BOOK REVIEWS

Health Economics Worldwide: Developments in Health Economics and Public Policy, Volume 1, edited by Peter Zweifel and H. E. Frech III (Kluwer Academic Publishers, 1992).

Reviewer: James W. Henderson, Ben Williams Professor in Economics, Baylor University

This book is a collection of 16 papers that were presented to the Second World Congress on Health Economics at the University of Zurich in September 1990. The collection represents some of the best research on health care policy issues facing nations worldwide. It is a must-read for those interested in health policy research and is an appropriate addition to the reading lists of graduate students of health economics, health administration, and public health issues.

As the title indicates, the book is promoted as dealing with worldwide issues. But with two notable exceptions (Australia and Mexico), authorship is primarily from the United States and Western Europe. For the most part, this volume does not examine issues in health care as related to poverty, economic development, and political transition. The general focus of the book is on the resource allocation decisions facing health practitioners and policy-makers. In light of the continuing struggle to shape health care delivery at both the individual and national level, this focus is both appropriate and timely.

Papers are grouped under four main headings: issues in health insurance, criteria for allocating health care resources, administrative and market allocation in health care, and health care in the political arena.

Not surprisingly, the four papers in the first section on health insurance have a noticeable U.S. flavor. In his paper on "Pricing and Imperfections in the Medical Care Marketplace," Newhouse argues that a mixed system for reimbursing health care providers is welfare enhancing. For the same reasons why standardization is difficult in health care, an ideal pricing strategy may be impossible to attain. Information problems and patient heterogeneity that force diagnosis and treatment to be made on a case-by-case basis also lead to a mixed system of provider payments—fee-for-service, capitation, and salary. This may be a reasonable solution to minimizing the alleged problems—overproduction of some services, excess surgical capacity, and skimming and dumping in Medicare's prospective payment system—of the U.S. system.

In a related paper entitled "How Can We Prevent Cream Skimming in a Competitive Health Insurance Market?" Van de Ven and Van Vliet examine the means of preventing cream skimming (preferred risk selection) in competitive health insurance markets. The problem, caused by asymmetric information, gives rise to significant profit opportunities for insurers but potentially leads to reductions in quality of care and inefficiencies in delivery. This is an important issue not only for U.S. policy-makers, but, now that the Dutch government is about to implement major changes in the health insurance market, it may be just as critical an issue in the Netherlands. The authors make clear that in a competitive health insurance market with a regulated premium structure, cream skimming can be controlled by including more risk adjustments in the capitation formula and by additional regulation to promote competition.

The study by Khandker and Manning on "The Impact of Utilization Review on Costs and Utilization" evaluates the impact of utilization review for patient care. According to their study, a mix of precertification and concurrent review resulted in an 8 percent reduction in inpatient costs, due primarily to shorter hospital stays. These savings were offset somewhat by an increased use of outpatient care as a substitute. The overall savings of the program, adjusted for employee demographics, group size, and other factors, are thus reduced to 4.4 percent.

Pauly, in "The Normative and Positive Economics of Minimum Health Benefits," examines the impact of the variations in tastes and income on the wisdom of allowing private supplementation of the basic minimum benefit in a universally-provided health insurance system. Using both the market-based system of the United States and the social insurance system of Canada as starting points, he shows that welfare can be improved by providing the minimum benefit system. But a system that closer approximates the theoretical optimum allows for different basic-benefit levels depending on individual demand for medical care as influenced primarily by the person's income level.

The papers in the second section provide examples of three techniques commonly used to evaluate resource allocation decisions in health care: cost-effectiveness analysis, the use of latent variables to measure patient well-being, and cost-utility analysis. The latter two papers in this section ("The Validity of the MIMIC Health Index—Some Empirical Evidence" by Leu, Gerfin, and Spycher and "Welfare Economics and Cost-Utility Analysis" by Butler) are particularly interesting for health practitioners and evaluators struggling with the issues of outcomes measurement. This is undoubtedly one of the most difficult challenges facing economic appraisers of medical services. If economic appraisal is ultimately to provide the kind of information required to make individual resource allocation decisions, more research of this caliber will be required to clear the remaining ambiguity on this side of the cost-benefit ledger.

Section 3 presents four additional papers on resource allocation, but this time from an overall policy perspective. Topics include patient selection for organ transplantation, the availability of diagnostic services, rationing via waiting lists, and the role of informed consumers in hospital choice. The papers in this

section are important for their insights into the workings of the market in allocating health care resources. Issues examined by Friedman, Ozminkowski, and Taylor in "Excess Demand and Patient Selection for Heart and Liver Transplantation" include ability to pay, queue-jumping, and differences in systems with open-ended commitments for organ transplantation and those with fixed budget constraints.

Two papers examine resource allocation decisions in two nationalized systems, the United Kingdom and Norway. Using a benefit-cost framework, Milne and Torsney, in "Non-Price Allocative Procedures: Scottish Solutions to a National Health Service Problem," compare the expected and actual distribution of diagnostic facilities (e.g., X-ray and ECG) in the National Health Service. Iversen and Nord's "Priorities Among Waiting List Patients" examines the use of waiting times as a means of administrative rationing. The results of these two papers present quite different perspectives on the efficiency of resource allocation under nationalized systems. Milne and Torsney conclude that the current method of determining the availability of diagnostic services has approximated an efficient allocation of resources; Iversen and Nord claim that stated criteria for establishing priorities among wait-listed patients vary considerably from the empirical outcome. These conclusions point out the subjective nature of administrative resource allocation decisions, seemingly working in some situations and failing in others. This should come as no surprise to the skeptics of administrative decision making.

