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# Observation

## The Economic Approach to Law

Richard A. Posner\*

There is a growing interest among both economists and academic lawyers in using the theories and characteristic empirical methods of economics to increase our understanding of the legal system. The manifestations of this interest include an outpouring of books and articles applying economics to law,<sup>1</sup> the appointment of economists to the faculties of many law schools, and the incorporation of economic theory into the teaching of a variety of otherwise traditional law school courses such as torts, property, and procedure.<sup>2</sup> At the same time, however, that the economic approach to law has been captivating some academic lawyers and law students, it has been arousing the deep skepticism and sometimes fierce hostility of many others. Yet the scope, character, and significance of the new approach to law do not appear to be well understood, especially by its detractors but even by some quite sympathetic to it. The present article attempts to improve our understanding of the economic approach by analyzing (1) the evolution of the law-economics field; (2) the principal findings that have emerged from the completed research in the field; (3) the agenda of future research; (4) the major criticisms of the economic approach; and (5) its place in the structure of the law school.

### I.

The application of economics to law is not in itself new or controversial. What is new and controversial is the variety of problems in

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1. *E.g.*, *ECONOMIC FOUNDATIONS OF PROPERTY LAW* (B. Ackerman ed. 1974); *ESSAYS IN THE ECONOMICS OF CRIME AND PUNISHMENT* (G. Becker & W. Landes ed. 1974).

2. See Lovett, *Economic Analysis and Its Role in Legal Education*, 26 *J. LEGAL ED.* 385 (1974).

the field of law to which economics is now being applied. Until the early 1960's, "law and economics" was largely, although not entirely, coterminous with the application of economics to the antitrust laws. There was, to be sure, considerable interest in the economics of taxation<sup>3</sup> and public utility and common carrier regulation,<sup>4</sup> and there was extensive work on labor and capital markets that implicated legal policy,<sup>5</sup> but the primary intersection of law and economics occurred in antitrust courses and the antitrust literature.

Now the use of economics in antitrust was conventional. The records in antitrust cases provided a rich mine of information about business practices, and economists set about to discover the economic rationales and consequences of such practices. Their discoveries had implications for legal policy, of course, but basically what they were doing was no different from what economists traditionally have done—try to explain the behavior of explicit economic markets.<sup>6</sup> Consequently, the application of economics to antitrust has never been particularly controversial among economists. Even among academic lawyers, the appropriateness of placing economics in the foreground of antitrust analysis has been generally accepted. It could hardly have been otherwise: the central focus of antitrust is the control of monopoly, and the study of monopoly has been a major activity of economists for many years. Furthermore, law professors do not perceive the application of economics to the antitrust laws as threatening. The only law professors directly affected by the competition of economists in this area are the antitrust professors, many of whom were originally attracted to the antitrust field by an interest in economics.

The economic analysis of antitrust and related problems of explic-

3. See H. SIMONS, *PERSONAL INCOME TAXATION* (1938). Simons was a member of the faculty of the University of Chicago Law School in the 1940's.

4. See, e.g., J. BONBRIGHT, *PRINCIPLES OF PUBLIC UTILITY RATES* (1961).

5. See, e.g., SIMONS, *Some Reflections on Syndicalism*, 52 J. POL. ECON. 1 (1944); Stigler, *Public Regulation of the Securities Market*, 37 J. BUS. 117 (1964).

6. The seminal figure in this branch of law and economics is, I believe, Aaron Director, whose students and disciples have fundamentally altered the received views on the antitrust significance of tying arrangements, reciprocal buying, predatory price cutting, vertical integration, and other business practices. For some recent testaments to his continuing influence, and numerous references to previous work in the Director tradition, see W. BOWMAN, *PATENT AND ANTITRUST LAW: A LEGAL AND ECONOMIC APPRAISAL* (1973); R. POSNER, *ANTITRUST: CASES, ECONOMIC NOTES, AND OTHER MATERIALS* (1974); cf. G. STIGLER, *THE ORGANIZATION OF INDUSTRY* (1968). A distinct "Harvard" school of economic analysis is well represented in the writings of Donald F. Turner. See, e.g., Turner, *The Definition of Agreement Under the Sherman Act: Conscious Parallelism and Refusals to Deal*, 75 HARV. L. REV. 655 (1962).

itly economic regulation remains a thriving field,<sup>7</sup> and together with the economic study of taxation, corporations, and securities regulation—other areas of the “old” law and economics—will continue to be an important component of the general field, both because of its intrinsic interest and because it overlaps and complements the newer areas of interest.<sup>8</sup> But since the older areas are fairly well understood and accepted—in sharp contrast to the newer areas—this article will not consider them further.

The hallmark of the “new” law and economics is the application of the theories and empirical methods of economics to the central institutions of the legal system, including the common law doctrines of negligence, contract, and property; the theory and practice of punishment; civil, criminal, and administrative procedure; the theory of legislation and of rulemaking; and law enforcement and judicial administration. Whereas the “old” law and economics confined its attention to laws governing explicit economic relationships, and indeed to a quite limited subset of such laws (the law of contracts, for example, was omitted), the “new” law and economics recognizes no such limitation on the domain of economic analysis of law.

The new law and economics dates from the early 1960's, when Guido Calabresi's first article on torts and Ronald Coase's article on social cost were published.<sup>9</sup> These were the first attempts to apply economic analysis in a *systematic* way to areas of law that did not purport to regulate economic relationships. To be sure, as appears to be generally true in the history of scientific thought,<sup>10</sup> one can find earlier

7. See, e.g., K. DAM, *THE GATT: LAW AND INTERNATIONAL ECONOMIC ORGANIZATION* (1970); *INDUSTRIAL CONCENTRATION: THE NEW LEARNING* (H. Goldschmid, H. Mann & J. Weston ed. 1974).

8. The overlapping areas of interest between the “old” and the “new” law and economics include the causes of economic regulation, see Posner, *Theories of Economic Regulation*, 5 *BELL J. ECON. & MANAGEMENT SCI.* 335 (1974); Stigler, *The Theory of Economic Regulation*, 2 *BELL J. ECON. & MANAGEMENT SCI.* 3 (1971); the enforcement of regulatory schemes, see Landes & Posner, *The Private Enforcement of Law*, 4 *J. LEGAL STUD.* 1 (1975); and the costs and benefits of monopoly and its regulation, see Posner, *The Costs of Monopoly and Regulation* (forthcoming in *J. POL. ECON.*); Tullock, *The Welfare Costs of Tariffs, Monopolies and Theft*, 5 *W. ECON. J.* 224 (1967). In distinguishing the “new” from the “old” law and economics I do not mean to suggest that the “old” is outmoded or in any way less useful or promising than the “new.” It simply began earlier.

9. Calabresi, *Some Thoughts on Risk Distribution and the Law of Torts*, 70 *YALE L.J.* 499 (1961); Coase, *The Problem of Social Cost*, 3 *J. LAW & ECON.* 1 (1960). Although the Coase article bears the date 1960, the issue of the *JOURNAL OF LAW AND ECONOMICS* in which it appears was not in fact published until 1962. The articles were written independently.

10. See R. MERTON, *Singletons and Multiples in Science*, in *THE SOCIOLOGY OF SCIENCE: THEORETICAL AND EMPIRICAL INVESTIGATIONS* 343 (1973).

glimmerings of an economic approach to the problems of accident and nuisance law that Calabresi and Coase discussed,<sup>11</sup> but these scattered insights had no impact on the development of scholarship.

