Japanese Management System. Moreover, Professor Leibenstein often points to important topics that traditional theory has not satisfactorily addressed, even if his alternative is not completely satisfactory.

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REFERENCES

DE ALESSI, LOUIS. "Property Rights, Transaction Costs, and X-Efficiency: An Essay in Economic Theory," *Amer. Econ. Rev.*, Mar. 1983, 73(1), pp. 64–81.

FISHBURN, PETER C. *Nonlinear preference and utility theory.* Baltimore: Johns Hopkins U. Press, 1988.

HOGARTH, ROBIN. *Judgement and choice.* NY: John Wiley, 1987.

PRATT, JOHN W. AND ZECKHAUSER, RICHARD J. *Principals and agents: The structure of business.* Boston, MA: Harvard Business School Press, 1985.

The dilemma of toxic substance regulation: How overregulation causes underregulation at OSHA. By JOHN M. MENDELOFF. MIT Press Series on the Regulation of Economic Activity, vol. 17. Cambridge, MA and London: MIT Press, 1988, Pp. xvii, 321. $35.00. ISBN 0–262–13230–3. *JEL 88–0835*

During the first years of its operation, the Occupational Safety and Health Administration (OSHA) gained prominence in the regulatory arena by issuing regulations that many viewed as ill-conceived. Anecdotes regarding OSHA ladder standards and other meticulous design requirements for the workplace became legendary. Since that time, OSHA's efforts have become less prominent, in part because its policies have been pushed in more sensible directions. In his second book on OSHA, John Mendeloff addresses the new OSHA initiatives that have taken place in the health area, largely from the mid 1970s to the early 1980s. The emphasis of this book is on reviewing the evolution of these regulations and assessing the adequacy of OSHA's efforts.

One of his main conclusions, which I have also noted in my earlier work, is that even if OSHA's concern were only with advancing worker health, then its policy of setting excessively stringent health standards may not have been the best option. In particular, these stringent standards have led to excessive regulatory review delays and court challenges, the net effect of which may have been to stall the rulemaking process for additional health standards. Another effect, which is not discussed in the Mendeloff volume, is that stringent standards create incentives for noncompliance, which has always been a long-term difficulty with the OSHA program. Perhaps the main omission of the book is that the emphasis is solely on regulatory design rather than on regulatory enforcement as well.

After introducing these themes in Chapter 1, Mendeloff reviews the evidence on the cost per life saved in Chapter 2. For the most part he cites previous reviews of the literature. Since these previously published reviews were written before his book, this approach dates the material somewhat. In addition, the studies that he cites of the cost per life saved across government agencies as well as the value of life in the labor market and in other contexts have since been superseded by new surveys that address the more recent literature. One caveat that must be applied to such reviews is that survey tables that tabulate the cost per life saved across government agencies often incorporate statistics based on quite different assumptions. In some cases, the discount rates used are not comparable. The study by Broder and Morrall that Mendeloff cites avoids this problem, but the others do not.

The more interesting results on the value of life are Mendeloff's new findings. In particular, he uses the toxic substance perception variable from the University of Michigan Quality of Employment Survey and links these perceptions to higher wages. This variation on the compensating differential literature dovetails nicely with Mendeloff's concern with hazardous substance regulation and provides a nice market context for the work that follows.

In Chapter 3 of the book Mendeloff discusses the reasons for overregulation on the part of OSHA. In particular, given the stringent legislative mandate of the agency, OSHA sets the exposure levels too stringently compared with what one could justify on a benefit-cost basis. As part of this discussion, Mendeloff provides a reasonably comprehensive review and critique of the underlying health risk assessments that form the basis for most benefit analysis.

In Chapter 4, Mendeloff turns to the other aspects of regulation, those of underregulation. In particular, in this chapter he addresses the unregulated hazards that have been ignored by OSHA as well as the hazards that have not been regulated stringently enough because OSHA has not updated its standards over the years. Although this point is well established, the particular index of underregulation that Mendeloff uses is more controversial. In what will turn out to be his major policy thrust, Mendeloff places great emphasis on the standards proposed by the American Conference of Governmental Industrial Hygienists (ACGIH). He concludes that OSHA standards are too lenient because they are not as stringent as the exposure levels recommended by industrial hygienists. In the final chapter of the book, Mendeloff will advocate using the ACGIH standards and adopting them as OSHA policies.

There are several difficulties with this proposal. First, voluntary industry standards that serve as recommended targets for firms may not be what any group would have recommended in terms of a standard for mandatory compliance. Second, it is much easier continually to revise and update the voluntary target levels since firms can choose whether or not they wish to comply with these voluntary targets. In contrast, continuous revision and updating of mandatory standards imposes considerable costs, and because of these adjustment costs one would wish to revise mandatory standards less often than voluntary standards. Finally, it is not clear what economic concerns are embodied in the recommendations of a group of industrial hygienists. Although Mendeloff begins his volume with a concern for the value of life, there is no indication that these industrial hygienists recognize this value and the tradeoffs that must be made. In all likelihood, these hygienists did believe that the firms they represented could comply with the recommended standards. However, since the hygienists were drawn disproportionately from the industry safety leaders, this may not be an appropriate representation of how the industry as a whole would respond. One danger of having standards that are in effect set by an industry cartel of health experts is that these standards can be used to squeeze out the older and less advanced firms in the industry. Quite simply, there are no shortcuts developing sound occupational health and safety policies without a detailed analysis and review of the benefits and costs of these efforts. The ACGIH has not undertaken a careful assessment of these impacts.