In the final paper in this section ("Consumer Information, Price, and Nonprice Competition Among Hospitals"), Frech and Woolley discover the importance of consumer awareness in determining hospital prices and quality. Their conclusions indicate an increasing role for well-informed consumers in a competitive hospital industry.

The final section contains five papers on the political implications of health policy in the developed world. Issues examined include the tenuous balance between economics and medicine in making allocation decisions, the influence of special interest groups on the choice of a hospital payment system, the effect of institutional factors on health care expenditures, the link from health care spending to age and the feedback link from age to health care spending, and the importance of water sampling in detecting gastrointestinal cancer.

These papers are particularly important for their examination of issues from a political perspective. Conflict abounds among the special interest groups—policy-makers, medical practitioners, hospital owners or trustees, health care administrators, health insurers, government agencies, the elderly, and the poor. The insights point to the importance of understanding the political agenda of everyone involved before attempting major changes in dealing with delivery, cost containment, access, and the general level of health of the population.

While excellent in its own right, the volume could have been improved by short, synthesizing comments by the editors at the beginning of each section. These could have included insights from the conference discussions and the editors' perspectives on the overall contribution of each paper. Even so, readers

will find the papers carefully constructed and stimulative to their personal research agendas.

[Book Review]

Workers' Compensation Insurance and Law Practice, by Donald T. DeCarlo and Martin Minkowitz (LRP Publications, 1989).

Reviewers: William P. Jennings and Penelope Mercurio-Jennings, Professor of Finance and Professor of Business Law, respectively, California State University, Northridge

The problems with and the abuses of the workers' compensation system have become increasingly controversial as courts and, in particular, state legislatures work on reforms to the system. In *Workers' Compensation Insurance and Law Practice,* DeCarlo and Minkowitz, notable and experienced legal authorities on workers' compensation in the state of New York, attempt to provide a comprehensive discussion of what has become a timely and important topic.

In the introduction, the authors state that the book is designed for a varied audience, including lawyers, workers' compensation judges, risk managers, students, and almost everyone else interested in the workers' compensation system. However, in order to reach this wide audience, the authors try to present, in less than 400 pages (only about 200 pages of which are text), both a textbook that explores the evolution, nature, and trends of state and federal workers' compensation statutes and case law and a reference book that details the variation in coverage, benefits, costs, and administration of workers' compensation systems across the United States. Considering the book's length, these goals are somewhat overly ambitious, at times obscuring an otherwise reasonably well-written, interesting legal discussion of the subject.

The first three chapters discuss the historical background and evolution of state workers' compensation laws from the early 1900s through the federal workers' compensation legislation and amendments of the 1970s and 1980s covering coal miner health and safety. The fourth chapter focuses on the important goals of workers' compensation legislation to achieve resolution with a minimum amount of delay and to construe statutory provisions in favor of the injured worker. This chapter also provides a basic understanding of the legal relationship between the worker and the employer. Chapter 5 is an overview of types of coverage and administration of benefits.

The authors state in the introduction that their objective is to provide a basic understanding of the standards and concepts of workers' compensation throughout the United States. However, although many of the appendixes contain information about all 50 states, the emphasis of the text and the accompanying legal citations in chapters 1, 2, 4, and 5 is not nationwide laws but rather New York law. For example, only one of the 36 footnotes of chapter 4 mentions case decisions outside of New York. Thus, the use of the first half of the book as a textbook or even as a reference book for areas of the law not

specifically covered by the tables in the appendixes may be somewhat limited for those outside of New York.

The book is at its best when it leaves the more general discussion of workers' compensation and addresses the more complex exceptions and variations. Chapter 6, for example, details the Workers' Compensation and Employers Liability Policy (the "standard policy" used by essentially all insurance companies), with a section-by-section commentary analyzing the provisions of the policy. This chapter provides a clear and comprehensive picture of the coverage and limitation of workers' compensation insurance.

Chapter 7 also contains a good discussion of the legal and economic issues related to "second injury funds" and how workers with preexisting impairments may be covered by workers' compensation. The informative concluding chapters cover workers' compensation issues such as occupational diseases, stress claims, video terminal claims, and sex in the workplace.

Although some aspects of the book are quite good, many readers, especially those whose interest in workers' compensation lies beyond New York state, may want to use additional sources.

[Book Reviews]

Introduction to Managed Care, by Robert G. Shouldice (Information Resources Press, 1991).

Reviewer: Thomas B. Morehart, Associate Dean and Professor, New Mexico State University

This book and its predecessor, *Medical Group Practice and Health Maintenance Organizations,* focus on alternative systems for the delivery of health care. This text examines the concepts, histories, and organizational structures of managed care organizations (MCOs), including health maintenance organizations (HMOs), preferred provider organizations (PPOs), and competitive medical plans (CMPs). In addition, the text describes in detail the relationships of MCOs to providers, consumers, and purchasers of managed care. To complete the discussion of MCOs, the book analyzes quality control and control of the utilization of services, development and expansion activities, marketing and marketing strategy, and financial management.

