Michigan Law Review

Volume 70 | Issue 1

1971

Lawyers, Economists, and the Regulated Industries: Thoughts on Professional Roles Inspired by Some Recent Economic Literature

Charles Donahue Jr.
University of Michigan Law School

Follow this and additional works at: <https://repository.law.umich.edu/mlr>

Part of the [Administrative Law Commons](#), and the [Law and Economics Commons](#)

Recommended Citation

Charles Donahue Jr., *Lawyers, Economists, and the Regulated Industries: Thoughts on Professional Roles Inspired by Some Recent Economic Literature*, 70 MICH. L. REV. 195 (1971).

Available at: <https://repository.law.umich.edu/mlr/vol70/iss1/6>

This Review is brought to you for free and open access by the Michigan Law Review at University of Michigan Law School Scholarship Repository. It has been accepted for inclusion in Michigan Law Review by an authorized editor of University of Michigan Law School Scholarship Repository. For more information, please contact mlaw.repository@umich.edu.

RECENT BOOKS

BOOK COMMENT

LAWYERS, ECONOMISTS, AND THE REGULATED INDUSTRIES: THOUGHTS ON PROFESSIONAL ROLES INSPIRED BY SOME RECENT ECONOMIC LITERATURE

*Charles Donahue, Jr.**

THE ECONOMICS OF REGULATION: PRINCIPLES AND INSTITUTIONS. By *Alfred E. Kahn*. New York: John Wiley & Sons. 1970. 2 Vols. Pp. xii, 212; xiii, 352. \$20.90.

THE CRISIS OF THE REGULATORY COMMISSIONS: AN INTRODUCTION TO A CURRENT ISSUE OF PUBLIC POLICY. Edited by *Paul W. MacAvoy*. New York: W. W. Norton & Co. 1970. Pp. xii, 212. \$2.25.

PERFORMANCE UNDER REGULATION. Edited by *Harry M. Trebing*. East Lansing: Inst. of Public Utilities, Michigan State University. 1968. Pp. xx, 169. \$6.00.

UTILITY REGULATION: NEW DIRECTIONS IN THEORY AND POLICY. Edited by *William G. Shepherd & Thomas G. Gies*. New York: Random House. 1966. Pp. xii, 284. \$2.95.

I. THE REGULATORY CRISIS AND THE NEW GURU

It is now becoming painfully apparent even to the consuming public that something is seriously wrong in the traditional regulated industries.¹ The death of intercity rail transportation and the gift of its corpse to Amtrak, the recurring summer "brown-outs" in New York City, the difficulty of obtaining a dial tone in the same City, the chaos in international air fares, and the rationing of natural gas in many parts of the country are but examples of a larger malaise. Although the whole economy is currently beset by difficulties, those of the regulated sector seem considerably greater than those of the rest of the economy. Nor can the difficulties in that sector be

* Associate Professor of Law, University of Michigan. A.B. 1962, Harvard University; LL.B. 1965, Yale University.—Ed.

I would like to thank my colleagues Thomas Kauper, Donald Regan, and Peter Steiner for stimulating and useful comments and suggestions. Peter Steiner, in particular, helped me considerably in sharpening the focus of the piece and in avoiding both economic and legal errors. Of course, the fuzziness which remains and any surviving errors are solely my responsibility.

1. Throughout this review the term "regulated industries" refers to those industries, usually called common carriers or public utilities, which are subject to price and entry regulation. Included are much of surface and air transportation, leased communications like telephone and telegraph, and much of the energy industry. Broadcasting, which has its own peculiar problems, is not included, nor are those industries, like insurance and banking, which, though heavily regulated, do not display "natural monopoly" characteristics.

attributed entirely to failures of management, though management in some portions of the sector has not always been in the finest American tradition.

There is, in fact, substantial reason to believe that the problems of the regulated industries are in large measure due to regulation, or, to put it slightly more broadly, to a failure of public policy with respect to these industries. Two examples should serve to illustrate. As early as 1962 Paul MacAvoy predicted that the FPC's policy toward natural gas field prices (a policy that admittedly was virtually forced upon it by the Supreme Court) would lead in time to the necessity of administered rationing of gas.² The Court and the Commission, he argued, had seriously misread the nature of the market, and prices were being set so low that exploration would be discouraged, so low in fact that price could not even perform its traditional automatic rationing function. MacAvoy may now be accorded the small consolation of an I-told-you-so.³

Similarly, the regulatory process must share some measure of the blame for the electric power crisis in New York. Various efforts by the supplier both to reduce air pollution in the City and to expand its generating capacity have met such regulatory obstacles that the company is still a major polluter and now has inadequate capacity. The company's attempt to reduce pollution by firing its boilers with natural gas was blocked by the FPC and the Supreme Court.⁴ Its more recent effort to expand its peak load capacity with a pump storage facility is still before the courts after what can only be regarded as an incredibly tortuous series of proceedings.⁵ This is not to say that the company should necessarily have prevailed in these cases but rather that the regulatory process was incapable of arriving at a timely policy which balanced the power needs of the City against the known and probable environmental costs of meeting those needs.

These concerns with both the regulatory process and the regu-

2. See P. MACAVOY, PRICE FORMATION IN NATURAL GAS FIELDS (1962), the conclusions of which are printed in THE CRISIS OF THE REGULATORY COMMISSIONS 152-68 [hereinafter CRISIS]. See also Kitch, *Regulation of the Field Market for Natural Gas by the Federal Power Commission*, 11 J. LAW & ECON. 243 (1968), excerpted in CRISIS, *supra* at 169-86.

3. MacAvoy, *The Regulation-Induced Shortage of Natural Gas*, 14 J. LAW & ECON. 167, 171 (1971).

4. Transcontinental Gas Pipe Line Corp., 21 F.P.C. 138 (1959), *affd.*, 365 U.S. 1 (1961). The Court upheld the Commission's determination that the use of gas to fire boilers was an "inferior use" of a "wasting resource" when compared to domestic uses of gas. 365 U.S. at 8 & n.5, 22.

5. See *Scenic Hudson Preservation Conference v. FPC*, 354 F.2d 608 (2d Cir. 1965), *cert. denied*, 384 U.S. 941 (1966). Upon remand the Commission, after some five years of proceedings, once more voted to grant Consolidated Edison the license. UTIL. L. REP. ¶ 11,152 (Aug. 28, 1970). The case is now before the Second Circuit for a second appeal. Docket Nos. 35676, 35677, 35678, 35683, 35688, 35689, 2d Cir., 1971.

lated industries have produced a modest revival of interest among economists in the problems of the regulated sector of the economy.⁶ It is a revival which so far lacks a Billy Sunday, but the regulated industries themselves and some of the foundations have stimulated it by sponsoring a considerable amount of economic research in the field. Industry and, strikingly, even the regulatory commissions have come to employ both consulting and full-time economists.⁷ The academic product of this revival is well represented by the major treatise and three collections of economic essays on regulation which are listed above.

The field which these economists are re-entering is one that, despite the obviously economic nature of its substance, has been controlled at the practical level almost entirely by lawyers.⁸ True, economists have occasionally served as expert witnesses in major proceedings and have one specialized academic journal devoted in large part to regulatory matters,⁹ but lawyers dominate the regulatory decision-making process. Industry lawyers prepare the company's case; commission lawyers prepare the Government's. A lawyer in the role of hearing examiner hears and sifts the evidence and renders an initial decision, which is reviewed by the commissioners, most of whom are lawyers.¹⁰ Appeals to the courts are, of course, entirely in lawyers' hands.

The new presence of economists calls for a reappraisal of the role of the lawyer in the regulated industries field. The appearance of a new guru puts the old in an awkward position. Should he grace-

6. While regulation has always been a specialized subfield of economics, the recent work has been more in the mainstream than any time since the critical period of railroad regulation at the turn of the century. For some of the recent literature, see, e.g., the select bibliography in *CRISIS*, *supra* note 2, at 211-12; *UTILITY REGULATION: NEW DIRECTIONS IN THEORY AND POLICY* 264-78 [hereinafter *DIRECTIONS*] and authorities cited therein; and the select bibliography in 1 A. KAHN, *THE ECONOMICS OF REGULATION* 201-03; 2 A. KAHN, *supra*, at 331-36. See also Rosoff, *Economics and Regulation*, in ABA PUBLIC UTILITY LAW SECTION, 1971 REPORT, at 31-46, and authorities cited therein. Rosoff's piece came into my hands too late to have any substantial impact on the text of this review. It contains an examination by an economist working for a regulated company of some of the same economic developments discussed here. Rosoff's conclusions on what the role of economists and economics in regulatory proceedings should be are, in my view, far too modest in the light of the evidence which he himself brings to bear.