Coase's article was the more significant for the long-run development of the new law and economics field.<sup>12</sup> The article established a framework for analyzing the assignment of property rights and liability in economic terms,<sup>13</sup> thereby opening a vast field of legal doctrine to fruitful economic analysis, a field that Demsetz, Cheung, and others have cultivated.<sup>14</sup> A very important, although for a time neglected, feature of Coase's article was its implications for the positive analysis of legal doctrine. Coase suggested that the English law of nuisance had an implicit economic logic.<sup>15</sup> Later writers have generalized this insight and argued that many of the doctrines and institutions of the legal system are best understood and explained as efforts to promote the efficient allocation of resources.<sup>16</sup>

A list of the founders of the new law and economics would be seriously incomplete without the name of Gary Becker. Becker's insistence on the relevance of economics to a surprising range of nonmarket

11. See, e.g., Terry, *Negligence*, 29 HARV. L. REV. 40 (1915).

12. This remark is not intended to slight Calabresi's work, which has been highly influential. See, e.g., Diamond, *Single Activity Accidents*, 3 J. LEGAL STUD. 107 (1974); Diamond, *Accident Law and Resource Allocation*, 5 BELL J. ECON. & MANAGEMENT SCI. 366 (1974); Ellickson, *Alternatives to Zoning: Covenants, Nuisance Rules, and Fines as Land Use Controls*, 40 U. CHI. L. REV. 681 (1973); Michelman, Book Review, 80 YALE L.J. 647 (1971).

13. Coase demonstrated that in case of negligible transaction costs an efficient result will eventually be achieved through private negotiations between the parties regardless of the legal system's initial assignment of property rights or liability; furthermore, in cases of nonnegligible transaction costs the mere assignment of liability to the person "causing" the accident cannot be relied upon to achieve efficiency. See Coase, *supra* note 9.

14. See, e.g., Cheung, *The Structure of a Contract and the Theory of a Nonexclusive Resource*, 13 J. LAW & ECON. 49 (1970); Cheung, *Private Property Rights and Share-cropping*, 76 J. POL. ECON. 1107 (1968); Demsetz, *When Does the Rule of Liability Matter?*, 1 J. LEGAL STUD. 13 (1972); Demsetz, *Why Regulate Utilities?*, 11 J. LAW & ECON. 55 (1968); Demsetz, *Toward a Theory of Property Rights*, 57 AM. ECON. REV. PAPERS & PROCEEDINGS 347 (1967); Demsetz, *The Exchange and Enforcement of Property Rights*, 7 J. LAW & ECON. 11 (1964); Posner, *Strict Liability: A Comment*, 2 J. LEGAL STUD. 205 (1973); Posner, *A Theory of Negligence*, 1 J. LEGAL STUD. 29 (1972). The modern literature on property rights also reflects, however, the influence of Knight's important early work, Knight, *Some Fallacies in the Interpretation of Social Cost*, 38 Q.J. ECON. 582 (1924), in READINGS IN PRICE THEORY 160 (G. Stigler & K. Boulding ed. 1952). A good example of a modern study in the Knight tradition is J. HIRSHLEIFER, J. DEHAVEN & J. MILLIMAN, *WATER SUPPLY: ECONOMICS, TECHNOLOGY AND POLICY* (1960).

15. Coase, *supra* note 9, at 20-24.

16. This is a major theme in R. POSNER, *ECONOMIC ANALYSIS OF LAW* (1973). See Krier, Book Review, 122 U. PA. L. REV. 1664, 1693-97 (1974).

behavior (including charity and love), as well as his specific contributions to the economic analysis of crime, racial discrimination, and productive relations within the household, opened up to economic analysis large areas of the legal system not reached by Calabresi's and Coase's studies of property rights and liability rules.<sup>17</sup> It is no accident that some of the most important contributions to the new law and economics have been made by students of Becker: Ehrlich on deterrence,<sup>18</sup> Landes on criminal procedure,<sup>19</sup> and Komesar on the measurement of tort damages.<sup>20</sup>

### II.

Although the product of only a few man-years, the "new" law and economics literature is already too rich and complex to be summarized adequately in the compass of this article.<sup>21</sup> I shall content myself with a few words on what it means to apply economics to law and indicate briefly the major findings that are emerging from current and recent studies.

The basis of an economic approach to law is the assumption that the people involved with the legal system act as rational maximizers of their satisfactions. Suppose the question is asked, when will parties to a legal dispute settle rather than litigate? Since this choice involves uncertainty—the outcome of the litigation is not known for sure in advance—the relevant body of economic theory is that which analyzes decision-making by rational maximizers under conditions of uncertainty. If we are willing to assume, at least provisionally, that litigants behave rationally, then this well-developed branch of economic theory<sup>22</sup> can be applied in straightforward fashion to the litigation context to yield predictions with respect to the decision to litigate or settle;

17. See, e.g., G. BECKER, *THE ECONOMICS OF DISCRIMINATION* (2d ed. 1971); Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169 (1968), and his forthcoming collection of essays, *THE ECONOMIC APPROACH TO HUMAN BEHAVIOR*. The scrupulous historian of economic thought would note, as has Becker himself, his debt to Bentham. See note 55 *infra*; cf. note 10 *supra*.

18. E.g., Ehrlich, *The Deterrent Effect of Capital Punishment: A Matter of Life and Death* (forthcoming in AM. ECON. REV.); Ehrlich, *The Deterrent Effect of Criminal Law Enforcement*, 1 J. LEGAL STUD. 259 (1972).

19. E.g., Landes, *Legality and Reality: Some Evidence on Criminal Procedure*, 3 J. LEGAL STUD. 287 (1974).

20. Komesar, *Toward a General Theory of Personal Injury Loss*, 3 J. LEGAL STUD. 457 (1974).

21. The literature is summarized in R. POSNER, *supra* note 16.

22. See G. BECKER, *ECONOMIC THEORY* 57-66 (1971).

we discover, for example, that litigation should be more frequent the greater the stakes in the dispute or the uncertainty of the outcome. These predictions can be, and have been, compared with the actual behavior of litigants in the real world. The comparisons indicate that the economic model is indeed a fruitful one as applied to litigation behavior,<sup>23</sup> *i.e.*, it enables us to explain the actual behavior we observe.

It may be argued that if economic theory only involves exploring the implications of assuming that people behave rationally, then lawyers can apply the theory perfectly well without the help of specialists. In this view, the economic approach to law just supplies a novel and confusing vocabulary in which to describe the familiar analytical activities of the lawyer. There is indeed a good deal of implicit economic analysis in legal thought—a point to which I shall return—and a good deal of economic theory does consist of elegantly formalizing the obvious and the trivial. But it is not true that all of the useful parts of economic theory are intuitively obvious to the intelligent lawyer. The logic of rational maximization is subtle, frequently complex, and very often counterintuitive.<sup>24</sup> That is why the level of public discussion of economic policy is so low, and why the application of economics to law is more than the translation of the conventional wisdom of academic lawyers into a different jargon.

