
Readings

of particular interest

Utilities That Compete

"Two Utilities Are Better Than One," by Jan Bellamy, *Reason*, vol. 13, no. 6 (October 1981), pp. 23-30.

Most economists have long assumed that electric utilities are natural monopolies. But there is a noteworthy piece of counter-evidence: in twenty-three U.S. cities, two separate electric utilities compete side by side for customers. This article describes how competition works in Lubbock, Texas (population 200,000), which is served by both investor-owned Southwestern Public Service (SPS) and municipally owned Lubbock Power and Light (LP&L).

SPS and LP&L split the market about 52-48 respectively, a split that has remained fairly stable over time. The competition between the two firms is robust. Both firms' transmission lines cover the entire city; LP&L generally shares poles with the cable television service and SPS shares poles with the telephone company (though in some areas all the lines are underground). Thus, although Lubbock has two sets of electric lines, it has no more poles than most cities. (In some other two-utility cities, both utilities share the same poles.) Both LP&L and SPS began putting lines underground in the mid-1950s, well before most monopoly electric utilities.

The rates charged by the companies are kept identical by city rate regulation. But there is vigorous nonprice competition. A customer can change service with just three days' notice. Every day the two firms exchange with one another the meters they have collected from customers who have decided to switch companies.

A principal argument for giving utilities legal monopolies was the notion that competition would lead to costly duplication. The evidence from Lubbock seems to suggest that the cost of duplication is much less than the cost

of monopoly. The basic rate for residential service in Lubbock is 2.62¢ per kilowatt-hour; outside Lubbock, areas served by the same SPS generating plants pay a basic rate of 3.13¢, nearly 20 percent more. Total electric bills in Lubbock sometimes end up higher than SPS's bills outside the city because the total bill in Lubbock includes a fuel adjustment charge based on LP&L's more expensive fuel—but added onto *both* companies' bills. Without this municipal intervention, SPS's rates could undercut LP&L's.

The phenomenon of lower rates under competition is not unique to Lubbock. Other cities with at least some competition include Columbus, Ohio, and Bay City and Traverse City, Michigan. Economist Walter Primeaux of the University of Illinois has collected data on all twenty-three U.S. cities with competing electric utilities. After controlling for such factors as income, climate, population density, and residential character, Primeaux found that the marginal price of electricity in competitive cities was 16 to 19 percent lower, and the average price 33 percent lower, than in monopoly cities.

Primeaux speculates that a firm's *costs*, not just its profits, are lower when it faces competition than when it does not, because its employees have greater incentives to work efficiently. He argues that this cost-cutting effect outweighs the effects of economies of scale, at least for small utilities.

In Lubbock, SPS was able to bring a 750 megawatt coal-fired power plant into production in the late 1970s at a cost of only \$296 per installed kilowatt. For the same size plant in the same time period, data from the Electric Power Research Institute—derived from monopoly utilities—indicated capital costs of \$680/kw in Pennsylvania, \$708/kw in Wisconsin, and \$830/kw in Oregon. SPS's total installed cost per kilowatt is the lowest in the nation, Bellamy says.

The Lubbock experience, Bellamy argues, suggests that utility deregulation could well include not only the generation of electricity, as is often proposed, but its distribution as well—enabling state public service commissions to get entirely out of the business of rate regulation for electric utilities.

On Measuring Regulatory Benefits

The Benefits of Health and Safety Regulation, edited by Allen R. Ferguson and E. Phillip LeVeen (Ballinger Publishing Company, 1981), 271 pp.

The benefits of regulation are frequently harder to quantify than the costs and receive correspondingly less attention. This volume contains articles and discussions on the assessment of regulatory benefits; it is based on the proceedings of a conference sponsored by the Public Interest Economics Foundation in 1978.

Paul Kleindorfer and Howard Kunreuther, both of the University of Pennsylvania, maintain that because consumers are often misinformed about dangers to life and limb, they are unlikely to take sufficient preventive action, such as buying insurance. Consumers are most likely to welcome and benefit from regulatory action, they argue, when (1) the product or hazard is complex and unfamiliar, (2) the costs of errors are borne not by those who commit them but by others, and (3) the danger is a "catastrophic" one, striking many persons at once, without warning, through no fault of their own.

