Tryczynski	Relationship between Alcohol Consumption and Birth Defects
Lorys Wexler	Down Syndrome Diagnostic Testing
Eryi Zeng	Retroactive Insurance

1994

Joseph Donovan	Rates of Return and Risks of Mutual Funds
Joshua Duke	Effect of Infant Mortality on Fertility
Abdullah Faisal	Perception of Smoking Risks
Maura Flechtner	Assessing Country Risk in Investment
Melissa Greene	Mortality Effects of the 65 MPH Speed Limit
Christy Hefflon	Temporary Employment as Risk Reduction
Sheri Holt	Health Insurance as an Employee Benefit
Casey Holzman	Decision Analysis of Space Launch Risks
Andrew Hopkins	Pay-at-the-Pump Auto Liability Insurance
James Johnson	State Mandated Discounts for Self-Protection
John Johnson	Factors Affecting State Lottery Revenues
Karen Lee	Moral Hazard and Deposit Insurance
Scott Moller	State and Municipal Bond Rating
James Oliver	Unisex Insurance Rating
Melony Schell	Decision Analysis of Cesarean Sections
Mark Sorbero	Decision Analysis of Colon Cancer Screening
Jeff Teshke	Federal Earthquake Insurance
Lucas Tompach	Federal Flood Insurance
Greg Tutcik	The Market for Pet Insurance
Qing Zhao	Corporate Demand for Insurance

1991

Don-Yun Chen	Early Acceptance and College Admissions Risk
Tami Dennis	Insurance Coverage of Mammography
Ethan Krimins	Reverse Mortgages for the Elderly
Anne Ferguson	Effectiveness of the 21 MLPA
Braulio Hernando	Cost-Effectiveness of Air Bags
Edwin See	Perceived Risks of Alcohol Impaired Driving

Sharon Stern	Effectiveness of Mandatory Safety Inspections
Kelly Brown	Workers' Compensation and Self-Insurance
Christine Lehmann	Theory and Practice of Experience Rating
Kevin Shea	Assigned Risk Pools
Ellen Leung	Earthquake Insurance
Hui Zhang	Rate Setting for Auto Insurance
Meggan Clark	National Cholesterol Education Program
Christine Dummer	Medigap Insurance
Paul Malmud	Evaluation of Medicare Prospective Payments
William Surdock	Mental Health Care Insurance
Ming Hong Wu	Health Maintenance Organizations as Insurance
Chris Frankel	HIV Testing and Health Insurance
Gladys Guzman	Hereditary Risk Factors in Life Insurance
Jean Kelly	Adverse Selection in Health Insurance
Carol Slattery	Contingency Fees in Malpractice Suits
Marlene Woolam	Smoking and Health Insurance
Daniel Cohen	Adjustable Rate Mortgages
Peter Cos	Stock Futures
Charles Fogarty	Risk and Rate of Return to Stocks
Chris Kauza	Returns and Risks of Mutual Funds
Howard Silverman	Crude Oil Futures
Matthew Bergin	Exchange Rate Futures
Julia Gonzalez	International Investment Diversification
M. Vijayaraghavan	Methods for Estimating Country Risk
Tamar Yinnon	Israeli Entrepreneurship and Risk
Xiaofang Zhao	Hong Kong Negotiations and Stock Prices
Mark Davis	FSLIC and Moral Hazard
John Lee	FDIC and Moral Hazard
Bryan Hollis	Computer Warranties
Gary Karton	Insuring Sports Superstars
Kevin Kreh	Legalized Sports Betting
Allen Krusenstjerna	Risks of Municipal Sludge Disposal Alternatives
Sharon Shepard	Regulatory Risks in RGE/UR Cogeneration
Hisham Showeir	Bidding Risk in Outer Continental Shelf Leasing
Claudia Van Dusen	Assessing Greenhouse Effect Uncertainty

## 1988

Michelle Benoit	Self-Insurance Against Tort
Nancy Biellak	Product Liability and the Distribution of Risk
Robert Colon	Does the 21 MLDA Save Lives
Eileen McCarthy	Subjective Perceptions of Smoking Risk
Gary Newman	Public Regulation of Smoking
Julie Baylin	The FDA's New Drug Approval Regulations
Dyonne King	Can Regulation Reduce the Number of Lemons?
Eugene Walters	Regulating the Client/Broker Relationship
Tim Holick	AIDS: What Are the Odds?
Mat Kilbury	Cultural Perceptions of Risk
Karl Riemensperger	Marriage and Mandatory HIV Testing
Louis de Elorza	FDIC Insurance and the Banking Industry
Bridget Tuthill	The Federal Flood Insurance Program
Kevin Visco	Unisex Life Insurance Rating
James Beardsley	Decision Making Under Tactical Risk

Michael Mullen	Regulation of Nuclear Power
Thomas Taverna	Deterrence in the Nuclear Age
John Debole	Stock Index Futures and Portfolio Management
Douglas Gerhardt	How Do Universities Reduce Admissions Risk
Craig Patrick	Optimal Strategies for Marketing New Products
Will Greene	The Illegal Sports Gambling Market
Robert Kodweis	Self-Regulation in the Horse Racing Industry

1986

Christine Bentley	The Perception of Risk in Contraception
Chris Boehning	State-Run Lotteries as a Public Revenue Source
Valerie Bristow	Smoking and Risk Taking Behavior
Teresa Fama	Implications of Limitations on Contingency Fees
Steve High	A Risk/Benefit Methodology for NYS DEC
Grant Hughes	Gambling: Motivations and Social Implications
Curtis Johnson	Small Business Administration and Start-Up Risk
Jason Jesner	Sex as a Factor in Automobile Insurance Rating
Naya Kehayes	The HMO as a Form of Health Insurance
Cathy Mooney	Medical Technology and Medical Insurance
Erika Nemeth	Assessment of Human Risk from Animal Studies
Brad Primavera	Public Insurance of Savings: the FDIC
Albert Rugel	Vaccines and Product Liability: A Federal Role?
Alissa Sammarco	Workers' Compensation Insurance
Robert Scott	Capital Market Theory and Portfolio Management
David So	Unisex Retirement Annuities
Martin Suazo	Insuring Non-Marketable Assets: Lloyd's of London
Tim Sullivan	Drug Screening in the Workplace
Phillipe Tibi	Public Insurance for Nuclear Power
Tom Treadwell	Risk and Product Liability Law: The Case of DES
Linda Weber	Evaluation of U.S. Oil Stockpiling Policies