23. See, e.g., Landes, *An Economic Analysis of the Courts*, 14 J. LAW & ECON. 61 (1971).

24. Sam Peltzman's recent study of the effects of automobile safety regulations provides a good example. Peltzman, *The Regulation of Automobile Safety* (forthcoming in J. POL. ECON.). Intuitively, it seems obvious that a technically sound and reasonably well-enforced seat-belt requirement would reduce the number of deaths and injuries from automobile accidents. But as Peltzman shows, this intuition is unsound. By increasing the driver's safety, the seat belt, if used, reduces the cost of fast driving, which should, according to economic theory, lead to an increase in driving speed and therefore in the number of accidents, possibly offsetting the beneficial effect of the seat-belt requirement in reducing injuries to drivers and other vehicle occupants. In particular, there should be a sharp increase in pedestrian injuries, since their number will increase with faster driving and there is no offsetting effect from seat-belt protection. Peltzman's study found, as his analysis predicted, a relative increase in pedestrian injuries and in automobile deaths and injuries due to the seat-belt requirement. The economic theory that underlies his study is straightforward, but it is unlikely that a noneconomist would have reasoned to a similar conclusion.

As another example, while the implicitly economic proposition, "punishment deters," is intuitive, another important proposition derived from the economic model of crime and punishment is not: a 1% increase in the probability of apprehension for murder will have a greater deterrent effect than a 1% increase in the conditional probability of conviction given apprehension, which in turn will have a greater deterrent effect than a 1% increase in the probability of execution given conviction. See Ehrlich, *The Deterrent Effect of Capital Punishment: A Matter of Life and Death* (forthcoming in AM. ECON. REV.).

## Economic Approach to Law

Now to some of the major findings of the “new” law and economics research. The first is that the participants in the legal process indeed behave as if they were rational in maximizers:<sup>25</sup> criminals, contracting parties, automobile drivers, prosecutors, and others subject to legal constraints or involved in legal proceedings act in their relation to the legal system as intelligent (not omniscient) maximizers of their satisfactions. Like ordinary consumers, they economize by buying less of a good or commodity when its price rises and more when it falls. To be sure, the “good” and the “price” in the economic analysis of law are often unconventional, which is perhaps why it took so long for economists to claim the law as a part of economics. The “good” might be crimes to a criminal or trials to an aggrieved plaintiff, and the “price” might be a term of imprisonment discounted by the probability of conviction, or a court queue. But though the goods and prices may be somewhat unusual, and the purchasers may not fit one’s preconceived idea of “economic man,” there is a growing, and cumulatively rather persuasive, body of evidence supporting the proposition that the usual economic relations continue to hold in the formally noneconomic markets of the legal system. For example, it has been found that an increase in the expected punishment costs of crime—through an increase either in the severity of punishment or in the probability of its being imposed—will reduce the amount of crime<sup>26</sup> and that a decrease in the trial queue will increase the number of trials,<sup>27</sup> all in accordance with the predictions of economic analysis.

In the type of research just described, the legal system is treated as a given and the question studied is how individuals or firms involved in the system react to the incentives that it imparts. A second important finding emerging from the recent law and economics research is that the legal system itself—its doctrines, procedures, and institutions—has been strongly influenced by a concern (more often implicit

25. I say “as if” instead of “as” to indicate that the economist is not interested in the question whether and in what sense people may be said to be “rational.” It is enough for purposes of economic analysis that the assumption of rationality has greater explanatory power than alternative assumptions. On the realism of economic assumptions, see M. FRIEDMAN, *The Methodology of Positive Economics*, in *ESSAYS IN POSITIVE ECONOMICS* 3 (1953).

26. See Tullock, *Does Punishment Deter Crime?*, *PUB. INTEREST*, Summer 1974, at 103 (summary of recent studies).

27. See Landes, *supra* note 23. Landes also finds that the number of trials is increased by an increase either in the amount of subsidization of legal services or in the stakes involved in the dispute, again as predicted by economic analysis.

than explicit) with promoting economic efficiency.<sup>28</sup> The rules assigning property rights and determining liability, the procedures for resolving legal disputes, the constraints imposed on law enforcers, methods of computing damages and determining the availability of injunctive relief—these and other important elements of the legal system can best be understood as attempts, though rarely acknowledged as such, to promote an efficient allocation of resources.<sup>29</sup> The idea that the logic of the law is really economics is, of course, repulsive to many academic lawyers, who see in it an attempt by practitioners of an alien discipline to wrest their field from them. Yet the positive economic analysis of legal institutions is one of the most promising as well as most controversial branches of the new law and economics. It seeks to define and illuminate the basic character of the legal system, and it has made at least some progress toward that ambitious goal. One by-product of this research that has considerable pedagogical importance has been the assignment of precise economic explanations to a number of fundamental legal concepts that had previously puzzled students and their professors, such as “assumption of risk,”<sup>30</sup> “pain and suffering” as a category of tort damages,<sup>31</sup> contract damages for loss of expectation,<sup>32</sup> plea bargaining,<sup>33</sup> and the choice between damages and injunctive relief.<sup>34</sup>

A third important finding in the law and economics literature is that economic analysis can be helpful in designing reforms of the legal system. Obviously there is some tension between this finding and the

28. This insight is, of course, not entirely novel. See, e.g., J. HURST, *LAW AND SOCIAL PROCESS IN UNITED STATES HISTORY* 4 (1972). What is novel is the rigor and persistence with which the insight is being applied in the recent literature.

29. The literature through mid-1973 is summarized in R. POSNER, *supra* note 16. For some recent additions to the literature, see Ehrlich & Posner, *An Economic Analysis of Legal Rulemaking*, 3 J. LEGAL STUD. 257 (1974), and Landes & Posner, *supra* note 8. This literature is to be sharply distinguished from an older body of writings (summarized in 1 R. POUND, *JURISPRUDENCE* 199, 225, 228-31 (1959)) that argued that the rules of law were designed to promote the welfare of a particular economic class. See, e.g., Bohlen, *The Rule in Rylands v. Fletcher*, 59 U. PA. L. REV. 298, 318-19 (1911). For an effective critique of that approach, see Pound, *The Economic Interpretation and the Law of Torts*, 53 HARV. L. REV. 365 (1940). See also R. POSNER, *supra* note 16, at 100-02.

30. See R. POSNER, *supra* note 16, at 72-73.

31. See Komesar, *supra* note 20.

32. See Barton, *The Economic Basis of Damages for Breach of Contract*, 1 J. LEGAL STUD. 277 (1972).

33. See Landes, *supra* note 23.

34. See Calabresi & Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089 (1972); Michelman, *supra* note 12.

previous one. Were the legal system systematically and effectively designed to maximize economic efficiency, the role of normative economic analysis would be very small. In fact what one observes is areas of the law that seem to have a powerful and consistent economic logic—for example, most common-law fields—and others that seem quite perverse from an economic standpoint—in particular, many statutory fields. Some effort has been made to explain what appears to be a systematic difference in this regard between judge-made and statutory law by analyzing the different constraints of the judicial and legislative processes.<sup>35</sup> This work is part of a larger effort to explain—in economic terms, of course—the behavior of political institutions.<sup>36</sup> But this is not a well developed area of law and economics, and many anomalies remain. For example, while civil procedure reveals many economizing features, the failure to require that the losing party to a lawsuit reimburse the winner for his litigation expenses appears to be highly inefficient, and no economic explanation for this settled feature of American procedure has been suggested or is apparent. The tendency of government to use queuing rather than pricing to ration access to the courts and to other government services is another puzzle, since pricing is a cheaper method of rationing. So long as there remain important areas of the legal system that are not organized in accordance with the requirements of efficiency, the economist can play an important role in suggesting changes designed to increase the efficiency of the system. Of course, it is not for the economist, *qua* economist, to say whether efficiency should override other values in the event of a conflict.

