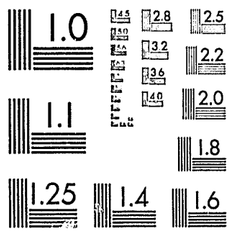

CIVIL LITIGATION RESEARCH PROJECT: FINAL REPORT

VOLUME II

Civil Litigation as the Investment of Lawyer Time

By

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CIVIL LITIGATION RESEARCH PROJECT:

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CIVIL LITIGATION AS THE INVESTMENT OF LAWYER TIME

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PREFACE

The Civil Litigation Research Project was organized in response to a Request for Proposals (RFP) from the Federal Justice Research Program of the United States Department of Justice. The RFP was issued in August, 1978, and the contract was signed and became effective in January, 1979. The original contract was for two years, but was extended through June 11, 1982. Jurdisdiction over the project passed from the Department of Justice to the National Institute of Justice in the fall of 1981.

The Civil Litigation Research Project (CLRP) is based at the University of Wisconsin Law School, but the research team for this report included scholars from other institutions and academic disciplines. At Wisconsin the senior staff included David M. Trubek from the Law School, and Joel B. