Readings
of particular interest

Regulating the High Seas

The Enclosure of Ocean Resources, by Ross Eckert (Stanford: Hoover Institution Press, 1979), 380 pp.

The law of the sea, which was essentially stable for 400 years, is now changing rapidly under the pressure of advancing technology and new ocean uses. Economist Ross Eckert of the University of Southern California examines the implications of two trends toward extending political jurisdiction over the oceans—(1) the "enclosure movement" by which nations have claimed rights over wide offshore zones, typically to a distance of 200 miles, and (2) the negotiations for the establishment of an international authority over the resources of the oceans, carried on at the periodic meetings of UNCLOS (the United Nations Conference on the Law of the Sea).

Eckert compares the current enclosure movement with earlier cases involving land, such as the enclosure of common lands in England in the seventeenth and eighteenth centuries and in the American West after 1870. In each case, he observes, a communal use of land involved inefficiencies and resource depletion. If a farmer restrained his own herd from destructive overgrazing, the benefit went to a neighbor's herd. Farmers had little incentive to plant soil-enriching crops like clover since they could not keep their neighbors' herds from eating the plants. But the costs of establishing and maintaining fully private ownership were also great. As the potential savings from private ownership grew and the transaction costs of fixing boundaries fell (in the case of the American West, through the invention of barbed wire), both societies switched from communal to individual ownership.

Eckert sees the same sort of thing now going on in coastal waters, but with nations rather than farmers as the principals. International fishing waters are likely to be overfished, with too high an investment in resources and too low a yield of fish, since one nation or firm captures little of the benefit of its own conservation efforts. The effects of depletion can wipe out most of the value of even a highly productive fishery. In one of the worst cases, South America's fish catch declined from 11–15 million tons a year in 1966–1971 to a mere 4.4 million tons in 1973.

The same argument applies to offshore oil in international waters and to marine pollution, both from onshore sources and from tanker spills. Tanker operators, for example, lack proper incentives for safe operation so long as they need not pay the full costs of a spill. The potential gains from establishing property in common resources are obviously substantial and with the costs of enforcing more ambitious boundary claims falling because of the introduction of radar systems and faster patrol boats, the enclosure of ocean tracts has become increasingly attractive to coastal states. By 1977, more than fifty countries had claimed 200-mile fishing zones.

Although international access to fishing grounds usually leads to great inefficiencies, Eckert observes, national regulation is often not much better. The typical approach of national regulators is to combat overfishing by limiting some dimension of fishing operations: the size and speed of boats, the length of the season, or the type of net used. But whenever competition is suppressed in one dimension, it is intensified in another: fishermen operate more boats, spend more time at sea, and use larger nets. Coastal states are also reluctant to reduce employment among fishermen (even though a less intense fishing effort would actually yield more fish). Added to this political consideration is the fact that conservation efforts are generally hindered by the propensity of many species to migrate from one country's fishing zone to another's. By contrast, because offshore oil tracts are leased to individual operators who do not profit from overly rapid de-

pletion, Eckert finds regulation of oil production in national waters is relatively efficient.

More valuable even than fisheries in the long run may be ocean mining. The potato-sized metallic nodules that cover vast stretches of the ocean floor, though still prohibitively expensive to mine, could some day yield such metals as nickel, manganese, cobalt, and copper in almost unlimited quantities. The UNCLOS meetings are moving toward establishing some sort of international body with sole authority to grant mining licenses to commercial operators, carry on seabed mining, or both. The Enterprise, as it is called, would be run with money and technology drafted from the industrialized countries, while its proceeds would go into a fund for the benefit of less developed countries. Aside from his distributional objections to the scheme, Eckert predicts it will serve to delay and hamper output. One reason is that the one-nation, one-vote nature of the authority would distort the incentives of the regulators. UNCLOS already has the officially stated goal of protecting the interests of those nations whose land-based mineral resources compete with the seabed's. In the end, Enterprise might well prove to be an "OPEC of the oceans," keeping metal prices high and output low, at the expense of metal consumers.

Nodules, unlike fish, are not "fugitive" resources, nor do they reproduce if left in the ocean. For both these reasons, and because of the vast expanse of likely mining sites in the mid-Pacific, Eckert suggests that a competitive, open-entry regime is likely to prove most advantageous to metal-consuming nations like the United States. His main concern is that U.S. negotiators not sacrifice this and other interests of long-term importance for the sake of agreement on issues that could more easily be resolved by negotiation among smaller groups of nations.