A fourth important finding in the law and economics literature is that the quantitative study of the legal system is fruitful. It may seem odd to ascribe such a finding to the economic approach to law. Surely, it will be argued, quantitative analysis of the legal system long predates the economists' interest in the system, and the methods of statistical research are independent of the theories that generate the hypotheses to be tested by those methods. These points are correct but misleading. Economists have raised the level of quantitative research in the legal system very markedly, to the point where it is now plain, as it was not previously, that the statistical study of legal institutions has much to contribute to our knowledge. This is not to say that no worth-

35. See R. POSNER, *supra* note 16, at 327-32.

36. See, e.g., Stigler, *supra* note 8.

while statistical studies of the legal system have ever been conducted by noneconomists. But the number of such studies is small, and in only a few years economists have produced a body of statistical studies that in number weighted by quality already, I believe, overshadows the non-economic quantitative work.<sup>37</sup>

Several reasons may be suggested for the greater success of the economists in studying the legal system quantitatively. First, economists tend to be better trained in modern methods of quantitative analysis than other social scientists, let alone lawyers. A second point, related but distinct, is that economists appear to be more resourceful in discovering and using existing statistics on the legal system, and also more sensitive to the qualitative problems involved in drawing inferences from statistical data. These are perhaps simply aspects of being better trained, but they are distinct from simply possessing more powerful mathematical techniques.

I shall illustrate these points with two celebrated examples of non-economic quantitative research on the legal system. One is the study by the University of Chicago Jury Project on the use of the jury in criminal cases.<sup>38</sup> Rather than attempt to mine the considerable existing data on the use of the criminal jury, the researchers conducted an elaborate mail survey to generate fresh data. Unfortunately, but typically, only a small fraction of the judges to whom the survey was mailed responded. No effort was made to establish the reasons for judges' not responding, and as a result there is no basis for a conclusion that the survey results are representative of the views of American judges. Moreover, the key question in the survey was a hypothetical one—how would the judge have decided the case if he, rather than the jury, had been the trier of fact—and the reliability of answers given to such questions is open to serious doubt.

My second example is Thorsten Sellin's study of the deterrent effect of capital punishment,<sup>39</sup> which was cited by a Supreme Court

37. See, e.g., Ehrlich, *supra* note 18; Ehrlich, *Participation in Illegitimate Activities: A Theoretical and Empirical Investigation*, 81 J. POL. ECON. 521 (1973); Komesar, *A Theoretical and Empirical Analysis of Victims of Crime*, 2 J. LEGAL STUD. 301 (1973); Landes, *supra* notes 19 & 23; Landes, *The Economics of Fair Employment Laws*, 76 J. POL. ECON. 507 (1968); Peltzman, *supra* note 24; Peltzman, *An Evaluation of Consumer Protection Legislation: The 1962 Drug Amendments*, 81 J. POL. ECON. 1049 (1973).

38. H. KALVEN, JR. & H. ZEISEL, *THE AMERICAN JURY* (1966) (no significant differences in fact-finding were found between judges and juries).

39. T. SELLIN, *THE DEATH PENALTY: A REPORT FOR THE MODEL PENAL CODE*

Justice in *Furman v. Georgia*<sup>40</sup> for the proposition that capital punishment has no incremental deterrent effect.<sup>41</sup> The heart of Sellin's study was a series of comparisons of murder rates in groups of contiguous states, one of which had abolished the death penalty while the other had not. He found that the murder rate was no lower in the states that retained the death penalty and concluded that the death penalty does not deter murder. Sellin's procedure, however, was fatally flawed by his failure to hold constant other factors besides punishment that might influence the murder rate. Only if the death penalty is the only determinant of the murder rate, or if the other determinants are identical in states having different execution rates, would it be proper to infer from Sellin's evidence that the death penalty had no deterrent effect. Sellin was at least dimly aware of this problem: this was what made him compare murder and execution rates in contiguous states. But relying on contiguity to hold the other relevant variables constant is inadequate. There is no reason to expect that states, because they happen to have a common border, are identical in all respects relevant to the murder rate save the use of capital punishment. Suppose, for example, that the arrest and conviction rate for murder was higher in a state which had abolished capital punishment than in a state that retained the death penalty, so that while a convicted murderer was punished less severely in the former state, the chances of his escaping punishment were lower than in the neighboring retentionist state. The net expected punishment cost for murder might be higher in the former state, and, if so, this would explain the lower murder rate there in terms wholly consistent with the proposition that the independent deterrent effect of capital punishment—holding probability of conviction and all other relevant variables constant—is positive.<sup>42</sup>

PROJECT OF THE AM. LAW INST. (1959). It was presumably Sellin's work that led my distinguished colleague Norval Morris to conclude that "the existence or nonexistence of capital punishment is irrelevant to the murder, or attempted murder, rate. This is as well established as any other proposition in social science." N. MORRIS & G. HAWKINS, *THE HONEST POLITICIAN'S GUIDE TO CRIME CONTROL* 75-76 (1970). For empirical evidence to the contrary, see Ehrlich, *supra* note 18. A full critique of the Sellin study may be found in a forthcoming paper by Professor Ehrlich which presents additional findings from his study of capital punishment.

40. 408 U.S. 238 (1972).

41. *Id.* at 348-53, 373-74 (Marshall, J., concurring). Justice Marshall's opinion was one of several concurring in the judgment invalidating existing death-penalty statutes; no opinion (other than the brief *per curiam* opinion announcing the judgment of the court) commanded the support of a majority of the Justices.

42. Sellin also conducted some before-and-after studies of murder rates in states that had abolished the death penalty. Finding no increase in the murder rate in these states, he again concluded that the death penalty had no deterrent effect. But this pro-

Part of Sellin's problem, perhaps, was that he had no theory as to why people commit murders or other crimes. This brings me to the third reason why economists have an advantage in quantitative research: it is very difficult to conduct such research without a theoretical framework. If one has no notion as to why people commit crimes, it is very difficult to know what factors to hold constant in order to determine the independent significance of the test variable (punishment or whatever). The economist, viewing the decision to participate in criminal activity as a standard problem in occupational choice,<sup>43</sup> has a clear a priori idea of what factors influence the rate of criminal participation and should therefore be included in a model of criminal activity. The empirical researcher who does not proceed from theory to the construction of a model identifying relevant variables has great trouble measuring the independent significance of the variable in which he is interested.

### III.

I have said something about the evolution of the law and economics field and about the salient findings that emerge from the completed research in the field. I would now like to discuss briefly the agenda of future research. It is a general, and in my opinion deplorable, characteristic of legal scholarship that normative analysis vastly preponderates over positive. Academic lawyers are in general happier preaching reform of the legal system than trying to understand how it operates. This is true of many lawyers having a bent for economics—one can read hundreds of pages of Guido Calabresi on the social control of accidents without learning anything about the methods of accident control that the society in fact employs—and of those economists who view the legal system from the dizzy heights of theoretical welfare economics. The result of the preference for normative analysis is that our knowledge of the legal system is remarkably meager, incomplete, and unsystematic—a situation which, ironically, makes it very difficult to propose sound reforms of the system.

The economic approach to law has enormous potential, as yet only slightly realized, for increasing our knowledge about the legal system.

cedure was also fatally flawed by Sellin's failure to hold constant other factors affecting the murder rate besides the death penalty which might have been changing at the same time. Ehrlich, *supra* note 24, found a negative relationship between capital punishment and murder in a time-series study that did attempt to hold constant such other factors.

