LAW AND ECONOMICS: THE ROAD NOT TAKEN

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> For the rational study of the law the black-letter man may be the man of the present, but the man of the future is the man of statistics and the master of economics.
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> Oliver Wendell Holmes
> (1921: 83)

> I do not see how one can grasp the meaning of law within society except from the vantage point of social science.
>
> Lawrence M. Friedman
> (1986: 780)

I. INTRODUCTION

Since both law and society and law and economics apply social science concepts and methods to the problems of the legal system, one might think that the two disciplines are natural allies. Indeed, with the largely empirical focus of law and society and the strong emphasis on theory in law and economics, the benefits from collaboration between the two would seem to be particularly great. Perhaps surprisingly, though, they have often been at odds with one another, with both groups willing to concede only grudgingly that the other has made useful contributions to the study of legal and public policy issues. The hostility is reflected in the fact that, at recent law and society meetings, very few devotees of law and economics have been in attendance, either as speakers or as members of the audience. What then can explain this chill?

A. The Role of Ideology

At first glance, ideological factors might be thought to provide the explanation. For example, one could well imagine seeing an article entitled, "Should the Wealthy Be Able to 'Buy Justice'?" in either *The Law & Society Review* or in *The Journal of Law and Economics*. Only in an economics journal, however, could this question be answered affirmatively.* Indeed, articles such as this

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* The paper is by John Lott, who argues that a year in jail is not an equivalent punishment for both rich and poor since the wealthier defendant presumably has higher earnings, and thus loses more than his impecunious cellmate by being confined in prison. In order to restore balance to the sys-

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contribute to the view that law and economics represents the conservative wing of the law school community. Perhaps, then, law and economics and law and society are arrayed across such a gaping ideological divide that little useful discourse is possible. While this crude ideological division may correctly identify a modal political ordering of the two disciplines, I think the reality is more complex.

To somewhat of an outsider, the law and society movement does appear ideologically quite homogenous.[1] This is not to say that there is complete uniformity of political opinion within the discipline, but I would be stunned to learn, for example, that any of its members voted for Ronald Reagan. Thus, it is probably fair to say that law and society scholars tend to be liberal.

At the same time, President Reagan has found great kinship within the ranks of the law and economics movement. While the law and economics discipline is actually quite ideologically diverse, some of its most prominent conservative advocates, such as Judges Richard Posner and Frank Easterbrook, have been elevated to the federal judiciary during the Reagan Administration. Indeed, three of the President's Supreme Court nominees, Antonin Scalia, Robert Bork, and Douglas Ginsburg, consider themselves to be disciples of law and economics. Thus, for many, law and economics implies Posner, Bork, and Easterbrook, and it therefore becomes ideologically suspect.

B. Methodological Differences

There are some distinct methodological differences between the law and economics movement and the law and society movement. While both groups have a strong theoretical tradition, the relatively greater reliance on mathematically specified theory in law and economics presents an obvious opportunity for ill will to develop between the two groups. For example, within the economics profession, the most abstract theoreticians are commonly referred to as "high-brow" economists, while less mathematically sophisticated economists are at best "middle-brow" or "low-brow" types.[2] Perhaps this somewhat excessive reverence for pure math-

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tem, Lott argues, we must reduce the expected punishment of the rich—i.e., the probability of conviction times the length of incarceration if convicted. One way to achieve this goal is to enable the rich to use their wealth to "buy" a decreased probability of conviction, through the aid of high-priced criminal defense attorneys (Lott, 1987: 1310).

[1] This may just be the outsider's bias that attributes to the entire group the characteristics of a few of its most prominent members. I suggest below that this phenomenon may explain why many outsiders view law and economics as a conservative movement.

[2] As Solow has stated: "Economics is no longer a fit conversation piece for ladies and gentlemen. It has become a technical subject. Like any technical subject it attracts some people who are more interested in the technique than the subject. That is too bad, but it may be inevitable" (1988: 25).

ematical theorists causes law and economics scholars to look down on their law and society counterparts, and, at the same time, causes many law and society scholars to ridicule what they see as the arid formalism of law and economics.

Although the strains caused by the different degrees of reliance on mathematical modeling are obviously important, major methodological differences persist even when both disciplines pursue empirical research. For example, law and society scholars are far more willing than economists to rely on surveys as the central pillar of their research. Economists prefer to look only at observable behavior, which reveals people's underlying subjective valuations. The thought is that evidence about what people say is simply not worthy of credence unless it can be objectively verified. Thus, economists are often puzzled by what they view as the excessive gullibility of sociologists and other social scientists who rely heavily on survey data, while the latter often are mystified by the indirect and convoluted methods that the former employ to circumvent the problem of preference revelation.[3]

C. *Barriers to Entry*

Although ideological and methodological divisions contribute to some of the tension between law and society and law and economics, they do not provide a complete explanation of the antagonism. Hostility toward economics also comes from those who are excluded from it by its difficulty or its jargon and who are deterred from making the investment in learning economic theory either by what they see as its unacceptable conclusions, or by the significant educational expense. But while the argument over expense is legitimate, the argument over unacceptable conclusions—at least as a blanket indictment of the discipline—is not.

Admittedly, economists at times have been mesmerized by exquisite theories and thus have embraced absurdly unrealistic and unsupported positions. Two types of problems are particularly common. First, elegant theories, constructed on the basis of restrictive assumptions, are then implemented without a proper appreciation that the predictions of theory may be undermined when the underlying assumptions do not hold.[4] Second, some econo-

[3] A recent study that relies on surveys while being sensitive to the pitfalls of this approach is *Racial Attitudes in America: Trends and Interpretations* by Schuman, Steeh, and Bobo (1986).

[4] An example is Barro's brilliant argument that government deficits financed by a cut in current taxes should not have any expansionary impact since individuals who are relieved of a tax burden today will simply save more in anticipation of the higher taxes that they and their beloved heirs will have to pay later (1974). Quite predictably, the mindless application of this theory yielded rather contrary and unpleasant results: when the deficit soared, savings plummeted, leading to high real interest rates, a soaring dollar, and massive trade deficits. Tobin provides a good discussion of where the magnificent theory departs from reality (1980).

mists, rather than letting their theories be informed by the world, lapse into Procrustean efforts to conform their perceptions of the world to their theories. However, too frequently the economic theories have been misunderstood and rejected by those who have much to gain from embracing them. For many the decision to travel down an alternative path to that of law and economics is accompanied by the hope that the two paths will never cross. As a result, many law and society scholars have shut themselves off from the highly valuable, as well as the lamentable, contributions of law and economics. As I review some major works in the realm of law and economics, I will argue that greater familiarity will breed respect.

II. THE VALUE OF COASE

Perhaps it is fitting to begin with the famous theorem of Coase traditionally identified as the first pathbreaking development in law and economics (Coase, 1960).[5] The theorem suggests that when parties are free to bargain costlessly they will succeed in reaching efficient outcomes regardless of the initial allocations of legal rights. This beguilingly simple formulation of the theorem masks much complexity, which many critics (and some supporters) of Coase unfortunately have failed to grasp. Consequently, much of the antagonism toward the Coase Theorem results from misconceptions of what the theorem actually implies. When properly understood, the theorem can be a valuable asset to any law and social science scholar.[6]

A. Efficient Levels of Pollution

1. Bargaining between Two Commercial Enterprises. To make the nature of these misconceptions more concrete let me begin with an example from the recent book of Cooter and Ulen (1987).[7]

[5] The traditional view is subject to question. Twenty-three years earlier, Coase published another seminal work, "The Nature of the Firm," that explored when firms would rely on the market to allocate their resources and when they would use administrative mechanisms of allocation (1937). The paper, which had been overlooked for many years, is now recognized as a classic, and it has spawned a great deal of work in institutional economics by Williamson (1975, 1985) and others.