7. Some examples include a substantial Ford Foundation grant to the Brookings Institution for research in regulation; the publication of a scholarly journal on regulatory problems, *BELL J. ECON. & MANAGEMENT SCIENCE*, funded by the American Telephone & Telegraph Company, which has also funded numerous university conferences and seminars on the topic; and the establishment in 1962 of an Office of Economics in the FPC after twenty-seven years of operation without one.

8. See Massel, *The Regulatory Process and Public Utility Performance*, in *PERFORMANCE UNDER REGULATION* 113 [hereinafter *PERFORMANCE*].

9. *LAND ECON.*

10. See SUBCOMM. ON INTERGOVERNMENTAL RELATIONS OF THE COMM. ON GOVERNMENT OPERATIONS, STATE UTILITY COMMISSIONS, S. DOC. NO. 56, 90th Cong., 1st Sess. 5 (1967); M. BERNSTEIN, *REGULATING BUSINESS BY INDEPENDENT COMMISSION* 106 (1955).

fully retire to contemplate his navel? Should he go out to do battle with the new? Or should he seek some kind of accommodation? And if so, what kind? My thesis is that the lawyers who have dominated the regulatory field must bear the brunt of the blame for the current regulatory crisis, that the business of the regulatory commissions is principally economic, not legal, and that professional economists should play a far greater role in the process than they do now.

To test this thesis I begin by examining the causes of the crisis as expounded in the current economic literature. This examination has led me to the conclusion that regulatory practice and policy has suffered from not being sufficiently economic in its orientation. If this point is correct, there remains an important subsidiary question: What role, if any, should be played by the lawyer?

II. WHAT ARE THE ECONOMISTS SAYING?

A. *The Need for Regulation*

Price and entry regulation is the product of an era in which economists pretended that actual market structures could be analyzed as of two forms—competition or monopoly. The former model has the happy property that under it the economy will achieve an optimal allocation of resources, a condition in which all resources flow to where they are most wanted and all transactions which benefit both participants have taken place.¹¹ Under monopoly, in sharp contrast, an optimal resource allocation will not be achieved: Prices will be too high; production will be too small; and monopolists will earn profits that serve no economic function.

At the time the regulatory commissions were chartered, the legislatures made the fundamental policy choice—a choice which remains unchanged to this day—to achieve or approximate the price and output results that would emerge from the competitive system. The principal device chosen to achieve this goal was not regulation but the antitrust laws, which have as their purpose the restoration to a competitive state of those sectors of the economy which were monopolized and the preservation of that state once it is achieved. Certain industries, however, cannot achieve optimal resource allocation and be competitive at the same time. They display “natural monopoly” characteristics, declining unit costs over the relevant range of demand. Price and entry regulation was instituted in these industries to substitute for the market and to achieve as closely as possible the allocational advantages of competition. Roughly, entry regulation is designed to promote the efficiencies inherent in the natural monopoly characteristics of these industries, while price

11. This condition is frequently called “Pareto-optimality” or “Pareto-efficiency.” For a fuller description, see R. LIPSEY & P. STEINER, *ECONOMICS* 344-60 (2d ed. 1969).

regulation attempts to establish administratively a competitively low price and thus prevent the inefficiencies attendant upon artificially restricted outputs.¹²

This theoretical base is simple enough for most lawyers to understand. An entry proceeding becomes one in which the burden is against a new entrant who might dissipate the efficiencies achievable by the monopolist. A pricing proceeding is one in which the costs of a given firm are determined from a combination of accounting, engineering and economic data, and prices set to equal those costs. Both proceedings require a balanced judgment about facts derived from a number of disciplines—the kind of judgment which trial judges have made with some success in many legal areas.

This legal framework, however, is dependent on the bifurcation of the economic world into the simple models of competition and monopoly. The less sure we are that these models are the relevant analytic representations of reality, the more difficulties there are with proceeding in this simplified fashion. Over the past forty years economists have increasingly found these models inadequate. James Nelson summarizes the consensus among modern economists: "This simple dichotomy [between competition and monopoly] has been replaced by a whole family of theoretical market categories, blurring along the edges."¹³ In the regulated sector especially, economic developments have been making it increasingly difficult to see the outlines of the classical monopoly model. For example, the threat of technological obsolescence, a fate which seems to have overtaken both intercity passenger rail transport and public message telegraph, may provide incentives to innovate that, at least in part, substitute for those provided by competition in the classical competitive model.¹⁴ Further, many regulated industries are now confronting considerably more direct competition than they were in the past. The transportation industry strikingly illustrates this latter phe-

12. For an exposition of the basic theory, see I. A. KAHN, *supra* note 6, at 1-19; Lerner, *Conflicting Principles of Public Utility Price Regulation*, 7 J. LAW & ECON. 61 (1964), in CRISIS, *supra* note 2, at 18-29, as *Conflicting Principles of Public Utility Rate Regulation*. Of course, as Lerner points out, absent perfect price discrimination, Pareto-optimality cannot be achieved in a declining cost industry so long as some or all of the consumers must bear the imbedded costs of the service. For some provocative suggestions on how to approach this problem, see Baumol, *Reasonable Rules for Rate Regulation: Plausible Policies for an Imperfect World*, in PRICES: ISSUES IN THEORY, PRACTICE AND PUBLIC POLICY (A. Phillips & O. Williamson ed. 1967), and in CRISIS, *supra* note 2, at 187-206. See generally J. NELSON, MARGINAL COST PRICING IN PRACTICE (1964).

13. Nelson, *Pricing and Resource Allocation: The Public Utility Sector*, in DIRECTIONS, *supra* note 6, at 59, 84-85.

14. See Adams & Dirlam, *Market Structure, Regulation and Dynamic Change*, in PERFORMANCE, *supra* note 8, at 131. Scherer notes that "... an output handicap amounting to 10 per cent of gross national product due to static inefficiency is surmounted in just five years if the rate of growth of output can be raised through more rapid technological change from 3 to 5 per cent per annum" F. SCHERER, INDUSTRIAL MARKET STRUCTURE & ECONOMIC PERFORMANCE 346 (1970).

nomenon and so, many would argue, does the energy industry, particularly if gas and electric companies are kept separate.¹⁵

These developments raise the question whether regulation today actually has any effect at all. One study of this question by George Stigler and Claire Friedland has had such a significant impact in the economic world that it has been reprinted in two of the recent collections of economic essays about regulation.¹⁶ Using fairly sophisticated econometric techniques, Stigler and Friedland compared both the revenue and output of various regulated and unregulated electric companies during the teens, twenties, and thirties of this century. They concluded that once inherent cost differences were controlled for, regulation had little or no "significant" effect on either the revenue or the output of the companies. The authors suggest that the reason for this result is that there was sufficient competition in the energy industry to keep the performance of the unregulated companies close to competitive without regulation and that regulation was sufficiently imprecise to make any significant difference.

The Stigler-Friedland thesis has been subjected to considerable scrutiny, and a number of objections have been raised.¹⁷ These objections, however, need not detain us here, for despite them, the Stigler-Friedland position has remained "relatively secure."¹⁸ Further, no serious scholar doubts that the question whether regulation has any effect is a fundamental and serious one, and that however difficult their techniques and debatable their conclusions, Stigler and Friedland offer a methodology for answering this type of question which has great promise for fruitful results. Yet, with a few exceptions, the lawyers who dominate the regulatory process have not come to grips with the challenge which they present.

At first glance, such studies seem to have little relevance to practicing lawyers except perhaps in their occasional role as legislators. After all, the commissions are there and will continue to be there

15. See Adams & Dirlam, *supra* note 14.

16. *What Can Regulators Regulate? The Case of Electricity*, 5 J. LAW & ECON. 1 (1962), in CRISIS, *supra* note 2, at 39-52, and in DIRECTIONS, *supra* note 6, at 187-211.

17. For example, if the criteria concerning what constitutes "significant" effect are relaxed somewhat, the data will bear the inference that regulation has some effect. See F. SCHERER, *supra* note 14, at 537 n.40; Comanor, *Should Natural Monopolies Be Regulated?*, 22 STAN. L. REV. 510, 515-17 (1970). On a broader scale, the Stigler-Friedland analysis can be criticised because it does not take into account the difference between active and inactive commissions, nor the threat of regulation in an unregulated jurisdiction. Such intangibles are difficult to measure, but they open the policy conclusions of the piece to question. Further, even if the analysis is correct, any inference as to the effect of regulation today requires the further assumption that conditions since the Second World War are the same as those prior to the War. Stigler and Friedland, of course, could not make the same kind of comparison with recent data, since in recent years practically every company in the electric industry has been regulated.