This book is an excellent text for an undergraduate or master's course dealing with managed care organizations or a comprehensive reference for researchers, planners, or health care professionals seeking to examine HMOs, PPOs, and CMPs as alternative ways to finance and deliver health care. An important strength of the book is the summary presentation and compilation of data in over 100 figures and tables, in over 300 footnotes, and approximately 200 bibliographic citations. Further, it contains a glossary of over 200 terms and a useful list of acronyms related to MCOs.

Overall, the book presents an objective examination of HMOs, PPOs, and CMPs. A historical perspective and conceptual framework set the stage for the discussion of each type of managed care organization. Each health delivery concept is carefully presented, and the reader is provided with an excellent

review of the research in each area from its beginnings to the present. There is sufficient detail to provide an in-depth background to the novice and to enlighten the more experienced reader. For each type of MCO, the text provides good descriptions of the variations in organization structures, contractual arrangements, and administrative models and discusses the advantages and disadvantages together with legal and regulatory considerations.

Chapters on the providers (physicians, hospitals, and other components of the delivery element) and the consumers and purchasers of managed care examine the relationships of these groups brought together through the MCO. Significant attention is given to physician groups, their structures, attitudes, and reimbursement systems. The issues related to consumers and businesses that purchase services from the MCOs are discussed with the results of research regarding consumer opinions, attitudes, and levels of satisfaction. Another chapter deals with control issues focusing on the external environment, including regulators and accreditation. This chapter includes a thorough discussion of quality measurement and assessment and quality problems that may arise.

Shouldice covers two other critical topics related to managed care organizations. The first is the planning and development process carrying the organization from the feasibility study to the initial development phase and on to expansionary phases and problems such as those encountered with joint ventures and other linkages and antitrust problems. The second area is the process of marketing strategy and planning and the management of the marketing function. These chapters provide insights into the unique problems and challenges facing MCOs as they seek to be successful while creating and delivering health care services and meeting the goals and objectives of a developing organization.

In sum, I found the book interesting, well researched, and a thorough coverage of a topic of growing importance in the financing and delivery of health care services. The author's attention to detail and the excellent figures and other presentations of organized information should make the book successful with educators, students, researchers, and others who wish to learn more about the area of managed care and managed care organizations.

[Book Reviews]

Insurance Risk Models, by Harry H. Panjer and Gordon E. Willmot (Society of Actuaries, 1992).

Reviewer: Patrick L. Brockett, University of Texas at Austin

Every now and then a book comes along that is such a treat to read and so informative that it makes all the book reviewing worthwhile. This book by Panjer and Willmot is such a welcome addition. It moves the state of the art in claim frequency modeling ahead by a quantum leap. In fact, I currently have three articles to referee on my desk that are made, at least in part, obsolete by the breakthrough techniques presented in this book. It is must reading for any quantitatively-oriented insurance economics or actuarial professor; and, in fact,

the Society of Actuaries had already designed a seminar course for credit for the Associateship level exam structure which goes through this book and concatenates these results on modeling claim number frequencies with the claim severity models presented in Hogg and Klugman's *Loss Distributions* (published by John Wiley). This book is truly a milestone in the profession.

The basic theme of the book is that the distribution of aggregate claims for an insurer can be computed by simple recursive algorithms for a very wide range of claim number models with any loss distribution. Related quantities, such as stop-loss premiums and expected losses for layers of reinsurance, can then be computed easily. With the development of low-cost large and fast micro- and minicomputers, the techniques in the book can be used to provide exact solutions to problems for which the development of approximations had always been the focus.

Chapters 1 through 4 provide the basic mathematical and statistical tools that are used in the remaining chapters. These chapters can be read first, or can be used as a reference for readers who begin with chapter 5, which deals with what traditionally has been called the "individual risk" model with its background in life insurance. The computational results presented were all developed in the 1980s, primarily by the authors. Chapters 6 through 9 deal with the "collective" risk with its background in primarily nonlife branches of insurance, such as health, property-casualty, liability, and catastrophe insurance. Chapter 6 focuses on the Poisson, negative binomial, binomial, and related distributions for claim counts. Generalizations of these models through the mechanism of compounding are given in chapter 7. Similar generalizations using mixing or "parameter uncertainty" are the subject of chapter 8. In chapter 9, the problems of selection, fitting, and validation of the distributions are addressed.

Chapter 10 is different in the sense that simple analytic formulas for the extreme right-hand tail of the distribution of aggregate claims are developed. This provides insight into the effect of the selection of any claim count of size-of-loss distributions and useful approximations when computations become prohibitive or when a quick estimate is required. Chapter 11 is devoted to traditional ruin theory. The emphasis is on approximate and exact calculation of ruin probabilities using the mathematical tools in previous chapters.

The book is intended for a broad audience; however, the mathematical level is high. It is important to note, though, that all the theory is developed from the perspective of application to real insurance data, so the level of mathematical rigor is not capricious, but rather necessary for the rather tremendous advancements made in the book. Many worked-out examples and numerical illustrations in a wide range of insurance applications are provided, which should help in the reading. The book could be used as a text for university courses at the undergraduate and graduate level (and has been at the University of Waterloo), and exercises are provided. The researcher can use the book as a modern reference to the literature on numerical techniques for solving this class of problems. I highly recommend the book for *every university library* and for selected professional libraries.

