FROM THE LIBRARY SHELF

Edited by Phyllis Schiller Myers
Virginia Commonwealth University

FROM THE LIBRARY SHELF

Bargaining Theory

Rational Choice and Two-Person Bargaining Solutions, by Walter Bossert (University of Waterloo)

This paper provides an alternative proof of a recent result by Peters and Wakker concerning the rationalizability of a two-person bargaining solution by an ordering on the gains of the agents over the disagreement outcome. A set of sufficient conditions for rationalizability in the two-person case is given by Pareto optimality, continuity, and independence of irrelevant alternatives. Whereas the original proof is self-contained, the proof given here provides a link between this result and the existing literature on rational choice. In addition, some auxiliary results that are of some interest are derived. As a by-product of the proof, it is shown that a rationalizing ordering can be endowed with some regularity properties. *Journal of Mathematical Economics,* November 1994, 23(6): 549-563. (Reprinted with permission of North-Holland Publishing Company.)

Outcome Satisfaction in Negotiation: A Test of Expectancy Disconfirmation, by Richard L. Oliver (Vanderbilt University) and P. V. (Sundar) Balakrishnan (University of Washington, Bothell), and Bruce Barry (Vanderbilt University)

The post-settlement processes that occur after negotiation outcomes are known have not been extensively studied. We propose one such process model of satisfaction using expectancy disconfirmation principles. Based on measurement of profit expectations before a bargaining session, knowledge of the profit outcomes achieved, and comparison operations between the two, analysis of data obtained from 42 negotiators provided evidence for this paradigm in negotiators' post-settlement cognition. Expectations of one's performance and profits attained had opposite effects on disconfirmation and later satisfaction judgments. High expectations served to decrease satisfaction and high profit outcomes had the effect of increasing satisfaction via their fully mediated effects through expectancy disconfirmation. Moreover, a negotiator's willingness to negotiate with the partner again is shown to be primarily a function of satisfaction. Implications of these findings are discussed. *Organizational Behavior and Human Decision Processes,* November 1994, 60(2): 252-275. (Reprinted with permission of *Organizational Behavior and Human Decision Processes.* Copyright © 1994 Academic Press, Inc.)

FROM THE LIBRARY SHELF

Risk Perception and Economic Behavior

Shared Mental Models: Ideologies and Institutions, by A. T. Denzau and D. C. North

For most of the interesting issues in political and economic markets, uncertainty rather than risk characterizes choice-making. In order to understand decision-making under conditions of strong uncertainty, we must understand the relationship between the mental models that individuals construct to make sense of the world around them, the ideologies that evolve from such constructions, and the institutions that develop in a society to order interpersonal relationships. This paper develops a framework with which to understand and model the shared mental models that guide choices and shape the evolution of political-economic systems and societies. *Kyklos,* 1994, 47(1): 3-31. (Reprinted with permission of the *Journal of Economic Literature.*)

A Psychological Study of the Inverse Relationship Between Perceived Risk and Perceived Benefit, by Ali Siddiq Alhakami (Imam Muhammad Ibn Saud Islamic University) and Paul Slovic (Decision Research, Eugene, Oregon)

Judgments of risk and judgments of benefit have been found to be inversely related. Activities or technologies that are judged high in risk tend to be judged low in benefit, and vice versa. In the present study, we examine this inverse relationship in detail, using two measures of the relationship between risk and benefit. We find that the inverse relationship is robust and indicative of a confounding of risk and benefit in people's minds. This confounding is linked to a person's overall evaluation of an activity or technology. Theoretical and practical implications of this risk-benefit confounding are discussed. *Risk Analysis,* December 1994, 14(6): 1085-1096. (Reprinted with permission of *Risk Analysis.*)

The Risks of "Putting the Numbers in Context": A Cautionary Tale, by William R. Freudenburg and Julie A. Rurcsch (University of Wisconsin-Madison)

Despite the warnings of risk communication specialists, members of the technical community often urge that technological risks should be "put in context" by comparisons against risks that are more familiar. Little quantitative evidence is available on the actual behavioral consequences of such risk comparison efforts. In the present study, subjects were presented with two types of information about a hazardous waste incinerator—a simple statistical summary and a comparison of incinerator risks against the risks of smoking. Statistical information led to a modest increase in the reported willingness to vote in favor of the incinerator in a community referendum, but the comparison against cigarettes led to a slight *decrease* in support; the difference between the two messages is statistically significant ($p < 0.001$). In combination with other results, this study's findings suggest that an implicit assumption of risk comparisons is in error: Opposition to controversial technologies may have little to do with citizens' levels of information about technology, having more to do with citizens' levels of trust in governmental and industrial actors. *Risk Analysis,* December 1994, 14(6): 949-958. (Reprinted with permission of *Risk Analysis.*)

Risk Communication: Absolute versus Relative Expressions of Low-Probability Risks, by Eric R. Stone, J. Frank Yates, and Andrew M. Parker (University of Michigan)

According to most prescriptive decision rules, formally equivalent methods of communicating risk information should have identical effects on risk-taking behavior, even if the pertinent displays are different. The present work takes two methods commonly employed in epidemiology, incidence rates and relative risks, and examines their comparative effects on risk-avoidant behavior. In Experiment 1, we presented 108 undergraduates with information about risk associated with different brands of tires and toothpaste and displayed that information either as incidence rates or as a relative risk ratio. For the tires product, subjects given the relative risk format were willing to pay more money for a safer product than were subjects given the incidence rate format. There were, however, no differences between the two conditions for the toothpaste product. Experiment 2 evaluated two potential explanations for the difference in findings between the two products. The majority of the data supported an "editing" hypothesis, which suggests that extreme low-probability risks, such as those associated with tire blowouts, are edited to "essentially nil risk," while more moderate risks, such as those associated with periodontal disease, are considered to be small but significant. These findings are discussed in the context of fuzzy trace theory and related models, which suggest that people reason on the basis of simplified representation rather than on the literal information available. *Organizational Behavior and Human Decision Processes,* December 1994, 60(3): 387-408. (Reprinted with permission of *Organizational Behavior and Human Decision Processes.* Copyright © 1994 by Academic Press, Inc.)

