or all components of regulatory content, wider public participation, and heightened accountability. Institutions respond in different ways to pressures for greater openness, giving rise to three competing hypotheses. One, the autopoiesis hypothesis, indicates that institutions will tend to respond to outside pressures for greater openness in ways that reproduce their basic modes of operation with minimal disturbance. The authors reconsider the nine risk regimes to determine the extent that they reflect pressures over time to change regulatory content. The authors find that behaviors observed in "high-pressure" regimes (i.e., those facing continuing pressures for increased openness) are consistent with a hypothesis that institutions faced with demands for greater openness and transparency in risk regulation tend to adopt "blame prevention re-engineering responses."

The book concludes with a discussion of the usefulness of a risk regulation regime perspective in understanding risk regulation. One of the payoffs of this approach is that it provides a tool for assessing institutional and policy design. Specifically, it offers "a way of analyzing all the dimensions of institutional control systems." The ideas and methodologies proposed throughout the book are especially valuable for researchers who need to understand and account for differences in risk regulation regimes.

Medical Malpractice: A Comprehensive Analysis, by Vasanthakumar N. Bhat, 2001, Westport, Conn. & London: Auburn House

Reviewer: Charles P. Hall, Temple University

The author states in his preface that "the purpose of this book is to present a comprehensive overview of the medical malpractice system." He also states that his goal "is to present an overview of the latest literature along with my observations about medical malpractice from a statistical analysis." He achieves his first objective via an almost encyclopedic inclusion of hundreds of footnotes selected from the more than 70,000 research papers discovered in his search of MEDLINEplus, as well as numerous additional references found in social science and statistical journals. Indeed, the extent of the statistical content is such that the book is liable to be extremely intimidating to anyone who lacks a degree of statistical sophistication. Clearly, this is not a book for the average man or woman, despite the helpful Appendix I on statistical methods.

That said, a serious researcher on the topic of medical malpractice would find a lot of valuable information that has been summarized, analyzed, and presented in considerable statistical detail. Students in law, medicine, and health administration will also find it useful. For this reviewer, however, a number of the author's "observations about medical malpractice" drawn from his statistical analyses of the data seems both biased and, in some cases, simply wrong. Furthermore, starting with the very first sentence in his preface, he occasionally drops "observations" that are unsupported by references. In stating, "There has been an ongoing medical malpractice crisis in the United States starting from around the 1840s," he provides not a single jot of evidence to support such a sweeping allegation. Indeed, for it to be true would necessitate an extremely loose definition of the word "crisis." (To be fair, he does cite a source for this exaggerated allegation in Chapter 1—the source, however, considers 217 U.S. Appellate Court cases over a span of 110 years to constitute a "crisis." This is not a definition that most observers would accept.)

He follows that opening statement by saying, "Malpractice lawsuits are filed to recover costs of injuries resulting from a treatment that deviates from the standard of care." While this may be a theoretically accurate characterization of what should be required for success in a malpractice case, it seems a bit naïve in light of actual practice. It is well-known that many malpractice suits are filed and, yes, sometimes even won, because the patient is unhappy with the *outcome*, even if treatment followed the normal standard of care.

The above examples are cited as reasons for any reader or reviewer of this work to be on the alert for other potentially questionable conclusions. At the same time, the author is quite correct in some of his other opening observations. Certainly, there "is no consensus about the cause of the (sic) medical malpractice liability." That continues to be best described as a "where you stand depends on where you sit" situation, with physicians, lawyers, insurance companies, and more recently, managed care organizations all attempting to point the finger of blame anywhere except at themselves. Here, the author quite correctly concludes, "Politics will decide how the tort game will be played."

In the opening chapter, the author provides a brief summary of U.S. versus world health statistics, noting that we spend more both in absolute dollars and on a per capita basis than anyone else, yet our results are not very good. He outlines various ways in which responsibility could be allocated for adverse outcomes of medical treatment and gives a summary of the pro and con arguments of the usual protagonists. He also summarizes the impact of the current system on various stakeholders and provides a litany of the array of reforms that have been proposed and/or implemented around the country, along with the expected impact of each reform on costs and behavior of the interested parties. No new ground is broken here.