[6] The theorem is not without critics from within the profession. Aivazian and Callen have argued that, when more than two parties are involved, one cannot always expect costless bargaining to lead to Pareto optimal outcomes (1981). Coase's response revealed an empirical orientation that most law and society scholars would find both surprising and heartening:

> [W]hile consideration of what would happen in a world of zero transaction costs can give us valuable insights, these insights are, in my view, without value except as steps on the way to the analysis of the real world of positive transaction costs. We do not do well to devote ourselves to a detailed study of the world of zero transaction costs, like augurs divining the future by the minute inspection of the entrails of a goose (Coase, 1981: 187).

[7] Cooter and Ulen's book is the latest law and economics textbook. The

A factory emits smoke that damages a nearby commercial laundry, which responds by filing a lawsuit seeking to enjoin the pollution. After exploring the consequences of a decision either in favor of or against the laundry, Cooter and Ulen state that "where the cost to the laundry and to the factory of concluding a private agreement limiting pollution is very low, *the pollution level and the amount of production by both parties will be the same level* under either rule of law" (1987: 5) (emphasis added).

While this is a straightforward application of the Coase Theorem, the prediction that the level of pollution and the amount of production are identical regardless of the legal rule is not universally true.[8] In this case it holds only because we are dealing with two commercial enterprises, solely interested in the dollar profits they receive from the factory and laundry activities. To see this, assume that a ten thousand dollar bribe to the laundry is necessary to induce it to allow the pollution. This implies that the pollution costs inflicted on the laundry are less than ten thousand dollars. Therefore, if the benefit to the factory from polluting exceeds ten thousand dollars, then the pollution will continue, regardless of the initial allocation of the right.

2. Bargaining between a Business and an Individual. The situation would be quite different if one of the parties were an individual rather than a business. For example, if the factory causes severe pollution damage to someone's seaside home, then the choice of which party to prefer in a nuisance case might well have a substantial effect on the level of pollution. In this case, if the polluter is given the right to pollute, the homeowner wishing to be free from pollution is constrained by his ability to pay in trying to bribe the factory owner to pollute less or move elsewhere. A homeowner severely strapped for funds is not able to offer any inducement to the polluter, and, as a result, the pollution, although displeasing to the homeowner, continues unabated. However, if the property right to be free from pollution is conferred on the homeowner, he or she has the power to thwart completely the factory owner's desire to pollute. The result might well be that the homeowner will insist that all or most of the pollution be terminated.

Changing the legal rule, then, leads to quite different results in this second illustration. The reason for this difference is that, if the homeowner receives the property right, he or she is wealthier in the sense of having an option—i.e., the ability to sit back and

other major texts are Posner (1986), Hirsch (1979), Goetz (1984), and Polinsky (1983).

[8] While Cooter and Ulen do clarify in a footnote that they are only talking about *efficiency* being preserved under different assignments of property rights, the level of confusion over the nature of the Coasean prediction is such that one must be exceedingly careful on this point lest one lead the reader astray (Cooter and Ulen, 1987: 5 n.5).

refuse any bribe from the factory owner to tolerate the pollution—that was unavailable under the alternative assignment of the pollution right. In other words, the allocation of the property right has wealth effects that in turn influence which efficient outcome will be reached. Consequently, the level of pollution is greatly influenced by the assignment of the property right.

B. The Identity Prediction

1. Some Theoretical Issues. Note that this discussion does not imply that the Coase Theorem applies in Cooter and Ulen's example with the two commercial enterprises but not in my illustration involving the homeowner; it only shows that the prediction of identical levels of pollution does not uniformly hold.[9] We are still left with the basic Coasean insight that the efficient solution is reached, where efficiency is defined by the willingness *and ability* to pay. Thus, on the one hand, if the homeowner has no money with which to induce the factory owner to stop polluting, then it is efficient for the pollution to continue. On the other hand, when the property right lies with the homeowner it is efficient to make the factory stop polluting if the homeowner prefers clean air to the monetary inducements the factory owner offers to maintain the ability to pollute. Although in one case we get lots of pollution and in the other we get little or none, both are efficient outcomes.

2. An Empirical Examination of Bonus Schemes to Reduce Unemployment Spells. There are times, however, when the Coase Theorem does predict identical outcomes, for example, when the creation of the legal rule does not create wealth by conferring a property right on one party or the other. One such case is afforded by the real-world experiment in which the state of Illinois undertook a program to test bonus schemes that might encourage or enable workers to leave the unemployment compensation rolls by returning to work more quickly (Donohue, 1987). One group of unemployed workers was told that they would receive a bonus of five hundred dollars if they returned to work within eleven weeks. A second group was told that their employers would receive a bonus of five hundred dollars if the workers obtained a job within the eleven-week period. As I have shown in detail elsewhere, the

[9] Cooter is well aware of this point, since he explicitly addresses it in his excellent piece "The Cost of Coase" (1982: 15). But not everyone else is. In fact, the "cost" of which Cooter writes is that readers are "confused" about the meaning of the theorem (Ibid.: 1). For example, Zerbe describes the Coase Theorem as follows: "In a world of perfect competition, perfect information, and zero transaction costs, the allocation of resources will be efficient *and invariant* with respect to the legal rule of liability" (1976: 29). Ellickson recently stated that the Coase Theorem "asserts, in its strongest form, that when transactions costs are zero, a change in the rule of liability will have no effect on the allocation of resources" (1986: 624). Ackerman has also alluded to the confusion over this issue (1975: 23).

fact that bargaining can occur between the worker and employer suggests that the results in these two groups should be identical if enforcement costs are low. But, when this real-world test was conducted, the Coasean identity prediction was not supported. Unemployed workers made far greater use of the bonus scheme and returned to work significantly more quickly if the bonus was paid directly to them rather than to their employers.

C. *Hostility to Coase*

This discussion may illuminate why there is hostility to the Coase Theroem in particular and to law and economics in general. I believe that when most people are first introduced to the Coase Theorem, they extrapolate from examples such as that given by Cooter and Ulen involving two commercial enterprises that the Coase Theorem predicts identical results regardless of the assignment of the property right. They then try to think of its operation in terms of situations more like my example with the homeowner than the one used by Cooter and Ulen, and conclude that the theorem must obviously be false.[10] If they manage to obtain a more complete understanding of how the Coasean prediction is premised upon a definition of efficiency valuing only willingness and ability to pay, then they may attack the concept of efficiency, thereby seeking to jettison what they view as both a barren concept and a useless theorem relying on it.[11]

Moreover, to some scholars the empirical refutation of the Coase Theorem's prediction of identical results in the case of the unemployment bonus scheme disproves the Theorem and provides final confirmation that it is best relegated to the scrap heap of clever but ultimately pernicious ideas. This demonstration, however, does not undermine Coase any more than showing that a feather and a rock dropped from the Sears Tower do not hit the ground at the same time disproves Galileo's discovery that objects

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[10] This error pervades Kelman's attack on Coase (1979). Kelman does make interesting arguments about how economic theory can both shape as well as explain human behavior, and discusses the interesting implications for the Coase Theorem of the work of Kahneman and Tversky, suggesting that consumer behavior may systematically diverge from what economists consider to be rational (Kahneman and Tversky, 1979). Unfortunately, the bulk of his discussion is premised on a faulty understanding of the Coase Theorem. See Spitzer and Hoffman's lucid critique (1980) and Kelman's strident reply (1980). For example, Kelman claims that the Coase Theorem predicts that "the amount of rape is unaffected by whether the victim must bribe the attacker to refrain from raping her or whether the attacker must compensate the victim for the rape" (Ibid.: 695). For exactly the same reason discussed above with respect to pollution and the homeowner, the legal rule will certainly have an impact in this case, as Coase and all knowledgeable economists would admit.

[11] Certainly, there are great difficulties in trying to get too much mileage out of "efficiency" as a monolithic normative goal as, some would contend, Judge Posner has tried to do. See "The Symposium of Efficiency as a Legal Concern," 8 *Hofstra Law Review* (1980). But almost all economists are fully aware of this. See Donohue and Ayres (1987: 797).

fall at the same speed in a vacuum. Coase's insight is brilliant and unassailable when its highly restrictive assumptions apply.[12] This fact has been confirmed empirically in repeated experimental settings in the important work of Hoffman and Spitzer (1982, 1985, 1986, 1987).

But the law and economics aficionados must resist the temptation to ignore the results of the Illinois experiment. When the underlying assumptions do not apply, or when there has been insufficient opportunity for learning, Coasean predictions may well not be realized. Just as it would be foolish for an engineer to predict that two bodies falling in the earth's atmosphere will always fall at the identical rate, it would be unwise to assume that Coasean efficiency or identity predictions will always be achieved in the real world.[13]

D. Coase is Indispensable to Empirical Research

Scholars in both camps have demonstrated rigid and predictable responses in endorsing or opposing certain theories to further their ideological predilections. Thus, some law and society disciples have tended to view the Coase Theorem as a dangerous, "politically repressive" (Kelman, 1980:1221), doctrine that should be stamped out, since it seems to weaken the case for government intervention in certain settings.[14] This is unfortunate because Coase,

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[12] One of the assumptions implicit in the theory is that whenever it is to the mutual advantage of both parties to reach an agreement, they will succeed in doing so. But recent advances in the theory of noncooperative models of bargaining have illustrated that bargaining is typically inefficient when each bargainer possesses relevant information unavailable to the other side. Thus, "we cannot assume that all mutually beneficial contracts are signed, unless we assume that everyone knows everything about everyone, which they do not" (Farrell, 1987: 115). Moreover, as Cooter has observed, the fact that some agreement between the parties will yield a surplus does not mean that the parties will agree on how to divide the surplus. Hence, the agreement may never be achieved. (Cooter, 1982). Regan (1972) and Zerbe (1980) also discuss the possibility that strategic behavior by individuals may result in the failure to reach mutually advantageous bargains. This is the problem of bilateral monopoly. (Friedman, 1980: 236). Polinsky ingeniously dispenses with the problem by treating a bargaining failure induced by strategic behavior as a violation of the assumption of zero transactions costs (1983: 18 n. 11). Lachman explores whether the Polinsky resolution is adequate (1984: 1593–1596). See also the theoretical analysis of whether redistribution games have equilibrium solutions (Binmore *et al.*, 1986).

[13] For example, the Coase Theorem suggests that contract presumptions, in which the nominal beneficiary must obtain consent from another party before benefiting from the rule, should not affect the distribution of wealth between the parties. Schwab has provided experimental evidence that question this prediction (1988).

[14] Conversely, those who oppose government intervention tend to endorse the theorem uncritically, and at times have vented their rage at what they view to be examples of liberal economic theory. The theory of public goods—which Posner observes "could be viewed as one of the ideological underpinnings of the welfare state" (1986: 25)—has received such criticism. The author of the theory of public goods, Paul Samuelson, has responded to his critics with some dismay at the attack: "Why all this? Is it because, despite all

when properly understood and applied, is often indispensable to the enterprise of conducting empirical research. In fact, it can often be of assistance in furthering political agendas that law and society scholars would enthusiastically support.

For example, imagine that win rates for blacks and whites in litigated tort cases are studied to determine if judges and juries tend to favor whites over blacks. Law and society enthusiasts assume that the study will uncover evidence of discrimination against blacks. A finding that white and black plaintiffs each win fifty percent of the time is then taken as one showing no discrimination. But Priest and Klein have shown in a wonderful illustration of Coasean principles that the ostensible empirical demonstration of no discrimination is flawed (1985). If everyone realizes that blacks receive less favorable treatment at the hands of judges and juries, both parties to a dispute will use this information in negotiating settlements. As a result, black plaintiffs will be inclined to settle for less than white plaintiffs, and the range of disputes that will ultimately be resolved by a judge or jury are disputes centered around the lower potential award of the blacks. Disputes in which the parties' estimates of the strength of the case are far from the decision rule—i.e., cases that are perceived as clear winners or clear losers—are relatively less likely to be litigated because they are unlikely to generate differences in estimates of victory by the parties sufficient to exceed the litigation costs. Since litigation will only occur when the parties differ as to the ultimate value of the case, we will see blacks winning roughly fifty percent of the time *even though there is significant discrimination in the final adjudication* (Ibid: 37).[15] This example underscores that, just as theoretical work without empirical verification is of little value, empirical work not guided by an intelligent theoretical framework can be fruitless.

III. ECONOMICS: A TOOL, NOT AN IDEOLOGY

While credit for the advent of law and economics is usually attributed to Coase, Posner has played the most influential role in expanding the scope of law and economics throughout the legal academic community. The publication in 1972 of the first edition of his book, *The Economic Analysis of Law*, provided the single most forceful impetus to the onslaught of economics into law schools.

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denials, Chicago is not so much a place as a state of mind? Is it because of the fear that finding an element of the public-good problem in an area is prone to deliver it over to the totalitarian state and take it away from the free market? The line between conviction and paranoia is a fine line . . . . Only a bigoted devotee of laissez-faire will find the theory of public goods, properly understood, subversive" (1964: 83).

[15] For a spirited debate concerning the Priest/Klein model, see the challenge by Wittman (1985) and Priest's reply (1985).

The rapid growth of the discipline has been in no small part due to the clarity and accessibility of all of Posner's work.[16]

But the fact that it is Posner who has popularized and largely become synonymous with law and economics has one significant negative feature. In the minds of many, law and economics is an ideological crusade: if one does not embrace the Chicago school vision of the world, then there is little of value to be found in this area of scholarship. It is as though the first individuals to read Daniel Defoe's classic work denounced the novel as a literary form simply because they disliked the story of Robinson Crusoe. Very few works in law and economics advocate extremely controversial and emotionally charged positions.[17] Certainly, Calabresi and Melamed's pathbreaking article (1972) establishing the analytical framework of property rules and liability rules, which has served to provide structure to a remarkably important and previously formless area of the law, has no particular ideological perspective. (1972).[18] Quite possibly, if Calabresi, Ackerman, or Markovits—other important figures in law and economics—had come to characterize the discipline, the antagonism between law and economics and law and society would never have developed.

One message that emerges from this discussion is that economics is a tool, not an end in itself. It is valuable to the extent that it provides a useful means of ordering a chaotic world.[19] The thought that this tool carries an ideological label is quite naive; historically, economists from Adam Smith to Karl Marx, and from

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[16] It is also difficult to deny that Judge Posner is an exceptionally creative thinker. Those skeptical of this conclusion should consult Judge Posner's address to the American Economic Association, in which he argued, inter alia, that "the startling difference in religiosity between the United States and Western Europe" is in part explained by the fact that almost all Western European countries have taxpayer-supported and legally privileged churches while the United States does not. Because the American system lifts the dead hand of government from the religious sphere, a wide variety of sects are fostered: "almost every person can find a package of beliefs and observances that fits his economic and psychological circumstances" (Posner, 1987: 12).

[17] The most famous example of one that does is probably Judge Posner's discussion of the case for legalizing the sale of babies (1986: 141).

[18] Polinsky (1980, 1983) built upon the Calabresi and Melamed foundation in analyzing the economics of injunctive and damage remedies. Again, these works have little ideological character.

[19] Economics is less valuable if it encourages behavior that adds to the chaos. In one interesting experiment designed to test the concept of free-riding, large numbers of subjects were given the choice to invest in one of two goods: a private good that yielded a small private return; and a public good that yielded a larger return to the group but a smaller return to the individual investor (Marwell and Ames, 1981). Economic theory would suggest that no rational self-interested individual would invest in the public good. Surprisingly, in a large number of trials, subjects have tended to contribute around 50% of their resources to the public good. "The only notable exception has been a group of entering graduate students in economics. They contributed only 20% to the [public good], found the concept of fairness alien, and were only half as likely to indicate that they were concerned with fairness in making their decision" (Rhoads, 1985: 161–162).

Milton Friedman and Gary Becker to James Tobin and Paul Samuelson have covered the entire spectrum of political beliefs. There is absolutely nothing about the application of economic doctrines to the legal domain that alters this fundamental fact.[20]

My own work involving employment discrimination legislation illustrates this point. The traditional law and economics analysis has been hostile to such legislation on the grounds that forcing employers to stop discriminating is inefficient in the short run and unnecessary in the long run, since discriminating employers are disciplined by the market (Landes, 1968: 548; Posner, 1986: 616). I have pointed out that we can eliminate the social costs of animus-based discrimination far more quickly if a governmental penalty, such as that provided by Title VII, is added to the market sanction (Donohue, 1986). Title VII will prove to be efficient if the considerable benefits from eliminating discrimination exceed the costs of intervention (Donohue, 1987). Although Judge Posner has advanced theoretical and empirical arguments for why he doubts this to be the case,[21] the point is that the debate took place using economic analysis (1987). Moreover, for those who wish to see the economic analysis informed by more typical sociological assumptions of caste, class, and custom, there is already a rich and growing literature.[22]

A. The Governmental Effort to Alleviate Poverty

The inaccuracy of ascribing excessive ideological content to the appellation of economist can be demonstrated by considering one of the enduring issues in economics, government aid to the

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[20] While some ideology is implicit in neoclassical economics, it is generally far less than the opponents to law and economics contend. Indeed, competition within the discipline encourages law and economics scholars to incorporate (intelligent) criticisms of the economic methodology into their work. For examples, see the works of Akerlof cited in footnote 22, which explore the effects of altering many of the assumptions, e.g., rationality and individualism, that are important but not defining characteristics of economic methodology.

[21] Posner adopts two primary arguments: a perfectly competitive market will eliminate discriminators at the optimal rate, so that government intervention is clearly harmful; and Title VII has not benefited blacks, so it has no beneficiaries, but has imposed obvious costs (1987). In response, I developed a very crude set of estimates of the costs and benefits of Title VII that gave some indication that the Act might in fact be efficient, since the costs of discrimination are so high. An extremely rough estimate of the annual cost of racial discrimination by employers is $5.8 billion. The question is whether this cost can be eliminated by fiat and at what price (Donohue, 1987).

[22] See the following works by Akerlof: "The Economics of Caste and of the Rat Race and Other Woeful Tales," "A Theory of Social Custom, of which Unemployment May be One Consequence," which both appear in Akerlof (1984), and "Discriminatory, Status-based Wages among Tradition-oriented, Stochastically Trading Coconut Producers" (Akerlof, 1985), which draws on Granovetter's "The Strength of Weak Ties" (1973), and Macaulay's, "Non-contractual Relations in Business: A Preliminary Study" (1963). See, also the economic analyses of employment discrimination by Alexis (1974) and Kreuger (1963).

poor.[23] Theoretical and empirical debates have been waged over whether any aid should be given, and, if so, what kind.[24] As I address these issues, it should become clear that there is often considerable disagreement among economists and that there is nothing inevitably conservative about economic arguments.

1. Income Distribution and Redistribution: Theoretical Issues. Before one decides whether the poor should be aided, one must ask why they are poor in the first place. If the answer is "a taste for leisure," then the policy prescription will obviously be different than if the reason is either lack of innate abilities or the need to restrain economy-wide inflationary pressures. The Chicago school position has been that the distribution of income in society is driven by ineluctable economic forces acting on the innately determined abilities and relatively fixed preferences of the population. Posner notes correctly that it is quite difficult to change the distribution of income, but I believe he somewhat overstates the case (1986: 431; Donohue and Ayres, 1987: 794–801). One study has even suggested that the forces driving income distribution are so immutable that they also apply in the game of basketball. In support of this view, McCormick and Tollison demonstrate that the "empirical distribution of points scored in a basketball game bears close resemblance to the actual distribution of income in the U.S. economy" (1986: 117).[25] While the article is intriguing, one must be careful about ascribing too much significance to causal empirical correlations.[26]

Doubtless influenced by his views on the reasons for the existence of poverty, Judge Posner has argued that "involuntary redistribution [presumably through taxation and transfer payments] is a coerced transfer not justified by high market-transaction costs; it is in efficiency terms a form of theft" (1986: 436). Although the view that governmental aid to the poor should be deemed criminal is unquestionably conservative, it is not a dominant position within the economics profession. In fact, most economists recognize that

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[23] "Both Marshall and Pigou cited the possibility of betterment of the conditions of the poor as the primary motivation for studying economics" (Rappaport, 1988: 88).

[24] See Atkinson (1987) for an impressive review of this literature.

[25] Such law and economics articles are at times denounced as fanciful. Perhaps what was most troubling, though, was not the possible whimsy, but the conservative conclusions that have been adopted in these pieces. I would imagine that few of the critics of law and economics objected when Farber poked fun at the Coase Theorem in The Case against Brilliance" (Farber, 1986) or when Block and Sidak asked "Why Not Hang a Price Fixer Now and Then?," in discussing optimal deterrence (1980).

[26] Ritter and Silber point out that the pattern of stock price movements from 1960 to 1966 is almost identical to that of the number of times that members of the Washington Senators baseball team struck out each year over the same period (1984: 181–182). Presumably, these two events are not causally related.

concern for the plight of the less fortunate is a widespread phenomenon. One cannot expect private charity to give full expression to this concern since everyone has an incentive to free-ride on the generosity of others. Thus, for the same reason that we rely on government to provide for the national defense, we must rely on government to provide the optimal level of assistance to the poor. A remarkably diverse array of economists endorses this notion of Pareto-optimal income redistribution.[27]

2. Conflicting Empirical Evaluations of Social Welfare Programs.

A. Government aid has been harmful. While economic theory can be used to buttress the case for aid to the poor, opponents of such aid have marshalled considerable empirical evidence of the negative effects that flow from the governmental effort to alleviate poverty. Specifically, the fear is that government aid to the poor will undermine work incentives and family stability. Perhaps Gilder captures the sentiment best when he argues that federal welfare programs have deprived the poor of their one greatest asset—their poverty. (1981: 87). Murray has condemned the federal effort as producing a vastly greater number of poor and encouraging many adverse demographic and social trends (1984). Both Gilder and Murray point to the increasing numbers of illegitimate births and children living in poverty as the fault of excessive welfare benefits (Gilder, 1981: 140; Murray, 1984: 125–129, 133).