43. See Ehrlich, *Participation in Illegitimate Activities: A Theoretical and Empirical Investigation*, 81 J. POL. ECON. 521 (1973).

## Economic Approach to Law

Economics is basically a positive science, and I have already remarked upon the economist's superior sophistication with respect to the assembly and analysis of data. The economic approach has already yielded both quantitative and qualitative insights into the operation of the legal system, and I shall try to indicate briefly some promising directions for additional research.

To begin with, there is a cluster of important topics relating to the operation of the court system. As William Landes and I discovered recently in the course of compiling a statistical history of the federal court system, there is a wealth of quantitative data available on the federal courts, some stretching back to 1873.<sup>44</sup> Since the data were not originally collected for purposes of economic analysis (often it is unclear for *what* purpose they were collected), there are distressing gaps and inconsistencies in the data series. Yet they appear to be sufficiently complete to enable us to estimate changes over time in the productivity of the federal courts; to assess the factors that determine judicial productivity; to measure court delay, identify its causes, and estimate the costs of eliminating it; to explain changes over time in the number of federal judges and the budget of the federal courts; to measure the demand for the federal courts as it is affected, for example, by the availability of a substitute service (*i.e.*, the state courts) in areas of overlapping jurisdiction; to estimate the cost to the judicial system of different kinds of proceedings (*e.g.*, jury trials versus court trials, and criminal trials versus guilty pleas); and to assess the impact on the judicial system of major procedural reforms such as the Federal Rules of Civil Procedure, the Criminal Justice Act, and the criminal procedure decisions of the "Warren Court."

Law-enforcement agencies could be studied similarly, and some beginnings in this direction have already been made.<sup>45</sup> Good candidates for future economic studies of law enforcement include the Internal Revenue Service, the Immigration and Naturalization Service, and the Wage and Hour Division of the Department of Labor—to name three chosen virtually at random. These studies would ask such questions as the following: What are the social costs of income-tax evasion?

44. Data are available on cases filed and terminated, trials, the size of judgments, appeals, backlogs, etc., by type of case and by district and circuit in which the case was filed. Also available are data on the judges and other personnel and on the budget of the federal court system.

45. See Posner, *The Behavior of Administrative Agencies*, 1 J. LEGAL STUD. 305 (1972); Posner, *A Statistical Study of Antitrust Enforcement*, 13 J. LAW & ECON. 365 (1970); Stigler, *The Process of Economic Regulation*, 17 ANTITRUST BULL. 207 (1972).

Are they equal to the revenue loss? What would be an optimum system of tax penalties? Would it involve greater or less use of the criminal sanction than at present? Does the marginal product of various forms of tax enforcement activity (*e.g.*, individual and corporate taxpayer audits) exceed the marginal cost, and if so, can this result be defended?<sup>46</sup> What is the appropriate role, from an efficiency standpoint, of the paid tax informer? What factors determine the size, budget, and enforcement decisions of the Immigration and Naturalization Service? Are these decisions "discretionary," in the sense of arbitrary and perhaps invidious, or are they systematically designed to minimize the impact of foreign competition on the domestic labor market? Are they therefore sensitive to trends and patterns of unemployment? Does the Wage and Hour Division refrain from vigorously enforcing the minimum-wage law in industries where compliance with the law would have a seriously adverse effect on production?<sup>47</sup> What factors determine the number of inspectors hired by the Division to enforce the law? Is a staff of inspectors even necessary, or would it be more efficient if enforcement were left to the private sector, as is done in the enforcement of usury laws?

These types of questions are within the analytical competence of economics to answer, and adequate data to support reliable empirical answers appear to be available. Our knowledge of the law-enforcement process would be greatly enriched by a few more economic studies of specific enforcement programs and agencies.

Another promising area for empirical economic research on the legal system is international crime rates. Explaining differences in crime rates across countries is the acid test of the economic theory of crime and its control, for if, as so many people believe, cultural rather than economic variables predominate in criminal behavior, they will show up most clearly in a cross-country comparison. International comparisons may also prove highly illuminating with respect to the hypotheses concerning private versus public enforcement of criminal and civil law that Landes and I proposed in a recent paper,<sup>48</sup> for differences in the permissible scope of private prosecution appear to be

46. For tentative affirmative answers to both of these questions, see Landes & Posner, *supra* note 8, at 36-37.

47. For some evidence on the amount of compliance with the minimum-wage law, see Ashenfelter & Smith, Compliance with the Minimum Wage Law, April 1974 (Princeton Econ. Dep't).

48. See Landes & Posner, *supra* note 8 (the article examines the scope of the public monopoly of enforcement and the rights of victims of crime to institute prosecutions).

much greater among than within countries. While on this topic, I want to mention one of many interesting subjects for an historical study of law and economics: the private prosecution of criminal offenses in England in the eighteenth and nineteenth centuries. In the earlier part of that period English criminal-law enforcement had all the essential features of the system of private law enforcement proposed by Becker and Stigler<sup>49</sup> and discussed critically by Landes and me,<sup>50</sup> but the system was progressively abandoned—why?

Economists studying criminal punishment have been critical of the heavy emphasis in our society on punishment in the form of incarceration rather than fine.<sup>51</sup> Yet we have no systematic knowledge of the use of fines, the implicit rate of exchange between fines and time in prison, changes over time in the level of fines to adjust for inflation and other factors, and the collection of fines. This is another rich area for empirical research. Another area, in which work is just beginning, is the economics of the legal profession. The regulation of the profession, the returns to legal education, and the demand for lawyers and how it has been affected by direct and indirect public subsidization, including the passage of new laws, are important areas for study. The work on the profession may help to explain the puzzle I mentioned earlier as to why we have not adopted the English system of requiring the losing party in a lawsuit to reimburse the winner for his legal expenses. Is the explanation, perhaps, that lawyers are a more influential interest group here than in England and that they benefit from the American rule, which would appear to increase the amount of litigation?<sup>52</sup>

An entirely different area for future research is family law, broadly defined to include not only the laws relating to marriage, divorce, and adoption, but also the laws governing the transfer of wealth within the family and the taxation of the household. The rich economic literature on marriage, fertility, and other dimensions of "household produc-

49. Becker & Stigler, *Law Enforcement, Malfeasance, and Compensation of Enforcers*, 3 J. LEGAL STUD. 1 (1974).

50. Landes & Posner, *supra* note 8.

51. See Becker, *supra* note 17.

52. The English rule deters litigation by (1) increasing the variance of the expected outcome of a lawsuit, and hence reducing the utility of litigation compared to settlement for the risk averse, and (2) penalizing more heavily errors in predicting the outcome of a lawsuit. See Posner, *An Economic Approach to Legal Procedure and Judicial Administration*, 2 J. LEGAL STUD. 399, 428 (1973).

tion"<sup>53</sup> is waiting to be mined for insights into the legal regulation of the family.

These are only a few examples of the many topics that beckon the law and economics scholar. The problem is not to identify interesting questions in the positive economic analysis of the legal system; there is a vast body of untapped research topics in this field. The problem, to which I will return after discussing the criticisms that have been made of the law and economics work, is to establish the necessary environment for a demanding and sometimes expensive form of research.

#### IV.

I recently participated in a panel discussion on "The Economist and the Law Professor" at the annual meetings of the Association of American Law Schools. By way of preparation, I asked a former teacher of mine at the Harvard Law School what he, as a noneconomist, would find most interesting in a discussion of the economic approach to law. He answered, "Its limitations."