18. CRISIS, *supra* note 2, at 39.

until the legislature disestablishes them. This view, however, is short-sighted. If there is something to the notion that regulatory commissions need not do some or a large portion of their job because competition is doing it for them in a better and more precise fashion, then it is incumbent upon the lawyers who practice before the commissions to make the commissions aware of this fact and upon the lawyers who run the commissions to act accordingly. The law, by and large, does not prescribe how the commissions are to exercise their jurisdiction.¹⁹ There may be many instances in which better results would be produced if the commissions engaged in what we might call administrative self-denial²⁰ by allowing market forces to dictate their decisions about the industries under their jurisdiction. The FCC's recent opening of the private microwave field to greater competition is a step in this direction.²¹

But are lawyers particularly competent to decide whether to open portions of the regulated area to more entrants or to allow market forces to determine certain regulated prices? Such decisions require empirical judgments about which of a number of competing economic models is most relevant to the question at hand. These judgments, in turn, often, if not always, benefit from the use of the kind of econometric analysis employed in the Stigler-Friedland study. The analysis is considerably more complicated than the kind of descriptive statistics which lawyers have traditionally manipulated in the "Brandeis brief." It is not, to my knowledge, taught at any law school, and is sufficiently complicated that a lawyer is unlikely to be able to master it in his spare time. On the other hand, econometrics is an integral part of the training of most modern economists. This training is designed to teach not only how to manipulate the formulae which go into the analysis, but how to judge the results—whether the range of error is too large for comfort and whether the correlations indicate direct causal relationships or simply indicate deeper causes.

B. *The Techniques of Regulation*

Recent economic literature has done more than raise questions about the justification of regulation. It has delved quite deeply into the problems of over-all profit regulation and pricing of individual

19. For example, the statutory standards governing prices ("All charges . . . shall be just and reasonable," 47 U.S.C. § 201(b) (1964)) and entry ("The [FCC] shall have power to issue such certificate . . . as in its judgment the public convenience may require," 47 U.S.C. § 214(c) (1964)) in the communications field are so vague that regulation might just as well be left to market forces.

20. The phrase is mine; the idea is developed in Posner, *Natural Monopoly and Its Regulation*, 21 STAN. L. REV. 548, 640-43 (1969).

21. See 2 A. KAHN, *supra* note 6, at 132-36, 149-52; 37 TELECOMMUNICATIONS REP., June 1, 1971, at 1.

services. As to over-all profit regulation, the regulated firm traditionally is allowed to set its rates so that they will yield revenues equal to the firm's operating expenses plus depreciation plus a "fair" profit. This "fair" profit is usually calculated by multiplying a rate of return times a rate base, which base represents the capital which the firm has "dedicated to the public service."²² Of all the items in this formula none has occupied more time in the courts and commissions than the calculation of the proper rate of return. The reason for the difficulty is that there is a vaguely defined constitutional minimum below which a court may find the rate "confiscatory."²³ Above the minimum the commissions have a great deal of latitude, but this latitude is always tempered by the regulated firm's argument that placing the rate too low, even if above the confiscatory level, will mean that the company will not be able to attract capital on the open market and service will decline.

The presence of the legal minimum and fears about service decline motivate a commission to set the rate of return on the high side. Two economists, Harvey Averch and Leland Johnson, on the other hand, have demonstrated rigorously that a profit-maximizing firm which receives a greater return on its capital than the cost of that capital will be motivated to maximize investment in a number of socially inefficient ways.²⁴ It will, for example, employ capital to do jobs which could be done by labor at less real cost; it will expand into new lines of business even though these lines return less than their marginal cost.

The furor that the Averch-Johnson thesis has caused is somewhat surprising.²⁵ Observers of the regulatory scene have long noticed that regulated companies have a tendency to "pad the rate base" because they can earn a return only on capital invested in that rate base.²⁶ Pipeline companies want to build their own pipelines, not

22. Symbolically we may represent this formula as:

$$RR = OE + D + \%R(OC - D)$$

where:

RR = total revenue (revenue requirements);

OE = the sum of legitimate operating expenses;

D = accounting depreciation on capital equipment (usually calculated by straight-line methods);

%R = the percentage rate of return; and

OC - D = the rate base (here to be calculated by the more usual method of subtracting accrued depreciation from the original accounting cost of the capital plant and equipment).

Clearly, an accountant's nightmare lurks in this formula. Most regulatory commissions have adopted standardized accounting procedures, but the debates over particular items are many and furious. See, e.g., I A. KAHN, *supra* note 6, at 25-35.

23. See P. GARFIELD & W. LOVEJOY, *PUBLIC UTILITY ECONOMICS* 117-18 (1964).

24. Averch & Johnson, *Behavior of the Firm Under Regulatory Constraint*, 52 AM. ECON. REV. 1052 (1962). See Wellisz, *Regulation of Natural Gas Pipeline Companies: An Economic Analysis*, 71 J. POL. ECON. 30, 39 (1963).

25. See Rosoff, *supra* note 6, at 34-36, for a review of the literature.

26. Rate base padding is not necessarily a manifestation of the Averch-Johnson

lease space in someone else's.²⁷ Many electric utilities, without suspicion or complaint, paid highly inflated prices for generators during the years of the electric equipment conspiracy.²⁸ The battle over who is to own satellite earth stations can best be understood in these terms.²⁹

If the purpose of price and entry regulation is to achieve the allocative effects of a competitive market,³⁰ then the rate of return problem fits quite neatly into place. Capital is a resource and, like all other resources, it has a cost. The commissions have the task, in the absence of a market, of determining this cost. They have always been at least dimly aware of the misallocative effects of estimating that cost too low; Averch and Johnson have simply pointed out the misallocative effects of estimating it too high.

Granted the importance of precision in this area,³¹ one can only be disturbed at the way the calculation of the cost of capital is currently made. The cost of capital is said to be a matter of judgment;³² in practice this means that its computation is a kind of guessing game in which a jumble of numbers, including the returns allowed by other commissions and those earned in vastly different industries, are thrown before the commission, which then pulls a compromise figure out of its hat. On the other hand, the economists who specialize in financial matters have provided working models for such calculations that require the exercise of sophisticated statistical judgment but have a far firmer grounding in empirical reality than most of the methods currently used in regulatory proceedings.³³ These

effect. It may be simply tricky accounting, or it may be a manifestation of the phenomenon that "not high profits but a quiet life is the chief reward of monopoly power" (United States v. United Shoe Mach. Corp., 110 F. Supp. 295, 347 (D. Mass. 1953), *aff'd*, 347 U.S. 521 (1954) (Wyzanski, J.)), *i.e.*, taking advantage of a monopoly position to be less vigilant about costs. In this latter respect, however, there is no more incentive to pad the rate base than there is to pad the operating accounts.

27. See Wellisz, *supra* note 24, at 35-36.

28. See Westfield, *Regulation and Conspiracy*, 55 AM. ECON. REV. 424 (1965).

29. See, e.g., 36 TELECOMMUNICATIONS REP., Aug. 17, 1970, at 2; 36 *id.*, Aug. 3, 1970, at 1.

30. See text accompanying note 12 *supra*.

31. One recent analysis of the Averch-Johnson thesis shows that under certain cost conditions the distortive effect is greater the closer the commission sets the rate of return to the true cost of capital, so long as the return set is not exactly correct. F. SCHERER, *supra* note 14, at 533, 551-55. For the sake of the commissions I can only hope that Scherer's assumptions about the shape of the cost function are incorrect.

32. See, e.g., I A. PRIEST, *PRINCIPLES OF PUBLIC UTILITY REGULATION* 215-16 (1969), and authorities cited therein.

33. See, e.g., Miller & Modigliani, *Some Estimates of the Cost of Capital to the Electric Utility Industry*, 56 AM. ECON. REV. 333 (1966); Robichek, McDonald & Higgins, *Some Estimates of the Cost of Capital to the Electric Utility Industry, 1954-57: Comment*, 57 AM. ECON. REV. 1278 (1967); Robichek & Myers, *Valuation of the Firm: Effects of Uncertainty in a Market Context*, 21 J. FINANCE 215 (1966); Solomon & Laya, *Measuring Company Profitability: Some Systematic Errors in the Accounting Rate of*

models are based on the premise that the investor is not buying a piece of equipment when he buys stock in a company, but that he is buying a stream of benefits, some combination of dividends and growth anticipated over a period of years, discounted to present value and adjusted for risk, inflation, etc. Thus, the traditional rate base calculated on the basis of the book value of capital equipment, or on the basis of the reproduction cost of that equipment, is an arbitrary place to begin calculating the investor's expected return and hence the company's cost of capital.

