# JUDICIAL DISCRETION

*RICHARD S. HIGGINS and PAUL H. RUBIN\**

## I. INTRODUCTION

STUDIES of the legal process by lawyers and political scientists generally emphasize the role of judges in making legal decisions.[1] A supposition is that judges have significant monopoly power and that, for example, it is important in understanding resource allocation to know which particular judge has heard a case. To economists an explanation that relies on behavior of certain individuals to account for significant aspects of economic relations is suspect. Moreover, this theory relies substantially on the tastes of individual judges in explaining results and, as Stigler and Becker have recently argued,[2] it is difficult or impossible to do positive analysis with a theory based on tastes.

Recently, Rubin, Priest, Goodman, and Landes and Posner have proposed theories of the judicial process which do not rely on the behavior of judges.[3] In these theories, maximizing behavior on the part of litigants leads to determinate results independently of the behavior of judges. However, as these theories deal with long-run equilibria, there is still room for judicial discretion in the short run. A fruitful area for positive analysis of law would seem to be the specification of additional constraints on judicial behavior so that the area of judicial discretion can be determined.

The most obvious constraint on judicial behavior is, of course, the possi-

[1] See, for example, Charles H. Sheldon, The American Judicial Process (1974); Glendon A. Schubert, The Judicial Mind Revisited (1974); or indeed, any law school casebook.

[2] George J. Stigler & Gary S. Becker, De Gustibus Non Est Disputandum, 67 Am. Econ. Rev. 76 (1977).

[3] Paul H. Rubin, Why Is the Common Law Efficient?, 7 J. Legal Stud. 51 (1977); George L. Priest, The Common Law Process and the Selection of Efficient Rules, 6 J. Legal Stud. 65 (1977); John C. Goodman, An Economic Theory of the Evolution of the Common Law, 7 J. Legal Stud. 393 (1978); William M. Landes & Richard A. Posner, Adjudication as a Private Good, 8 J. Legal Stud. 235 (1979). (See also other papers and comments in the March issue of this volume.)

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bility of reversal by a higher court. For reasons not completely understood, judges seem to desire to avoid being reversed. Presumably, one reason would be the effect that reversal would have on possibilities of promotion for the judge. A judge who had a high level of reversals might be less likely to be promoted to a higher court; we test this hypothesis below. However, as a judge grows older the value of a promotion becomes less, for well-known reasons dealing with the return on human capital as a function of age. Thus, if judges have significant power in making decisions, we would expect more reversals as judges become older.

Consider the following situation. A judge wants, for whatever reason, to write a certain opinion. If the opinion stands, then he has had some influence. If the opinion is overturned on appeal then the judge has not had any influence. This is the reason given by Posner for ". . . judges' extreme sensitivity to reversal."[4] But, in addition, as a judge is reversed more, he would become less well thought of by his colleagues and thus less likely to be promoted. The first factor—the desire to leave a legacy—would be independent of age, so that as a result of this desire to influence behavior we would not expect any change in behavior with age. However, the value of the second factor—the possibility of promotion—would vary systematically with age. Thus, if judges have any discretion in making decisions, we would expect relatively more reversals as a judge becomes older and the value to the judge of possible promotion becomes less.

Another possibility is also suggested by Posner. He argues that ". . . judges might slant their decision in favor of powerful interest groups in order to increase the prospects of promotion to higher office, judicial or otherwise."[5] He claims that this behavior would be limited by the power of appellate review. Again, however, this argument would imply a systematic relationship between reversal and age: an older judge would be less concerned with pleasing powerful groups who might promote him, and would therefore be less likely to be reversed than a younger judge who did take risks of reversal so that he might win favor. Thus, this argument would be the opposite to that stated above, but both would imply a systematic relationship between age of judges and reversals.

## II. THE THEORY

In deciding cases before them, district court judges maximize a utility function that includes as arguments "judicial discretion" ($D$) and wealth ($W$).[6] It is presumed that judges like to impose their values on society,

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[4] Richard A. Posner, Economic Analysis of Law 416 (2d ed. 1977).

[5] *Id.* at 416.

[6] An alternative specification would describe the judge as a net wealth maximizer with his

which is accomplished by precedent-setting opinions. (By the effect on the wealth of the judge, we do not mean to imply that the judge who walks to work will rule in favor of pedestrians, to use an example from Posner; rather, we mean that if the decision is later overturned, the judge's wealth, in the form of promotion prospects, is lower.) We assume that for each case the judge has some desired decision—that is, he would prefer to decide for one of the parties.[7] However, he is constrained by the prospect of being overruled and by the effect of a reversal on his future wealth. Of course, the judge's preferences for judicial discretion ($D$) and wealth ($W$) are irrelevant if there is no trade-off between them. We will assume in general that there is, and our empirical work will shed some light on just what the price of discretion is. If judges do earn rents, then they are able to impose their will via their rulings.