Allen Kneese of Resources for the Future and Ralph D'Arge of the University of Wyoming discuss attempts to measure the benefits of health and safety not by arriving at a value per life saved but by evaluating citizens' willingness to pay for a given reduction in risk. They note that in 1977-78 properties in less polluted areas of Los Angeles commanded prices that implied rents \$30 to \$40 a month higher than those of comparable properties in more polluted neighborhoods. The differential seems to have risen noticeably since 1970, which Kneese and D'Arge say may reflect a growing public demand for air quality.

Another way to avoid putting a formal value on saving a life is to use a nonmonetary

scale of benefits to life and health. Richard Zeckhauser and Donald Shepard suggest a weighted index which they call "quality-adjusted life-years."

According to Ezra Mishan of the City University of London, market-oriented economists should view environmental protection not merely as an "elitist" consumption good, but as a way to remedy spillover effects and so correct misallocations of resources. Mishan also criticizes the traditional use in cost-benefit analysis of discounted present value, which he says encourages us to inflict substantial harm on future generations in exchange for relatively small short-term benefits.

David Harrison, Jr., of Harvard's Kennedy School of Government argues for "distributional analysis" of how particular groups are affected by regulation. This not only would clarify the question of who truly wins and loses from controversial rules, he says, but might also identify groups that are especially risk-averse or cannot protect themselves from hazards.

Smothered in the Safety Net?

The No-Risk Society by Yair Aharoni (Chatham House, 1981), 240 pp.

In 1977 the federal government collected nearly half (46 percent) of all insurance premiums paid in the United States. In 1980, it is estimated, Washington for the first time collected more such premiums than the entire private sector. Moreover, about 42 percent of all premiums paid for private insurance stem from legally required automobile liability insurance and workmen's compensation.

These statistics, striking as they are, represent only the most visible risk reduction services provided by government. The systematic shifting of the burden of risk from individuals to society as a whole has emerged as the primary business of government in developed nations, according to Yair Aharoni, professor of business policy at Tel Aviv University. The welfare state has evolved over time into the insurance state.

Aharoni argues that many government social programs, even those defended on grounds

of charity or social equality, really are meant to provide the middle class with protections and immunities from all the perils that flesh is heir to: ill health, unemployment, earthquakes, unsafe products, false advertising, business failure, even foreign competition. One reason may be that the easiest subsidies to defend are those that seem to stave off a hardship rather than confer a positive advantage. Even services like education may be most widely valued as means of insuring against poverty and loss of social status.

The impact of these changes can be seen in the federal budget. As a percentage of the federal budget, health, income security, veterans benefits, education, manpower, and social services rose from 27 percent in 1960 to 55 percent in 1981. Transfer payments for income security alone accounted for 36 percent of the estimated 1981 budget.

The modern state pursues its goals of risk reduction not only through transfer payments, but also through regulations, prohibitions, licenses, quotas, and institutional changes. Part of what makes the insurance state work, Aharoni says, is its ability to disguise its enormous size.

While such regulations may avert risk for a particular citizen, they may actually increase risks in the society generally. For one thing, government is no more immune than private insurers from the pitfall of "moral hazard," the tendency of insurance to encourage people to take less care to prevent the risks they are insured against. The Occupational Safety and Health Administration's proposed benzene regulations, according to one study, would cost four lives in the manufacture of control equipment for each life saved from benzene exposure. Moreover, by the agency's own calculations, the cost of the standards would be \$300 million for each hypothetical life saved—and society's creation of \$300 million is itself a risky process. It is impossible to eliminate risk entirely, Aharoni warns: avoiding it in one instance means accepting alternatives that often prove not only more expensive but also more risky. (See Paul Johnson, "The Perils of Risk Avoidance," *Regulation*, May/June 1980.)