A discounted flow-of-benefits method of calculating the cost of capital has been presented in at least one major commission proceeding.³⁴ The Commission's opinion solidly summarized the testimony concerning the model both pro and con, described it as a "new and challenging approach" with "promise of being a useful tool,"³⁵ and rejected its application with the following language:

We have not had the opportunity to analyze, evaluate, and test fully his model to determine all of its implications in so far as fixing an overall rate of return is concerned. However, we believe that it merits further attention as a means of making available more objective data and substantive support for the exercise of the subjective judgments in fixing a rate of return. We would, therefore, encourage further study and refinement of the model to make it more useful in resolving the special problems which arise in the field of regulated entities.³⁶

Without in any way disparaging the Commission's efforts, its reaction was predictable, granted the training of the bulk of its members and staff. Unless the Commission went through a retraining process or turned over the decision-making function entirely to its experts, it is hard to see how such an analysis would ever be "useful" to it.³⁷

In the pricing of individual services, the same pattern prevails as

Return, in *FINANCIAL RESEARCH AND MANAGEMENT DECISIONS* 152 (A. Robichek ed. 1967). See also 1 A. KAHN, *supra* note 6, at 42-57.

34. *In re American Tel. & Tel. Co.*, 9 F.C.C.2d 30, 70 P.U.R.3d 129 (1967).

35. 9 F.C.C.2d at 66-68, 70 P.U.R.3d at 173-76.

36. 9 F.C.C.2d at 87, 70 P.U.R.3d at 195. See Nelson, *Econometrics and Applied Economic Analysis in Regulatory Decisions*, 34 L. & CONTEMP. PROB. 330, 333-34 (1969).

37. For the sad story of other such efforts, see Rosoff, *supra* note 6, at 39-43. Typical of the judicial reaction is the following from the Tenth Circuit:

From the information so obtained the parties, the staff, and the Commission may make many computations and reach many results. The assumptions, allocations, formulae, equations, averages, means, and massive calculations may intrigue a mathematician or statistician but they have no attraction for us. We respectfully, decline to be drawn into such a turmoil of numbers. . . . We leave to the experts the selection of source material and the calculations to be made therefrom.

Our concern is with the result.

Skelly Oil Co. v. FPC, 375 F.2d 6, 24 (10th Cir. 1967). How the court was to evaluate the result without understanding the process through which it was achieved is never made clear.

in the setting of over-all revenues: economics has made significant contributions in theory, factual analysis, and practical policy suggestions, but the commissions have largely ignored these contributions.³⁸ Two interconnected problems predominate here—pricing services which contribute to the firm's peak load and pricing services which, because of the weakness of demand for them or the ease of substitution of competing services, cannot be sold at a price equal to average total cost. One example of each problem should suffice.

In the *Atlantic Seaboard* case,³⁹ the FPC decided that off-peak customers of a gas pipeline should bear twenty-five per cent of the cost of the capacity of the pipe on the rationale that no one should get a free ride on the line. The principle of the decision is economically unimpeachable if it is restated: absent compelling social reasons to the contrary, no user should pay the costs for another's service. But what are the costs of taking a passenger to Chicago if the train is going there anyway, and if that passenger can be bumped off in Dubuque should enough full-fare passengers come on to fill the train? Arguing that this was the situation in the *Atlantic Seaboard* case, many economists have charged that the rule of the decision resulted in the loss of off-peak business to the pipelines and thus in higher prices for the remaining users.⁴⁰

A careful reading of the *Seaboard* opinion, however, reveals that the Commission was struggling with a more complex problem than that of the train through Dubuque. The *Seaboard* case was a certification (entry) case; the question at issue was not how to fill the pipe once it is built, but rather whether to build it at all, and, if so, how large to build it. There is some indication that an off-peak price which did not contribute to capacity costs would have stimulated demand sufficiently to exceed the capacity of the pipe. If this is so, the Commission was dealing not with the relatively simple "firm peak" problem presented by the train through Dubuque but with the theoretically much more difficult "shifting peak" problem, a problem that despite its analytic difficulty does have a logical solution.⁴¹ Lacking the economic sophistication to perceive the nature of the problem, the Commission and the lawyers involved in the decision ended up with a rigid rule-of-thumb, which possibly had serious misallocative effects.

38. Indeed, the commissions frequently ignore the pricing of individual services entirely, leaving the job to utility management. See 1 A. KAHN, *supra* note 6, at 54-57; Troxel, *Telephone Regulation in Michigan*, in DIRECTIONS, *supra* note 6, at 141, 175-85.

39. *In re Atlantic Seaboard Corp.*, 11 F.P.C. 43, 94 P.U.R. 235 (1952).

40. See P. GARFIELD & W. LOVEJOY, *supra* note 23, at 184-85; Herz, *Impact of Cost Allocation on Gas Pricing*, 58 PUB. UTIL. FORT. 685 (1956); Nissel, *The Impact of Cost Allocations upon Future of the Natural Gas Industry*, 66 PUB. UTIL. FORT. 512 (1960).

41. See Steiner, *Peak Loads and Efficient Pricing*, 71 Q.J. ECON. 585 (1957). For a review of the subsequent literature, see Steiner, *Peak Load Pricing Revisited* (mimeo ed.) (to be published in MSU PUBLIC UTILITY STUDIES (Trebing ed. 1971)).

The ICC's minimum price regulation of bulk commodity rail rates in cases where alternative water routes exist illustrates the problem of pricing competing services and its relationship to the peak load problem. In a situation in which pricing the rail service at less than fully allocated but not more than "out-of-pocket" (or marginal)⁴² cost would result in the barge lines losing business, the ICC forbade the rail carrier from undercutting the barge prices.⁴³ Its justification was that the barges would go out of business, whereupon the railroads would raise prices again, and thus the other users of the railroad would be subsidizing this "destructive competition." The argument will not withstand careful analysis. It ignores the extreme unlikelihood that granted today's discount rates and the ease of entry into and exit from the barge business, destructive competition could be profitable. It also ignores the fact that under conditions of declining unit cost any contribution to the fixed cost of a service made by a customer who has an alternative source of supply benefits the customer who does not have that source.

The problem of the pricing of individual services in the transportation industry has been subject to a considerable amount of quantitative analysis. On the basis of an extensive examination of the costs of various modes of surface transportation, one informed economist estimates the cost to the economy of the misallocations resulting from decisions like the ICC's rail-barge case at several *billion* dollars annually.⁴⁴ Another, examining the trucking industry alone, estimates an annual loss of from 375 to 500 million dollars through misallocations resulting from artificially high common carrier truck rates.⁴⁵ While the other regulated industries have not been subjected to as much similar scrutiny,⁴⁶ there is no reason why they could not be. Again, as in the other areas we have examined, there are difficulties with obtaining the proper data, but as one economist has trenchantly put it:

42. Marginal costs are the economically relevant ones, but "out-of-pocket" costs are as close as the ICC can come to calculating them. See Wilson, *The Effect of Rate Regulation on Resource Allocation in Transportation*, 54 AM. ECON. REV. 160, 161-63 & n.2 (Papers & Proceedings) (1964), in CRISIS, *supra* note 2, at 57, 58-61 & n.2.

43. *Ingot Molds, Pa. to Steelton, Ky.*, 326 I.C.C. 77 (1965), *revd. sub nom. Louisville & N.R.R. v. United States*, 268 F. Supp. 71 (W.D. Ky. 1967), *revd. sub nom. American Commercial Lines, Inc. v Louisville & N.R.R.*, 392 U.S. 571 (1968), *noted in* 81 HARV. L. REV. 905 (1968), *criticized in* 1 A. KAHN, *supra* note 6, at 160-66. See Rose, *Regulation of Intermodel Rate Competition in Transportation*, 69 MICH. L. REV. 1011 (1971).

44. Peck, *Competitive Policy for Transportation*, in CRISIS, *supra* note 2, at 72, 74, based on J. MEYER, M. PECK, J. STENASON & C. ZWICK, *THE ECONOMICS OF COMPETITION IN THE TRANSPORTATION INDUSTRY* (1959).

45. W. OI & A. HURTER, *ECONOMICS OF PRIVATE TRUCK TRANSPORTATION* 353 (1965). See M. BURNSTEIN, *et al.*, *THE COST OF TRUCKING: ECONOMETRIC ANALYSIS* (1965).