[Book Review]

Employee Benefits, Third Edition, by Burton T. Beam, Jr., and John J. McFadden (Dearborn Financial Publishing, 1992).

Reviewer: Kenneth J. Crepas, Professor of Insurance and Finance, Illinois State University, Normal, Illinois

The third edition of *Employee Benefits* appears only seven years after the first, which gives an indication of the rapid changes in the employee benefits area that necessitated these updates. This edition covers all of the regulatory and tax law changes that have been implemented since the Tax Reform Act of 1986 with the present edition reflecting tax law changes through late 1991. With substantial increases in the cost of employee benefits, especially medical expense coverages, it is necessary for both employers and employees to continually review their benefits programs with a view toward cost containment.

The text is well organized and lends itself to flexible use in a classroom. The five major parts of *Employee Benefits* are Introduction, Social Insurance, Group Insurance, Other Nonretirement Benefits and Cafeteria Plans, and Retirement Plans. The topics covered represent the broad spectrum of employee benefits ranging from social insurance programs to executive benefits. As a result of the range of employee benefit programs reviewed, this book can be utilized as a primer for the first course in employee benefits through an advanced level course. The first two parts of the book, which provide an introduction to employee benefits and social insurance, can be omitted for the advanced student of insurance. The last three sections represent the primary content of *Employee Benefits* and are very thorough in their analysis. The chapters within each part can also be assigned individually as study units for a course in employee benefits.

The second part of the book provides an overview of social insurance, including social security benefits and other social insurance programs such as unemployment insurance, workers' compensation laws, and temporary disability laws. The material on Social Security benefits is well presented and includes several examples of calculations of average indexed monthly earnings, determination of the primary insurance amount, and sample calculations of monthly benefits. Unfortunately, the material on other social insurance programs suffers because of the brevity of discussion. For example, the discussion of workers' compensation laws needs a table or so to illustrate the operation of a workers' compensation system in practice. Similarly, the section on unemployment insurance suffered from lack of detail concerning representative unemployment benefit levels for various states. From an organizational viewpoint, I would combine the text material in parts 1 and 2 into one introductory section.

Parts 3, 4, and 5 are very well executed. Part 3 represents extensive coverage and analysis of all major forms of group insurance typically offered by employers as a benefit option for their employees. This edition provides significant updating of the chapters on medical expense coverage to reflect the changing role of alternative providers of medical expense coverage. Topics

discussed also include managed care, coverage on open-ended HMOs, updated material on coordination of benefits, Medicare secondary rules, and COBRA. The tables, illustrations, and sample computations in part 3 are very useful for enhancing understanding for readers. One potential addition in part 3 of *Employee Benefits* would be the provision of data showing the rapidly escalating costs of health expenditure in the United States versus other industrialized countries. This would assist the reader in comprehending the major problems associated the U.S. health care system.

Part 4 covers the gamut of topics from cafeteria plans to the myriad forms of other nonretirement benefits, which include service awards, employee discounts, and subsidized eating facilities. Updated material on wellness programs is provided. The development of the topics and the study questions at the end of the chapters facilitate class discussion of these benefit programs for advanced readers.

The last section of *Employee Benefits* examines retirement plans. The coverage in this section is very thorough and is applicable to the over 70 million people covered under pension plans or other retirement programs of private employers plus another 22 million employees covered under plans of federal, state, or local governments. Significant attention was dedicated to updating the major new pension regulations following the Tax Reform Act of 1986. In addition, the authors sought to explore the management objectives in retirement plan design. The analysis of retirement plans provided here is essential reading to anyone serious about remaining current on pension plans.

The book is well written, clear, as current as any other text on the market, and includes an adequate list of additional reading. The structure of the book allows for the use of current periodicals in conjunction with text readings on various topics. Although the text provides study questions for each chapter, it would be useful to provide sources of data to assess trends in the level of employee benefits. I highly recommend this book for not only a college level course in employee benefits, but also for practitioners and courses offered by professional associations.

[BOOK REVIEWS]

Introduction to Aviation Insurance and Risk Management, by Alexander T. Wells and Bruce D. Chadbourne

Reviewer: Don Hardigree, Nevada Insurance Education Foundation Chair of Insurance and Director of the Institute for Insurance and Risk Management, University of Nevada, Las Vegas

Wells and Chadbourne have provided an excellent resource for learning about aviation risk management and insurance. Their book furnishes a brief history of aviation insurance, the basics of aviation insurance and risk management, and the application of the specific aviation insurance forms and coverages, as well as other insurance coverages that may be applicable to those in the aviation business.

The book is well structured. Each chapter begins with a rudimentary chapter outline and chapter objectives. These are useful for students, particularly those reading the book on a self-study basis. In addition, the book is logically organized, with frequent headings, which serve to make the book easily readable. Each chapter concludes with key terms and review questions. Supplemental materials such as sample applications, policies, and endorsements, as well as a glossary, help to make the book a very useful, self-contained resource.

Part 1, The Aviation Insurance Industry, comprises three chapters. This part of the book begins with an overview of the aviation insurance business, from inception up to the space age. Chapter 2 describes the various potential insureds and their liability exposures. Chapter 3 describes the distribution system for aviation insurance. It reviews the major domestic markets along with Lloyds and discusses selection of insurers, agents, and brokers.