Queuing Up in Canada

National Health Insurance in Ontario—The Effects of a Policy of Cost Control by William S. Comanor (Washington, D.C.: American Enterprise Institute, 1980), 57 pp.

With an eye to the current push for national health insurance in the United States, William S. Comanor, formerly director of the Bureau of Economics at the Federal Trade Commission, investigated the Ontario Health Insurance Plan and the ways in which it has sought to reduce its rising costs. As instituted by Canada's Ontario Province in 1969, the plan required that individuals pay 10 percent of the cost of services received, with the province assuming the balance. In 1971, the plan was amended to relieve individuals of any obligation for payment, a measure that instituted the principle of equal access to medical services, but at the same time removed consumers' incentives to economize on such services. The result was increased use of medical care and increased costs. Then in 1975, hoping to reduce costs without appreciably reducing service quality, Ontario began to limit the number of hospital beds and of physicians available in the province.

Before analyzing the policy of reducing supply to control cost, Comanor tackles the question of how much medical care should optimally be provided—because, in his opinion, it is "this issue that underlies the current concern in Ontario regarding the supply of physicians and hospital beds." To answer this question Comanor constructs a model of the market for medical services that would be expected without health insurance that pays 100 percent of the cost, where consumers face prices that reflect the marginal cost of the services. (He makes it clear that because consumers in Ontario face a zero monetary price, actual demand is greater than in his model, and medical services necessarily are rationed on a willing-to-wait basis.)

With this model, the gains or losses from a policy of supply restriction can be measured. Under conditions of excess demand, a decline in the number of physicians will reduce the quantity of services demanded, because some patients will value the time needed to wait more highly than they will the medical services, and this, in turn, will force a reduction in claims. Thus there will be a savings in government payments, which will produce a positive welfare gain to society. Such a welfare gain would be optimal if the quantity of medical services supplied were restricted to the equilibrium level indicated in the model. Comanor says this optimum could also be achieved by reducing physicians' fees to the equilibrium level, though such a drop would cause a restructuring of the in-

"I think I'd like a third opinion."

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dustry as physicians entered and left practice in response to the change in fees.

But, although the plan has moved the quantity of services demanded toward his theoretical optimum, Ontario has had difficulty in successfully implementing its policy of supply restriction. In 1975, the influx of foreign physicians was curtailed and medical school enrollments were frozen. Yet the ratio of physicians to population continued to increase, forcing the province to restrict local sources of physicians as well. "To maintain its program of supply restraint, the provincial government has been forced to accept an ever-growing control over the health-care system," even to the point of taking an increasingly active role in the administration of formerly autonomous hospitals. Comanor asserts that such interference stems ineluctably from the decision to institute the Ontario Health Insurance Plan.

Even though this approach to health insurance and cost control yields the benefits of fairness and risk avoidance, the costs to society are substantial. The plan results in a loss of efficiency to the overall economy because people spend time (in the queue) rather than money, to get medical attention. Moreover, doctors can practice discrimination without economic cost, and can choose to offer only those services whose profitability is highest. Finally, there is the dilemma of deciding how much society should sacrifice in order to improve the health of a few. A private system uses price as the arbiter, but a system of full insurance has no such mechanism.

According to Comanor, the fundamental flaw in the Ontario Health Insurance Plan is that it contains no incentives for citizens to restrict their consumption of medical service; excess consumption and a misallocation of resources are bound to occur. "Unless society is willing to devote increasing proportions of its resources to the health care sector, some vehicle for imposing restraint is required. . . . Financial constraints were removed, but nothing was put in their place. . . . It is a fact of economic life that *we cannot eliminate scarcity by government decree*" (emphasis in original).

Regulation and Inflation

The Regulated Industries and the Economy by Paul W. MacAvoy (New York: W. W. Norton Co., 1979), 160 pp.

To what extent has regulation reduced the quality and even the quantity of output in the industries it affects the most? What has been its

overall impact on the economy? Is reform in sight? These are among the questions tackled in this book by Paul W. MacAvoy of the School of Organization and Management at Yale University.