Exploratory Factor Analysis of Adolescent Attitudes Toward Alcohol and Risk, by Mark R. Lehto, Dwayne S. James (Purdue University), and James P. Foley (Ford Motor Company)

This two-year longitudinal study of 302 high school students in the state of Indiana examined attitudes toward the use of alcohol in 25 potentially hazardous settings, varying from riding in a car, to swimming, to simply drinking at home. Student ratings indicated that they were capable of rationally evaluating alcohol-related risks. Principal components factor analysis identified three factors underlying student responses: propensity/desirability of the behavior, choice/control of the risk, and fear/consequences/likelihood of the risk. Each of these factors was comparable to factors found to be important in past studies of adult risk perception. The finding that self-reported behavioral propensity and desirability were weakly correlated with the measures of perceived risk is of particular interest. Attempts to reduce the use of alcohol by adolescents have traditionally focused on risk awareness. The implication of this study is that intervention programs might be more successful if they focused on modifying perceived value. *Journal of Safety Research,* Winter 1994, 25(4): 197-213. (Reprinted with permission of the *Journal of Safety Research.*)

FROM THE LIBRARY SHELF:

Consumption-Savings Behavior

Uncertain Lifetime, the Theory of the Consumer, and the Life Cycle Hypothesis, by Siu Fai Leung (University of Rochester)

Although uncertainty of survival has long been an integral part of life, systematic economic analysis of uncertain lifetime has remained dormant until Yaari's (1965) seminal contribution. In contrast to previous works on the subject, Yaari formulates a series of dynamic models to study the impact of uncertain lifetime on consumption over time. For nearly three decades Yaari's investigation has inspired a great deal of work in economics. His models, which have been applied to examine a wide variety of problems in both mircoeconomics and macroeconomics, have virtually been regarded as *the* standard models of uncertain lifetime.

Despite the massive literature that builds on Yaari's pioneering contribution, I show that the solution of his model can further be characterized without making any additional assumptions. Using optimal control theory with a state-variable inequality constraint, I prove that Yaari's model cannot have an interior solution that lasts until the maximum lifetime. Contrary to the basic life cycle hypothesis, savings must be depleted at some time *before* the maximum lifetime and consumption will be equal to income thereafter. Regardless of the size of the consumer's initial wealth, the borrowing constraint must be binding on some interval before the maximum lifetime. These new results rectify some heretofore unnoticed deficiencies in Yaari's analysis as well as many flaws and misleading claims in previous studies of uncertain lifetime.

A simple numerical example illustrates that the interval during which there are no savings is not negligible. It suggests that these new characterizations of Yaari's model have significant implications for empirical work on the life cycle hypothesis of saving. *Econometrica,* September 1994, 62(5): 1233-1239. (Reprinted with permission of *Econometrica.*)

Uninsured Idiosyncratic Risk and Aggregate Saving, by S. Rao Aiyagari

We present a qualitative and quantitative analysis of the standard growth model modified to include precautionary saving motives and liquidity constraints. We address the impact on the aggregate saving rate, the importance of asset trading to individuals, and the relative inequality of wealth and income distributions. *The Quarterly Journal of Economics,* August 1994, 109(3): 659-684. (Reprinted with permission of *The Quarterly Journal of Economics.*)

The Dissaving of Annuity Wealth and Marketable Wealth in Retirement, by T. W. Mirer

This paper compares the automatic dissaving of annuity wealth with the discretionary dissaving of marketable wealth that would result from life-cycle consumption behavior by retired persons. In simulations of a life-cycle model based on the isoelastic utility function and realistic parameter values, the author finds that marketable wealth normally would be dissaved more rapidly than annuity wealth. This suggests that empirical findings that show the opposite relation—slow dissaving of marketable wealth being accompanied by faster dissaving of annuity wealth (or total wealth)—should not be interpreted as evidence that supports the life-cycle theory. *Review of Income and Wealth,* March 1994, 40(1): 87-97. (Reprinted with permission of the *Journal of Economic Literature.*)

Precautionary Saving: An Explanation for Excess Sensitivity of Consumption, by Michel Normandin

The permanent income hypothesis under certainty equivalence yields a martingale consumption process. Empirically, this hypothesis is rejected because consumption is excessively sensitive to anticipated income. One approach to account for excess sensitivity is to relax certainty equivalence by using utility functions that induce precautionary saving. An analysis examines a hyperbolic risk-aversion utility function. Empirically, some reasonable parameterizations of this specification allow one to match the excess sensitivity associated with the data. These parameterizations also permit one to account for the excess smoothness problem. Excess sensitivity and excess smoothness, however, do not reflect the same phenomenon. Thus, matching the observed sensitivity and the actual smoothness are distinct ways of testing the empirical validity of precautionary-saving behavior. *Journal of Business & Economics Statistics,* April 1994, 12(2): 205-219. (Reprinted with permission of the *Journal of Business & Economics Statistics.*)

