The Anatomy of Unreasonableness

Going by the Book: The Problem of Regulatory Unreasonableness by Eugene Bardach and Robert A. Kagan (Temple University Press, 1982), 375 pp.

Why are so many people angry with government environmental, health, and safety regulation? High economic costs may be the most important reason, but a close second may be unpleasant day-to-day exposure to "unreasonable" regulatory demands: pointless requests for information, overly detailed requirements, unwillingness to make exceptions, and other practices that seem to ignore the particular context of the regulated institution and its operations. Enforcement officials "cause" unreasonableness by applying regulations to broad legal classes of businesses and other institutions, even though only some of the members of the class are "bad actors" or otherwise suitable for regulation. Precautions that may make sense when directed against those members of the class will prove to be irrelevant or excessive in many other cases, given the variability of practices among the regulated. The result is that millions of people across the country encounter meaningless regulation—the "dead hand" of bureaucracy.

Thus argue Eugene Bardach and Robert A. Kagan, respectively professors of public policy and political science at the University of California at Berkeley. Their book seeks to explain "the more vexatious aspects of regulatory encounters" between field enforcement officials and those who represent regulated enterprises. Bardach and Kagan conducted interviews with regulators and the regulated in a dozen different fields, ranging from local building code enforcement to quality control within corporations. The nature of the frustrations that the interviewees recount serves the authors as a basis for theoretical conclusions about the inevitable "mismatch" between society's natural diversity and fluidity and government regulation's need for standard categories that receive uniform treatment.

The resulting regulatory "unreasonableness" occurs even though most people, including regulators themselves, deplore it. The problem is that many forms of unreasonableness result from such simple and enlightened government objectives as applying the laws uniformly, ensuring efficient and accountable administration, avoiding unnecessary delay, guarding against "arbitrary and capricious" decision making, and preventing corruption among enforcement officials. To do away with "unreasonableness" would be to put these valued principles at risk.

Bardach and Kagan argue that the cost of unreasonableness is probably high enough now to justify taking more of some of these risks. The dollar cost is only part of the problem. They speculate that over the long run unreasonable regulation may effectively demoralize a "trusteeship stratum" of nurses, safety engineers, teachers, plant managers, factory food inspectors, fire chiefs, and others who work on the front line in preventing the harms that protective regulation addresses. Regulation imposes a regime of external "accountability" on this stratum that threatens to snuff out their spark of internalized "responsibility," the authors maintain.

The authors cite examples of regulatory flexibility and note that a "good inspector" might escape the trap of unreasonableness by applying regulations more selectively and by working cooperatively, rather than through legal conflict, with regulated enterprises. Unfortunately, they say, flexible enforcement not only requires more work and better training of regulatory personnel, but opens officials to the risk of attack for laxness, endangering the public, countenancing departures from the law, cozying up to the regulated, and so forth. What incentives have these officials to brave such criticisms? Not many, say Bardach and Kagan;

indeed, all the incentives, especially the fear of catastrophe and scandal, seem to push them in the opposite direction. Thus there is a "regulatory ratchet" that repeatedly increases the scope of and the demand for protective regulation—in some periods rapidly, in others more slowly—and makes it very difficult to reverse or loosen the process. In this respect, the authors say, protective regulation and so-called economic regulation may be very different.

Since it is the dynamics of the governmental process that drive the regulatory ratchet, a partial solution may be to remove as much regulation as possible from the public domain. Hence the authors include three chapters on such alternatives as liability law, industry selfpolicing, agency informational programs, and taxes on "externalities." They conclude that each of these more decentralized mechanisms of social control, if properly "reinforced" by government action, has some potential, even if limited, for making regulation both more effective and more reasonable. They also note, however, that each of these mechanisms may yield "unreasonable" results as well. They are, after all, instruments of regulation, and when "reinforced" by government action they are exposed to at least some of the hazards of the political arena.

An Expanding Orphanage of **New Drugs?**

"Will All New Drugs Become Orphans?" by Louis Lasagna, in Clinical Pharmacology and Therapeutics, vol. 31, no. 3 (March 1982), pp. 285-289.

"Orphan drugs" are medicines that have not been brought to market because their total sales would prove insufficient to justify their research and development costs. "Originally," writes Dr. Louis Lasagna of the University of Rochester, "the term was applied to drugs intended to treat diseases afflicting very small numbers of patients." More recently, it has broadened to include drugs for "third world" diseases "where the number of patients may be substantial but purchase and distribution of effective remedies may be impossible for impoverished populations."

New regulatory and economic developments are forcing analysts to consider a broader definition of "orphans," Lasagna says, because more and more new drugs that might once have been developed now risk orphan status. The costs of research, development, and testing are rising; in 1980 they were estimated at \$70 million for each new drug. At the same time, new regulatory obstacles are arising that limit the worldwide profitability of new drugs, including new delays in marketing and price ceilings in overseas markets. John R. Virts, an economist with Eli Lilly and Co., has estimated that the return on investment for the typical new drug is barely 8 percent, which compares unfavorably to most business opportunities.

A relative handful of drugs earn really large amounts of money. Of the 119 new chemical entities introduced in this country between 1967 and 1976, one-quarter had average sales of 3 million prescriptions a year, while the remaining three-quarters averaged sales of less than 500,000 each. For at least a decade, moreover, consumer drug prices have lagged behind production costs. Thus it now takes more than two decades for most new drugs to bring in enough revenue to offset the costs of bringing them to market, according to Virts's estimate.

Pharmaceutical innovation is beginning to dry up in this country, Lasagna fears, as more and more time is spent in preclinical testing, clinical trials, and preparation of new drug applications for Food and Drug Administration approval. At the same time, patents are being issued more quickly, which paradoxically harms drug inventors by increasing the share of a patent's life that ticks away while the FDA decides whether to grant its approval. About half of a seventeen-year patent is now lost in this way, Lasagna says. In Canada, compulsory licensing of patents to competitors has further eroded inventors' rights.

Lasagna also sees evidence that investment money in this country has been flowing away from drug R&D toward more lucrative alternatives. Fewer independent firms are submitting new drug applications, and the number of independent drug firms based in this country is falling. During one nine-year period the Lilly firm introduced seven new drugs in the United States, its home market. One received FDA approval more than five years after it had been introduced abroad; the other six were approved here an average of sixteen and a half months after they had been approved by at least one

foreign government. In no case, Lasagna says, did any data turn up in the intervening period that called into question the safety or efficacy of the drug for the uses for which Lilly had sought approval. "In 1980, two American companies, Schering-Plough and Johnson & Johnson, each introduced more products worldwide than did any other company in the world, but of the 48 new launches by Schering-Plough only 8 were introduced in the U.S.; for Johnson & Johnson the figures were 46 and 3."

The U.S. drug industry, Lasagna writes, "is obviously not about to collapse overnight. It continues to market new products and to make profits. But so did the U.S. auto industry until very recently." If the regulatory climate continues to deteriorate. Lasagna believes, all but the most important new drugs could eventually wind up among the orphans.

The Maldistribution That Wasn't

"Where Have All the Doctors Gone?" by Joseph P. Newhouse, Albert P. Williams, Bruce Bennett, and William B. Schwartz, in Journal of the American Medical Association, vol. 247, no. 17 (May 7, 1982), pp. 2392-2396.

During the 1970s many critics began to charge that medical care in the United States was geographically maldistributed. In particular, they accused doctors of shunning ghettos and rural areas in favor of attractive suburbs. This maldistribution would not right itself by pay differentials, it was alleged: doctors could manipulate patient demands, and so earn a handsome income anywhere in the nation.

Drs. Newhouse, Williams, and Bennett (of Rand Corporation) and Schwartz (of Tufts University) show here that the distribution of doctors was not a case of market failure. The market was in fact allocating physicians spatially in the manner predicted by location theory.

There were two pieces of evidence for the view that the market had failed in geographically allocating physicians. First, there were more doctors per resident in metropolitan than in nonmetropolitan areas. A considerable disparity of this sort is to be expected, the authors say, because rural doctors refer a great many

patients to specialists in larger cities and because some people who live near but not in metropolitan areas go to town even for routine care. Thirty percent of the surgery performed on nonmetropolitan residents is done in metropolitan hospitals, presumably by metropolitan surgeons. Finally, if doctors prefer to live in large cities, there will be more of them there and they will earn less, but the market will simply be reflecting their legitimate preferences and their willingness to pay for them.

Of seemingly greater import was the second piece of evidence, which was that this disparity was increasing over time. During the late 1960s the ratio of physicians to population was nearly stagnant for nonmetropolitan counties but grew rapidly for metropolitan counties. Thus it appeared that most new physicians were going to metropolitan areas, a trend that seemed to bode ill for the future.