46. *But cf.* Littlechild, *Peak-load Pricing of Telephone Calls*, 1 BELL J. ECON. & MANAGEMENT SCIENCE 191 (1970).

The fact that the elasticity of demand is difficult to estimate does not make it more sensible to assume that demand has no elasticity at all. The anxiety to avoid burdening certain customers by charging others less than fully distributed costs does not justify burdening them even more by refusing a utility permission to reach out for additional business, when a discriminatory rate is necessary to get it and where it seems reasonably probable that it will cover its full additional costs. The fact that off-peak consumption at certain times of the day or year is close enough to the peak to make it reasonably probable that the peak might shift is no excuse for forcing customers also to bear capacity costs at times that are unlikely to become peaks. The fact that future costs are difficult to estimate does not make it rational to cling to past costs, when there is clear reason to believe they are wrong. The use of correct principles is still far from solving all the problems of intelligent public utility pricing; but it is the correct place to begin.⁴⁷

Economic thinking in the regulated industry area has not confined itself to the problems discussed above. Serious efforts have been made, for example, to measure the performance of various firms within an industry.⁴⁸ These studies have, to my knowledge, been ignored in regulatory practice. Since the evaluation of the performance of a regulated company is one of the most troublesome of regulatory problems, one can only speculate that the techniques used in these studies simply could not be comprehended by the regulators. Similarly, the Office of Economics of the FPC attempted to construct a model of natural gas needs and the relationship of these needs to price.⁴⁹ While there were analytic problems with this model, had the Commission refined and used it, the natural gas crisis of today might have been avoided.

The picture I have painted above is clearer than reality. Economists are by no means unanimous in their prescriptions for the regulated industries. Nonetheless, the basic views of economists of a wide range of political persuasion are as I have outlined: Regulation, in many instances, is unnecessary and, as currently practiced, is inept; the regulatory "crisis," in large measure, is a product of these characteristics.⁵⁰

47. I. A. KAHN, *supra* note 6, at 199.

48. See, e.g., W. IULO, *ELECTRIC UTILITIES—COSTS AND PERFORMANCE* (1961); J. Pace, *Relative Efficiency in the Electric Utility Industry*, 1970 (unpublished Ph.D. dissertation in University of Michigan Graduate Library). See generally *PERFORMANCE*, *supra* note 8.

49. See Rosoff, *supra* note 6, at 41-43.

50. MacAvoy, after rehearsing the findings of economic research which "lead to the very general conclusion that regulation has imposed considerable costs on public utility company operations without providing compensating benefits," puts it this way: "[T]he crisis is not in *regulation*, but rather of the *need for regulation as it now exists*, in comparison with totally new techniques or no regulation at all." *CRISIS*, *supra* note 2, at viii (emphasis original).

III. MEANWHILE, BACK AT THE BAR

My thesis, as I intimated earlier, is that these criticisms should lead us to re-evaluate the role of lawyers in the regulatory field. The very fact that there is a crisis in the field, caused, so far as we can tell, by regulation, means that the professional group responsible for regulation should be called to account. Our review of what the economists are saying has indicated a number of situations in which the regulators have ignored economic contributions because of their seeming inability to understand them. This is disturbing. The regulators should at least be able to understand the advice being offered by a group which has devoted considerable attention to the resolution of the problems which have caused the crisis. My thesis, however, goes beyond the proposition that lawyers should abandon regulation because they do not understand economics. My thesis is that lawyers are peculiarly unsuited to making the types of decisions which are at stake in price and entry regulation.

Since this proposition may seem startling to many—particularly to the practitioners in the regulated industry field—it calls for some initial clarification. While the substance of law and economics may overlap, they remain, and are likely to remain for the near future, two separate disciplines. In a world in which training had no costs, we would recommend that the regulatory process be in the hands of persons who had complete professional training in both fields. But despite the recent availability of various joint degree programs,⁵¹ persons trained in both law and economics remain rare even in the academic world. Granted the necessity of choosing between legally and economically trained regulators, economics training is a better preparation, in my view, for a career in regulation than is legal training. This does not mean that all economists would make better regulatory decisions than all lawyers. There are many economic considerations which a good lawyer will see and a bad economist will not. But lawyers, however much they may like to think so, do not have a monopoly on brains.⁵² Given an equally bright lawyer and economist, the former will usually be a better lawyer and the latter a better economist.

Granted these qualifications, two characteristics of price and entry regulation lead to the conclusion that the job would be better done by those with economic rather than legal training. The first is the econometric nature of the information needed to make proper regulatory decisions. Not coincidentally each of the economic criti-

51. Programs combining law and economic training are available at the Universities of Michigan and Chicago and at Northwestern University, to name but a few known to the author.

52. See P. COMESTOR, *DE CRANIS ADVOCATORUM ET PHILOSOPHORUM SOCIALIUM* (1516), for the first recorded instance of this observation.

cisms of the regulatory process which we examined above leads to a body of econometric research which offers a method for arriving at a more satisfactory answer to the problem. Not all of this research is of a uniformly high quality, and most of it needs substantial refinement. But these problems do not change the conclusion that refined econometric data will give us, in time, better regulatory decisions.

That these data have not, by and large, been forthcoming is not only the product of the ignorance of the lawyers who control the administrative process; it is also a product of the legal nature of the process itself. Adversary proceedings are not conducive to the discovery of scientific data. Discovery to the lawyer is the ferreting out of human facts concealed beneath the surface of the proceeding—finding out what the parties really did or what they really intended. Discovery in the econometric world, on the other hand, consists in trying to unravel something which no human yet knows. The adversary process has proved highly successful for the former type of discovery, not nearly so for the latter.⁵³

Suppose, however, that we trained a new breed of lawyers who could deal with econometric data. Suppose, too, that the regulatory agencies could engage in a substantial research program which would produce the needed data, and that administrative procedure could be reformed in such a way that these data could be placed before the commission in an acceptable form. Even under these assumptions, the current domination by lawyers of regulatory proceedings is unjustified because of the second peculiar characteristic of price and entry regulation. Earlier I asserted that the sole function of price and entry regulation is to compensate for market failure—to perform the allocative function of the competitive market in a situation in which that market could not operate.⁵⁴ If this assertion is correct, it means that the only goal of regulation is the optimal allocation of resources. This goal differs from that of most legal endeavors. Here only a single value is at stake, while many if not most legal endeavors involve a trade-off between or among several values. It means, too, that the goal of regulation is purely economic. This fact, coupled with the econometric nature of the information necessary to achieve this goal, makes a powerful argument for the proposition that the economist not the lawyer should be the chief participant in regulatory decisions. To the extent, however, that regulation is seeking

53. In the interests of space I cannot explore the implications of this statement for administrative procedure. See pt. III. B. *infra*; Gies, *The Need for New Concepts in Public Utility Regulation*, in DIRECTIONS, *supra* note 6, at 88, 107-11; Nelson, *supra* note 36, at 337-38. For a fascinating study of the use and misuse of mathematical proof in traditional trial proceedings, see Tribe, *Trial by Mathematics: Precision and Ritual in the Legal Process*, 84 HARV. L. REV. 1329, 1332-78 (1971). See also Lozowick, Steiner & Miller, *Law and Quantitative Multivariate Analysis: An Encounter*, 66 MICH. L. REV. 1641 (1968).

54. See text accompanying note 12 *supra*.

noneconomic goals in addition to economic ones or even to the extent that it is seeking a number of inconsistent economic goals, the argument for legal control is strengthened, since lawyers have traditionally participated in public decisions which require the application of a number of disciplines or the analysis of the trade-offs among goals.

A. *The Univocal Goal of Regulation*

The proposition that the sole goal of price and entry regulation is the approximation of the allocational efficiency of the competitive market has not been totally accepted even by economists.⁵⁵ We will therefore examine, in turn, four possible goals of regulation other than allocational efficiency: (1) the historic goal of "equity," (2) the "economically irrelevant" goals of certification proceedings, (3) the goal of service standards proceedings, and (4) possible nonallocational economic goals.