B. Government aid is not to blame—an economic evaluation. But, once again, economists do not universally accept the Gilder–Murray position. In a marvelous piece, Ellwood and Summers demonstrate that much of the attack on aid to the poor rests on very shaky *economic* grounds (1986). The general prosperity of the country is the most important factor in determining the percentage of Americans living in poverty. Indeed, the poverty rate is very sensitive to changes in median family income, which is a good proxy for overall prosperity. When median family income increases sharply as it did in the 1960s the poverty rate falls. Median family income stayed at roughly the same level between 1969 and 1980, and thus virtually no reductions in the measured poverty rate occurred over this period. The reasons for the stagnation in median family income are certainly complex, but as Ellwood and Summers note,

> "[I]t would be absurd to blame changes in median family income on social welfare program mistakes. Making the poor better or worse off should not affect median income

[27] See Friedman (1962: 191); Hochman and Rogers (1969); Zeckhauser (1971: 324); Pauly (1973); and Arrow (1981: 287). Of course, to the extent that people do *not* free ride, the need for governmental as opposed to private charity is correspondingly reduced. Note once again that the simple equation of economics with conservatism is misleading.

> because the middle family in the income distribution would not be directly affected" (Ibid.: 60).[28]

One cannot deny that a number of adverse demographic trends occurred during the 1970s. For example, between 1972 and 1980 the number of black children in female-headed families rose nearly twenty percent. The Gilder–Murray view of this phenomenon is that as governments subsidized female-headed households the number of such households necessarily increased, just as if, for instance, a college education were subsidized, the number of students attending college should increase. But it is difficult to place the blame for this development on the rise of Aid to Families with Dependent Children (AFDC), since "the number of black children on AFDC actually *fell* by 5% over this period" (Ibid.: 68). From this finding, Ellwood and Summers conclude that AFDC could not have played a very large role in inducing the deterioration in family structure.

Moreover, we know that AFDC payments vary widely across states. If AFDC significantly undermines the stability of black families, one would expect bad things to happen in states with high benefit levels. But the proportion of black children in single-parent households across the fifty states is remarkably insensitive to the size of state AFDC benefit levels. For example, the percentage is almost sixty percent in Tennessee, which sets a maximum AFDC benefit for a family of four of about one hundred fifty dollars, and the percentage is slightly less in California, which sets the benefit level at over five hundred fifty dollars per month (Ibid.: 71). This same insensitivity to AFDC payment levels is observed in other measures of family structure such as divorce rates and out-of-wedlock birth rates. Indeed, all the adverse trends in the 1970s to which Gilder and Murray point, such as in the number of illegitimate births and the number of children living in female-headed households, grew worse even though the scope and real benefits of welfare programs were being reduced. Thus, if perverse economic incentives were to blame, one would have expected things to have gotten better during the 1970s rather than worse.

C. A sociological perspective. Interestingly, an argument can be used to support the Gilder–Murray position, but it is a sociological and not an economic argument. The continuation of the welfare state in the 1970s created a culture of poverty that enmeshed the poor and sapped them, as well as the society at large, of initiative. While I think there is some validity to this position, this is just the sort of soft argument that usually is not appealing to law and economics types, with their belief in relatively well-de-

[28] There is a possible indirect effect, though, that Ellwood and Summers do not mention. If there is a large excess burden associated with the taxes needed to fund the social welfare programs, then the programs may contribute indirectly to the stagnation in median family income.

fined and stable preferences. The economic argument based strictly on incentives does not support the conservative position, while the sociological argument based on the developing culture of poverty may.

3. The Policy Prescription: Uniform Cash Transfers vs. Categorical Grants and In-kind Benefits. As the welfare state grew in the late 1960s and 1970s, the appropriate nature of the benefits was hotly debated. Chicago economists, rejecting what they saw as paternalism and a denial of individual rationality, advocated uniform unrestricted cash grants, such as the negative income tax, while sociologists called for more complicated categorical programs relying in part on in-kind benefits (Friedman, 1962: 176–196). There are a number of advantages of the negative income tax approach: it provides positive work incentives to the poor; and reduces the incentives for families to split apart to become eligible for welfare payments. Moreover, there is an appearance of fairness in that all those with a similar income are treated similarly, which also makes the scheme easier and less costly to administer.

But, as economist Akerlof has illustrated, it is false to assume "that a uniform negative income tax is always superior to a welfare system that gives special aid to people with special problems or characteristics" (1984: 58–59). In fact, because the three main groups that are the targets of welfare policy—the disabled and the elderly, single mothers and their children, and young individuals who are unable to find work—have different problems and have different susceptibilities to adverse incentives, economic theory suggests that a uniform program encompassing all three groups will presumptively not be optimal. Specifically, a program providing generous benefits to the disabled may cause little reduction in work effort,[29] while the same provision of benefits to ghetto youth might cause substantial decreases. Moreover, in-kind transfers, such as the provision of public housing, can be used to distinguish between those who are truly needy and those who only appear to be needy. (Nichols and Zeckhauser, 1982). For example, a medical student may have the same income and thus receive the same benefits under a negative income tax scheme as a poor ghetto dweller. But while the medical student may be willing to accept cash from the government, he or she may not be sufficiently compelled by economic hardship to seek accommodations in public housing.

These considerations have led some prominent economists to argue that the sociologists were right all along! Ellwood and Sum-

[29] Bound has argued that fewer than 50% of the male applicants for Social Security Disability benefits who are *rejected* will subsequently work. Since the accepted applicants to this program are presumably less healthy than the rejected applicants, the potential for decreased work effort may be quite small in this program (1988).

mers summarize their conclusions on this point as follows (1986: 77):

> [G]eneral economic principles suggest the desirability of a complex welfare system with different rules for different groups and partial reliance on in-kind benefits. The patchwork character of current policies *is* consistent with the goal of economic efficiency. The basic problem of welfare policy is to transfer income to those truly in need without sizable adverse incentive effects and without diverting significant resources to those who are not truly in need. Seen in this light, prominent features of our current welfare system seem easily explainable.

Thus, the notion that economists and sociologists are inevitably drawn to opposing policy positions is once again undermined. Strong theoretical economic arguments can be mustered for both the Chicago school advocacy of unrestricted cash transfers to the poor as well as the categorical welfare system. In fact, Judge Posner has acknowledged the force of the Ellwood and Summers view, noting that "a program of unrestricted cash transfers might bring about a greater static reduction in poverty than a program of earmarked transfers but a smaller dynamic reduction" (1986: 443). Significantly, the application of more sophisticated economic models—if supported by empirical evidence—may lead us back to the position that most law and society scholars probably endorsed initially.

IV. THE CHANGING IMAGE OF LAW AND ECONOMICS

A. Hard Hearts or Hard Heads?

Judge Posner's comments concerning the differing short-run and long-run effects of a policy reflect an enduring issue in law and economics. In his impressive survey of the 1983 U.S. Supreme Court term, Judge Easterbrook essentially focused on this issue in advocating what he referred to as "ex ante" rather than "ex post" analysis (Easterbrook, 1984). This dichotomy may capture some of the perceived differences between law and economics and the law and society movement. Judge Easterbrook points out the courts are frequently in the position of deciding whether to confer short-run benefits on some identified individuals, when the consequence may be to create additional long-run costs. Those who focus on the identified individuals are mired in ex post thinking; those who concentrate on the long-run costs are exemplars of ex ante analysis. The problem is endemic: by showing excessive concern for, say, the poor sap who finds himself in a tight spot, one may increase the number of individuals who end up in tight spots. The Reagan Administration learned this lesson the hard way by trading arms for hostages.