If the market is working properly, the authors maintain, there should be a critical town size for each specialty. Towns with more than the threshold population will be likely to have a physician of that specialty; smaller towns will usually not, and their residents will have to travel to see such a specialist. The more doctors in a specialty, in general, the smaller the critical town size should be. Thus, members of small specialties, such as neurosurgery or dermatology, should be found only in larger towns, while general surgeons and internists should be found in smaller towns as well. Moreover, as more newly trained physicians entered a specialty, the critical town size should fall and previously unserved towns should acquire a physician. As a result, the number of specialists in all small towns taken together should grow proportionately faster than the number in towns that already possessed a specialist. Conversely, if the number of doctors practicing a specialty drops, small towns should suffer a more than proportionate drop.

The authors collected data for 1970 and 1979 on the number of physicians, by specialty, in all incorporated towns of 2,500 people or more in twenty-three states. The states sampled were disproportionately rural. In 1970 they contained 43 percent of the nation's nonmetropolitan population, and their ratio of physicians to population was 7 percent below the national average. Between 1970 and 1979 the number of practicing physicians rose 24 percent.



"I'm happy to say our ratio of doctors and lawyers to general population remains high."

The results supported all the hypotheses of standard economic theory. Specialties with more members were more likely to have representatives in small towns. Within a given specialty, larger towns were more likely than smaller towns to have a specialist. Among growing specialties, the growth rate was greater in smaller towns as a group. The authors note that the real incomes of physicians are lower in cities of 1 million or more than elsewhere, indicating that doctors do forgo income if they indulge a taste for city living.

Overall, there was a continuing diffusion of specialists during the decade to previously unserved towns. By 1979 most towns of 20,000 or more had attracted specialists of most types, including members of smaller specialties such as ophthalmology, urology, and orthopedic surgery.

Why, then, was the physician/population ratio in small towns stagnant in the late 1960s? The reason is the continuing trend toward specialization: although the total number of physicians was growing, the number of general practitioners was falling. General practitioners with no specialties had been the backbone of the small-town physician stock. The decline in the number of general practitioners therefore affected small towns much more than large cities. And although the critical town size was falling for specialists during the 1960s, it had not yet fallen to such a point that the influx of specialists into small towns did any more than approximately offset the decline of general practitioners there. By contrast, the growth of specialists in the city swamped the decline of general practitioners there, and the ratio of physicians to population grew.

At the same time, government action had assisted in creating a new specialty, family practice, intended to compensate in part for the decline in general practice. During the 1970s, as the members of this new specialty began to practice, the physician-to-population ratio began to grow about as fast in small towns as in metropolitan areas. By 1980 the combined total of general and family practitioners was actually growing. Thus in the 1980s, the authors predict, as num-

bers of both specialists and general/family physicians grow, small towns can be expected to increase their physician-to-population ratios faster than larger towns—which may spell the permanent end of the "maldistribution" crisis.

A New Measure of **Minimum Wage Effects**

Minimum Wages: Measures and Industry Effects by John M. Peterson (American Enterprise Institute, 1981), 113 pp.

Standard economic theory predicts that minimum wage laws will reduce job opportunities, and most empirical studies of the federal minimum wage law have confirmed that prediction. The magnitude of the job losses, however, has usually been estimated to be small, because researchers have assumed that the demand for low-wage labor is inelastic—that is, that it does not decline much when the wage rate goes up. At the same time, the minimum wage improves the earnings of low-paid workers who stay on the job. Thus, some observers have concluded that workers overall benefit from the minimum wage even though particular workers may lose their jobs or work fewer hours than before.

John M. Peterson, professor of economics at Ohio University, points to a possible flaw in these studies that he says may lead them to underestimate the elasticity of labor demand

and thus the employment effects of minimum wage laws. The flaw, he says, lies in the conventional measure of the scope of the minimum wage. To come up with that measure, the Bureau of Labor Standards compares the minimum wage level with the average wage level, and then weights the resulting fraction to take into account different minimum wage rates and degrees of legal coverage in different industries. For example, since federal law exempts very small firms and some industries from the law, the BLS measure of the law's scope is reduced by a factor proportional to the share of the exempt firms and industries in the national economy. The constantly shifting elements in this measure—average wages, mix of industries, and coverage ratios within industries-introduce a "feedback" problem, however, because the minimum wage law itself influences the factors that are used to measure its scope. For instance, suppose industries A and B would be of equal size in the absence of a minimum wage law, and A is exempted while B is subjected to the law. This causes some B jobs to be transferred to the A industry and others to disappear entirely. Then the BLS measure will find that the minimum wage affects less than half the economy, which understates its true impact.

There are a number of other problems with the BLS measure, Peterson says. Thus he proposes a new measure of the "relative minimum wage impact" of a change in the law. It is a measure of the "first-order" effect, or the effect before employers adjust to the new law. To obtain this figure, it is necessary to have data on the amount and distribution of wages in the period before the change. These data are not really novel, Peterson says; they have long been implicit in the Labor Department's estimates of the percent increase in payrolls required by each new legal minimum rate.