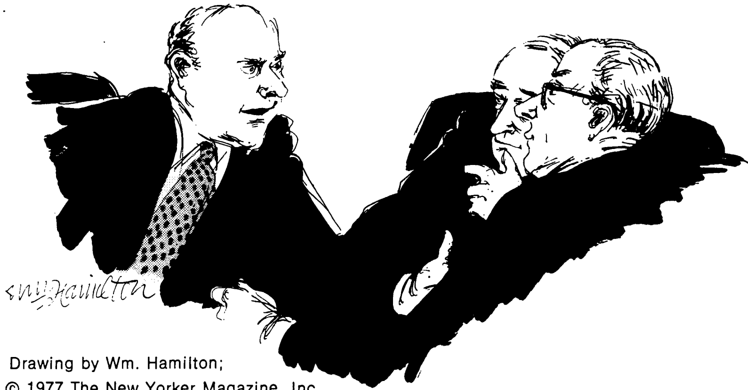
In addition to examining the problems and practices of regulatory agencies, MacAvoy's objective is to estimate the effects of regulation on industrial efficiency by assessing how the old economic regulation of certain industries has performed under new inflationary conditions and by analyzing the economy-wide impact of the health and environmental regulations of the 1970s. In his view, although regulation has had a "deleterious impact on the future growth of the regulated industries and thus on the size of the economy," major externally imposed reform of regulatory procedures is not likely in the 1980s. Despite the fact that the rhetoric of reform abounds, few are ready to trade price increases or reduced safety now for increased productivity in the future. There may be greater hope, however, for reforms that come from within the regulatory agencies themselves.

The author begins by tracing the growth of regulation and the rise of the sentiment to deregulate. He notes that while most early regulation was aimed at competitive pricing, entry, and service enhancement, most of the regulatory agencies established in the last decade are intended to promote greater health and safety. This latter type of agency, which includes the National Highway Traffic Safety Administration, the Occupational Safety and Health Administration, and the Environmental Protection Agency, has an impact on almost every enterprise in the country. In practice, however, health and safety regulations affect only a few industries seriously enough to alter their pricing, production, and investment decisions. The percentage of GNP contributed by such industries has grown from practically nothing in 1965 to 11.9 percent in 1975, while the total portion of GNP affected by regulation reached nearly 24 percent in that same year.

MacAvoy asserts that a major problem with the regulatory decision-making process is its insistence on using historical costs as the basis for decisions in price-regulation cases, and on using "detailed quantitative specifications of equipment or operating conditions" when assessing health and safety performance. This focus on "quantitative rather than judgmental" factors has evolved from the need to present evidence during the judicial review process. In any event, the result of that focus is that future and present opportunity costs are not adequately considered, and certification of operating practices may bear little relevance to the real goal of reducing accidents and improving health conditions.

The discussion in Part Two focuses on the industries subject to price and entry regulation: the electric and telephone utilities, airlines, motor freight carriers, natural gas distributors, and railroads. MacAvoy demonstrates that while agency practices for regulating price and entry worked well in the early 1960s, these same rules created adverse effects on the regulated industries when economic conditions deteriorated later in that decade and in the 1970s. At that time, rate increases—based on historical costs and delayed by regulatory lag—did not match sudden increases in costs. A vicious cycle was thereby set into motion: As profit margins dwindled, rates of return on the stock of regulated industries declined, causing curtailment of real net investment in that sector. Unable to cover increasing capital costs, the regulated industries experienced a dramatic reduction in output growth in the 1970s, which in turn discouraged further investment.

Examining this chain of events, MacAvoy concludes, however, that regulation "probably did not systematically affect investment decisions during the late 1960s." Economies of scale and technological advances achieved in the late 1950s and early 1960s had allowed regulated industries to operate relatively efficiently within the constraints of price regulation during that period. Rates even decreased for most regulated industries each year from 1961–1965, while prices increased at about 1.7 percent a year in the unregulated service industries. Moreover, these rate decreases—unconstrained by regulation—were coincident with decreased costs of labor and capital experienced by the regulated sector. But in the 1965–1969 period, even though rates began to increase by 0.1 to 2.3 percent a year, they fell far short of increases in total costs. In comparison, average price increases at that time in "ten unregulated industries most similar in market conditions" amounted to 4.4 percent a year.



Drawing by Wm. Hamilton;
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"I mean, you can have the cleanest air in the world but if you can't manufacture anything what the hell good is it?"