Part 2, Principles of Insurance and Risk Management, comprises four chapters. This section is the weakest part of the book, and it needs improvement. In chapter 4, the authors provide a cursory and poorly structured treatment of risk and insurance. For example, insurance is discussed as a method of handling risk, yet the general risk handling methods are not introduced. Probability and the law of large numbers is handled (not very well) in one page. Overall, the chapter is characterized by shallow discussions of the topics, which are poorly linked. Chapter 5 addresses the risk management function and introduces the methods of risk handling. Chapters 6 and 7 address legal and contractual issues in insurance.

Part 3, Aviation Insurance, is the book's strongest. The three chapters focus solely upon aviation insurance contracts and aviation underwriting. The contractual analysis of aircraft hull and liability insurance and airport premises liability and other aviation coverages is first rate. In addition, the sample applications, forms, and endorsements help to make this an outstanding treatment of these specific coverages. The chapter on underwriting and pricing provides useful information for those involved in the arena of aviation insurance.

The final section of the book addresses other lines of insurance which are germane. Inland marine coverage, workers' compensation, automobile, fidelity and surety, and employee benefits and business life insurance are briefly described.

The textbook is aimed at a wide audience, including college students enrolled in an aviation or insurance program, corporate pilots, and individuals in the insurance business. Without question, this book will be of interest to any segment of the above audience. However, the scope of the book is narrow. It is an excellent introduction and would serve as a meaningful *supplemental* resource used in conjunction with other materials. The authors acknowledge this by stating that "the approach is introductory, not exhaustive" and by suggesting that it serve as a foundation for future study. This is precisely correct. *Introduction to Aviation Insurance and Risk Management* is a useful addition to both the academician's and practitioner's libraries. This book is an

absolute must for those who are beginning to address the subject of aviation insurance and risk management. And, after reading this book, those who wish to utilize additional resources to learn about aviation insurance and risk management will do so with an excellent background.

[Book Reviews]

31 ***Aviation Law and Claims,*** by M. J. Spurway (Witherby, 1992).

Reviewer: Roger Harris, Graduate Student, London School of Economics

Aviation Law and Claims is the most recent entry in Witherby's "Insurance Learners" series. Intended as low-cost study guides for those preparing for the Chartered Insurance Institute examinations, they contain a good deal of condensed information and are useful introductory primers for North American readers.

The present volume opens with a description of the scope and some of the main provisions of the 1929 Warsaw Convention, with special attention to ticketing requirements. It is stated that, under the no-fault system enacted by the Convention, "provided the proper form of words had been used in the passenger ticket or contract of carriage, negligence on the part of the airline did not have to be proved" (p. 2). This sentence is potentially misleading in that it seems to imply that the Convention has no application unless a properly-worded travel or transport document was issued, which is certainly not the case.

Chapter 2 summarizes the various protocols that have modified or sought to modify the original Warsaw regime. The notes on national variations are helpful, but some of the other contents could be usefully moved to the fourth chapter, "Regulation of Flight." For example, the sections on the 1944 Chicago Convention and the "Two Freedoms" and "Five Freedoms" Agreements seem out of place in what is primarily a discussion of liability treaties.

The third chapter, "Manufacturers Liability," is disappointingly short. The various defenses open to manufacturers under the U.K. *Consumer Protection Act of 1987* are adequately set out, but little is said about other countries other than that "the state of products liability law in the USA [is] in an extremely fluid situation" (p. 30).

Reflecting its importance in civil aviation, there is a chapter devoted entirely to the United States. With some justification, the author is critical of U.S. civil procedure for permitting plaintiffs' attorneys to file broadly-worded complaints and to conduct wide-ranging discovery. However, he perhaps overstates his case when he says that, under the contingency fee system, "the plaintiff has nothing to lose [and] the attorney everything to gain in prosecuting a case and ignoring realistic offers at an early stage" (p. 44). Spurway raises several interesting questions regarding the insurance implications of punitive damages but is unable to provide any real answers, concluding that "the matter remains confused" (p. 46).

Finally, chapter 6 deals with such important topics as accident investigation, duties of surveyors and adjusters, claims notification procedures, and liability settlement considerations. As a Lloyd's broker of many years' experience, the author has first-hand knowledge of these matters, and this is one of the stronger chapters.

The standard of production is reasonably high, although the editing is a little careless at times. One minor annoyance that reappears throughout the book is an absence of apostrophes; thus, at page 49 we find, "In the event of a dispute over the claim the brokers responsibility is to negotiate his clients case."

This book is very short and is far from the last word on its subject. It may be safely skipped by experienced insurance professionals. However, for the beginner or non-specialist, it provides a decent survey of air carrier liability, regulation, and claims handling.

[Book Reviews]

Governmental Liability: A Comparative Study, edited by John Bell and Anthony W. Bradley (United Kingdom National Committee of Comparative Law, 1991).