We assume that judges maximize

$$U = U(D, \ W;A), \tag{1}$$

subject to

$$R = f(D,P)$$

and

$$W = g(R,S), \tag{2}$$

where $A$ is the age of the judge; $R$ is the rate of reversal; $S$ is the seniority of the judge; and $P$ is a political variable indicating whether the party of the judge is the same as the majority of the appellate court.

The marginal utility of wealth falls relative to the value of the decision as the judge becomes older. The function $f$ relates nonnegatively the expected rate of reversal to the degree to which the judge exercises his discretion; the political affiliation of the judge relative to the majority of the appellate court is also important in determining the rate of reversal. The function $g$ relates the judge's wealth to the annual rate of reversal ($g_R \leq 0$) and to his seniority. Increases in seniority are assumed to increase $W$, ceteris paribus, and to lessen the impact of reversals on wealth.

Eliminating $R$ in (2) yields the problem:

wealth rising (at a declining rate) with the quality of the decision and the cost of increasing quality rising (at an increasing rate) with the quality of the decision. Implicit in the specification of such a cost function is the assumption that the judge's time or effort has alternative valuable uses. In our utility-maximization model the "goods" are explicitly specified.

[7] Compare William M. Landes & Richard A. Posner, The Independent Judiciary in an Interest-Group Perspective, 18 J. Law & Econ. 875, 887 (1975): "He decides in a certain way not because it will get him something else but because he derives personal satisfaction from preferring one party to the lawsuit over the other or one policy over another, a form of satisfaction which individuals routinely seek in a variety of areas."

$$\text{maximize } U(D, W; A), \tag{3}$$

$$\text{subject to } W = g[f(D,P),S]. \tag{4}$$

The marginal conditions associated with (3) and (4) imply $D^* = F(P,S,A)$ and $W^* = H(P,S,A)$. The theory leads us to consider the impact of $A$ and $S$ on $D^*$; but direct observation of $D$ is not possible. We conduct an indirect test. The optimal value of $D$, $D^* = F(P,S,A)$, is substituted into $f$ to yield

$$R = f[F(P,S,A),P] = H(P,S,A). \tag{5}$$

We estimate $H$, and we test the null hypothesis: $dH/dA = 0$ and $dH/dS = 0$ against the alternative hypothesis $dH/dA > 0$ and $dH/dS > 0$. If we cannot reject the null hypothesis, we cannot say on the basis of this test alone whether $f_D = 0$ or $g_R = 0$. The derivation of the predicted effects is demonstrated in Figures 1 and 2.