In addition, MacAvoy finds that in the late 1960s the rate of return on the shares of stock of the regulated companies was well beneath that realized on comparable unregulated firms. However, those rates on regulated industries still exceeded capital costs, so that investment and production were able to increase to match new demand.

In the 1970s a different pattern emerged. Substantial cost increases in the early 1970s caused rates of return in most regulated industries to plunge beneath the market profit rate over the period 1970–1973. (That was more than could be attributed solely to the recessionary trend affecting the whole economy.) The ensuing curtailment in investment was soon manifested in reduced production growth of regulated goods and services; GNP growth in that sector was 2 to 15 percentage points lower than it had been in the late 1960s. Referring to various service quality indices, MacAvoy further demonstrates that quality of service also deteriorated, an effect which ran counter to the rationale behind regulation. Although rates were increased substantially by the mid-1970s, the effects on the regulatory process had already taken their toll.

In Part Three, MacAvoy assesses the effect of health and safety regulation on output, focusing primarily on the seven most affected industrial categories—automobiles, mining, construction, paper, chemicals, primary metals, as well as stone, clay, and glass. New investment in plant and equipment required to abate pollution amounted to $6.6 billion in 1975 alone and was concentrated in these (and several other) industries. As would be expected, the seven industries experienced higher price increases and lower rates of output growth than did other industries. To define the regulatory effect, however, the author compares these industries' behavior during the period 1973–1975 with their behavior during similar earlier cycles when they were not regulated (1947–1948 and 1950–1951). While price changes "mostly matched or exceeded earlier price increases," output changes "diverged sharply from earlier periods, sustaining substantial declines." In contrast, these industries had been production leaders earlier.

A long-term consequence of substituting control equipment for productive capital investment, MacAvoy states, is a reduction in the portion of GNP generated from capital. Thus, if the announced pollution-abatement goals for the mid-1980s are put into effect and met, full-capacity GNP growth could slide in the early 1980s by up to 0.5 percent a year.

Are the benefits from health and safety regulations worth this economic sacrifice? MacAvoy reports that "analysts have been unable to find significant reductions in the unhealthful conditions which were to be dealt with by the new regulatory activities." Even so, OSHA, NHTSA, and EPA take credit for improvements in health and environmental conditions and accident rates—which could more likely be attributed to other factors. He presents a regression analysis that finds that existing pollution-reduction trends—rather than EPA pollution controls—were the major cause of abatement in pollution for most industries.

In Part Four, MacAvoy reiterates the basic changes he deems necessary for reform. Agencies must consider economy-wide benefits and costs in their rulemakings, and should revise their operating practices in the following ways: (1) price regulation should be based on current and future costs of investments for providing

service; (2) regulation should be terminated where conditions of competition, service quality, and the economy no longer justify any control process; and (3) in health and safety regulation, procedures should be imposed for assessing results and economic effects.

Although MacAvoy is pessimistic about the prospects for reform, he concludes that "to continue regulatory practices on present lines . . . is to deprive the economy of goals and services, for little if anything in return."

Cargo on the Wing

Regulatory Reform in Air Cargo Transportation, by Lucile Sheppard Keyes (Washington, D.C.: American Enterprise Institute, 1980), 56 pp.

In November 1977, domestic air cargo transportation became the first federally regulated industry to be virtually "deregulated." A scheme of economic regulation that had existed for nearly forty years was almost "totally dismantled" by Congress only nineteen months after the action was formally proposed, much to the astonishment of nearly everyone concerned, by a chairman of the Civil Aeronautics Board (John E. Robson). The reforms became effective for most of the industry immediately upon enactment. (By contrast, air passenger travel deregulation, approved in October 1978, was designed to be phased in much more gradually—although in fact the pace was quickened by administrative action—and surface transport reforms have been far less sweeping.) In this monograph, economist Lucile Sheppard Keyes, a specialist in airline regulation, outlines the pre-reform air cargo regulatory scheme, highlights its economic consequences, and analyzes the origins, development, and early results of reform.