Utility Theory

Tests of Assumptions About the Joint Receipt of Gambles in Rank- and Sign-Dependent Utility Theory, by Younghee Cho, R. Duncan Luce (University of California, Irvine), and Detlof von Winterfeldt (University of Southern California)

A rank- and sign-dependent utility theory is based on an operation of joint receipt of two independent gambles and three assumptions regarding the operation (Luce, 1992). The authors tested these three assumptions—segregation, duplex decomposition, and the additivity of certainty equivalents over joint receipt—using both judged and choice certainty equivalents (CEs). Median choice CEs provided support for both segregation and duplex decomposition but little support for additivity in gains or in losses, whereas median judged CEs also failed to support segregation. The latter failure appears to result from some subjects misunderstanding the instructions. *Journal of Experimental Psychology: Human Perception and Performance,* October 1994, 20(5): 931-943. (Reprinted with permission of the American Psychological Association.)

The Predictive Utility of Generalized Expected Utility Theories, by David W. Harless (Virginia Commonwealth University) and Colin F. Camerer (University of Chicago)

Many alternative theories have been proposed to explain violations of expected utility (EU) theory observed in experiments. Several recent studies test some of these alternative theories against each other. Formal tests used to judge the theories usually count the number of responses consistent with the theory, ignoring systematic variation in responses that are inconsistent. We develop a maximum-likelihood estimation method which uses all the information in the data, creates test statistics that can be aggregated across studies, and enables one to judge the predictive utility—the fit and parsimony—of utility theories. Analyses of 23 data sets, using several thousand choices, suggest a menu of theories which sacrifice the least parsimony for the biggest improvement in fit. The menu is: mixed fanning, prospect theory, EU, and expected value. Which theories are best is highly sensitive to whether gambles in a pair have the same support (EU fits better) or not (EU fits poorly). Our method may have application to other domains in which various theories predict different subsets of choices (e.g., refinements of Nash equilibrium in noncooperative games). *Econometrica,* November 1994, 62(6): 1251-1289. (Reprinted with permission of *Econometrica.*)

A Theory of Expected Utility with Nonadditive Probability, by Takashi Oginuma (Kobe University of Commerce, Japan)

In this paper, a new concept of probability (*I*-nonadditive probability), which is partially additive and partially nonadditive, is introduced. By using this concept of probability and the former results of Savage's and Schmeidler's, a model of expected utility with nonadditive probability is formulated. *Journal of Mathematical Economics,* September 1994, 23(5): 451-473. (Reprinted with permission of North-Holland Publishing Company.)

Investigating Generalizations of Expected Utility Theory Using Experimental Data, by John D. Hey and Chris Orme (University of York, United Kingdom)

A number of generalizations of the expected utility preference functional are estimated using experimentally generated data involving 100 pairwise choice questions repeated on two separate occasions. Likelihood ratio tests are conducted to investigate the statistical superiority of the various generalizations, and the Akaike information criterion is used to distinguish between them. The economic superiority of the various generalizations is also explored and the paper concludes that, for many subjects, the superiority of several of the generalizations is not established. *Econometrica,* November 1994, 62(6): 1291-1326. (Reprinted with permission of *Econometrica.*)

FROM THE LIBRARY SHELF:

Mathematical and Statistical Models

Two Stochastic Approaches for Discounting Actuarial Functions, by Gary Parker (Simon Fraser University, Canada)

Two approaches used to model interest randomness are presented. They are the modeling of the force of interest accumulation function and the modeling of the force of interest. The expected value, standard deviation and coefficient of skewness of the present value of annuities-immediate are presented as illustrations. The implicit behavior of the force of interest under the two approaches is investigated by looking at a particular conditional expectation of the force of interest accumulation function. *Astin Bulletin,* November 1994, 24(2): 167-181. (Reprinted with permission of *Astin Bulletin.*)

A Markov Model for Loss Reserving, by Ole Hesselager (University of Copenhagen, Denmark)

The claims generating process for a non-life insurance portfolio is modelled as a marked Poisson process, where the mark associated with an incurred claim describes the development of that claim until final settlement. An unsettled claim is at any point in time assigned to a state in some state-space, and the transitions between different states are assumed to be governed by a Markovian law. All claims payments are assumed to occur at the time of transition between states. We developed separate expressions for the IBNR and RBNS reserves, and the corresponding prediction errors. *Astin Bulletin,* November 1994, 24(2): 183-193. (Reprinted with permission of *Astin Bulletin.*)

FROM THE LIBRARY SHELF

Credibility Theory

Robust Credibility Via Robust Kalman Filtering, by Erhard Kremer (Hamburg)

Credibility theory is closely related to Kalman filtering. As a consequence, methods proposed for robustifying the Kalman filter can often be specialised to obtain robust credibility rating procedures. The application of one such method to several classical credibility models is shown in this paper. *Astin Bulletin,* November 1994, 24(2): 221-233. (Reprinted with permission of *Astin Bulletin.*)

FROM THE LIBRARY SHELF

Agency Theory

Agency and Insurance, by John R. Birds

Under the anomalous doctrine of agency law, the principal is still bound to the contract where the agent is acting within his actual authority, but does not disclose the fact that he is an agent to the third party. The main exception to this doctrine is where the contract is so personal that performance by anyone other than the agent cannot be permitted. The anomalous doctrine, or the doctrine of undisclosed principal, seems inherently much less applicable to insurance since the contract of insurance is said to be a personal contract, and because the duty of disclosure of material facts would seem to preclude its operation. However, the cases of *National Oilwell (UK) Ltd. v. Davy Offshore Ltd.* (1993) and *Sin Yin Kwan v. Eastern Insurance Co. Ltd.* (1994) have held the anomalous doctrine applicable to insurance contracts. *Journal of Business Law,* July 1994, 386-393. (Reprinted with permission of ABI/Inform, copyright, UMI.)