The economic approach to law has aroused a good deal of antagonism among academic lawyers. Part of this is a natural hostility to competition but more is involved because many economists are also hostile to the economic analysis of law. It seems worthwhile, therefore, to attempt to answer the criticisms<sup>54</sup>—which I am convinced are unjustified, or at least premature.

One criticism that is silly but too frequently made to ignore is that since economists cannot explain this or that (*e.g.*, our current recession *cum* inflation), they have nothing to say to lawyers about the legal system. Because economics is an incomplete and imperfect science, it is easy to poke fun at, just as it is easy to poke fun at medicine for the same reason. But it is as foolish to write off economics as it would be to write off medicine.

A closely related criticism of the economic approach to law is that since economics has its limitations—for example, there is no widely accepted economic theory of the optimum distribution of income and

53. See *Proceedings of a Conference Sponsored by Nat'l Bureau of Economic Research and The Population Council, Marriage, Family Human Capital, and Fertility*, 82 J. POL. ECON. S1 (1974).

54. Many of these criticisms are not yet in print. Some may be found in Leff, *Economic Analysis of Law: Some Realism About Nominalism*, 60 VA. L. REV. 451 (1974).

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wealth—the lawyer can ignore or even reject the approach until these limitations are overcome. This is tantamount, however, to the absurd proposition that unless a method of analysis is at once universal and unquestioned it is unimportant. A variant of this criticism is made by some legal philosophers who argue that since the philosophical basis of economics is utilitarianism,<sup>55</sup> which they consider discredited, economics has no foundation and must collapse, carrying the economic approach to law with it. Admittedly, economics does not provide a basis for unconditional normative statements of the form, “because the most efficient method of controlling crime would be to cut off the ears and nose of a convicted felon and brand him on the forehead, society should adopt these penalties.” What the economist might be able to say, by way of normative analysis, is that a policy such as mutilation of felons increases efficiency<sup>56</sup> and should therefore be adopted, unless its adoption would impair some more important social value. The economist’s ability to make conditional suggestions of this sort is not endangered by the debate over the merits of utilitarianism, unless the challenge to utilitarianism is a challenge to ascribing *any* value to promoting economic efficiency. Even more clearly, the economist’s ability to enlarge our understanding of how the legal system actually operates is not undermined by the attacks on utilitarianism. If the participants in the legal process act as rational maximizers of their satisfactions, or if the legal process itself has been shaped by a concern with maximizing economic efficiency, the economist has a rich field of study whether or not a society in which people behave in such a way or institutions are shaped by such concerns can be described as “good.”

Another common criticism of the economic approach to law is that the attempt to explain the behavior of legal institutions, and of the people operating or affected by them, on economic grounds must fail because, surely, much more than rational maximizing is involved in such behavior. The motivations of the violent criminal cannot be reduced to income maximization<sup>57</sup> nor the goals of the criminal justice system to minimizing the costs of crime and its control.<sup>58</sup> This criticism

55. See generally J. BENTHAM, *An Introduction to the Principles of Morals and Legislation*, in 1 *THE WORKS OF JEREMY BENTHAM* 1 (J. Bowring ed. 1843); J.S. MILL, *UTILITARIANISM* (S. Gorovitz ed. 1971).

56. This is a hypothetical example. I have no view as to whether mutilation would in fact be an efficient method of punishment.

57. See generally *THE CRIMINAL IN SOCIETY* 391-473 (L. Radzinowicz & M. Wolfgang ed. 1971).

58. Oddly, this criticism is often made by people who in the next breath will argue

reflects a fundamental misunderstanding of the nature of scientific inquiry.<sup>59</sup> A scientific theory necessarily abstracts from the welter of experience that it is trying to explain, and is therefore necessarily “unrealistic” when compared directly to actual conditions. Newton’s law of falling bodies is “unrealistic” in assuming that bodies fall in a vacuum, but it is still a useful theory because it correctly predicts the behavior of a wide variety of falling bodies in the real world. Similarly, an economic theory of law is certain not to capture the full complexity, richness, and confusion of the phenomena—criminal activity or whatever—that it seeks to illuminate. That lack of realism does not invalidate the theory; it is, indeed, the essential precondition of a theory.

In any event, the criticism that economics leaves out too much of what is important in the law is not so much a criticism of the economic approach to law as a prediction that it will ultimately be a barren field. It may; but the results of the early research seem sufficiently encouraging to warrant further research. What I have called the “new” law and economics field is not yet fifteen years old and only a handful of scholars could be considered its full-time practitioners. It is too soon to abandon it.

The criticism also ignores an important lesson from the history of scientific progress: in general, a theory cannot be overturned by pointing out its defects or limitations but only by proposing a more inclusive, more powerful, and above all more useful theory.<sup>60</sup> Whatever its deficiencies, the economic theory of law seems, to this biased observer anyway, the best positive theory of law extant. It is true that anthropologists, sociologists, psychologists, political scientists, and other social scientists besides economists also do positive analysis of the legal system. But their work is thus far insufficiently rich in theoretical and empirical content to afford serious competition to the economists. This is admittedly a rather presumptuous and sweeping judgment, and to some extent an uninformed one since I cannot claim a thorough familiarity with the works in these fields. Nonetheless, my impression, for what it is worth, is that these fields have produced neither systematic, empirical research on the legal system nor plausible, coherent, and em-

that the economic approach to law is uninteresting because it merely restates in technical language what is obvious to lawyers anyway.

59. See M. FRIEDMAN, *supra* note 25.

60. This I take to be a central theme in T. KUHN, *THE STRUCTURE OF SCIENTIFIC REVOLUTIONS* (2d ed. 1970), and T. KUHN, *THE COPERNICAN REVOLUTION: PLANETARY ASTRONOMY IN THE DEVELOPMENT OF WESTERN THOUGHT* (1957).

pirically verifiable theories of the legal system. Legal anthropology, for example, appears to be almost purely descriptive; it has no theoretical content that I can discern. The literature of political science on the behavior of courts, administrative agencies, and other legal institutions is thin and unconvincing. The sociology of law is, by the testimony of one of its better practitioners, in a highly unsatisfactory state,<sup>61</sup> divided between excessively abstract generalizing about the legal system as a whole<sup>62</sup> and excessively particularistic, and thus far unproductive, preoccupation with possible treatments for deviant behavior.<sup>63</sup> I should add that there are many fine scholars who call themselves political scientists or sociologists and study the legal system,<sup>64</sup> but their work seems to owe little or nothing to their nominal disciplines,<sup>65</sup> attesting to the theoretical poverty of these fields as applied to law.

Still another common criticism of the "new" law and economics is that it manifests a strongly conservative political bias.<sup>66</sup> Its practitioners have found, for example, that capital punishment has a deterrent effect<sup>67</sup> and that legislation designed to protect the consumer frequently ends up hurting him.<sup>68</sup> Findings such as these provide ammunition to the supporters of capital punishment and the opponents of consumerist legislation. The oddest thing about this criticism is that economic research that provides support for liberal positions is rarely acknowledged, at least by liberals, as manifesting political bias. The theory of public goods,<sup>69</sup> for example, could be viewed as one of the ideological underpinnings of the welfare state, but it is not so viewed. Evidently once a viewpoint becomes dominant it ceases to be perceived as having ideological significance. In addition, the criticism overlooks

61. See Black, *The Mobilization of Law*, 2 J. LEGAL STUD. 125 (1973).

62. E.g., R. POUND, JURISPRUDENCE (1959); M. WEBER, MAX WEBER ON LAW IN ECONOMY AND SOCIETY (M. Rheinstein ed. 1954).

63. See Martinson, *What Works?—Questions and Answers About Prison Reform*, PUB. INTEREST, Spring 1974, at 22.

64. Whose work I have been and continue to be delighted to publish in the JOURNAL OF LEGAL STUDIES!

65. See, e.g., Levin, *Urban Politics and Judicial Behavior*, 1 J. LEGAL STUD. 193 (1972); Ross, *Law, Science, and Accidents: The British Road Safety Act of 1967*, 2 J. LEGAL STUD. 1 (1973).