Peterson compares his new formula with the older measure in a series of industry regressions, using BLS industry data for the years from 1947 to 1979. He finds the economy-wide effects of the law on both employment and average wages to be rather small. Breaking down the data by major industry division, however, reveals definite effects on wages and employment in the three lowest-wage divisions of finance, services, and retail trade. Within the broad category of manufacturing, wage and employment effects show up clearly in the six low-

est-wage industry groups—which is what one would expect, since these are the industries most directly affected by the law.

The new measure shows more consistent effects than the old one, Peterson says, and also tends to show larger elasticity effects. He finds that there are wide variations among industries in the elasticity of demand for the services of workers who earn less than the minimum wage. The estimated elasticity is 0.97 for industries as a whole, 2.56 for retail trade, and 4.68 for leather products. (The larger the elasticity, the more workers will be displaced by a rise in the minimum wage.) Thus national aggregates can be misleading, Peterson says; a uniform minimum wage seems to place disparate burdens on some low-wage workers, depending on the industry they work in.

State Licensure vs. Professional Mobility

"Licensing, Migration and Earnings: Some Empirical Insights" by Morris M. Kleiner, Robert S. Gay, and Karen Greene, in *Policy Studies Review*, vol. 1, no. 3 (February 1982), pp. 510-522.

Occupational licensure continues to proliferate in the fifty states. Since 1952 the number of occupations licensed in one or more states has grown from 70 to 500. (For details on how licensure has expanded in one state, see "Regulatory Reform in the States: A View from New York," Perspectives, Regulation, September/October 1982.)

One cost of licensure laws may be reduced geographic mobility among professionals, according to the authors of this study (Kleiner from the University of Kansas School of Business, Gay from the Federal Reserve Board in Washington, and Greene from the Employment and Training Administration in the Department of Labor). The ability to move freely within the vast nationwide job market is financially as well as personally valuable to workers, particularly in times when economic growth varies markedly from one region to another. In the absence of any constraints, workers will tend to relocate in areas of fast-growing demand where incomes are highest. Over time, as workers move into these markets and as the labor

supply is reduced in less desirable localities, a geographic equilibrium will theoretically be approached, and incomes in the two areas will tend to converge.

Occupational licensure can create an imbalance by raising barriers to interstate movement. While some state licensing laws and boards recognize out-of-state licenses, most impose a variety of conditions before they permit newcomers to practice in their jurisdictions. These restrictions can result in a lastingly uneven distribution of licensed practitioners among states and can perpetuate variations in incomes within regulated occupations from one state to the next, the authors hypothesize.

In this study, funded by the Department of Labor and the University of Kansas, the authors test the hypothesis that occupational licensing serves as a barrier to interstate migration. To measure the comparative restrictiveness of each state's rules on licenses issued by other states, they employ an index based on the number and type of conditions the state imposes on out-of-state licensees before permitting them to practice. They then compute an average of these values for each of fourteen occupations licensed in all states and compare it to the interstate migration rate of workers in the occupations. They find an inverse relationship between migration and state restrictiveness, so that persons in occupations with little reciprocity among states are less mobile than those in occupations where the states' rules are less restrictive. For example, only three states have unrestricted reciprocity provisions for barbering and barbers have the lowest rate of interstate migration.

After establishing this relationship, the authors next estimate the mobility of persons in similar occupations that are not subject to state licensure. Using 1970 census records, they compare migration rates from 1965 to 1970 for members of seventeen licensed occupations with those for a group of nonlicensed professionals selected from broadly similar occupational categories (such as professional and technical workers) and having comparable educational backgrounds and income characteristics. They found practitioners of each of the licensed occupations to be less mobile than their nonlicensed counterparts; the least mobile, comparatively, were barbers, dentists, and optometrists.

To calculate the effect of interstate licensing arrangements on earnings, it is necessary to control for other labor market factors that may affect a decision to move. The authors used a model that controlled for several labor market variables (employment, income, and earnings). a "migrant stock" variable measuring the average propensity to move among persons in a state, and a group of occupation-specific variables such as the gender and average level of experience of practitioners and the overall restrictiveness of the existing state licensing provisions in matters relating to interstate practice. After controlling for those variables, the evidence again shows that lack of reciprocity is statistically significant in reducing interstate migration and that earnings are higher among licensed practitioners in occupations with the most restrictive state rules against reciprocity.