Judge Easterbrook does not want courts to make the same mistake, and he comes down squarely in favor of ex ante analysis.

He opines that, in assessing the performance of the Supreme Court (1984: 12):

> The first line of inquiry . . . is whether the Justices take an ex ante or an ex post perspective in analyzing issues. Which they take will depend, in part, on the extent to which they appreciate how the economic system creates new gains and losses; those who lack this appreciation will favor "fair" [i.e., ex post] treatment of the parties.

While there is an exceptionally important message here, one must be somewhat careful about embracing Judge Easterbrook's precise formulation. Dividing the world into ex post bleeding hearts and tough-minded ex ante analysts may have some descriptive validity, but it does not identify the optimal economic approach. The problem is that *both* ex ante and ex post points of view are inadequate: the correct approach is to examine and weigh *all* the costs and benefits of any public policy decision. Easterbrook is clearly right that if one truncates the analysis by looking only at the immediate application, then one may be overlooking important future costs generated by an overly sympathetic decision. He is also wise to emphasize the flaws in ex post thinking: it probably occurs more frequently than pure ex ante analysis since long-run costs are often more difficult to identify. On the other hand, ignoring the cost inflicted on the hapless individual to promote correct incentives for others is similarly misguided.[30] Keynes's famous assertion concerning our collective long-run fate was meant to emphasize that short-run benefits can at times outweigh long run costs.

If the full significance of the ex ante/ex post distinction is fully grasped, however, it undermines once again any simplistic characterization of those who practice law and economics. Frequently attempts to help the poor by those who are innocent of economic theory may ultimately be more detrimental than helpful. This is why economists are often skeptical of minimum wage laws and rent control: such measures can help those with jobs and apartments, while leaving others without work and homeless (Posner, 1986: 308, 450).

Consider also *Shapiro* v. *Thompson,* 394 U.S. 618 (1969), which struck down welfare residency requirements as unconstitutional.

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[30] Interestingly, even the giants of law and economics can slip into the dreaded ex post mode. Judge Posner's analysis of the exclusionary rule, which overlooks the effect of the exclusion in deterring future police misconduct, provides such an example (Posner, 1986: 639-642; Donohue and Ayres, 1987: 805). Judge Easterbrook would probably consider Judge Posner's analysis to be prototypically ex post, as his comments on judicial analysis of a claim of privilege suggest (1984: 32):

> The court may deny a claim of privilege by saying something like: "The evidence is in existence and is relevant. The public has a right to every person's evidence. The claim of privilege is rejected because the absence of the evidence would degrade the accuracy of the factfinding in the case at hand. This is a pure ex post position."

For the poor women who had been denied welfare benefits after moving to New York, this decision was a great victory—ex post analysis. But the result, as shown by Pauly, was that states such as New York with high welfare payments suddenly became magnets for poor individuals around the country (1973; Boadway, 1979: 412–415). Because of its inability to prevent excessive migration, New York was forced to lower its benefits overall. Thus, the majority of the New York poor may well be worse off as a result of the decision. Thus, in one sense, the decision in *Shapiro* may be viewed as liberal — it aided the poor plaintiffs. In another sense, it is quite conservative because it applied downward pressure on welfare benefits in high benefit states.

Similar issues are raised by *U.S.* v. *Jackson,* 390 U.S. 570 (1968), which struck down that portion of the Federal Kidnapping Act that provided for the death penalty only in the wake of a jury determination of guilt. In other words, any defendant who pled guilty could avoid the possibility of a death sentence. The Supreme Court's ex post analysis mandated that the statute be struck down for placing an excessive burden on the decision to elect a jury trial. Yet, many defendants in capital cases might prefer the *Jackson* statute since it provides them greater opportunities to escape the risk of execution by pleading guilty. If all death penalty schemes were similar to that in *Jackson*, there might well be fewer death sentences imposed. Abolitionists may therefore wonder whether *Jackson* advances their position. Is it a liberal decision or a conservative decision?

B. Future Trends

Until now, the central text of law and economics has been Posner's encyclopedic work *Economic Analysis of Law* (1986). If the recently published *Law and Economics* by Cooter and Ulen succeeds in challenging the preeminence of Judge Posner's book, it will further weaken the identification of law and economics as a conservative movement. In one sense, the Cooter–Ulen book is a more modest work than Posner's primary text in that it limits itself to the substantive courses of the first year curriculum: contracts, torts, property, and criminal law. Posner's work defines its scope to include the entire realm of law and public policy, ranging beyond the areas covered by Cooter–Ulen to incorporate chapters on income distribution, civil procedure, securities regulation, discrimination, antitrust, and much more.

But there are very substantial differences in the substance of these books, even when they address the same issues. In general, Cooter and Ulen are less daring in drawing conclusions from theoretical premises and/or empirical research. For example, Judge Posner notes that the typical downward sloping demand curve implies that, if you raise the price of something, you get less of it

(1986: 4–5). From this simple theoretical proposition, it follows that, if we can increase the cost of crime to criminals, we should get fewer violations of law. Buttressed by this theoretical postulate, Judge Posner assumes that the death penalty will necessarily have a deterrent effect.[31] He then concludes that there is evidence "that the incremental deterrent effect of capital punishment compared with long prison terms . . . is substantial" (1986: 211).

Whether the evidence is substantial is another matter. In a footnote, Judge Posner cites a number of studies in support of his statement, including the highly controversial work of Erlich (1975), and provides a single reference to the "skeptical literature" (Posner, 1986: 211). Cooter and Ulen, on the other hand, are more cautious: they begin their discussion of this issue by noting that "economic theory alone cannot answer the question of whether and to what extent the threat of execution deters homicides" (1987: 560). After carefully reviewing the evidence in support of the deterrence of capital punishment in seven pages, they summarize their findings. "There is no clear conclusion that flows from these various econometric studies on the deterrent effect of the death penalty. One cannot say with firmness that executions deter or do not deter homicides" (1987: 567). The different treatments of this issue appear to confirm McManus's conclusion that conflicting prior beliefs lead researchers viewing the same evidence to opposite conclusions concerning the deterrent effect of capital punishment (1985).

Can law and economics hope to expand its already considerable influence? If as I have argued, the discipline is beginning to shed its image as excessively ideological, then it will tend to attract new converts. At the same time, there are other forces at work that will tend to limit how far the new law and economics can grow. Few can match the clarity and accessibility of Judge Posner's writing, and the effort to do so becomes almost impossible as the mathematical sophistication of law and economics increases. Thus, further advances in the law and economics literature beyond the simple applications that have now largely been worked out will necessarily appeal to a shrinking pool of possible readers.[32]

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[31] Judge Posner correctly notes that the death penalty would still not be efficient unless the benefits from any incremental deterrent effect of this punishment versus long prison terms exceeds the added burdens imposed by capital punishment regimes (1986: 210–211).

[32] In the past few years, there have been remarkable breakthroughs in game theory that have promising applications in the realm of law. For one such example, see the models of litigation and settlement of P'ng (1983), Bebchuk (1984), and Reinganum and Wilde (1986). These studies analyze why the number of cases that are litigated rather than settled is far higher than simple maximization models of settlement would predict. But if many academics already find the concept of expected utility maximization to be of formidable difficulty, the number that will be able to penetrate the game-theoretic articles is minuscule.