In Figure 1, $(D^*,W^*)$ is the equilibrium condition when the judge's age is $A^0$; if the judge were older, his marginal value of the decision in terms of wealth would be higher and he would elect to exercise discretion at the expense of wealth. If however the price of discretion in terms of wealth is
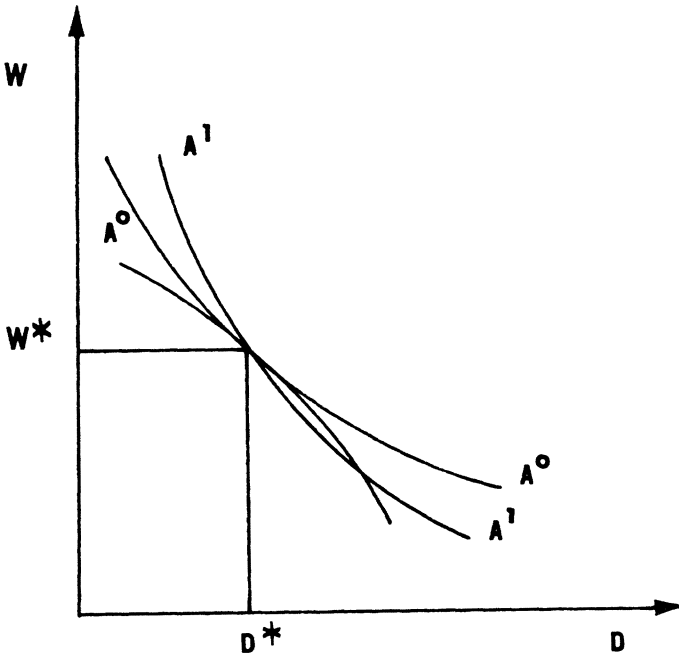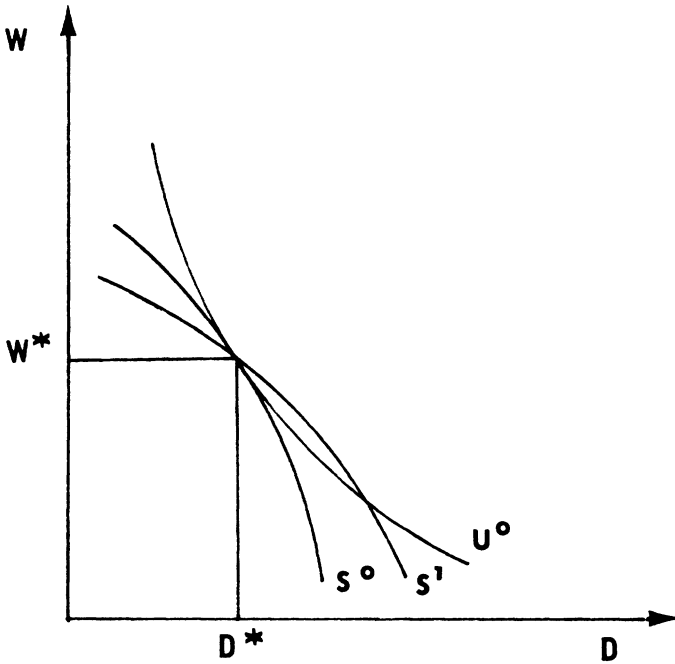


FIGURE 1

FIGURE 2

zero, then a marginal increase in the value of $D$ in terms of $W$ due to increase in $A$ may have no impact on the amount of $D$ chosen.

In Figure 2, the relative price of $D$ in terms of $W$ falls as seniority of the judge increases since $d(dW/dD)/dS = f_{Dg_{RS}} < 0$. Consequently, the optimal value of $D$ rises as $S$ increases and we get a positive relationship between $R$ and $S$ in (5), unless the price of $D$ in terms of $W$ is so low that judges find themselves satiated in $D$.

## II. THE EVIDENCE

To estimate equation (5) a cross-section sample of judges was chosen consisting of all the active U.S. district court judges of the Eighth Circuit in 1974. We associated with each judge a vector composed of a measure of the quality of the judge's decisions (the dependent variable) and his age and seniority (independent variables).

Several measures of decision quality were experimented with. In each instance the measure used was the proportion of cases reversed, reversed in part and affirmed in part, or appealed. A tally of cases on appeal and their disposition by the Eighth Circuit Court of Appeals in 1974 was compiled

from the *Federal Reporter*.[8] To determine the appeals rate and the reversal
rate, a measure of case load is necessary. We used two alternative measures.
In the first, we tallied the number of cases which the district judge reported
to the *Federal Supplement* in 1973 and 1974.[9] These totals understate the
workloads of the judges because these cases are reported at the judges'
discretion and because the judges are not likely to report cases terminated
before trial. The number of cases reported in the *Federal Supplement* will be
highly correlated with actual workload unless judges are differentially as-
signed a disproportionate number of cases involving less-established law.
The latter circumstance is likely if judges acquire cases according to their
speciality and if fields of law differ in terms of litigiousness.[10] Recognizing
the possibility of deficiency in this measure of workload, we sought release
from the Administrative Office of the U.S. Courts of the total number of civil
and criminal cases terminated after some court action for each judge in 1973
and 1974.[11] This information is restricted and only half of the judges granted
permission to release the data. We faced a trade-off: where our measure of
decision quality was better, our sample size was substantially smaller. We
consequently report results for both measures.

Based on these information sources, we constructed the following alterna-
tive measures of the quality of the judges' decisions: the conditional reversal
rate, the number of reversals divided by the number of appeals ($NR/NA$); the
marginal reversal rate, the number of reversals divided by the number of
cases ($NR/NC$); and the appeals rate, the number of appeals divided by the
number of cases ($NA/NC$). (In the latter two cases there were two variants of
each because of the alternative case load measures described.)

The age of each judge was found in a biographical dictionary.[12] Seniority
is measured in two ways: one variable ($SNR$) is one or zero depending on
whether the district court judge is a senior court judge or not. The other
variable ($SRV$) is the number of years the judge has been a district court
judge.