FROM THE LIBRARY SHELF.

Demography

Estimating Increment-Decrement Life Tables with Multiple Covariates from Panel Data: The Case of Active Life Expectancy, by Kenneth C. Land, Jack M. Guralnik, and Dan G. Blazer

An approach to estimating increment-decrement life tables from panel data with multiple covariates is presented. The approach is based on an isomorphism between the structure of the stochastic model underlying a conventional specification of the increment-decrement life table and that of Markov panel regression models for simple state spaces. It is argued that Markov panel regression procedures can be used to provide smoothed or graduated group-specific estimates of transition probabilities that are more stable across short age intervals than those computed directly from sample data. These estimates are joined with increment-decrement life table methods to compute group-specific total, active, and dependent life expectancy estimates. The methods are illustrated by an empirical application to the estimation of such life expectancies specific to sex, race, and education for a longitudinal panel of elderly persons.

It is found that education extends both total life expectancy and active life expectancy. *Demography,* May 1994, 31(2): 297-319. (Reprinted with permission of ABI/Inform, copyright UMI.)

FROM THE LIBRARY SHELF:
Government Insurance Programs

Deposit Insurance and Banking System Risk: Some Empirical Evidence, by Alden F. Shiers (California Polytechnic State University)

This paper examines the effect of federal deposit insurance on the riskiness of the commercial banking system. It is generally acknowledged that a system of fixed rate deposit insurance creates incentives for banks to increase their risk-taking activities. Yet very little empirical evidence exists confirming or refuting this supposition. The coefficient of variation of bank profits and the standard deviation of profits are used as measures of bank risk. How these measures of bank risk are affected by deposit insurance coverage, and other variables thought to affect bank risk, is examined. Deposit insurance is found to have a statistically significant positive effect on bank risk. This result provides empirical support for the FDIC Improvement Act requirement of risk related deposit insurance premiums starting January 1994. *The Quarterly Review of Economics and Finance,* Winter 1994, 34(4): 347-361. (Reprinted with permission of *The Quarterly Review of Economics and Finance.*)

Which Banks Choose Deposit Insurance? Evidence of Adverse Selection and Moral Hazard in a Voluntary Insurance System, by David C. Wheelock (Federal Reserve Bank of St. Louis) and Subal C. Kumbhakar (University of Texas)

This article investigates adverse selection and moral hazard in the voluntary deposit insurance system of Kansas, which operated from 1909 to 1929. Regulations were imposed to limit risk-taking and membership was made voluntary to assuage objections that insurance forces conservative banks to protect depositors of high-risk institutions. We find, however, that risk-prone banks were the most likely to join the system at its inception. Using a simultaneous equations model, we also detect both adverse selection and moral hazard behavior throughout the system's first ten years. *Journal of Money, Credit and Banking,* February 1995, 27(1): 186-201. (Reprinted with permission of the *Journal of Money, Credit and Banking.*)

FROM THE LIBRARY SHELF:
Social Insurance

Minimum Wage Legislation and Unemployment Insurance as Instruments for Redistribution, by N. Marceau and R. Boadway

The use of minimum wage and unemployment insurance as instruments for redistributing income is analyzed. The government is assumed to be able to implement an optimal income tax in an economy consisting of two types of individuals who differ in ability. The effect of introducing a minimum wage that induces involuntary unemployment will be to improve social welfare under weak conditions. Circumstances under which combining unemployment insurance with the minimum wage will be welfare-improving are also considered. *Scandinavian Journal of Economics,* 1994, 96(1): 67-81. (Reprinted with permission of the *Journal of Economic Literature.*)

Payment Levels and Hospital Response to Prospective Payment, by D. Hodgkin and T. G. McGuire

Nearly ten years after the implementation of Medicare's Prospective Payment System, some of its major impacts remain hard to explain using existing economic models. The authors develop a simple model of the hospital's choice of intensity of care, which affects demand for admissions. The model suggests an important role for the level of prospective payment, independent of the effect of marginal incentives. Predictions from the model are compared first with aggregate utilization data from Medicare's Prospective Payment System experience and then with various hospital-level studies that control for interhospital differences in reimbursement rates. *Journal of Health Economics,* March 1994, 13(1): 1-29. (Reprinted with permission of the *Journal of Economic Literature.*)

Health Economics

The Risk and Duration of Catastrophic Health Care Expenditures, by Daniel Feenberg (National Bureau of Economic Research) and Jonathan Skinner (University of Virginia and National Bureau of Economic Research)

We measure the time-series property of catastrophic medical costs facing the elderly using information on medical deductions from a panel of tax returns. During the period of analysis, 1968-1973, taxpayers could deduct medical expenses above 3 percent of income. We correct for the resulting censoring bias using multivariate tobit estimates with a variant of the smoothed simulated maximum likelihood method. The estimated coefficients imply a \$1 increase in out-of-pocket medical spending is associated with \$2.65 in future out-of-pocket spending. *The Review of Economics and Statistics,* November 1994, 76(4): 633-647. (Reprinted with permission of North-Holland Publishing Company.)