He follows with Chapter 2, "Malpractice Claims," in which he presents a mass of statistics from various studies showing that claims vary by age of physician, type of specialty, and location as well as by the concentration of urban versus rural population and the number of lawyers per physician in a given state. He also notes the observed impact of various tort reform efforts on both the frequency of malpractice claims and the magnitude of the settlements or awards. He identifies those specialties that generate the largest number of claims, and he also shows figures that indicate a remarkably stable level of claims payments and rates per 1,000 physicians during the period from 1991 through 1998 at the national level. None of this material will surprise those who have been studying the problem in recent years.

The author does introduce his extensive use of multivariate analysis, as opposed to the multiple linear regression analysis used by several other researchers cited, but the results, in general, are not too surprising. A few findings are of some interest, however. He finds the proportion of the population over 65 to be positively related to payment rates, as is the population below the poverty level. Both of these conclusions contradict other findings that these two demographic groups are less likely to file malpractice claims. After all is said and done, he finds that the impact of various tort reforms on the frequency of malpractice payments is mixed and that physicians with adverse reports are more likely to have a higher frequency of claims. Thus, he concludes, "It is important for states to have an effective licensure and privileges action reporting system." Few would argue that. As the author and others have noted, the medical profession

has done a poor job of disciplining its own ranks. For example, he reports, "Although some authors estimate that 5 to 15 percent of physicians are professionally incompetent to practice medicine, only 0.40 percent of physicians annually were subjected to licensure and privileges actions between 1 September 1990 and 31 December 1996. In addition, 39.9 percent of physicians disciplined for sex-related offenses between 1981 and 1994 were licensed to practice."

Moving to a discussion of malpractice claims severity in Chapter 3, the reader is again treated to an enormous accumulation of statistics drawn from various studies. Those who have followed the topic will find no surprises. Malpractice is the highest severity tort, but claimants have the lowest probability of winning. Cases that are settled out of court almost always provide lower awards than those that go to trial and verdict, with the average differential for the period studied (1991–1999) ranging from 0.46 to 0.62. Both the severity and frequency of malpractice cases vary widely by the source of the claim. Obstetrics and anesthesia cases generate the most costly awards, while treatment, diagnosis, and surgical errors are the most frequently encountered. The chapter notes that payment distributions are very skewed, with the highest 1 percent of claims accounting for more than 12 percent of the total, and the top 50 percent accounting for more than 91 percent of total payments. Furthermore, both the mean and median awards vary widely by state, but in most cases the median award hovers somewhere around half the size of the mean. This, again, emphasizes the skewed nature of loss distributions in this field. A number of tables also dissect the impact of each separate tort reform. The author concludes that "... tort reforms do not have much influence on payments made as a result of verdicts. However, they significantly affect total payments and particularly payments as a result of settlements."

Moving on to Chapter 4, "Medical Malpractice Insurance Premiums," the author provides a brief discussion of the various markets for malpractice protection, ranging from commercial insurers to captives to various state joint underwriting associations (JUAs) and state patient compensation funds. Again quoting from a variety of studies, he notes the significant time lag that traditionally exists between the collection of malpractice premiums and the payment of claims, with the attendant opportunity for insurers to earn significant investment gains prior to paying claims. This was certainly a significant factor during much of the time period from which he has chosen to quote results. Unfortunately, since his book was written, virtually all of those potentially positive investment results have dramatically disappeared, with the predictable impact on rapidly rising premiums. He notes that the dramatic increase of malpractice premiums during the mid-1970s was a major driving force leading to the efforts in many states to introduce tort reform just as it also led to the creation of JUAs. It was a time when there was wide agreement that a real malpractice "crisis" did, in fact, exist. Nevertheless, despite the many reforms that were instituted, the conclusion reached by most of the quoted studies and by the author was that "the impact of tort reform on premiums is not significant." Certain reforms can be associated with a tendency to lower premiums and others with a tendency to raise them, but "Although several tort reform measures have been enacted by states specifically to reduce premiums, only a few of them have any significant impact on premiums."

With regard to hospital malpractice premiums, he quotes the finding of a Tillinghast-Towers Perrin study that showed these costs going up by 8.6 times between 1975 and 1994. Another study by Carter and Cromwell (1983–1985) showed that much of the

increase was caused by higher levels of coverage rather than by higher premiums per dollar of coverage.