Certainly considerations broader than allocational efficiency were thought to be appropriate for price and entry regulation in the past. Some of the legislators who voted for the adoption of price and entry regulation at the time of the Granger and Populist movements looked to regulation not only as a means of achieving efficiency but also as a means of achieving equity for their constituents.⁵⁶ They hoped that regulation would effect a redistribution of income between the regulated firm and its customers. As the years have gone by, however, the conscious pursuit of that goal, despite occasional protestations to the contrary,⁵⁷ has been abandoned by regulation. More efficient instruments of redistributive policy, such as social insurance, progressive income taxation, and welfare programs, have taken over the function of redistribution in our society. The occasional regulatory efforts in this direction are haphazard, usually misguided, and of insufficient scale to justify a conclusion that the goal of regulation today is any other than allocative efficiency.⁵⁸

The vocabulary, however, of the days in which the pursuit of redistributive equity was a major regulatory goal remains in regulatory decisions and masks—to the confusion sometimes of the regulators themselves—what upon examination turn out to be economic considerations. Rate of return provides an example. The economist talks of the cost of capital; the lawyer, of the fair return. The econ-

55. See, e.g., 1 A. KAHN, *supra* note 6, at 182-99; Rosoff, *supra* note 6, at 45-46.

56. See W. JONES, *REGULATED INDUSTRIES* 38-43 (1967).

57. See, e.g., the statement of Commissioner Webb of the ICC in Wilson, *supra* note 42, at 164, in CRISIS, *supra* note 2, at 57, 62-63.

58. See 1 A. KAHN, *supra* note 6, at 190-92. But see Posner, *Taxation by Regulation*, 2 BELL J. ECON. & MANAGEMENT SCIENCE 22 (1971), for an interesting, if heretical view, with illustrations from the communications industry.

omist focuses on what is needed to attract new capital to a firm. The lawyer sometimes talks as if the firm were in need of a reward because it has "dedicated its property to public use," or, in somewhat more sophisticated terms, he refers to a "balancing of consumer and investor interests." Both of the lawyer's notions can lead to peculiar results. The reward notion leads to "fair value" rate base calculation long since abandoned as a federal constitutional requirement,⁵⁹ and the balancing notion implies that somehow a basic weighing of values is involved.

The fact is that when the misleading verbiage is cleared away both lawyers and economists are talking about the same thing. Much confusion has arisen from the failure to identify two arguably different perspectives: the cost of new capital to the firm, what we might call the incremental cost of capital; and that return which is necessary to keep the investor who already holds stock in the firm from selling it. The two are, of course, connected. In the short run it makes no difference to the firm if the investors sell or not. The firm has the capital, and the investor will bear any loss. But since the treatment of the old investor will affect the new, the return to existing investors makes a great deal of difference in the long run if the firm intends to attract new capital. Emphasis on fairness to the existing investor, however, without consideration of the reason for it, can lead in a declining industry or deflationary economy to rates of return that are too high; in a growing industry or inflationary economy to rates that are too low.⁶⁰

Economists and economically oriented writers frequently charge that much of what the commissions do, particularly in certification proceedings, is "economically irrelevant."⁶¹ If the charge were true, the presence of such economic irrelevancies might indicate that the goal of the proceedings is not an economic one. Closer examination, however, reveals that the charge is frequently exaggerated and where it is true, it is not a criticism of the commissions for seeking a non-economic goal but rather for using inappropriate means to reach an economic goal.

Roger Cramton, for example, charges that much of what the commissions do constitutes economically irrelevant "tribal rites."⁶² He illustrates his thesis by arguing that once the CAB has decided

59. Compare *Smyth v. Ames*, 169 U.S. 466 (1898), with *FPC v. Hope Natural Gas Co.*, 320 U.S. 591 (1944).

60. See Leventhal, *Vitality of the Comparable Earnings Standard for Regulation of Utilities in a Growth Economy*, 74 YALE L.J. 989 (1965).

61. See PRESIDENT'S TASK FORCE ON PRODUCTIVITY & COMPETITION, REPORT § 1B (1969), in S. OPPENHEIM & G. WESTON, *FEDERAL ANTITRUST LAWS 207-08* (Supp. 1970) (hereinafter STIGLER TASK FORCE REPORT); Lewis, *Emphasis and Misemphasis in Regulatory Policy*, in *DIRECTIONS*, *supra* note 6, at 213, 247.

62. Cramton, *The Effectiveness of Economic Regulation—A Legal View*, 54 AM.

that there are to be three carriers on the Washington-to-Florida route, it is economically irrelevant whether the third carrier is Braniff or Delta. The unstated premise of his argument is that once the structure of an industry is determined, economic behavior and performance follow inevitably. Even if this premise were true, structure involves more than simply the number of firms in a given market. Surely the service which Braniff, as opposed to Delta, might provide may be dictated not only by the number of competitors in the market but also by the configuration of their routes—a consideration which occupies a great portion of the CAB's certification proceedings. If Braniff has to fly empty equipment from Texas in order to provide service on the Washington-Florida route, it will need a higher volume of traffic to support that service than will Delta, if Delta already has equipment on line in Florida that could be used to provide the service.

A more fundamental problem with Cramton's argument, however, is his premise that there are inexorable links between economic structure, behavior, and performance. Links, of course, there are, but it is the loose linkage of a chain, not the firm linkage of a tie-rod. Surely it will make some difference who the managements of the firms are, whether they have followed an active competitive policy, how good their credit rating is, how good their pilots are, and a myriad of other factors frequently considered in certification proceedings. Surely, too, it will make a difference to service in other areas, if not to the Washington-Florida service, if the firm awarded the route is compelled by the CAB to use the revenues from that route to subsidize traffic in other areas.

Thus, Cramton is not arguing that the goal of CAB certification proceedings is noneconomic, nor even that the criteria which the CAB applies are noneconomic. Rather, he seems to be arguing that the CAB should rely more on market forces to determine the structure of the airline industry—a proposition for which there is considerable support in economic literature.⁶³ Further, Cramton may also be arguing that the CAB had to undertake the difficult, if not impossible, job of predicting which firm will provide efficiently the service which consumers want, because it has chosen to insulate airlines from the very market forces which if allowed to operate would compel efficient economic performance. Finally, he certainly is suggesting that the Commission's lack of economic expertise leads it to consume vast amounts of time on individual certification proceedings

ECON. REV. 182 (Papers & Proceedings) (1964), in *DIRECTIONS*, *supra* note 6, at 249, 251. Cramton's argument goes beyond the traditional regulated industries as we have defined them (*see* note 1 *supra*). His examples from broadcasting regulation are telling and do not require the qualifications suggested in the text for his CAB example.

63. *See* Caves, *Performance, Structure and the Goals of Civil Aeronautics Board Regulation*, in *CRISIS*, *supra* note 2, at 131.

which produce little in the way of perceivable economic results. All of these contentions assume that the goal of these proceedings is economic and attack the manner in which that goal is being achieved. Most of the charges of "economic irrelevance" seem to reduce to one or another of the contentions I attribute to Cramton.

There are certainly some certification proceedings, however, where noneconomic values seem to be at stake. In the *Storm King* case⁶⁴ the Second Circuit forced a reluctant FPC to consider the conservation and aesthetic aspects of granting to Consolidated Edison of New York a license to build a pump storage plant on Storm King Mountain. Numerous state regulatory commissions have had to consider the propriety of compelling regulated firms to bury utility lines and pipes.⁶⁵ Although these situations seem to involve noneconomic considerations, they can be examined in economic terms. They involve a classic type of market failure—the social costs of the activity are greater than the private costs to the actor. Further, an efficient solution to the problem may be approximated through the use of a quantifiable model, the cost-benefit analysis.⁶⁶

Thus, economic learning has some relevance to such decisions. Cost is surely relevant. Since few would maintain that Storm King Mountain has infinite value, the cost of saving it should be determined. But once the economist has determined how much saving Storm King will cost, he is probably no better equipped than the lawyer to determine whether Storm King is worth these costs. We cannot argue, therefore, that this type of proceeding should necessarily be entirely in the hands of the economists.

The service standards problem is another area in which economics, though relevant, is probably not controlling, both because the area presents a problem for which, to my knowledge, economic theory has devised no solution and because the economic data from which a solution might be approximated are difficult to determine. The problem is caused by the fact that many regulated industries are constrained by their technologies to serve all consumers from a common plant. This means, in many instances, that they provide only one of the many possible levels of service. Some consumers would indubita-

64. *Scenic Hudson Preservation Conference v. FPC*, 354 F.2d 608 (2d Cir. 1965), cert. denied, 384 U.S. 941 (1966).

65. Compare *In re* Rules for the Undergrounding of Elec. & Communication Serv. Facilities, 78 P.U.R.3d 189 (Ark. Pub. Serv. Commn. 1969); *In re* Georgia Power Co., 76 P.U.R.3d 38 (Ga. Pub. Serv. Commn. 1968); *In re* Rules for Undergrounding of Elec. & Communications Facilities, 74 P.U.R.3d 242 (Md. Pub. Serv. Commn. 1968), with *Gimbel v. Loughlin*, 28 Conn. Supp. 72, 250 A.2d 329 (1968); *In re* United Illum. Co., 71 P.U.R.3d 257 (Conn. Pub. Util. Commn. 1967). See generally *Aesthetics and Utility Line Construction*, 84 PUB. UTIL. FORT., July 31, 1969, at 49.