In Chapters 5, 6, and 7 Mendeloff reviews the standard setting process at OSHA. In particular, how long does it take standards to emerge from the time they are first considered to the time they are finally issued? One of the more interesting results that he develops here is his linkage of union representation in an industry with more stringent standards. In particular, most of the targets of OSHA health standards have been hazards in industries that are disproportionately unionized. Although Mendeloff's analysis does not rule out all competing hypotheses in terms of establishing causality, the union—standard setting linkage that he identifies is consistent with more anecdotal evidence regarding the OSHA policy-making process.

The final three chapters of the book address various regulatory reform options as well as proposals that Mendeloff has advanced. As part of this discussion, he reviews the current regulatory oversight process as well as suggestions that a regulatory budget be adopted. Unfortunately, the secretive nature of the current OMB oversight process makes it difficult to do much more than analyze changes in the structure of the oversight mechanism as well as shifts in policy outcomes. How policies have evolved during the course of this oversight effort is also a potentially interesting policy issue that might be addressed more explicitly in future studies now that OMB has begun publishing an annual report on the regulatory agenda of the agencies whose regulations it oversees.

Although Mendeloff's advocacy of the ACGIH guidelines is his most prominent policy proposal, he has others as well. For example, he urges that OSHA be permitted to use benefit-cost analysis and that it change the standard of proof used in setting regulations. In particular, it should focus on the probability of harm, the magnitude of harm, and the reasonableness of its regulations. Perhaps casting economic analysis into terms such as these will increase its appeal to policy makers.

Overall, Mendeloff has written a nice overview and critique of the evolution of OSHA health regulations. The book includes some new empirical material, and every chapter includes some new information or a new perspective on OSHA regulation that researchers in the area should find of interest. This book represents a worthy addition to the research effort by the leading political scientist working in the health and safety area.

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630 Industry Studies

The nonprofit economy. By Burton A. Weisbrod. Cambridge, MA and London: Harvard University Press, 1988. Pp. ix, 251. $22.95. ISBN 0–674–62625–7. *JEL 88–1194*

Professor Weisbrod has written a lively and readable survey of current research on the nonprofit sector that reflects his own position as a pioneer in the field. Although the book incorporates much of Weisbrod's earlier work on the subject, it does not read like a collection of articles. Instead, the author manages to convey the essence of his research results and those of other scholars in a nontechnical format that is enlivened with concrete examples and such empirical evidence as exists.

Weisbrod emphasizes the diversity of institutional forms that coexist under the nonprofit label and the diversity of tasks that they perform. He points to their role in supplementing the public goods provided by government and in supplying goods where information imperfections make for-profit provision inefficient. He stresses the important fact that private donations constitute only 25 percent of nonprofit receipts with government constituting another 25 percent and the remaining 50 percent coming from fees, charges and other income. Not only do most nonprofits charge for the services they perform, but they also compete with for-profits and government providers.

Weisbrod rightly recognizes that the oversimplified analyses that view competition as uniformly bad or as always innocuous are misleading. Nonprofits that are nominally in the same industry as for-profits and public providers may nevertheless be providing very different services. They may produce outputs with valuable external benefits or that have special qualitative features not provided by for-profit firms. Thus nonprofit teaching hospitals educate doctors as well as provide health care, and nonprofit day care centers care for more poor children than for-profits. Nonprofit theaters can provide a repertoire of classics and avant garde fare that are not commercially profitable. Furthermore, even if the lack of owners dampens incentives for efficiency, the presence of altruistic managers and employees who believe in the value of the service they are providing can overcome that disadvantage and provide other advantages in markets where information is imperfect.

In the penultimate chapter of the book Weisbrod presents evidence which he and his colleagues have generated pointing to interesting differences between nonprofits and for-profits in the same industry. Nonprofits in the medical care sectors he studied were more likely to have waiting lists than for-profits, and the waiting lists tended to be longer. This result indicates both that nonprofits do not always expand or raise prices to cover an increase in demand, and that even when for-profits with excess capacity exist, some customers prefer nonprofits. Thus the way these nonprofits carry out their charitable mission appears to be by providing higher quality at lower prices than for-profits, not by taking all who apply irrespective of ability-to-pay. Other measures of quality also suggest that nonprofits in his study are, on balance, superior. However, one can not conclude from this study that for-profits should be outlawed in these health care sectors. The existing waiting lists suggest that the nonprofit sector cannot handle all current applicants. The for-profit sector is needed to maintain supply. Furthermore, outlawing for-profits would be likely to increase the level of fraud as entrepreneurs organized as nominal nonprofits in an attempt to obtain profits.

While the empirical work outlined above suggests that, at least in some areas, nonprofits are superior to for-profit competitors, in other settings Weisbrod is concerned about "excessive" competition from nonprofit firms. He is especially worried about large scale nonprofit entry into unrelated business enterprises. Here I think Weisbrod's argument is confused. First of all, while he recognizes the difference between "competition in the specific industry for which the nonprofit has been given exempt sta-