Since public insurance is usually provided "free," the demand can prove almost unlimited. Moreover, the socialization of risks itself fosters new regulation because society comes to

have a stake in formerly private behavior. Motorcycle helmet laws, for example, are often argued for on the ground that society now bears many of the costs of individual recklessness.

Professional Licensure in the States: A Survey

Self-Regulation in the Professions by Hedvah Shuchman and others (Glastonbury, Conn.: The Futures Group, 1981), 262 pp.

In every state, professions like law and medicine are governed by detailed rules specifying who can enter the field, how they can market their services, and what tasks can be performed by such paraprofessionals as nurses, midwives, and paralegals. These rules are set either by states directly or, more often, by bar and medical associations under state-backed procedures. Economic critics maintain that their effect is often to shield the professions from full competition; the associations themselves argue that the rules are needed to keep up the quality of services and protect consumers from unscrupulous practitioners.

This volume, prepared for the National Science Foundation, surveys the current status of self-regulation and state regulation around the country in three professions: law, medicine, and accounting. It reports that despite various political and legal changes in recent years, the professions "remain in control of the organization of their work." Where there have been changes, they have often been in the direction of tighter controls on entry and added requirements for those already in the field—the opposite of what many reformers have called for. Perhaps most significant, state sunset laws, which many advocates thought would lead to a lowering of barriers to entry, seem in some cases to have encouraged legislators to raise them.

The three traditional prerequisites for entering a profession—education, experience, and examination—vary in importance from one profession to the next. In medicine, admission to medical schools is the key barrier, and the medical profession effectively determines entry by strictly controlling the accreditation of med-

ical schools. Recently, both federal and state governments have begun regulating the number and distribution of places available in medical schools, trying to direct future physicians toward some specialties and away from others (see William S. Comanor, "Health Manpower and Government Planning," *Regulation*, May/June 1981).

School accreditation is nearly as important in law as it is in medicine. All but five states stipulate that prospective attorneys must be graduates of law schools approved by the American Bar Association (ABA), and the trend toward accreditation seems to be continuing. The bar exam serves as an added screen. In California, which is one of the five states that does not require ABA accreditation, only 50.2 percent of those who took the 1980 exam passed. In accreditation states the pass rate tends to be much higher; in Texas it was 91.7 percent. (There are also five states where graduates of certain law schools within the state can be admitted to the bar without taking the exam.) Some state and local bars have proposed an experience requirement for new lawyers as well, in the form of a mandatory clerkship.

Accounting has the lowest educational prerequisites of the three professions. Only one state, Hawaii, requires a certified public accountant (CPA) to have a master's degree, and six states require only a high school diploma. Accounting associations have been moving, however, to develop accreditation standards for programs and schools, a trend that could lead to more extensive educational prerequisites. In the meantime, the four-part CPA examination, which is uniform nationwide, is a highly effective bar to entry, the report says. Candidates seldom pass all parts at once, but in most states must pass at least two parts for partial credit. Pass rates are very low: from 1972 to 1974 they averaged from 27 to 36 percent on each of the four parts. Two years of experience are typically required of the aspiring CPA, but the amount can vary inversely with years of education, ranging up to fifteen years in one state for applicants with no college experience.

Because the legal profession is for the most part regulated ultimately by state supreme courts, it escapes review under "sunset" laws. Of thirty states with such laws, nineteen had carried out sunset reviews of accounting boards

and eight of medical boards as of the book's writing. A few voted to end certain requirements unrelated to practice, such as that an applicant live and work in the state, be of the age of majority, or be of "good moral character"—all of which restrictions have come under criticism from reformers. More states, however, voted to keep such restrictions. A few states legalized advertising by accountants, and several voted to require continuing education of currently licensed accountants. Florida voted to transfer many powers from previously autonomous licensing boards to a single "super-agency." In some states, finally, sunset reviews have led to more detailed regulation of paraprofessionals who do not possess accounting or medical degrees. In Alaska, Montana, and South Carolina sunset panels recommended that minimum standards be set for physician assistants, and six state panels recommended tightening curbs on accounting paraprofessionals.