The measure of the quality of the judge's decision is regressed on the
remaining independent variables. Regardless of the measures used or

[8] Federal Reporter, 2d, (8th Circuit, 1974).

[9] Federal Supplement (all districts of the 8th Circuit, 1973 and 1974).

[10] The latter is a well-known fact, and the former is likely according to Mr. McCafferty, the
Director of the Statistical Analysis and Reports Division of the Administrative Office of the U.S.
Courts.

[11] An average number of cases was computed from the observations for 1973 and 1974.

[12] Harold Chase, Biographical Dictionary of the Federal Judiciary (1976). There is infor-
mation about each judge's political affiliation; however, we were unable to estimate the impact
of the variable defined as $p$ in the text because the appellate court judges were equally divided
into Republicans and Democrats. A dummy variable for party ($D = 1$ for Republican) was
included but it proved to be insignificant.

whether the equation contained the variable $SNR$ or $SRV$, or whether the reversal rate included the partial reversals in the numerator, none of the coefficients of the regressors was significantly different from zero. It might appear that older judges have more human capital and would therefore be reversed less than younger judges. However, an adjustment for years of service (seniority) as well as for age does not change the empirical results. Also, in each specification the $F$-statistic was so small that we cannot reject the null hypothesis that no linear relationship exists between the rate of reversal and other variables. Some examples of the OLS estimates are:

$$(NR/NA) = -0.15 + 0.006A - 0.155NR \quad R^2 = 0.04$$
$$\quad\quad (-0.40) \quad (1.00) \quad (-1.01) \quad\quad n = 33 \quad F\text{-statistic} = 0.57; \text{ (6a)}$$

$$(NR/NC) = 0.27 - 0.001A - 0.005SRV \quad R^2 = .1$$
$$\quad\quad (1.22)(-0.31) \quad (-0.97) \quad\quad n = 32 \quad F\text{-statistic} = 1.66; \quad \text{(6b)}$$

$$(NA/NC) = 0.17 + 0.011A - 0.026SRV \quad R^2 = .1$$
$$\quad\quad (0.23) \quad (0.84) \quad (-1.68) \quad\quad n = 32 \quad F\text{-statistic} = 1.61; \quad \text{(6c)}$$

$$(NR/NC^*) = 0.024 = 0.003A + 0.0001\ SRV \quad R^2 = .01$$
$$\quad\quad (0.78) \quad (0.44) \quad (0.28) \quad\quad n = 18 \quad F\text{-statistic} = 0.15; \quad \text{(6d)}$$

$$(NA/NC^*) = 0.030 + 0.004A - 0.0009\ SRV \quad R^2 = .04$$
$$\quad\quad (0.37) \quad (0.26) \quad (-0.63) \quad\quad n = 18 \quad F\text{-statistic} = 0.29. \quad \text{(6e)}$$

($NC$ denotes the caseload measure taken from the *Federal Supplement* and $NC^*$ denotes the caseload measure obtained from the Administrative Office of the U.S. Courts.[13]) We also regressed the conditional reversal rate ($NR/NA$) against the explanatory variables with the appeal rate held constant, and the number of appeals was regressed against the independent variables with the number of cases held constant (a variant of (6c)). In all cases we could not reject the null hypothesis that age and tenure do not affect the quality of the judge's decision.

The evidence supports the conclusion that judicial discretion is free. There remains some question about the source of the finding that age and seniority do not matter. It is possible that the role of precedent is nil and discretionary behavior by judges is not policed by appellate review ($f_D = 0$), or it may be that a reputation for handing down high-quality decisions as measured by reversal rates (or an appeal rate) has little bearing on a judge's professional

[13] Actually, two variants of $NC^*$ were tried: the average number of criminal and civil cases terminated and the average number of civil cases terminated. Similar results obtained in either case.

success ($g_R = 0$). In either case the predicted impact of age and tenure differ-
ences would be nugatory. Since a direct measure of discretion is unobserva-
ble, it is very costly to test whether $f_D = 0$ is responsible for our negative
results. We have conducted an independent test of $g_R = 0$, however.

We selected the Fifth Circuit and traced the appeals record for five years of
all the district judges who were practicing in 1966. In this way we con-
structed a reversal rate (reversals/appeals) over the five-year period. We also
noted for each of the judges whether a promotion had been received over the
same time period. Any appointment to the Circuit Court of Appeals or the
Supreme Court was considered a promotion. This criterion eliminates per-
functory advancement by virtue of seniority. Of course, other appointments
might qualify as promotions; but since we are concerned about a judge's
reputation within his profession, counting promotions the way we have
seems more appropriate. As it turns out no judge left the bench unless he was
promoted in our sense, retired, or died. Thus, Posner's arguments about
promotions other than judicial promotions do not appear relevant.