The brief Chapter 5, on dental malpractice, notes that, though out-of-pocket payments for dental care are much higher than for medical care, malpractice issues follow a similar pattern, because they are subject to the same legal environments. The level of payment rates, however, is lower for dentists. As with physicians, the three highest sources of claims derive from treatment, diagnosis, and surgery, though treatment-related claims constitute the overwhelming majority. After the author reports all the statistical analysis, he concludes that claim rates for dentists are similar to those for physicians and that the impact of tort reform has been minimal. He also includes a discussion of state variations in licensure and continuing education requirements.

In Chapter 6, the "Politics of Malpractice," the author notes that tort law has been the exclusive domain of the states and that despite several efforts by Congress to enact sweeping tort reform, those efforts have essentially come to naught. He identifies the two most significant waves of tort reform at the state level as occurring from 1975 to 1980 and again in 1986. In both cases, the efforts were in response to dramatic medical malpractice insurance premium increases and availability issues. These issues grew out of a variety of forces, including changing patient expectations, less personal relationships between patients and physicians, and a range of legal developments that included, for example, changes in the locality rule, the application of *res ipsa loquitur,* and the informed consent doctrine. Predictably, most reforms aimed to reduce claim frequency and severity. Citing evidence that indicates a tendency for states to imitate innovations from other states in their tort reform efforts, is the author suggests that eventual uniformity will be achieved. Furthermore, he claims that socioeconomic factors, not political processes, are the main causes of differing policy outcomes among states. Yet the chapter closes with the conclusion that even these socioeconomic factors have very little influence on the number of tort reforms enacted in each state and that the political power of physicians to influence such change is probably exaggerated.

Regardless of these conclusions based on previous research, events since the publication of this book indicate that a new and growing malpractice crisis seems certain to produce different and potentially dramatic results. Ed Rendell, newly elected governor of Pennsylvania in November 2002, almost immediately appointed a special task force with directions to produce recommendations for medical malpractice reform in time for his inauguration in January. Recognizing the urgency of the problem, he asked for an immediate set of stopgap remedies as well as suggestions for more permanent solutions. He promised to make the medical malpractice crisis in the state, which has resulted in a significant flight of physicians as well as the closure or threatened closure of several hospital delivery rooms and trauma centers, his first priority after inauguration. He pleaded with physicians to stop their flight and give him a chance to find and implement remedies. Noting that a substantial number of physicians had already taken early retirement, drastically limited their practices, or migrated out-of-state in the past year because of enormous premium increases for malpractice coverage in the Commonwealth as well as the apparent absence of a viable malpractice insurance market at any price, Rendell acknowledged that many fear that communities will face inadequate availability of needed medical services if something is not done soon. A number of hospitals have been unable to retain or recruit the staffing needed to maintain these critical services, even in some cases where the hospital agreed to pick

up most or all of the cost of coverage. Note that while Pennsylvania had, until now, avoided any significant tort reforms, it is probably facing one of the most critical problems in the nation. But it is not alone. Neighboring New Jersey is also facing mounting concerns, along with a number of other states.

Chapters 7–9 address, respectively, the relationship between medical malpractice and the supply of physicians, the practice of defensive medicine, and the cost of health care. Voluminous statistics appear again. The author reports enormous growth in the overall supply of physicians from 1970 to 1996 and also shows their uneven distribution in terms of geography and specialty. In focusing most of his remarks on obstetricians and gynecologists (OB-GYNs), he concludes that little evidence exists of a shortage, even in this high-risk field. Rather, he argues that malpractice premiums do increase charges for normal delivery and may even influence the amount of time physicians spend with patients (a benefit, in his opinion), but they do not act as an impediment to the overall supply of OB-GYNs or the percentage of family physicians practicing obstetrics. However, in quoting a number of state studies, he acknowledges that malpractice liability does have an influence on practice patterns and may also have a significant impact on access to some high-risk services. With regard to defensive medicine, he concludes that "Defensive medicine is hard to define and measure." Noting that from his studies physicians appear "... to perceive the stringency of malpractice systems in terms of malpractice premiums paid rather than tort reforms enacted," he also points out that physicians derive considerable income from so-called defensive medicine procedures. This casts doubt on whether some of these practices will decline if malpractice is no longer an issue.