66. See generally J. SAX, *WATER LAW, PLANNING AND POLICY* 29-43 (1968); Fox & Herfindahl, *Attainment of Efficiency in Satisfying Demands for Water Resources*, 54 AM. ECON. REV. 198, 201-05 (Papers & Proceedings) (1964).

bly prefer better service at greater cost; others would prefer a lower level of service at less cost. In some industries, both groups may be satisfied if the firm can offer various levels of service from the common plant. Thus, it is possible to obtain slow rail freight service at low rates and fast freight service at higher rates. In other instances, however, this solution is not possible. One consumer may be willing to put up with more telephone busy signals in exchange for lower rates; another may be willing to pay a great deal to be able to put his call through the first time. But unless the dissatisfied consumers are prepared to pay for an entirely separate telephone plant to serve them, they are forced to take the single level of service provided or no service at all.

Economics can provide a solution for pieces of this problem but not for the whole. If the production function for the appropriate amount of service of various levels is known, one can by mathematical techniques maximize the level of service from a given amount of input, or minimize the amount of input necessary to produce a given level of service. But here neither the level of service nor the amount of input may be taken as given. An intuitive approximation of the appropriate level of service might be obtained if the demand functions for various possible services were known, but, in the absence of a practical means of testing consumer desires in an actual market, the determination of demand functions is notoriously difficult.⁶⁷ Further, even if the commission could precisely quantify both the production and demand functions, economic theory as yet cannot give it any practical advice on how to determine the optimal cost-service combination if there exists a genuine indivisibility, like the telephone plant which can provide only one level of service.⁶⁸

Perhaps because of its difficulty most commissions simply ignore the service problem and leave to the regulated company the job of setting service standards within a broad framework.⁶⁹ In the few proceedings in which the matter is considered, the commissions rely on essentially political mechanisms, such as consumer complaints or counsel for consumer groups, to substitute for the market and provide a guide to consumer desires.⁷⁰ While one might argue that

67. Market surveys can be used but are quite imprecise. *See generally* W. BAUMOL, *ECONOMIC THEORY AND OPERATIONS ANALYSIS* 210-49 (2d ed. 1965).

68. Intuitively, it would seem that the commission should choose the level which maximized consumer surplus, but that choice would be optimal only if the commission could ignore allocational effects on the rest of the economy. The area strikes me as one in need of further basic theoretical research.

69. *See In re American Tel. & Tel. Co.*, 9 F.C.C.2d 30, 122, 70 P.U.R.3d 129, 223 (1967) (Johnson, C., concurring), for a recognition of the problem. *See also* 1 A. KAHN, *supra* note 6, at 21-25; Posner, *supra* note 20, at 593-94, in *CRISIS*, *supra* note 2, at 30, 33.

70. Thus, in the recent New York telephone "crisis," the Commission became painfully aware of the problem through the political uproar that occurred in the press over the deteriorating quality of service. Of course, this political mechanism will respond only to those who have political voice while the market mechanism responds to those with money. The two groups are not necessarily the same.

economic data about cost and demand, though imperfect, should also be used in such proceedings, the service standards area remains one in which economists currently cannot claim exclusive competence.

Finally, it can be argued that regulation could be used to achieve economic goals other than allocational efficiency. We may, so the argument runs, be prepared to sacrifice efficiency in order to achieve such goals as full employment, stability, flexibility, or a market structure which has more than an optimal number of firms to reduce the political power of large firms. Conscious consideration of such objectives is very rare in regulatory proceedings, although recently a few commissions, mixing micro- with macro-economic objectives, have said they considered the inflationary effect of granting a rate increase.⁷¹ Should the consideration of such nonallocational goals become common, economic learning would still be relevant both for determining how much pursuit of the nonallocational goal was costing in efficiency terms and also because of the essentially economic nature of the nonallocational goal.

Our examination of the four major areas in which goals of regulation other than the approximation of allocation efficiency have been asserted reveals that we need not substantially qualify our initial proposition that the approximation of allocational efficiency is the sole goal of regulation. The historical goal of redistributive equity and the possible nonallocational economic goals play a small role in today's regulatory proceedings. The externalities problem illustrated by the *Storm King* case and the service standards problem prove upon examination to be areas in which allocational efficiency may well be the appropriate goal, but the difficulties of obtaining information or the absence of a satisfactory theoretical solution make a quasi-political type of proceeding desirable. Even in these cases, however, economics is clearly relevant, and price and entry regulation cases do not normally involve such ambiguous evaluations. Thus, one could have a regulatory system devoted almost solely to traditional economic issues and manned almost entirely by economists with legal participation confined to the occasional case which raised broader issues. We certainly have seen nothing so far which justifies the legal domination of the field of price and entry regulation which we have today.

B. *Legal Issues in Regulation*

Up to this point, our review has developed the *prima facie* case for the withdrawal, or at least substantial retrenchment, of lawyers from the regulatory scene. Let us see if anything can be said for the legal profession by way of rebuttal.

71. See, e.g., 51 TELECOMMUNICATIONS REP., Aug. 30, 1971, at 1-7 (examiner's opinion).

Legal dominance of the regulated industries field is largely the product of historical accident. The first regulators were the legislatures and the courts, institutions in which lawyers traditionally play a leading role.⁷² Administrative regulation was born at a time when there were substantial questions about its constitutionality. When President Cleveland was looking for a chairman for the newly formed ICC, he turned to the distinguished academic authority on constitutional law and Michigan Supreme Court Justice, Thomas Cooley.⁷³ When the newer federal regulatory agencies were formed in the thirties, the prevailing profession in Washington was law. Today, however, the courts have largely abandoned the attempt to develop a substantive law of regulated industries as a subbranch of constitutional law,⁷⁴ and Washington is now teeming with young economists and other "quantitative" specialists who might be persuaded to go into the field.⁷⁵

Administrative procedure is, of course, a legal field, and nothing I have said here should be taken as arguing that economists would be better at it than lawyers. The lawyer's sense for and interest in process, however, may be responsible for diverting attention from the pressing substantive problems of the commissions. For example, Dean Landis' comprehensive review of the policies and practices of the federal regulatory agencies for then President-elect Kennedy⁷⁶ marked for many the beginning of a new concern with those agencies. Landis found that the "fourth branch" of government, the bright hope of the thirties, had become in the sixties a group of moribund agencies, bound tightly in their procedural rules and making decisions which were incomprehensible even to the participants. He cited the FPC's regulation of natural gas field prices as "a classic example of the breakdown of the administrative process."⁷⁷ Landis' report was heavily procedural in its recommendations, and many of these recommendations were followed—yet the problems remain.⁷⁸ Currently, the Ash Council recommendations of replacing the commissions with a single administrator, a rigid time frame for regulatory decisions, and a specialized appeals court have stirred up a whole new round of controversy about the organization and procedures of the agencies.⁷⁹

72. See W. JONES, *supra* note 56, at 26-43.

73. 4 I. SHARFMAN, *THE INTERSTATE COMMERCE COMMISSION* 14 & n.24 (1937).

74. See *FPC v. Hope Natural Gas Co.*, 320 U.S. 591 (1944); *Nebbia v. New York*, 291 U.S. 502 (1934).

75. Bickel, *Lawyers & More Lawyers*, *NEW REPUBLIC*, Sept. 23, 1967, at 24.

76. SENATE COMM. ON THE JUDICIARY, 86TH CONG., 2D SESS., *LANDIS REPORT ON THE REGULATORY AGENCIES TO THE PRESIDENT-ELECT* (Comm. Print 1960).

77. *Id.* at 54.