Estimates of the Demand for Medical Care Under Different Functional Forms, by Janet Hunt-McCool, B. F. Kiker, and Ying Chu Ng

Price and income elasticities are estimated from a linear, log-linear, and the almost ideal demand model—with and without an adjustment for selectivity bias—in an effort to show that special attention should be paid to the underlying assumptions of consumer behavior when estimating a medical care demand model. The literature on medical care utilization is extended by incorporating two major components of spending as seperate demands in a system of medical care spending. It is found that estimates of elasticities vary depending on the functional form of the estimating equation, thus questioning the usefulness for policy purposes of single estimates of elasticities. *Journal of Applied Econometrics,* April-June 1994, 9(2): 201-218. (Reprinted with permission of ABI/Inform, Copyright UMI.)

FROM THE LIBRARY SHELF:

Long-Term Care Issues

Financing Long-Term Care: An Intragenerational Social Insurance Model, by Yung-Ping Chen (University of Massachusetts)

Financing long-term care has become an increasingly significant public policy challenge because of a confluence of factors. These factors juxtapose the expanding numbers of older people, particularly the very old, against the public and private resources that are growing at a much slower rate. This article proposes a new paradigm—the use of an *intra*generational social insurance program I call "Social Security/Long-Term Care" to provide a basic level of long-term care protection. *The Geneva Papers on Risk and Insurance: Issues and Practice,* October 1994, 73: 490-495. (Reprinted with permission of *Geneva Papers on Risk and Insurance: Issues and Practice.*)

The Effects of Market Concentration and Excess Demand on the Price of Nursing Home Care, by J. A. Nyman

Certificate-of-need laws and construction moratoria are policies designed to control government expenditures by limiting the number of nursing home beds in an area. These policies also represent barriers to entry and can result in excess demand. This study investigates the effect of market concentration and excess demand on private prices for nursing home care. The author finds evidence that both factors are associated with higher prices. Because higher prices may cause private patients to exhaust their financial resources and become Medicaid patients sooner than they otherwise would, these policies may have had indirect cost-increasing consequences. *Journal of Industrial Economics,* February 1994, 41(1): 69-84. (Reprinted with permission of the *Journal of Economic Literature.*)

FROM THE LIBRARY SHELF:

Health Care and Insurance

State-Mandated Benefits and Employer-Provided Health Insurance, by Jonathan Gruber (Massachusetts Institute of Technology)

One popular explanation for the low rate of employee health insurance coverage is the presence of numerous state regulations which mandate that group health insurance plans must include certain benefits. By raising the minimum cost of providing any health insurance coverage, these mandated benefits make it impossible for firms which would have desired to offer minimal health insurance at a low cost to do so. I use data on insurance coverage among employees in small firms to investigate whether this problem is an important cause of employee non-insurance. I find that mandates have little effect on the rate of insurance coverage: this finding is robust to a variety of specifications of the regulations. I also find that this lack of an effect may be because mandates are not binding, since most firms appear to offer these benefits even in the absence of regulation. *Journal of Public Economics,* November 1994, 55(3): 433-464. (Reprinted with permission of North-Holland Publishing Company.)

An Empirical Investigation of Health Care Coverage and Costs in U.S. Small Businesses, by Yunus Kathawala and Dean Elmuti

Small businesses are at the center of debate on how to control escalating health care costs, improve coverage, and provide health care for the U.S.'s uninsured. A study examined the relationship between the demographic characteristics of small businesses, health insurance alternatives, and attitudes toward these benefits. The results showed that health care coverage increases along with firm size, industry type, and form of ownership. Cost and availability are two factors that significantly influence a small business employer's decision to provide health care insurance to employees. Respondents suggested that small businesses should pool together to form groups and that federal and state governments should provide a subsidy for small firms to enable them to increase coverage and to reduce the costs of health care benefits. *Journal of Small Business Management,* October 1994, 32(4): 61-72. (Reprinted with permission of ABI/Inform, copyright, UMI.)

Tax Incentives and the Decision to Purchase Health Insurance: Evidence from the Self-Employed, by Jonathan Gruber (Massachusetts Institute of Technology) and James Poterba (National Bureau of Economic Research)

The Tax Reform Act of 1986 introduced a new tax subsidy for health insurance purchases by the self-employed. We analyze the changing patterns of insurance demand before and after tax reform to generate new estimates of how the after-tax price of insurance affects the discrete choice of whether to buy insurance. We employ both traditional regression models and difference-in-difference methods that compare changes in insurance coverage across groups around TRA86. The results from our most carefully controlled comparison suggest that a one percent increase in the cost of insurance coverage reduces the probability that a self-employed single person will be insured by 1.8 percentage points. *The Quarterly Journal of Economics,* August 1994, 109(3): 701-733. (Reprinted with permission of *The Quarterly Journal of Economics.*)

Employee Benefit Programs

The Relationship Between Employer Health Insurance Characteristics and the Provision of Employee Assistance Programs, by Gary A. Zarkin and Steven A. Garfinkel

Workplace drug and alcohol abuse imposes substantial cost on employers. In response, employers have implemented a variety of programs to decrease substance abuse in the workplace, including drug testing, health and wellness programs, and employee assistance programs (EAPs). Analysis focuses on the relationship between enterprises' organizational and health insurance characteristics and the firms' decisions to provide EAPs. Using data from a 1989 survey, the analysis estimates the prevalence of EAPs by selected organizational and health insurance characteristics for those firms that offer health insurance to their workers. In addition, logistic models of the enterprises' decisions to provide EAPs as functions of the extent of state substance abuse and mental health insurance mandates, state-level demographic variables, and organizational and health characteristics are estimated. The results suggest that state mandates and demographic variables are important explanatory variables. *Inquiry,* Spring 1994, 31(1): 102-114. (Reprinted with permission of ABI/Inform, copyright UMI.)