While there was some movement in the opposite direction—notably in Colorado, where the sunset board encouraged the use of paraprofessionals—the overall trend casts some doubt on the presumed tendency of sunset legislation to open up the professions to competition.

Counting the Costs of Pollution Control

Environmental Regulation and the U.S. Economy, edited by Henry M. Peskin, Paul R. Portney, and Allen V. Kneese (Johns Hopkins University Press, 1981), 157 pp.

Pollution control is usually treated in the microeconomic context of its effect on a given industry or sector of the economy. This set of papers, reprinted from the July 1981 issue of the *Natural Resources Journal*, examines the relationship between federal environmental regulation and the performance of the U.S. economy as a whole.

Paul Portney of Resources for the Future discusses several econometric models that have sought to simulate the effect of environmental regulation on the economy. Figures on pollution control expenditures, the most important

raw material in these models, are poorly understood even by experts, and the assumptions behind the expenditure estimates are usually unknown to those who cite the resulting estimates of economic impacts. Portney accordingly warns that the conclusion often drawn from the models—that environmental regulations have only a minor effect on the economy—should be viewed with caution.

Robert Haveman of the University of Wisconsin and Gregory Christensen of Colby College explore the possible links between regulation and recent declines in the growth rate of U.S. productivity. After attempting to control for extraneous factors, including demographic shifts in the labor force and the growth of service industries, and after reviewing estimates given in the literature, they conclude that 8 to 12 percent of the decline should be attributed to environmental regulation. They note, however, that empirical analyses cannot account fully for the effects of regulatory delay, paperwork, and uncertainty.

Barry Bosworth of the Brookings Institution examines the converse problem: how economic growth or decline affects the climate for environmental regulation. He notes that slow productivity growth tends to undercut support for new environmental regulations that benefit some groups at the expense of others. In the past, economic growth made it relatively easy to start new regulatory programs, since even groups that lost relative position gained in absolute terms. Today, however, where industries are declining, the regulators may even be pressured to give ground: in the steel and auto industries, import competition and other problems have led to calls for rollbacks of the regulatory burden.

Henry Peskin of Resources for the Future looks at the extent to which conventional measures of gross national product (GNP) can or should be modified to reflect changes in the quality of the environment. Peskin believes that new yardsticks of this sort could best serve as an adjunct to, rather than a substitute for, ordinary measures of GNP. For a number of yardsticks, however, "the differences between conventional GNP and modified GNP are relatively small."

Winston Harrington and Alan Krupnick of Resources for the Future contribute an article on the regulation of stationary pollution sources.

While economic uncertainty may be an unfortunate result of environmental regulation, they say, "[r]emoving regulatory barriers to economic growth does not eliminate this uncertainty; rather it shifts the burden of risk to the environment."

Finally, Ronald Ridker of the World Bank and William Watson of the U.S. Geological Survey offer a methodology for assessing the long-term effects of environmental policy on economic conditions. Using an input-output model that takes into account both technical progress and population and economic growth, they simulate the effects of several hypothetical environmental policies from now until well into the next century.

Hospital Cost Control: Two Strategies

Controlling Hospital Costs: The Role of Government Regulation, by Paul L. Joskow (MIT Press, 1981), 211 pp.

Governments have up to now followed two basic approaches to holding down hospital costs. In *certificate-of-need regulation*, an official body must give its permission before a hospital can make capital investments of more than some threshold value. The idea is to keep hospitals from buying unnecessary or duplicative equipment and then passing the cost on to patients. In *reimbursement regulation*, regulators set direct maximum limits on the fees hospitals can charge for their services. Hospitals must then either find ways to cut costs, discontinue the price-controlled service, or accept a financial loss (or at least a lower profit).

In this book, Paul Joskow, professor of economics at the Massachusetts Institute of Technology, compares the two forms of regulation. He concludes that certificate-of-need regulation and its related system of health planning have failed and should be scrapped, and that the newer schemes of reimbursement regulation show some promise as ways to hold down costs but can also lead to some serious side effects.