The author found that although considerably less than 1 percent of U.S. intercity freight traffic is moved by air the maze of regulatory restrictions surrounding the air cargo industry was both comprehensive and complex. All the participants, including airlines, air freight forwarders, and surface carriers performing auxiliary services, were subject to price entry and operations control by the CAB, the Interstate Commerce Commission, or both. Given this highly restrictive environment, the author finds it remarkable that the industry developed as well as it did. In her view, "one of the most impressive parts of the story is the part that 'didn't happen.' Because of an unplanned 'loophole' in the regulatory framework," entry controls did not prevent either certificated all-cargo or commuter airlines from gaining footholds in the field. However, she does demonstrate that governmental control over operating authority brought about decidedly inferior service to major sectors of the shipping public, imposed unnecessary costs that promised to increase steadily over time, and obstructed the growth of large-scale intermodal expedited freight transportation. In addition, price regulation kept rate levels from reflecting sharp rises in fuel costs and held certain surface rates at levels that prevented optimum development of intermodal service.

Dr. Keyes identifies three factors responsible for the legislation's success in Congress. First, the evidence on the failure of air cargo regulation was convincingly presented. Deficiencies in freighter aircraft service and unnecessary cost burdens were described in committee hearings by representatives of leading carriers—principally Federal Express, a new and innovative commuter cargo carrier, and Flying Tiger, a veteran survivor of regulatory vicissitudes. These representatives publicly endorsed the proposed legislation even though it would alter the regulatory scheme far more radically than necessary to solve their existing problems and would leave them less protected from competition.

Second, the fact that the CAB proposal for cargo airline deregulation was supported by the administration and congressional proponents of general airline regulatory change influenced the membership, and also softened the position of the carriers who, in the past, had promoted only limited removal of restrictions bearing specifically on their own operations. The author is convinced that without an officially sponsored proposal for general deregulation these small-scale initiatives would undoubtedly have been likely to win out over more basic reform.

Third, an enlightened congressional leadership broadened the original proposal and frustrated attempts by airline groups to obtain special privileges. The major innovations contained in early versions of the bill—open entry after a

brief interval, very limited price regulation, and immediately expanded authority for some carriers—remained in the final version. Attempts by both certificated and commuter cargo carriers to keep competitors from receiving "grandfather" authority were unsuccessful, as was the forwarders' effort to limit competition by direct air carriers.

Surveying early experience under the reform legislation, the author concludes that it has confirmed the hopes of its supporters and disappointed its opponents. Service improvements have been important and far-reaching, greater operational efficiency has been achieved, and prices are now more nearly aligned with costs. Air cargo transportation has suffered of course from recent increases in fuel prices, but the industry certainly has not, as some had predicted, been wracked by chaotic competition in response to its new freedom.

Thus far, Keyes concludes, the record of air cargo deregulation offers concrete evidence in favor of regulatory reform in other areas. It also suggests a tactical lesson: given that elimination of regulatory restraints can result in cost reductions and product improvements that benefit both producers and consumers, and given that a greater awareness of these benefits would attract broader support for reform, the advocates of deregulation should focus their efforts on identifying and publicizing such opportunities for benefit in other industries (notably surface transportation).

Professional Protection

Effects of Restrictions on Advertising and Commercial Practice in the Professions: The Case of Optometry, a staff report to the Federal Trade Commission by Ronald S. Bond, John E. Kwoka, Jr., John J. Phelan, and Ira Taylor Whitten, April 1980.

The most commonly found restrictions affecting the professions are prohibitions against advertising and against specified commercial practices. The authors, all members of the staff of the Federal Trade Commission, set out to gather and analyze evidence on the relationships between these restrictions and the price and quality of the services consumers receive.

Both kinds of restrictions are imposed either by licensing boards or by state professional groups through canons of ethics. Advertising, when restricted, is normally banned outright. The commercial practices that are prohibited most often include location in a commercial establishment (such as department stores), the use of brand names, lay-person ownership of a professional practice, and the use of franchise arrangements or multiple branch outlets.

Proponents of restrictions argue that consumers of complex professional services can be easily misled about service quality and that the larger the number of persons reached by advertising the greater the opportunity for unethical practitioners to mislead. On the other hand, opponents of restrictions claim that some professional services are sufficiently standardized and routine to lend themselves to price advertising. In this view, consumers would benefit from advertising that lowers their information costs (and thereby lowers prevailing prices), from commercial practices that allow cost-cutting techniques to be employed, and from the removal of other restrictions whose only demonstrable effect is to keep prices high.