Economic Research and Public Policy Toward Employee Ownership in the United States, by Michael A. Conte

Some of the basic arguments for tax favored treatment of employee ownership are reviewed. The review incorporates some of the more important research results that have been achieved, which allows the evaluation of the effectiveness of policies to date. A discussion is presented of broad policy options that follow from these research results. Any policy that is seriously aimed at increasing the amount of employee ownership and improving the design of employee ownership plans in the U.S. must address the employee stock-ownership plan either by fixing its problems or by replacing it with another form of tax-favored employee ownership. Policy should be designed with two objectives in mind: (1) to increase the rate of growth of employee ownership and (2) to increase the quality of plan designs. *Journal of Economic Issues,* June 1994, 28(2): 427-437. (Reprinted with permission of ABI/Inform, copyright UMI.)

Employee Stock Ownership Plans and Shareholder Wealth: An Examination of the Market Perceptions of the Non-Tax Effects, by Keith F. Sellers, Joseph M. Hagan, and Philip H. Siegel

As a means of achieving broad social and economic objectives, Congress has provided tax incentives designed to encourage employee stock ownership plans (ESOPs). A recent study determines if some of the observed market reaction to ESOP adoption may be attributed to nontax benefits of ESOPs. The findings indicate that the securities market does perceive positive benefits from an ESOP other than from the tax benefits provided by Congress. An increase in shareholder wealth upon the adoption of an ESOP would indicate that the security market has perceived an increase in shareholder wealth due to either a reduction of costs caused by tax incentives or an expectation of an increase in employee productivity. *Journal of Applied Business Research,* Summer 1994, 10(3): 45-52. (Reprinted with permission of ABI/Inform, copyright, UMI.)

Pensions

The Role of Pensions in the Labor Market: A Survey of the Literature, by A. L. Gustman, O. S. Mitchell, and T. L. Steinmeier

Because employer-sponsored group pension plans entail agreement between workers and their employers explicitly linking future payment and employment, they offer an unusual window into long-term employment relationships. This review of recent research on pensions explores how pensions influence employee compensation, retirement, turnover, and other matters central to the determination of labor's price and quantity over time. The authors also outline some unanswered questions and difficult-to-reconcile findings. *Industrial and Labor Relations Review,* April 1994, 47(3): 417-438. (Reprinted with permission of the *Journal of Economic Literature.*)

Cash Flow Variability and Firm's Pension Choice: A Role for Operating Leverage, by Mitchell A. Petersen (University of Chicago)

When financial markets are imperfect or financial distress is costly, firms may choose to reduce their risk by lowering financial or operating leverage. This paper examines the role of operating leverage in the firm's pension choice. Contributions to defined contribution plans are more flexible than contributions to defined benefit plans. Firms may therefore reduce their operating leverage by selecting a defined contribution plan. I find empirical support for this hypothesis which is robust to controls for labor market factors and the continuing trend toward defined contribution pension plans. *Journal of Financial Economics,* December 1994, 36(3): 361-383. (Reprinted with permission of North-Holland Publishing Company.)

FROM THE LIBRARY SHELF.

Life Insurance and Annuities

The Distributions of Annuities, by M. Vanneste (K. U. Leuven, Minderbroederstaat, Belgium), M. J. Goovaerts (K. U. Leuven, Minderbroederstaat, Belgium, and Universiteit van Amsterdam, The Netherlands), and E. Labie (K. U. Leuven, Minderbroederstaat, Belgium)

Based on some evaluation techniques for Feynman integrals we deduce the distribution of annuities with random interest rate derived from a particular Lagrangian. A linear risk free interest intensity as well as an arbitrary function describing the risk free intensity is considered. In addition, a transformation of Feynman integrals, related to some time changes in stochastic processes, provides us with a connection to Bessel processes. *Insurance: Mathematics and Economics,* October 1994, 15(1): 37-48. (Reprinted with permission of North-Holland Publishing Company.)

Liability Rules

Should Liability Be Based on the Harm to the Victim or the Gain to the Injurer? by A. Mitchell Polinsky (Stanford Law School) and Steven Shavell (Harvard Law School)

Should the level of liability imposed on an injurer be based on the harm he caused or instead on the gain he obtained from engaging in the harmful act? There is a strong reason to favor liability based on harm rather than gain when account is taken of the possibility of legal error. Notably, even a small underestimate of gain can lead an injurer to commit a harmful act when the harm greatly exceeds his gain, resulting in a large social loss. In contrast, a comparable error in the estimate of harm will not lead an injurer to engage in the harmful act when the harm significantly exceeds his gain. The general superiority of harm-based liability holds under the rules of negligence and strict liability and regardless of whether potential injurers know the error that will be made. *The Journal of Law, Economics, & Organization,* October 1994, 10(2): 427-437. (Reprinted with permission of *The Journal of Law, Economics, & Organization.*)

Settling Liability Disputes: The Effects of Asymmetric Levels of Ambiguity on Negotiations, by Cynthia S. Fobian (Starr & Associates, Inc., and Drake University) and Jay J. J. Christensen-Szalanski (University of Iowa)

Past research has found that ambiguity surrounding the alternative to a negotiated settlement can increase the likelihood of a negotiated settlement (Hogarth, 1989; Fobian and Christensen-Szalanski, 1993). This study extends the previous research by showing that the extent to which settlement propensity will be affected depends on which of the parties perceives greater ambiguity. In simulated liability settlement negotiations, manipulating whether ambiguity was greater for the defendant or the plaintiff resulted in up to a 69 percent difference in the number of settlements. The research also suggests that the party with less ambiguity will generally have the advantage in a negotiation situation. *Organizational Behavior and Human Decision Processes,* October 1994, 60(1): 108-138. (Reprinted with permission of *Organizational Be-*

havior and Human Decision Processes. Copyright © 1994 by Academic Press, Inc.)