The bias in favor of simpler economic models has probably worked to the

Which force—whether the opening up of law and economics to scholars from the full spectrum of political beliefs or the narrowing of its appeal to those with greater mathematical skill—will dominate is yet to be seen.

V. CONCLUSION

In this highly selective review, I have argued that, whatever the perceptions of law and economics as a movement, the use of economic principles as a means of analyzing legal issues can be a valuable mode of analysis, the central feature of which is not conservative ideology, but rigorous theoretical underpinnings. I have tried to convey to those who have chosen not to identify themselves with law and economics some flavor of how law and economics scholars approach issues and to show that their work has at times been unfairly characterized.

At the same time, I have pointed out some shortcomings in the work of law and economics scholars that I hope can be avoided in the future. My discussion has emphasized that economists have not had a monopoly on the truth—or on error—and that law and economics can be of use to those in other disciplines just as other disciplines can enrich and enhance the work of law and economics scholars. As economist Akerlof has observed (1984: 36):

> [T]he recent extensions of the model of supply and demand to discrimination, household organization, crime and marriage show that the boundaries between sociology and economics are by no means clear; if economic models can explain sociological phenomena, so also the process can work in reverse with sociological models describing economic phenomena.

This same cross-fertilization should be encouraged between law and economics and all the disciplines embraced by the law and society movement. At the same time, law and society scholars should consider scrutinizing the methodological practices and positions that are sometimes questioned by law and economics to see if significant defects or weaknesses have been identified. In the end, both disciplines would gain if, rather than over-emphasizing perceived shortcomings and apparent ideological differences, they approached the other discipline with the following question, What can I learn from this body of work?

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advantage of the Chicago school. In the perfectly competitive world of no externalities that is generally the basis of Chicago school analyses, it is far easier to render simple predictions—specifically, that efficient outcomes will be reached as long as government does not interfere—than it would be if greater dimensions of complexity were introduced. When some of the assumptions of general equilibrium theory have been violated, the difficult and murky world of "the theory of the second best" is entered. Some scholars, such as Bork, have dismissed the attendant difficulties with great rhetorical flourish (1972: 114). Those works that have tried to grapple with the problems of policy analysis under the rule of the second best can indeed be formidable (Markovits, 1975).

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REFERENCES

ACKERMAN, Bruce (ed.) (1975) *Economic Foundations of Property Law*. Boston: Little, Brown.

AIVAZIAN, Varouj A., and Jeffrey L. CALLEN (1981) "The Coase Theorem and the Empty Core," 14 *Journal of Law and Economics* 175.

AKERLOF, George A. (1985) "Discriminatory, Status-based Wages among Tradition-oriented, Stochastically Trading Coconut Producers," 93 *Journal of Political Economy* 265.

——— (1984) *An Economic Theorist's Book of Tales*. Cambridge: Cambridge University Press.

ALEXIS, Marcus (1974) "The Political Economy of Labor Market Discrimination: Synthesis and Exploration," in Horowitz, A. And Von Furstenberg, G., (eds.), *Patterns of Discrimination*. Lexington, Massachusetts: D.C. Heath–Lexington Books.

ARROW, Kenneth (1981) "Optimal and Voluntary Income Distribution," in Rosefielde, S., (ed.), *Economic Welfare and the Economics of Soviet Socialism*. Cambrdge: Cambridge University Press.

ATKINSON, Anthony B. (1987) "Income Maintenance and Social Insurance," in Auerbach, A. and Feldstein, M. (eds.), *Handbook of Public Economics*, Vol. 2. Amsterdam: Elsevier Science Publishers.

BARRO, Robert (1974) "Are Government Bonds Net Wealth?," 82 *Journal of Political Economy* 1095.

BEBCHUK, Lucian A. (1984) "Litigation and Settlement under Imperfect Information," 15 *Rand Journal of Economics* 404.

BINMORE, Ken, Ariel RUBINSTEIN, and Asher WOLINSKY (1986) "The Nash Bargaining Solution in Economic Modelling," 17 *Rand Journal of Economics* 176.

BLOCK, Michael K., and Joseph Gregory SIDAK (1980) "The Cost of Antitrust Deterrence: Why Not Hang a Price Fixer Now and Then?," 68 *Georgetown Law Journal* 1131.

BOADWAY, Robin W. (1979) *Public Sector Economics*. Boston: Little, Brown.

BORK, Robert (1977) *The Antitrust Paradox*. New York: Basic Books.

BOUND, John (1988) "The Health and Earnings of Rejected Disability Insurance Applicants," unpublished manuscript.

CALABRESI, Guido, and A. Douglas MELAMED (1972) "Property Rules, Liability Rules, and Inalienability: One View of the Cathedral," 85 *Harvard Law Review* 1089.

COASE, Ronald H. (1981) "The Coase Theorem and the Empty Core: A Comment," 14 *Journal of Law and Economics* 1.

——— (1960) "The Problem of Social Cost," 3 *Journal of Law and Economics* 1.

——— (1937) "The Nature of the Firm," 4 *Economica* 386.

COLANDER, David, and Arjo KLAMER (1987) "The Making of an Economist," 1 *The Journal of Economic Perspectives* 95.

COOTER, Robert (1982) "The Cost of Coase," 11 *The Journal of Legal Studies* 1.

COOTER, Robert, and Thomas ULEN (1987) *Law and Economics*. Glenview, Illinois: Scott, Foresman.

DONOHUE, John J. (1987a) "Further Thoughts on Employment Discrimina-

tion Legislation: A Reply to Judge Posner," 136 *University of Pennsylvania Law Review* 523.

——— (1987b) "Diverting the Coasean River: Incentive Schemes to Reduce Unemployment Spells," unpublished manuscript.

——— (1986) "Is Title VII Efficient?," 134 *University of Pennsylvania Law Review* 1411.

DONOHUE, John J., and Ian AYRES (1987) "Posner's Symphony No. 3: Thinking about the Unthinkable," 39 *Stanford Law Review* 791.

EASTERBROOK, Frank H. (1984) "The Supreme Court, 1983 Term—Foreword: The Court and the Economic System," 98 *Harvard Law Review* 4.

ELLICKSON, Robert C. (1986) "Of Coase and Cattle: Dispute Resolution among Neighbors in Shasta County," 38 *Stanford Law Review* 623.

ELLWOOD, David T., and Lawrence H. SUMMERS (1986) "Is Welfare Really the Problem?," *The Public Interest* 57.

EHRLICH, Isaac (1975) "The Deterrent Effect of Capital Punishment: A Matter of Life and Death," 65 *American Economic Review* 397.

FARBER, Daniel (1986) "The Case against Brilliance," 70 *Minnesota Law Review* 917.

FARRELL, Joseph (1987) "Information and the Coase Theorem," 1 *The Journal of Economic Perspectives* 113.

FREY, Bruno S., Werner W. POMMEREHNE, Friedrich SCHNEIDER, and G. GILBERT (1984) "Consensus and Dissension among Economists: An Empirical Inquiry," 74 *American Economic Review* 986.

FRIEDMAN, David D. (1980) "In Defense of Thomas Aquinas and the Just Price," 12 *History of Political Economy* 234.

FRIEDMAN, Lawrence M. (1986) "The Law and Society Movement," 38 *Stanford Law Review* 763.

FRIEDMAN, Milton (1962) *Capitalism and Freedom.* Chicago: University of Chicago Press.