Reviewer: Roger Harris, Graduate Student, London School of Economics

As traditional immunities decline and new grounds for claims develop, direct governmental liability is steadily increasing on a global scale. At the risk of oversimplification, that is the essential message of this volume. The recent failure of Municipal Mutual Insurance illustrates only too clearly that the implications for the insurance industry can be significant.*

The book's stated aim is "to study how a dozen legal systems have dealt with the problem of providing a financial remedy for individuals who have suffered injury or loss as a result of government activity" (p. vii). It is a collection of "national reports" prepared by distinguished academics from North America, Australasia, and Western Europe. With the exception of Marcello Clarich's chapter on Italian law, all of the reports are updated versions of papers originally presented at a 1985 Birmingham University colloquium.

In most countries, the general basis of public authorities' extra-contractual liability is fault or negligence. A central issue is what circumstances should give rise to a private duty of care with respect to proper enforcement or implementation of legislation. Common law jurisdictions typically draw a distinction between "policy decisions" and "operational functions": usually only the latter will attract liability, subject to proof of normal tort requisites such as foreseeability and causation. The criteria used in determining which category applies to particular facts are criticized by several contributors as vague, artificial, and result-oriented.

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* See Councils Are Hit by Troubles at MMI, *Financial Times,* 3/4 October 1992, iv.

Canada's David Mullan considers the case for no-fault "enterprise" liability, concluding that it is unlikely to be adopted in the near future. This, he believes, "is to be regretted since the plight of chance victims is often a sorry one" (p. 64). Although this observation is perfectly true, it is not a particularly convincing or compelling argument for increasing the scope of liability, for the same may be said of many other unfortunates presently denied substantial compensation (for example, those suffering from disease). It is not clear on what basis Mullan distinguishes between such persons and those "lucky" enough to have been victimized by government programs. Indeed, some might think that the claims of persons invalided or impaired by natural causes should take precedence for public funds over the economic losses compensated in one of the cases cited by Mullan, *Tuck v. St. John's Metropolitan Area Board* [1989] 2 S.C.R. 1181.

Another theme discussed by many of the authors is the availability of *ex gratia* schemes that sometimes provide claimants with a cheaper and speedier remedy than litigation. However, there are drawbacks. The amounts paid are often relatively low, and, as Gerald Hogan and Tony Kerr of Ireland point out, "the State is simply a trustee of public funds, and State officials—like any prudent trustee—will not readily make an offer of *ex gratia* compensation" (p. 179). For these reasons, redress through the courts is likely to remain the predominant means of holding governments and public officials financially accountable for harm caused.

As a comparative study *Governmental Liability* is only partially successful. It brings together discussions of different legal regimes, but, except for the very occasional footnote and the introductory chapter previously mentioned, no real effort is made to contrast one system against another or to identify issues of international concern (this failure is to some extent rectified by the provision of a four-page index). I was also disappointed by the scarcity of real analysis of policy choices underlying the rules described.

That being said, the book does provide an accurate overview of the current position in the ten largest Western nations and under European Community law. The text is well documented without being over-burdened with citations and footnotes. A threshold knowledge of basic legal principles is assumed, but the writing has been edited so as to be intelligible to lawyers and non-lawyers alike.

International insurance executives involved in the writing of public risks will appreciate this book's convenient format and will benefit from the wealth of information it contains.

[Book Reviews]

The Effects of the DRG-Based Prospective Payment System on Quality of Care for Hospitalized Medicare Patients, by Katherine L. Kahn et al. (Rand, 1993).

Reviewer: Thomas G. McGuire, Department of Economics, Boston University

The final report on research conducted for the Health Care Financing Administration summarizes the best work on the impact of Medicare's Diagnosis Related Group-based Prospective Payment System (PPS), which was

introduced in hospitals' 1983 fiscal year. After careful selection of cases of five clinical conditions and extensive measurement of clinical variables on a total of 16,000 discharges before and after PPS, the research team concluded that PPS is likely to have caused reductions in length of stay and increases in instability at discharge (which is associated with higher post-discharge mortality). In short, the study confirms fears that Medicare patients would be discharged "quicker and sicker."

Potential readers should be forewarned that this report compiles earlier articles and shorter reports from the project. Chapters covering measurement development and results for the series of dependent variables are broken down into Methods, Results, and Discussion sections. Researchers will benefit from detailed appendices covering measurement and statistical methodology, which account for more than half of the total pages.

The RAND researchers collected hospital medical records in five states for patients treated for congestive heart failure, acute myocardial infarction, hip fracture, pneumonia, and cerebrovascular accident. (A sixth condition, depression, was also studied, but the results are published elsewhere.) These common conditions were chosen because well-defined clinical criteria can identify cases and evaluate the quality of treatment and because treatments were relatively stable. Quality was measured by explicit chart review methods developed as part of the research and by implicit review by expert physicians in the study states. Data were collected from January 1991 through December 1982 (the "pre" period) and July 1985 through June 1986 (the "post" period).

The major findings of the study are: (1) Patients are sicker at admission for all five diseases post-PPS; (2) length of stay dropped for all diseases, an average of 24 percent; (3) process of care (what happens in the hospital) improved following PPS for all diseases; (4) patients were sicker or less stable at discharge; and (5) in-hospital mortality fell after PPS, and post-discharge mortality was about the same. The report does not attempt to define the "right" level of quality.