The authors chose to study the optometry industry because it presents enough variation in the level of professional restrictions to allow meaningful comparisons across geographical areas. First, they divided states and cities into two categories: restrictive and nonrestrictive. Then they sent "trained consumers" (1) to nonrestrictive cities where they purchased eyeglasses and eye examinations from optometrists who advertised or worked for chains, as well as from nonadvertisers in a traditional practice, and (2) to restrictive cities where they purchased the same services from optometrists who were necessarily nonadvertisers. During the experiment nineteen "trained consumers" bought 436 eye examinations and 231 pairs of eyeglasses in twelve metropolitan areas and secured data on the thoroughness of the eye exam, the accuracy of the prescription, the accuracy and technical workmanship represented in the glasses themselves, the price of the glasses and the exam, and whether new glasses were prescribed even though they were not necessary.

The authors drew several findings from their data. First, no matter whether the purchase was made from a nonadvertiser, an advertiser, or a chain firm, the average eye exam

and pair of glasses cost significantly less in a nonrestrictive city. The package that cost $94.58 in a restrictive city cost an average of $71.91 in a nonrestrictive city—with nonadvertisers charging $74.66, advertisers $64.75, and large chain firms $62.58. Second, there was no difference in the quality of the glasses purchased in the two types of cities and from the various kinds of professionals. Nor were advertisers found to be more likely to prescribe unneeded glasses than nonadvertisers. However, the eye exams given by nonadvertisers located in nonrestrictive cities were more thorough than those given by their advertising or chain firm competitors. But even in a restrictive area the same percentage of optometrists gave less thorough exams than in the nonrestrictive area. Thus, except for variations in the thoroughness of the eye exam, only the prices charged for services differentiated the three types of optometrists studied.

Hospital Cost Controls in the Dock

"Effects of Regulation on Hospital Costs and Input Use" by Frank A. Sloan and Bruce Steinwald, in *Journal of Law and Economics*, vol. 23 (April 1980), pp. 81-109.

The rapid growth in hospital expenditures during the 1970s led to efforts by government, as well as private organizations (notably Blue Cross), to control specific sources of cost increases. In this study, Frank A. Sloan and Bruce Steinwald of Vanderbilt University assess the effects of three major forms of recent hospital regulation. These are: (1) controls on the expansion of facilities and services—specifically, the state certificate-of-need and section 1122 review programs; (2) controls on allowable revenue and/or cost increases, including the Nixon administration's Economic Stabilization Program and the prospective reimbursement programs implemented by some states and some Blue Cross plans; and (3) controls over utilization of hospital services, focusing on utilization review programs undertaken by some Blue Cross plans and some state Medicaid agencies that have attempted to identify and eliminate unnecessary charges.

The data base for the study consists of a time series of cross-sectional data on 1,228 nonfederal, short-term general hospitals over six years, 1970 through 1975. The data cover hospitals in 34 states and 250 counties throughout the United States, and are drawn, in the main, from the American Hospital Association's annual surveys of hospitals. In their analysis, the authors focus on the impact of regulatory programs on hospital costs and the demand for specific labor and nonlabor inputs. Regression analysis is the principal statistical tool used throughout the study.

The authors' empirical results imply that, in general, regulatory programs did not significantly contain hospital costs during the period studied. For example, the more comprehensive certificate-of-need programs appear to have had no impact on hospital costs, while programs defined by the authors as noncomprehensive appear to have actually increased costs by permitting anticipatory and compensatory reactions. In some cases, when hospitals anticipated that their legislatures were about to enact a certificate-of-need program, they apparently accelerated their capital spending programs. In other cases, when hospitals were faced with limitations on capital spending, they compensated by, among other things, hiring more professional nurses. While total hospital cost increases and employment expansion did slow during the Economic Stabilization Program period (1971–1974), there is no evidence that existing state "prospective reimbursement programs" were successful hospital cost-containment strategies during the period, 1970–1975. Moreover, although "budget review prospective reimbursement programs" did depress costs slightly over what they would have been otherwise, no effects on costs whatsoever are reported for "formula prospective reimbursement programs" (such as New York's).

According to the authors, their results are consistent with any of three views: (1) hospital regulations are ineffective in containing costs; (2) the regulations are effective, but the method employed in the study is defective; or (3) the regulations would prove to be effective if the period studied were longer and the programs therefore had been given more time to mature. While not ruling out the third explanation, the authors place more weight on the first—and leave the merit of the second to the reader's judgment.