GILOVICH, Thomas, Robert VALLONE, and Amos TVERSKY (1985) "The Hot Hand in Basketball: On the Misperception of Random Sequences," 17 *Cognitive Psychology* 295.

GILDER, George (1981) *Wealth and Poverty.* New York: Bantam Books.

GRANOVETTER, Mark S. (1973) "The Strength of Weak Ties," 78 *American Sociological Review* 1360.

HANNAN, Timothy H. (1982) "Bank Robberies and Bank Security Precautions," 11 *Journal of Legal Studies* 83.

HIRSCH, Werner Z. (1979) *Law and Economics: An Introductory Analysis.* New York: Academic Press.

HOCHMAN, Harold M. and James D. ROGERS, (1969) "Pareto Optimal Redistribution," 59 *American Economic Review* 542.

HOFFMAN, Elizabeth, and Matthew SPITZER (1987) "Fear and Loathing in the Coase Theorem: Experimental Tests Involving Physical Discomfort," 16 *Journal of Legal Studies* 217.

——— (1986) "Experimental Tests of the Coase Theorem With Large Bargaining Groups," 15 *Journal of Legal Studies* 149.

——— (1985) "Entitlements, Rights, and Fairness: An Experimental Examination of Subjects' Concepts of Distributive Justice," 14 *Journal of Legal Studies* 259.

——— (1982) "The Coase Theorem: Some Experimental Tests," 25 *Journal of Law and Economics* 73.

HOLMES, Oliver W. (1921) "The Path of the Law," in Max Lerner (ed.), *The Mind and Faith of Justice Holmes.* Boston: Little, Brown.

JENSEN, Michael C. (1969) "Risk, the Pricing of Capital Assets, and the Evaluation of Investment Portfolios," 42 *J. Bus.* 167.

KAHNEMAN, D. and A. TVERSKY (1979) "Prospect Theory: An Analysis of Decision under Risk," 47 *Econometrica* 263.

KELMAN, Mark (1980) "Spitzer and Hoffman on Coase: A Brief Rejoinder," 53 *Southern California Law Review* 1215.

——— (1979) "Consumption Theory, Production Theory, and Ideology in the Coase Theorem," 52 *Southern California Law Review* 669.

KRUEGER, Ann O. (1963) "The Economics of Discrimination," 71 *Journal of Political Economy* 481.

LACHMAN, Judith A. (1984) "Knowing and Showing Economics and Law," 93 *Yale Law Journal* 1587.
LANDES, William (1968) "The Economics of Fair Employment Laws," 76 *Journal of Political Economy* 507.
LOTT, John R. (1987) "Should the Wealthy be Able to 'Buy Justice'?," 95 *Journal of Political Economy* 1307.
MACAULAY, Stewart (1963) "Non-contractual Relations in Business: A Preliminary Study," 28 *American Sociological Review* 55.
MARKOVITS, Richard S. (1975) "A Basic Structure For Microeconomic Policy Analysis in Our Worse-than-second-best World: A Proposal and Related Critique of the Chicago Approach to the Study of Law and Economics," 1975 *Wisconsin Law Review* 950.
MANNE, Henry G. (1966) *Insider Trading and the Stock Market.* New York: Free Press.
MARWELL, Gerald, and Ruth AMES (1981) "Economists Free Ride, Does Anyone Else?," 15 *Journal of Public Economics* 295.
McCORMICK, Robert E., and Robert D. TOLLISON (1986) "Crime and Income Distribution in a Basketball Economy," 6 *International Review of Law and Economics* 115.
McMANUS, Walter S. (1985) "Estimates of the Deterrent Effect of Capital Punishment: The Importance of the Researcher's Prior Beliefs," 93 *Journal of Political Economy* 417.
MURRAY, Charles (1984) *Losing Ground: American Social Policy, 1950–1980.* New York: Basic Books.
NICHOLS, A.L. and Richard Zeckhauser, (1982) "Targeting Transfers through Restrictions on Recipients," 72 *American Economic Review, Papers and Proceedings* 373.
PAULY, Mark V. (1973) "Income Redistribution as a Local Public Good," 2 *Journal of Public Economics* 35.
POLINSKY, A. Mitchell (1980) "Resolving Nuisance Disputes: The Simple Economics of Injunctive and Damage Remedies," 32 *Stanford Law Review* 1075.
POLINSKY, A. Mitchell (1980) *An Introduction to Law and Economics.* Boston: Little, Brown and Company.
POSNER, Richard A. (1988) "The Law and Economics Movement," 77 *American Economic Review* 1 (Papers and Proceedings).
——— (1987) "The Efficiency and Efficacy of Title VII," 136 *University of Pennsylvania Law Review* 513.
——— (1986) *Economic Analysis of Law*, (3d ed.) Boston: Little, Brown.
PRIEST, George L. (1985) "Reexamining the Selection Hypothesis: Learning from Wittman's Mistakes," 14 *Journal of Legal Studies* 215.
PRIEST, George, and Benjamin KLEIN (1985) "The Selection of Disputes for Litigation," 13 *Journal of Legal Studies* 1.
RAPPAPORT, Peter (1988) "Reply to Professor Hennipman," 26 *Journal of Economic Literature* 86.
REA, Samuel A. (1980) "Nonpecuniary Loss and Breach of Contract," 11 *Journal of Legal Studies* 35.
REGAN, Donald (1972) "The Problem of Social Cost Revisited," 15 *Journal of Law and Economics* 427 (1972).
REINGANUM, Jennifer F., and Louis L. WILDE (1986) "Settlement, Litigation, and the Allocation of Litigation Costs," 17 *Rand Journal of Economics* 557.
RHOADS, Steven E. (1985) *The Economist's View of the World.* Cambridge: Cambridge University Press.
SAMUELSON, Paul A. (1984) "Evaluating Reaganomics," *Challenge* 4 (November/December).
——— (1964) "Public Goods and Subscription TV: Correction of the Record," 7 *Journal of Law and Economics* 81.
SCHUMAN, Howard, Charlotte STEEH, and Lawrence BOBO (1986) *Racial Attitudes in America: Trends and Interpretations.* Cambridge: Harvard University Press.
SCHWAB, Stewart (1988) "A Coasean Experiment on Contract Presumptions," 17 *Journal of Legal Studies* 237.
SPITZER, Mark, and Elizabeth HOFFMAN (1980) "A Reply to 'Consumption

Theory, Production Theory, and Ideology in the Coase Theorem,' " 53 *Southern California Law Review* 1187.
SOLOW, Robert M. (1988) "The Wide, Wide World of Wealth," *The New York Times Book Review*, March 20, 1988, 3.
TOBIN, James (1980) *Asset Accumulation and Economic Activity*. Chicago: University of Chicago Press.
WILLIAMSON, Oliver (1985) *The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting*. New York: The Free Press.
——— (1975) *Markets and Hierarchies*. New York: The Free Press.
WITTMAN, Donald (1985) "Is the Selection of Cases for Trial Biased?," 14 *Journal of Legal Studies* 185.
ZECKHAUSER, Richard (1971) "Optimal Mechanisms for Income Transfer," 61 *American Economic Review* 324.
ZERBE, Richard O. (1980) "The Problem of Social Cost in Retrospect," 2 *Research in Law and Economics* 83.
——— (1976) "The Problem of Social Cost: Fifteen Years Later," in Steven A. Y. Lin (ed.), *Theory and Measurement of Economic Externalities* 29.

CASES CITED

Shapiro v. *Thompson*, 394 U.S. 618 (1969).
U.S. v. *Jackson*, 390 U.S. 570 (1968).