Throughout the book, the author tends to focus on what he perceives to be the many weaknesses of medical practice in the United States. He is very concerned about the appropriateness of care and on several occasions cites data that indicate that inadequate care may be a more pervasive problem than excessive care. He points out that a number of empirical studies have found that defensive medicine accounts for a relatively small percentage of total health care costs, and most publicity about defensive medicine comes from those who oppose the malpractice system. He is concerned that if the malpractice system were removed, even greater deficiencies in treatment would result.

Similarly, his detailed analysis concludes that "... growth in health care expenditures in various states indicates that malpractice premiums do not have much impact on the growth in expenditures."

In his closing chapter, the author summarizes his findings and also reveals some biases. It is clear throughout the book that he is not particularly sympathetic to the medical profession. He quotes statistics from the World Health Organization that rank the quality of the U.S. health care system as only 37 out of 191 countries, despite the highest per capita expenditures. He notes the high percentage of uninsured and laments the skewed consumption of care based on both ethnic and economic factors. He repeatedly refers to the fact that despite many complaints about the medical malpractice system, only a very small percentage of medical errors result in malpractice claims. Once made, less than half of the claims result in recovery for the aggrieved patient. He alleges that the real tort crisis is too few claims. He states that the jury trial is one of the best methods for resolving disputes despite all its drawbacks. He wants to relax

some caps on damages and reduce legal barriers to recover damages. He refers to a variety of studies that have highlighted many shortcomings in the way that medicine is practiced. He concludes that the impact of the medical malpractice system on the health care delivery system is minimal, and suggests that a focus on adverse events and steps to correct them would significantly improve the quality of the health care delivery system. That may well be true, but he seems at times to overlook a number of factors that contribute to the problem.

In one of his closing remarks, he states, "It is therefore obvious that except for the fact that the parties involved in the medical malpractice system are rich and powerful in the society, medical malpractice and tort reforms would not have been a topic of so much interest." There may be a kernel of truth in that statement, insofar as physicians and lawyers represent our two most highly paid professions, and they are often at odds with each other regarding medical malpractice and its alleged flaws. However, if, as he often states throughout the book, the author is primarily concerned with the quality of the medical care delivery system and wants it to deliver optimal care to everyone, this seems a rather cavalier way to dismiss the subject, since it clearly is of concern to those on whom we depend to deliver that care.

New Ideas about Old Age Security, edited by Robert Holzmann and Joseph E. Stiglitz, 2001, Washington, D.C.: The World Bank

Reviewer: Tong Yu, University of Rhode Island

This volume is a collection of papers from the *New Ideas about Old Age Security Conference* in 1999. It documents major problems and new developments in pension reform in the late 1990s, following another World Bank publication, *Averting the Old Age Crisis* (1994), which advocates reforming the traditional pay-as-you-go system to a multipillar system including an unfunded mandatory pillar, a funded mandatory pillar, and a voluntary private pillar. This volume contains 13 chapters, largely focusing on three sets of issues: (1) optimal economic policy and regulatory environment for pension reform; (2) means to reduce administrative costs; and (3) optimal form of multipillar system. It helps researchers and policymakers in choosing among different approaches to pension reform.

Chapter 1, "Rethinking Pension Reform: Ten Myths About Social Security System," by Peter Orszag and Joseph Stiglitz, suggests that "policymakers have too often interpreted the multipillar system as requiring the second, funded pillar entail private management and defined contributions." They discuss ten attributable myths. Chapter 2 includes a number of comments about Orszag and Stiglitz's myths.

Chapter 3, "New Approaches to Multipillar Pension Systems: What in the World Is Going On?" by Loise Fox and Edward Palmer, identifies major emerging trends in pension reform in the 1990s, including (1) modifying pay-as-you-go systems to strengthen the links between contributions, and (2) the growth of benefits and privately managed individual account systems.

Chapter 4, "The Political Economy of Structural Pension Reform," by Estelle James and Sarah Brooks, examines how political economy affects reforming from a publicly managed, pay-as-you-go, defined benefit system to a system with funded defined contributions based and privately managed pillar.