Length of stay has been declining slowly in the United States for some time, and presumably medical care has been improving. What are the specific effects of PPS? The authors estimate within-sample time trends in key variables, and then compare the data from before and after implementation of PPS to projections based on these trends. For example, the rate of increase in process improvement occurring during 1981 and 1982, if projected forward, was enough to account for the improvement in process observed in 1985 and 1986. On this basis, the authors conclude that "PPS did not interrupt" ongoing improvements in hospital care. However, there was no trend (up or down) in stability at discharge observed in 1981 and 1982, and the authors conclude that "PPS has had a notable [unfavorable] effect on the stability with which patients are discharged." The overall effect on outcome at discharge is, then, a balance of two forces. The gains that would have occurred because of improvements in process of care are canceled out on average because patients are discharged sicker and less stable. PPS is responsible only for the second effect, according to the authors, and therefore it is concluded that PPS has had

a negative effect on quality of care for these conditions. In terms of length of stay (largely of interest because of the tie between this variable and cost), this study is probably the most convincing evidence that PPS has had a significant impact.

Looking at the pre- and post-PPS data trend displays, I am led to agree with the authors' judgments about what PPS has done. A longer series than just 1981 and 1982 would, however, strengthen trend projections. Another approach would be to compare the treatment for these conditions for patients not paid under Medicare's PPS. Not all states came onto PPS in 1983. Inclusion of data from the "waiver" states could have sharpened the PPS impact estimates.

It should be kept in mind that the report compares quality just before PPS to that just after PPS implementation. A per-case reimbursement system, the so-called TEFRA system, was in effect in hospitals' fiscal year 1982. Perhaps during most the pre period, hospital administrators anticipated a per-case payment system, and may already have been making changes in procedures.

From the hospitals' point of view, the early years of PPS, including 1985-1986, are quite different than the later years. In general, early PPS was much more generous than later PPS. Hospitals' Medicare and overall profit margins were high through the period studied. Profit margins fell sharply after fiscal year 1985.

Both of these observations suggest that the quality impacts found here may be underestimates. The pre period may already include some behavior change attributable to per-case payment methods, and the post period does not reflect as much economic pressure from PPS as hospitals feel today. By carefully documenting a minimum estimate for the impact of PPS on quality, this report makes a contribution ranking with the most important in health services research.

[Book Reviews]

Principles of Suretyship, (two volumes), by John Fitzgerald, Ray H. Britt, and Daniel Waldorf (Insurance Institute of America, 1991).

Reviewer: Joe H. Murrey Jr., University of Mississippi

Sometimes a book written by multiple authors is like the proverbial camel designed by the Committee on Horses. Fortunately, that has not happened here. In the preface to Volume I, the authors speak of a "first course in general principles, terminology, and financial analysis applicable to all bonds." With over 100 years' experience among the authors and a cast of reviewers reading like "Who's Who in American Suretyship," it is not surprising that the authors deliver what they promise.

The history of suretyship from biblical times to the present is briefly traced, including the transition from personal to corporate suretyship. The nature of suretyship is covered in more detail, and it is compared with insurance and banking. Like banks, sureties extend credit in a sense, but go further in guaranteeing payment. The relationships of the parties and the topics of underwriting, joint and several liability, guarantees, legal remedies, and

reinsurance and cosureties are introduced early on, to be treated in greater detail in later chapters.

With over 250 types of bonds extant, the authors break them into seven categories and devote a chapter to fairly detailed explanations, aided considerably by exhibits and examples. For example, exhibits of the Open Penalty Bond and U.S. Customs Bond are very informative. A major determinant of a bond classification is the type of guarantee it offers.

A basic marketing text approach to bond production emphasizes the four variables of product, price, position, and promotion and their role in marketing bonds. The surety market comprises only 1 percent of total property-liability volume, but it is a very competitive area. Producers must know the stages of the marketing cycle premium in which their prospects currently exist and how to segment the market for best results. A risk management approach to marketing bonds is advised.

Bond underwriting is one of the most challenging of all underwriting fields because of the extensive financial analyses required, and the complex nature of legal questions encountered. The special characteristics of contract, noncontract, and fidelity bonds are covered, as well as the subjective nature of the all-important assessment of the personal character of the parties involved. The expense loading for surety and fidelity bonds is higher than average for the property-liability insurance industry overall and accounts for a higher proportion of the surety and fidelity bond premium than expected losses. An excellent case exemplifies some of the principles of underwriting.

The authors pack a considerable amount of information on financial statement analysis into only 73 pages and remind the reader that lenders and sureties both extend credit and can do so only if the principal is "creditworthy." Statement preparers are compared in terms of competence and bias, as well as the methods they employ. Components of complete financial statements are presented in detail, and, since the construction industry produces the lion's share of needs for surety bonds, construction accounting is singled out for extensive treatment. Add an excellent appendix and you have 101 pages of statement and ratio analysis, which indicates the vital role of accounting knowledge in the bond business.

Two chapters on credit terminology, laws, investigations, and reports apply risk management techniques and the C's of credit to surety and fidelity bonding. Not much is overlooked in a highly detailed and thorough treatment of the credit exposure.

Perhaps the prevailing view of bond rate-making is that the greatest part of the premium is for underwriting and issuing the bond, and an inadequate portion is assessed for losses. This is because, with strict underwriting and recourse to the principal, full losses do not need to be anticipated. However, in recent years, some have felt that societal changes have caused bond premiums to become more akin to insurance premiums. Rates have tended to be inadequate with profit margins thin\n, tax benefits gone, and overhead expenses rising. Consumer pressures also force states to hold rates down. The roes of the Surety Association of America and the Insurance Services Office

are discussed, and rating factors for various types of bonds are presented in some detail.