78. See *CRISIS*, *supra* note 2, at vii-viii.

79. Compare ADVISORY COUNCIL ON EXEC. ORG., *A NEW REGULATORY FRAMEWORK—REPORT ON SELECTED INDEPENDENT REGULATORY AGENCIES* (1971), with Views of the Ad-

Under the current lawyers' dominance of the field, discussion of these procedural issues will probably continue to divert attention from the more pressing substantive problems discussed above. Indeed, it can be argued that the lawyer's procedural focus continually diverts attention from the substance of regulatory issues. Lawyers are trained to deal with courts; they tend to think about administrative law solely in terms of judicial review. On the other hand, because the courts limit themselves, as a rule, to consideration of procedural questions on agency appeals, procedural questions bulk large in the lawyers' treatment of cases at the agency level. The resulting procedural orientation not only diverts attention from substance, but has peculiar and annoying substantive repercussions. For example, the mishmash of numbers approach to rate of return, discussed earlier,⁸⁰ is at least in part the product of the commissions' desire to fortify their opinions against judicial review.⁸¹

To say, moreover, that lawyers have something to contribute to the shaping of administrative procedure is not to say that they necessarily should continue to dominate the practice. Anyone who has seen a regulatory lawyer cross-examining an economic witness—returning to the counsel table every other question to ask *his* economic witness what he ought to ask next—must have wondered if the whole process would not be better if the middleman were eliminated. Anyone who has seen a faithful government lawyer who has risen to the position of hearing examiner struggling over the meaning of "marginal cost" must have wondered if legal training and experience were the best preparation for the job. Even assuming that the basic outlines of agency procedure are to remain unchanged, there is nothing so mysterious about the conduct of an administrative proceeding, particularly under the relaxed rules of evidence which most agencies follow, that a qualified economist could not be trained to undertake it.⁸² If there is some valid reason for the domination of the regulatory process by lawyers, it certainly does not lie in the fact that the procedures of an administrative agency bear some vague resemblance to those of a court.

ministrative Conference of the United States on the "Report on Selected Independent Regulatory Agencies" of the President's Advisory Council on Executive Organization (mimeo May 7, 1971), and Welch, *Pages with the Editor*, 87 PUB. UTIL. FORT. MARCH 18, 1971, at 4; *id.*, April 15, 1971, at 4; *id.*, June 24, 1971, at 4.

80. See text accompanying note 32 *supra*.

81. See Friendly, *The Federal Administrative Agencies: The Need for a Better Definition of Standards*, 75 HARV. L. REV. 863, 881; *id.* 1055, 1056, 1084-87; *id.* 1263, 1294-95 (1962), in *THE FEDERAL ADMINISTRATIVE AGENCIES* 23, 54, 86-91, 142-43 (1962); Hector, *Problems of the CAB and the Independent Regulatory Commissions*, 69 YALE L.J. 931 (1960).

82. At least one administrative agency, the FCC, has had a staff team of a lawyer and an economist conduct part of an administrative proceeding. See 35 TELECOMMUNICATIONS REP., Sept. 15, 1969, at 4-5.

Of course the charters of the regulatory commissions are to be found in statutes. These define and limit with some precision the jurisdiction and powers of the commissions. Jurisdictional questions are important and will continue to remain the concern of lawyers, although even here economics should play a role—a lesson taught by the natural gas field price problem. So far as the commissions' specific powers are concerned, however, they are usually so broad that any sophisticated commission can normally achieve any result it wishes by exercising authority given by one or the other of them. Certainly in the areas of price and entry regulation the statutory language, even with its accumulated judicial interpretation, gives the commission enough latitude that no significant constraint is imposed on its actions.⁸³

The last argument I will mention for the lawyer's participation in the regulatory process revolves around the public nature of the proceedings. Under our system of government, it is argued, decisions that have the great impact that regulatory decisions can have on both business and the consuming public are required to be made on an open record and subject to judicial review.⁸⁴ In such a process the lawyer's training as an advocate ensures that the arguments for the interests he represents are best presented to the decision-maker and makes him more effective than any economist could be. The major premise of the argument needs some refinement. No one has ever seriously suggested that the Federal Reserve Board conduct a legal proceeding before changing the discount rate, an act which has an economic impact greater than even the most major of rate and entry proceedings. Where, however, the Government issues an order or makes a decision adjudicating a specific question involving a private individual or firm, as it does in the typical price or entry case, adversary proceedings are normally required. We have seen that such proceedings have not been particularly appropriate for developing the statistical information that is critical to price and entry proceedings. Assuming, however, that major changes in the adversary nature of the proceedings will not occur, is there anything, aside from the absurd argument that only lawyers are ethical, about the advocate's role which requires that the advocate be a lawyer?⁸⁵ If the issues

83. See Posner, *supra* note 20, at 592-93, in *CRISIS*, *supra* note 2, at 30-32.

84. See Cramton, *supra* note 62, at 185-86, in *DIRECTIONS*, *supra* note 6, at 255-56.

85. Lest I be accused of totally missing the boat, let me say that I am painfully aware of a substantial body of state cases which hold that only a lawyer can represent another individual or a corporation in a regulatory proceeding. The universal presence of the organized bar either as plaintiff-prosecutor or amicus in such cases can only raise the suspicion that the most primitive guild instincts of the organized bar are at stake, and the weakness of the opinions does nothing to dispel those suspicions. Some cases offer no rationale at all (*e.g.*, *Denver Bar Assn. v. Colorado Pub. Util. Commn.*, 154 Colo. 273, 391 P.2d 467 (1964)); others rest on the naked assertion that commission proceedings are "quasi-judicial" (*e.g.*, *Public Serv. Commn. v. Hahn Transp., Inc.*, 253

at stake are purely economic, cannot the economist, given a small amount of training, marshal and present the arguments as well as or better than the lawyer?

IV. CONCLUSION

I conclude, then, that (1) the goal of price and entry regulation is, in the vast majority of cases, the economic one of efficient resource allocation; (2) the technical tools for achieving this goal are chiefly economists' tools; and (3) the legal profession has not done a good job of achieving these goals or even of using these tools. These conclusions lead to a further conclusion: the end of legal dominance of price and entry regulation in favor of economic dominance. That does not mean that lawyers should be barred from regulatory proceedings or from serving on regulatory commissions. The possible presence of a *Storm King* type of issue or of a complex procedural or statutory issue makes that solution unwise. None of the justifications for occasional legal participation in regulatory proceedings, however, affect my basic conclusion that economists should play a far greater role in the process than they do today.

What I have proposed, even as qualified above, is probably utopian. The more economically oriented of the recent task force reports on economic regulation suggested merely that *one* economist be appointed to serve on each of the regulatory commissions and even that recommendation does not seem to have been followed.⁸⁶ Yet the replacement of lawyers by economists in regulation is a goal worth striving for not only because economists would probably do a better job, but also because lawyers' training is being wasted in doing it.

Md. 571, 253 A.2d 845 (1969)); and some rest on the proposition that only lawyers are learned:

While, in order to acquire the education necessary to gain admission to the bar and thereby become eligible to practice law, one is obliged to "scorn delights, and live laborious days," the object of the legislation forbidding practice to laymen is not to secure to lawyers a monopoly, however deserved, but, by preventing the intrusion of inexpert and unlearned persons in the practice of law, to assure to the public adequate protection in the pursuit of justice, than which society knows no loftier aim.

Shortz v. Farrell, 327 Pa. 81, 91, 193 A. 20, 24 (1937). See Chicago Bar Assn. v. Kellogg, 338 Ill. App. 618, 88 N.E.2d 519 (1949); State ex rel. Johnson v. Childe, 147 Neb. 527, 23 N.W.2d 720 (1946). The situation at the federal level is considerably more open. Many administrative agencies permit nonlawyers to practice before them. See Vom Baur, *Administrative Agencies and Unauthorized Practice of Law*, 48 A.B.A.J. 715 (1962); Vom Baur, *Practice Before Administrative Agencies and the Unauthorized Practice of Law*, 15 Fed. B.J. 103 (1955). And the Supreme Court has held that the states may not interfere on unauthorized practice grounds with the practice of those duly admitted before a federal agency. Sperry v. Florida, 373 U.S. 379 (1963), noted in 1964 Wis. L. REV. 469. It seems relatively clear, therefore, that the only legal obstacle to my recommendation at the federal level is the rules of the agencies themselves. In many states, however, my recommendation must be directed to the organized bar and the legislature.

86. See STIGLER TASK FORCE REPORT, *supra* note 61, at 208.

Viewing our role as lawyers as broadly as possible, we are trained to manipulate the stream of ideas of a society and to fit those ideas to specific human facts. Despite the important contributions of psychology to family and criminal law and despite the importance of medical or engineering evidence in tort law, we remain predominant in these fields, because we can effectively fit the concepts of those corollary disciplines into a stream of accumulated case law, statutes, and general societal wisdom and apply the results to the ever-changing human situations before us. But no such task is presented by price and entry regulation. Accumulated societal wisdom reduces in this field to one almost plaintive charge: achieve, as closely as possible, an optimal resource allocation. Nor are the facts to be dealt with the specific human ones of the tort, criminal, or family proceeding. They are on a remoter plane; they are the trends and averages deduced from masses of numbers. With all the other areas in which society needs legal skills, surely we can leave this one to those who are trained for it.