The model upon which the estimates of the conditional probability that a
U.S. district judge is promoted within a five-year span are based assumes
that there is a latent performance index, $X$, which depends linearly on years
of service, $YS$, the reversal rate, $R$,[14] and a random variable which is alterna-
tively normally distributed (probit) or logistically distributed (logit).
Whenever $X > X_T$, which is a threshold level of performance assumed to be
uniform across the district, the judge is promoted; otherwise not. The prob-
ability that an individual judge is promoted is thus $F(X) = F(a_o + YS + a_2 R)$, where $F$ is either the logistic or the normal $cdf$. Logit and probit
analysis enables one to estimate the $a_i$'s. The following estimates were
obtained:[15]

$$\text{(Logit)} \quad X = 0.81 - 0.06YS - 0.03R \quad \text{Chi-square} \quad n = 39 \quad \text{(7a)}$$
$$\quad\quad\quad (0.61)(-0.75) \quad (-1.77) \quad\quad 5.82$$

$$\text{(Probit)} \quad X = 0.37 - 0.03YS - 0.01R \quad \text{Chi-square} \quad n = 39. \quad \text{(7b)}$$
$$\quad\quad\quad (0.48)(-0.69) \quad (-1.81) \quad\quad 5.77$$

Since $F_x$ is always nonnegative, it is easily determined that the probability of

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[14] The measure of the reversal rate used in (7) is the number of reversals over the number of
appeals. We did not estimate (7) based on the other measures of decision quality. Our earlier
results showing no significant differences in the results regardless of the measure used offers
some consolation.

[15] The $t$-scores reported in parentheses are asymptotic since maximum likelihood methods are
applied in the nonlinear estimation. These statistics can be interpreted in the same way as they
would be with ordinary least squares. Similarly, the chi-square statistics are analogous to the
$F$-statistic in OLS.

being promoted is significantly and negatively related to the reversal rate. To get some idea of the magnitude of the impact of the reversal rate on the promotion probability we must differentiate the *cdf*'s and multiply these derivatives by the coefficients of $R$ determined by the two methods. The derivatives of the *cdf*'s are evaluated at the mean values of the reversal rate and term of tenure, .27 and 9.05, respectively. The calculated partial derivatives for the logit and probit relations are, respectively, $-.0032$ and $-.0039$. These partial derivatives imply only a very slight responsiveness of the probability of promotion to changes in the reversal rate. Strictly speaking, since the reversal rate is an endogenous variable chosen in response to costs and benefits, direct estimation of the function $g$ is not legitimate. But the results do give some indication of why age and seniority do not matter in equation (3). Put simply there is very little cost to acting capriciously, so the implications of the model that the older judge or the judge with lengthy tenure will be encouraged to act relatively more capriciously is moot.

### III. Conclusion

The results are mainly negative. We cannot reject the hypothesis that, at least in the short run, judges earn no rents, and we do have some evidence that there may be no trade-off between discretion and wealth. This is apparently in contradiction to the results of Landes and Posner, who have found that older Supreme Court judges are more likely to vote for nullification.[16] This result, while based on arguments similar to ours, is still somewhat surprising since one would expect that Supreme Court judges would not anticipate promotion to higher office to be at all significant. Also, Landes and Posner's test is specifically a test of the court's lack of discretionary power in the realm of statuory law interpretation. It is not inconsistent with the finding in a common law setting that the roles of precedent and peer review are not constraining.

Thus, our results seem to indicate that, if constraints operate on judges, these constraints must come from sources other than possibilities of reversal. It is possible that there are constraints operating which we (and others) have not been able to identify. An alternative explanation might be in terms of the selection process for judges: it may be that judges are selected so that the values which they choose to impose on society are in fact the values consistent with certain interpretations of the common law. In this sense, the behavior of judges may be analogous to the behavior of university faculties: before granting tenure, a faculty attempts to ascertain if candidates are able and motivated to do research, so that many professors continue to do re-

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[16] Landes & Posner, *supra* note 7.

search even when the return from this behavior has become very low.[17] Similarly, judges may be chosen who attempt to achieve "good" decisions even though there is little economic payoff from this behavior.

[17] See Gordon Tullock, Universities Should Discriminate against Assistant Professors, 81 J. Pol. Econ. 1256 (1973).