The history, nature, and role of reinsurance in the bond business are recounted in one of the most interesting chapters in the two-volume set. The terms and complex arrangements in the reinsurance market are illustrated with simplicity and clarity. For example, the authors show how a hypothetical surety can obtain cosureties to improve its Treasury capacity, in the Miller Act bond market.

The last chapter is the inevitable ethics chapter, which defines ethics and professionalism in the generally accepted fashion. It focuses on bond producers, who "face more ethical decisions on a regular basis." The Code of Ethics of the National Association of Surety Bond Producers is reproduced in toto, and a plausible framework for ethical decision making concludes Volume II.

The authors have delivered what they promised, and the result is a dependable work horse, and not a camel (with all due deference to camels). They have put an amazing amount of detail into 424 pages, without wasting any space. The text is logical, interesting, and informative, an excellent first course in suretyship.

[Book Reviews]

Contributions to Insurance Economics, edited by Georges Dionne (Kluwer Academic Publishers, 1992).

Reviewer: Kim B. Staking, Silver Spring, Maryland

Contributions to Insurance Economics is well designed and executed, summarizing in a single volume many of the recent advances in the understanding of how rational economic individuals react to risk and the role of insurance in the decision-making process. I would highly recommend it to economists who are interested in understanding the role of insurance as well as to insurance academics who are interested in the microeconomic foundation of the insurance decision. The structure of the book allows the reader to go through the articles in the order presented or to concentrate on subjects that are of greater interest. (The preface even discusses the articles in an order different from how they are presented—which I took as a minor editorial problem but must admit that in some ways I preferred the order presented in the preface—but several other combinations are possible.) The book begins with a strong introduction followed by several survey articles developing specific issues that have been addressed in the insurance literature. Later, the book presents some issues of current theoretical interest and some recent attempts to undertake empirical tests of insurance theory. Most of the chapters seem to have been written specifically for the book, which gives a greater coherence than if the editor attempted to splice already-published journal articles between editorial comments. Although there is, of necessity, some duplication between the authors, the editor has kept this to a minimum.

It is not possible to review each chapter, so I will limit my comments to the book's general structure. I consider the surveys to be especially useful. These

are presented much along the line of overview articles that one might find in the *Journal of Economic Literature*, providing an extensive review of the insurance literature as well as developing some new points. They are well written and generally easy to follow. It was enjoyable to see the careful development of the arguments and commingling of ideas from a variety of original sources; in many cases the treatment of complex issues is clearer than in the original articles. Doctoral students, in particular, will benefit from a careful reading of these surveys.

In addition to presenting the material in an orderly manner, a number of hints are dropped regarding theoretical work which remains to be undertaken. This includes undiversifiable risk and structure of damage awards (p. 35), simultaneity of moral hazard and adverse selection (p. 65), the problems of optimal liability insurance and corporate structure (p. 88), adverse selection with multiple sources of risk (p. 101), a theoretical model of surplus commitment and allocation (p. 150), and several others.

I do, however, have two complaints with the survey articles. First, most of the studies concentrate exclusively on the analysis of individual decision making in the case of a single source of risk. This will tend to result in false predictions when risk-neutral corporations, insurers, and reinsures are simultaneously involved in financial and insurance markets. The addition of a survey article covering agency theory, the role of corporate structure in understanding the risk management incentives, and possibly the changing role of regulation vis-à-vis these incentives could have provided a nice balance to the predominant individual focus. Second, with the exception of Cummins's article on "Financial Pricing of Property-Liability Insurance," there is little attempt to include the impact of financial market risk on the decision-making process. The editor, in the preface, indicated that the integration of economic (insurance) and financial models may provide a promising method of understanding the degree of imperfection in risk shifting opportunities available in the economy (p. xix), but concentrated on the more traditional models in the exposition.

I enjoyed the section on Theoretical Models—the papers are well written, bring out some interesting points, and are enjoyable to read—although I find the concentration on risks faced by the individual (via varied forms of utility maximization models) in most of the papers troubling (which probably arises from my financial markets/multiple sources of risks bias). While there is occasionally some discussion of "background risk" or "incomplete markets," these seem to be treated as secondary aspects. Risk aspects relating to corporations are left out of the discussion in virtually every chapter. This comment is not meant as a criticism of the articles nor the advances that have been made in insurance economics but as a challenge to researchers to develop more complete models of insurance/financial markets.

The section on Empirical Models provides an apt ending to the volume. While advances in the theory of insurance are being proposed on a fairly regular basis, it requires the empirical testing of these models to determine the real impact of different sources and combinations of risk on individual and

corporate behavior. The cross-section of empirical models in a variety of insurance activities demonstrates the ability to test some of the proposed theories as well as the difficulty in working with often imperfect data.

In conclusion, I recommend *Contributions to Insurance Economics* to the readers of the *Journal of Risk and Insurance*. It does an excellent job of summarizing the current state of the study of insurance economics, reminds the reader of the advances that are being made, and, of equal if not more importance, sets the stage for a future research agenda in this area.