Using a second model, the authors attempt to estimate how much interstate migration of practitioners would increase if all states pursued an unrestricted policy of reciprocity. They believe migration would rise by more than 45 percent. At the same time, they say, the earnings of persons in licensed occupations would be reduced by an average of 7 to 18 percent.

Do Charities Compete Too Well?

"Charitable Giving and 'Excessive' Fundraising" by Susan Rose-Ackerman, in The Ouarterly Journal of Economics, vol. 97, no. 2 (May 1982), pp. 193-212.

A number of states regulate charitable solicitations in an attempt to prevent charities from spending excessive amounts on fund raising. Susan Rose-Ackerman, professor of law and political economy at Columbia University, uses a model of charitable giving to show that although the "market" for charity has serious shortcomings that often frustrate donors' intentions, most prominent regulatory proposals are unlikely to remedy matters much.

The central problem is that it pays each individual charity to pursue its fund-raising efforts out to the point where a marginal dollar spent on solicitation brings in one dollar in contributions. And although economists might consider such a competitive result optimal in the case of industrial production, in Rose-Ackerman's charity model the result is pure waste:

competition between charities drives the funds available to finance worthy causes down to almost zero.

Rose-Ackerman's model assumes that solicitations and advertisements "simply tell donors that the charity exists, has a particular ideological position, and spends a certain share of receipts on fund-raising." (Donors also care about such issues as how many people a charity serves and how much it would cost to serve an additional person, and charities often voluntarily publicize this information.) She assumes for simplicity that charities do not shift the nature of their mission (their "ideology") to influence contributors, but that new charities can easily enter the market to fill vacant ideological niches or to challenge an existing charity on its own ideological turf.

The author considers three possible ways donors could react to charities that spend too much on fund raising. First, if donors are simply indifferent to fund-raising costs, charities in the model will raise money until marginal costs equal marginal benefits. With free entry, the equilibrium level of charitable services will approach zero. Second, donors may try to punish charities with high fund-raising costs. Then the model predicts that entry and total fundraising effort will still be too high, although not necessarily as high as in the first case. There may also be a tendency for large charities with low fund-raising shares to become larger and small ones with high shares to go out of business. Finally, donors may consider where a charity gets its funds: they may be more willing to accept a given level of fund-raising expense if it succeeds in pulling in contributions largely from nondonors instead of from those who would otherwise give to similar charities. Even if donors take this sophisticated view, the author says, charities will still oversolicit.

In reality, of course, net charitable resources are nowhere near zero-which indicates, the author says, that there are some important barriers to entry in the charity business. Among them may be "brand loyalty," donor suspicions about the efficiency of new charities, and a shortage of entrepreneurial talent. But the effect of entry barriers is far from an unmixed good, she says. "Although entry barriers permit positive levels of charitable services, they also reduce the ideological diversity of the non-profit sector."

Several strategies have been proposed to cut down on the remaining problem of oversolicitation. The simplest is compulsory disclosure of information on fund-raising costs. But this may be futile, because with easy entry of new charities fund-raising shares will still be pushed to high levels by the competition for funds. Next, states might try to regulate the share of receipts a charity could spend on fund raising. "This would be difficult to enforce, however, because charities cannot choose [the percentage | directly." Many charities incur high costs because their appeals have failed to work as well as they had hoped. Alternatively, states could try to control the number of brochures a charity could send out or directly limit solicitation in some other way. This, Rose-Ackerman says, would merely encourage a proliferation of small new charities.

Finally, governments might lend their support to the principle behind such federated fund drives as the United Way (see Perspectives, page 11). Such drives can succeed in cutting fund-raising costs, the author notes, but only at the price of reducing diversity. If member charities are discouraged from raising funds separately, consumers have to "buy" not only their favorite charity but a grab bag of others. This means, assuming they feel only lukewarm enthusiasm for some member charities, that they will have to make the sort of "tie-in" purchase that economists traditionally consider inefficient. The effect might be either to hurt or to help total donations, depending on how intensely donors want to give to their favorite member charities—how "inelastic" their demand is. If donor demand is inelastic, total gifts may rise; otherwise they will probably fall, though not necessarily by as much as fund-raising expense will fall. (If some donors actively dislike some member charities, total gifts may fall even if demand is inelastic.)

Rose-Ackerman concludes that the limited monopoly power of united funds "can perhaps be justified as a realistic compromise between preserving ideological diversity and preventing the competition for gifts from absorbing a large share of charitable resources. This is not to say, however, that the admission procedures and solicitation practices of [real-life] united funds are entirely benign or that their monopoly power should be increased."