Both types of regulation were pioneered by state government. In 1964, New York passed the first certificate-of-need law, the Metcalf-

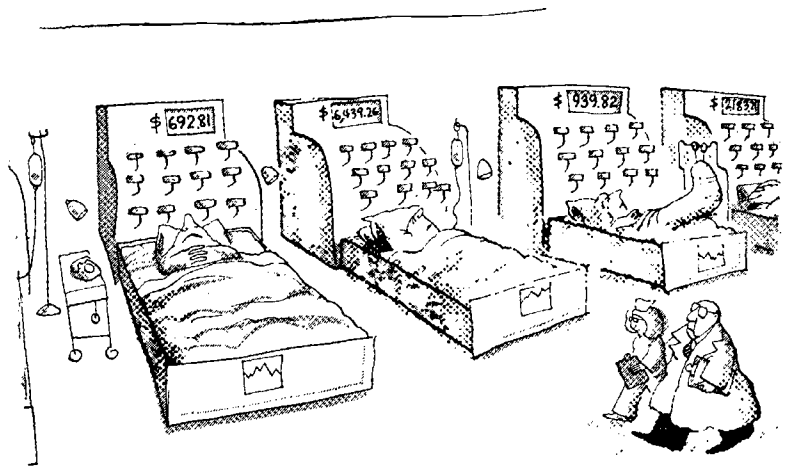
McCloskey Act. Ten years later, by which time twenty-six states had such laws, Congress passed the National Health Planning and Resource Development Act of 1974, which required all states to enact certificate-of-need programs by the end of 1980. Most of the state laws require approval of all capital expenditures by hospitals greater than \$100,000 or \$150,000.

Side by side with these controls, there grew up a network of federally supported state and local health planning agencies, funded at first through the Hill-Burton Act of 1946—the same program that subsidized hospital construction and expansion in the postwar years. When the perceived evil of underbuilding gave way to that of overbuilding, the planning agencies—currently known as Health Systems Agencies—often were enlisted to run the fledgling certificate-of-need programs.

One reason this type of regulation fails, Joskow says, is that it can control only capital expenditures. "Hospitals are not particularly capital-intensive. Interest and depreciation expenses account for only about 10 percent of total hospital expenditure." Moreover, in many medical fields inputs such as labor and supplies are easily substituted for capital, so that curbing the latter may merely boost expenditures on the former.

Joskow also questions the widely held view that there are large numbers of "underutilized" hospital beds. Occupancy during a peak period in a typical community hospital ranges from 90 to 100 percent from Monday through Thursday down to around 70 percent on weekends. It also varies by season: there are only about five-sixths as many admissions in December as in March. Ironing out these fluctuations by re-scheduling elective procedures could cut the number of necessary beds, but only at a significant cost in wages and inconvenience to patients and others.

Larger hospitals, and those whose patients stay for relatively long periods, also have higher occupancy rates than other hospitals. "Nearly 70 percent of the variation in occupancy rates by state can be explained by two vari-



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ables: average length of stay and average number of beds per hospital." The average length of a patient's stay, oddly enough, is longer in the East than in the West, the author says. "The regional differences have persisted for a long time and appear to reflect differences in medical practice among the states."

Reimbursement regulation, like certificate-of-need regulation, got its start in New York, where it was enacted in 1969. By the end of 1980 another seven states had begun active programs. Twelve more states have "voluntary" private rate review arrangements, generally implemented by Blue Cross plans, which are not regulatory programs in the strict sense but achieve many of the same purposes. The Carter administration failed in several attempts to enact an ambitious national system of reimbursement controls.

The New York plan, now more than a decade old, "has placed severe financial pressure on hospitals in New York," Joskow says. "As a group, New York community hospitals have sustained deficits during each of the years 1976 to 1978, and about 80 percent of New York hospitals had deficits in 1977 or 1978." Some have gone bankrupt. "It could reasonably be argued, however," the author says, "that if one wants to use financial constraints to reduce a perceived excess capacity and to constrain expansion, this is exactly what one has to expect, especially in the short run."