Making Inferences About Jury Behavior from Jury Verdict Statistics: Cautions About the Lorelei's Lied, by Neil Vidmar (Duke Law School)

The jury research that appears to have had the most impact on judges, policymakers, and legal academics concerned with the civil justice system involved studies using data on jury verdict statistics. This article sets forth the serious methodological problems with such studies and documents the fact that, for many purposes, the conclusions that authors have drawn from them are scientifically invalid because plausible rival alternative hypotheses cannot be eliminated. The article concludes with cautions about the seductive appeal of jury verdict data and the need to clearly recognize and state their limitations. *Law and Human Behavior,* December 1994, 18(6): 599-617. (Reprinted with permission of *Law and Human Behavior.*)

The Infrastructure for Avoiding Civil Litigation: Comparing Cultures of Legal Behavior in The Netherlands and West Germany, by Erhard Blankenburg (Vrije Universiteit, Amsterdam, The Netherlands)

At first sight, the vastly different litigation frequencies in West Germany and The Netherlands present a riddle, as both countries have a legal system tradition in common and their baseline of potentially litigious conflicts is very much alike. This study tries to find an explanation by disaggregating various kinds of civil procedures. The distinguishing variables are found in the presence or absence of institutions filtering disputes at the pretrial stage. While in The Netherlands, plaintiffs are offered a bigger set of alternatives for dispute resolution, the German court system, being very cost efficient, attracts masses of petty claims. Thus, it is necessary to look for attitudinal differences or even different "litigation mentalities" in the neighboring cultures. The institutional infrastructure is sufficient to explain why it is rational for Germans to use the courts and for the Dutch to avoid them. *Law & Society Review,* 1994, 28(4): 789-808. (Reprinted with permission of The Law and Society Association.)

Ruin Theory

Exponential Inequalities for Ruin Probabilities of Risk Processes Perturbed by Diffusion, by H. J. Furrer (Mathematik, ETH Zürich, Switzerland) and H. Schmidli (Århus University, Denmark)

A class of diffusion processes following locally a vector field is constructed and the extended generator is computed for a subset of the domain of the generator. Using this theory, martingales for risk processes perturbed by diffusion are obtained. This leads to exponential bounds for the ruin probability in infinite time as well as in finite time. *Insurance: Mathematics and Economics,* October 1994, 15(1): 23-36. (Reprinted with permission of North-Holland Publishing Company.)

Recursive Methods for Computing Finite-Time Ruin Probabilities for Phase-Distributed Claim Sizes, by D. A. Stanford and K. J. Stroiński (University of Western Ontario)

Finite time ruin methods typically rely on diffusion approximations or discretization. We propose a new method by looking at the surplus process embedded at claim instants and develop a recursive scheme for calculating ruin probabilities. It is assumed that claim sizes follow a phase-type distribution. The proposed method is exact. The application of the method reveals where in the future the relative vulnerability to the company lies. *Astin Bulletin,* November 1994, 24(2): 235-254. (Reprinted with permission of *Astin Bulletin.*)

FROM THE LIBRARY SHELF

Moral Hazard/Adverse Selection Problems

Explanatory Models of Malingering: A Prototypical Analysis, by Richard Rogers and Kenneth W. Sewell (University of North Texas) and Alan M. Goldstein (John Jay College)

Rogers (1990a, 1990b) proposed three models to explain why certain persons malinger mental illness: pathogenic, criminological, and adaptational. Highly experienced forensic experts (N = 320) performed prototypical ratings on attributes associated with each model; the highest ratings were given to the adaptational model. In addition, a principal components analysis provided initial empirical support for these three explanatory models. The relevance of these findings to theory and clinical practice is discussed. *Law and Human Behavior,* October 1994, 18(5): 543-552. (Reprinted with permission of *Law and Human Behavior.*)

Moral Hazard Cycles in Individual-Coverage Crop Insurance, by J. Vercammen and G. C. Van Kooten

This paper examines the moral hazard implications of individual-coverage crop insurance contracts. Individual-coverage contracts are informationally superior to standard contracts because the farmer's coverage is proportional to his average historical yield. Despite this apparent benefit, the steady-state solution is shown to be characterized by moral hazard cycles, where moral hazard is practiced in alternative periods. The amplitude of the cycle and, thus, the variability in planned production is shown to be larger the lower the degree of production uncertainty, the fewer the number of years used in the averaging process, the higher the coverage threshold, and the lower the level of coinsurance. *American Journal of Agricultural Economics,* May 1994, 76(2): 250-261. (Reprinted with permission of *Journal of Economic Literature.*)

FROM THE LIBRARY SHELF:

Insurer Solvency Issues

The Collapse of First Executive Corporation Junk Bonds, Adverse Publicity, and the "Run on the Bank" Phenomenon, by Harry DeAngelo, Linda DeAngelo (Harvard University), and Stuart C. Gilson (University of Southern California, Los Angeles)

In April 1991, regulators seized the major subsidiaries of First Executive Corporation (FE), an insurer that invested heavily in junk bonds. During the junk bond market turmoil of 1989-1990, adverse publicity fueled a bank run at FE, forcing a $4 billion portfolio liquidation before the market rose 50-60 percent in 1991-1992. More traditional insurers did not receive commensurate press coverage, despite their substantial exposure to real estate declines, which were roughly 2.5 times the junk bond decline. Seizure of FE's subsidiaries was defensible, although FE would have become solvent within a year, given average junk bond market appreciation. *Journal of Financial Economics*, December 1994, 36(3): 287-336. (Reprinted with permission of North-Holland Publishing Company.)