66. Perhaps this is less accurately described as a "criticism" than as a reason for the distaste with which the subject is regarded in some quarters.

67. See Ehrlich, *supra* note 24.

68. See Peltzman, *An Evaluation of Consumer Protection Legislation: The 1962 Drug Amendments*, 81 J. POL. ECON. 1049 (1973); Peltzman, *supra* note 24.

69. See, e.g., R. MUSGRAVE, THE THEORY OF PUBLIC FINANCE 43-44 (1959). For a critical view of the theory, see Demsetz, *The Private Production of Public Goods*, 13 J. LAW & ECON. 293 (1970).

recent findings concerning bail,<sup>70</sup> right to counsel and standard of proof in criminal cases,<sup>71</sup> the application of the first amendment to broadcasting,<sup>72</sup> discrimination against women,<sup>73</sup> the social costs of monopoly,<sup>74</sup> and others, that bolster liberal viewpoints.

In any event, the criticism is wide of the mark. The law and economics scholars have been scrupulous—more scrupulous I would argue than their critics<sup>75</sup>—in respecting the line between positive and normative analysis. Ehrlich has said that capital punishment deters,<sup>76</sup> not that it is a good thing. This is not to deny that positive economic analysis has normative implications. If a social institution is inefficient, someone to whom efficiency is an important value may want to change it. But the economist cannot, and the good economist does not, tell him that he *should* adopt efficiency as an important or paramount value (although the economist can tell him something about the costs of not doing so). Finally, and I would have thought conclusively, the motivations and personal opinions of researchers ought to be irrelevant to the appraisal of their work, as should be the political implications, if any, of that work. The validity of research is independent of the motives behind it or the uses to which it may be put.

Much of what I have just said is equally applicable to the attacks that have been made on the economic approach to law from the Right by economists like Buchanan and law professors like Epstein, who argue that if judges are permitted to impose legal obligations (*e.g.*, to impose a duty on passers-by to render aid to people in distress) in order to increase efficiency, the freedom of the individual from the state will be impaired.<sup>77</sup> I welcome these criticisms because they demonstrate

70. See Landes, *supra* 23 (defendants should be compensated for pretrial detention if found innocent or be credited with sentence time if found guilty).

71. See Posner, *An Economic Approach to Legal Procedure and Judicial Administration*, 2 J. LEGAL STUD. 399 (1973) (providing counsel to indigent defendants and requiring a standard of proof higher in criminal cases than in civil cases minimize the social costs of crime, which include the costs of erroneous convictions).

72. See Coase, *The Federal Communications Commission*, 2 J. LAW & ECON. 1 (1959); Coase, *The Market for Goods and the Market for Ideas*, 64 AM. ECON. REV. 384 (No. 2, 1974).

73. See Komesar, *supra* note 20 (the true value of a housewife to a household has been underestimated in personal injury cases).

74. See Posner, *The Costs of Monopoly and Regulation* (forthcoming in J. POL. ECON.); Tullock, *supra* note 8.

75. See Posner, *Economic Justice and the Economist*, PUB. INTEREST, Fall 1973, at 109.

76. See Ehrlich, *supra* note 24.

77. See Buchanan, *Good Economics—Bad Law*, 60 VA. L. REV. 483 (1974); Epstein, *A Theory of Strict Liability*, 2 J. LEGAL STUD. 151, 189-204 (1973).

that the economic approach to law cannot be labeled in pat political terms, but I am not persuaded by them. Judges can hardly avoid using some criterion of social welfare in fashioning rules of decision, and efficiency is a more libertarian criterion than any other I know. In any event, these criticisms are limited to the use of economics in normative analysis and have no application to positive analysis, which I believe will ultimately be the more important contribution of economics to law.

Another criticism leveled against the economic approach is that it ignores "justice," which in these critics' view is and should be the central concern of the legal system and of the people who study it. In evaluating this criticism, it is necessary to distinguish different senses in which the word justice is used in reference to the legal system. It is sometimes used to mean "distributive justice," which can be defined very crudely as the "proper" degree of economic inequality. Although economists cannot tell you what that degree is, they have much to say that is extremely relevant to the debate over inequality<sup>78</sup>—about the actual amounts of inequality in different societies and in different periods, the difference between real economic inequality and inequalities in pecuniary income that merely compensate for cost differences<sup>79</sup> or reflect different positions in the life cycle,<sup>80</sup> and the costs of achieving greater real or nominal equality. I grant that distributive questions are important in the legal system—in tax policy and elsewhere—but I contend that economists have a great deal to say about them, more perhaps than those who speculate philosophically about the normative issues of distributive justice.

A second meaning of "justice," and the most common I would argue, is simply "efficiency." When we describe as "unjust" convicting a person without a trial, taking property without just compensation, or failing to require a negligent automobile driver to answer in damages to the victim of his carelessness, we can be interpreted as meaning simply that the conduct or practice in question wastes resources.<sup>81</sup> It is no surprise that in a world of scarce resources, waste is regarded as immoral. There may be, however, more to notions of justice than a

78. For a recent empirical study of income distribution see B. CHISWICK, *INCOME INEQUALITY: REGIONAL ANALYSES WITHIN A HUMAN CAPITAL FRAMEWORK* (1974).

79. Such as the greater danger, uncertainty, or investment in education of a particular occupation compared to alternatives.

80. Two people might have identical lifetime earnings, but unequal current incomes if they were of different ages in occupations where earnings vary with age.

81. See R. POSNER, *supra* note 16, *passim*; Posner, *supra* note 71; Ehrlich & Posner, *supra* note 29.

concern with efficiency, for many types of conduct widely condemned as unjust may well be efficient. It is not obviously inefficient to permit people to commit suicide, to discriminate on racial or religious grounds,<sup>82</sup> or to eat the weakest passenger in the lifeboat in circumstances of genuine desperation; nor is it obviously inefficient for society to permit abortions, to substitute torture for imprisonment, or to give convicted felons a choice between imprisonment and participation in dangerous medical experiments. Nevertheless, many people would regard all of these things as horribly unjust. I doubt, however, that such views are completely impervious to what an economic study might show. For example, would the objection to medical experimentation on convicts remain unshaken if it were shown persuasively that the social benefits of such experiments greatly exceeded the costs? Would the objections to capital punishment survive a convincing demonstration that capital punishment had a significantly greater deterrent effect than life imprisonment? All of these are studiable issues, and since no rational society can ignore the costs of its public policies, they are issues to which economics has great relevance. The demand for justice is not independent of its price.

My guess is that when the issue of justice is studied seriously and when the many pseudo-justice issues are eliminated,<sup>83</sup> it will turn out that society is in fact willing to pay a certain price in reduced efficiency for policies (*e.g.*, forbidding racial and religious discrimination) that advance notions of justice, but that society does so to preserve intact the social fabric—to forestall rebellion and other forms of upheaval. I am suggesting, in short, that we will eventually develop a utilitarian theory of justice.

82. See, *e.g.*, Arrow, *The Theory of Discrimination*, in *DISCRIMINATION IN LABOR MARKETS* 3 (O. Ashenfelter & A. Reese ed. 1973); Phelps, *The Statistical Theory of Racism and Sexism*, 62 *AM. ECON. REV.* 659 (1972); Posner, *The DeFunis Case and the Constitutionality of Preferential Treatment of Racial Minorities*, 1974 *SUP. CT. REV.* 1.

83. The complaint of injustice often arises from a failure to consider a proposed policy carefully. For example, people instinctively recoil whenever I suggest doing away with prison sentences for antitrust violators. The proposal seemingly suggests a different law for the rich than for the poor. The point is in fact quite different. Since most antitrust violators are highly solvent and most common criminals are not, the former can be adequately deterred by monetary sanctions—which are cheaper for society to administer than imprisonment—and the latter cannot be. The proposal envisages setting antitrust fines at a level equal to or greater than the cost to the violator of being imprisoned, so that the substitution of fines for imprisonment would not reduce effective punishment costs to the violator.

V.

The final subject that I want to consider is the place of economics in the teaching and research activities of law schools. I do not take for granted that simply because the economic study of law is an interesting and worthwhile scholarly pursuit it should be carried on within law schools. That depends on the compatibility of this pursuit with a law school's primary objective of providing a professional education. I think it is compatible with the goals of a professional education in the law, and indeed vital to their fulfillment.

In several important fields, it is already widely acknowledged that the student's understanding will be seriously incomplete if it does not embrace the relevant economic concepts. These fields are antitrust, regulated industries, consumer and environmental protection, corporate finance, and the regulation of international trade. The student of antitrust or regulated industries who does not understand such economic concepts as monopoly and monopsony, oligopoly, price discrimination, "free riding," dominant firm, cross-elasticity of supply and of demand, and product differentiation is seriously handicapped in understanding and applying legal policy in these fields. The same is true of the student of pollution law who does not understand the meaning of externalities or the Coase Theorem, or the student of corporate finance who does not grasp the positive correlation between risk and return. The importance of economics is also generally acknowledged with respect to specific topics within other fields, such as the debate over automobile-accident compensation plans in torts. The list of areas of acknowledged relevance is growing, and I predict it very soon will include such disparate but important topics as the deterrent effect of criminal punishment, court delay and judicial administration, the regulation of interstate commerce under the commerce clause and the fourteenth amendment, tort and contract damages, and major parts of the substantive law of property and torts.

My own view is that the role of economics in a good legal education is considerably larger than the foregoing list implies. But for present purposes it is sufficient to note the widespread and growing agreement that a good legal education should include a substantial dose of economics. The difficult question is how to impart economics to law students. The key to answering this question lies in recognizing that learning economics is a great deal like learning law. The fact that so much of modern economics comes clothed in a mathematical garb is misleading in this respect. It suggests that economics really is like geom-

etry or calculus, a system of deductive logic that can be imparted rapidly and painlessly, unlike the law where a more tedious process of induction is required. While economics does lend itself to mathematical exposition, mathematical skill is not the heart of economic understanding. The heart of the subject, as in law, is a knack for looking at things in a certain way. The lawyer learns to recognize a legal problem when it does not come to him labeled as such, and the economist learns to recognize an economic problem when it is not presented to him in explicitly economic terms. Just as effective use of legal analysis is learned by repetition, so is the effective use of economic analysis. Just as the lawyer must learn to think things, not words, so the economist must learn to think things and not symbols.

A law school cannot hope to equip its graduates with either the breadth of understanding or the technical apparatus of the professional economist. But it can produce graduates who think like economists as well as like lawyers—that is, graduates who are sensitive to the economic dimensions of problems, familiar in a broad way with how the economist analyzes a legal issue or institution, and able to bring the fundamental principles of economics to bear on a variety of questions arising in the practice of law.

Even this teaching goal is not unambitious, and it is fulfilled today in few if any law schools. The immediate reason is the paucity of course offerings that have a substantial economics content. I mentioned earlier that the effective inculcation of the economic approach requires, as in the case of legal training, a good deal of repetition—repetition with variation, of course. It follows that the law student needs to be exposed to economics in a variety of curricular settings. First, throughout the three years of law school, economics must be brought explicitly into those courses and parts of courses to which it is relevant. This is the most important part of a law and economics program. Second, there should be an introductory course in economic theory designed for law students, a course that stresses fundamental economic principles (not techniques) and their application to specific problems of law and public policy. Third, the law school should offer (perhaps in conjunction with the economics department or business school of the university) economics seminars and workshops in which students are exposed to the latest research in law and economics and given an opportunity to contribute to it. Fourth, there should be a course with a minimum of formal economic theory—best taught in the last quarter or semester of the first year—that surveys the application

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of economics to a variety of legal problems that cuts across many conventional fields of legal study. The purpose of such a course is to give the student a sense of the unity, power, and fundamental simplicity of the economic approach to law. Taught toward the end of the first year, such a course can give the student both a perspective on the common law (the subject of the first-year instruction in law school) and an introduction to the subjects of the second and third years of law study.

A program in the teaching of law and economics such as I have just outlined does not entail a major faculty expansion. A law school with one full-time economist on its faculty and a significant fraction of law teachers willing to learn some economics and integrate it into their courses could offer the kind of program that I have described. I emphasize *full-time* economist. The economist who spends a day or two a week at the law school and teaches there the same kind of course that he would teach in an economics department is unlikely to have a major impact on the law school, either faculty or students. A serious attempt to grapple with the problem of teaching economics to law students and, more generally, of applying economics to law is not made until the economist has made a serious professional commitment to the law and economics field. That commitment is symbolized by a full-time appointment to a law-school faculty; but more than symbols is involved. The economist who has such an appointment not only is devoting his full time to the law and economics field but knows that his professional advancement depends on what he makes of that field.

I have emphasized thus far the curricular or pedagogical role of economics in the law school. Once it is agreed that the role is a significant one, it follows easily that the law school will also be the university's center for research in law and economics.<sup>84</sup> A combination of an economist (or economists) working full time on legal problems and academic lawyers interested in economics has considerable advantages in the conduct of research in law and economics over economists in economics departments or in business schools. Legal doctrines and institutions are often baffling to an outsider, a fact that will, I predict, limit the ability of economists outside of law schools to continue to make substantial contributions to the economic study of law. The academic lawyer interested in economics and the economist doing teaching and research in a law school will encounter and be able to exploit

84. Even better would be a graduate department of law—but I will spare the reader a description of that Utopia.

research opportunities that would daunt the economist on the outside.

The remaining question is whether, and with what kind of training, the academic lawyer can contribute along with the economist to teaching and research in law and economics. Much of the anxiety that academic lawyers feel with respect to the growth of the economic study of law reflects, I believe, their doubt whether anyone other than a professional economist can teach economics, let alone contribute substantially to the developing law and economics literature. But one has only to skim the works cited in this article to realize that many important contributions to the literature have been made by lawyers who had little or no formal training in economics. I said earlier that the heart of economics is a knack for looking at problems in a certain way. In many intelligent people this knack is instinctive, or can be acquired in a variety of informal ways. It is clear to me that many academic lawyers have it (and many professional economists do not!), could use it fruitfully in their research, and could impart it effectively to their students.