Explaining Variation in Risk Across Insurance Companies, by Stephen F. Borde (University of Central Florida), Karen Chambliss, and Jeff Madura (Florida Atlantic University)

The purpose of this study is to determine what firm-specific factors affect the risk of insurance companies. Traditional methods used to identify potential failures have been severely criticized. Thus, alternative approaches to risk assessment should be of interest to investors and managers of these companies. Models for measuring the impact of factors on risk are developed and empirically tested. The models employed explain a high proportion of variation in risk levels across companies. The sensitivity of insurance company risk to financial characteristics vary with the variable used as a proxy for risk and the type of insurance company assessed. Given the strong relationships between firm-specific characteristics and company risk, it appears that the risk of insurance companies can be effectively controlled with proper management. *Journal of Financial Services Research*, September 1994, 8(3): 177-192. (Reprinted with permission of the *Journal of Financial Services Research.*)

FROM THE LIBRARY SHELF:

Insurer Ratemaking

Price Cutting in Liability Insurance Markets, by Scott E. Harrington (University of South Carolina) and Patricia M. Danzon (University of Pennsylvania)

This article analyzes alleged underpricing of general liability insurance prior to the mid-1980's liability insurance "crisis." The theoretical analysis considers whether moral hazard and/or heterogeneous information for forecasting claim costs can cause some firms to price too low and depress other firms' prices.

Cross-sectional analysis of insurer loss forecast revisions (which should be greater for firms with low prices caused by moral hazard or heterogeneous information) and premium growth provides evidence consistent with low pricing due to moral hazard but not heterogeneous information. The evidence also implies that shifts in the loss distribution produced large industrywide forecast errors. *Journal of Business,* October 1994, 67(4): 511-538. (Reprinted with permission of the *Journal of Business.*)

Reinsurance

Properties of Functions of the Excess of Loss Retention Limit with Applications, by Jostein Paulsen and Håkon Gjessing (University of Bergen, Norway)

We study the excess of loss retention limit of an insurance portfolio both from the reinsurer as well as the ceding company's point of view. We prove that expected values of functions as well as distribution functions of both parties' liabilities are differentiable with respect to the retention limit, and we give explicit expressions for these derivatives. The results are used to analyze excess of loss reinsurance premiums for a number of premium calculation principles. We also formulate and discuss the problem facing an insurance company on how to choose investment and reinsurance policy in an optimal way, using the general results of the paper to find gradients of the functions involved in this optimization problem. *Insurance: Mathematics and Economics,* October 1994, 15(1): 1-21. (Reprinted with permission of North-Holland Publishing Company.)

Environmental Liability Coverage

Liability Insurance on Pollution Damage: Market Meltdown or Grist to the Mill? by Malcolm Clarke

The proposed European Community Directive for Civil Liability for Damage Caused by Waste has made little progress, in part due to concern about the "bizarre judicial interpretation" of insurance policies, extending cover to past pollution, in the U.S. European insurers fear that if the regulatory authorities in Europe are forced to look for deep pockets to pay for cleaning up past pollution, as in the U.S., the insurers' pocket will be the first to be picked. Words and phrases on which decisions have turned include liability, damages, bodily injury, unexpected and unintended, and sudden and accidental. Of the 1,270 sites identified by the U.S. Environmental Protection Agency as requiring remediation, only 165 have been cleaned up. A 1992 report by the Rand Institute for Civil Justice concluded that 88 percent of the amount paid by insurers had been spent on "transaction costs"—most of that spent disputing coverage or defending their insured against claims. *Journal of Business Law*, November 1994, 545-565. (Reprinted with permission of ABI/Inform, copyright, UMI.)

FROM THE LIBRARY SHELF:

Safety and Loss Control

Railroad Injury: Causes, Costs, and Comparisons with Other Transport Modes, by Ted R. Miller (National Public Services Research Institute, Landover, Maryland), John B. Douglas, and Nancy M. Pindus (Urban Institute)

Safety regulators in the railroad industry need comprehensive injury costs by cause, and cost comparisons to other modes of transport to gain policy insights. This study links case-level data from the Federal Railroad Administration to monetary costs and consequences of specific injuries. Lost quality of life was estimated from physicians' ratings of injury impairment and the value of fatal risk reduction. Railroad injuries and illnesses cause an average of $3 billion in fatality costs and $560 million in nonfatal incident costs annually. Impacts at rail-highway crossings impose three times as much cost as the next highest cause. Commercial air travel is the safer per passenger mile. Trains, second lowest, have injury costs six times higher, but only one-fifth as high as cars. The relative safety of trains and airplanes in transport means highway modes enjoy implicit price subsidies. Better injury cost recovery through taxation or insurance would make the subsidies explicit. More informed modal choices and thus enhanced economic efficiency would result. *Journal of Safety Research,* Winter 1994, 25(4): 183-195. (Reprinted with permission of the *Journal of Safety Research.*)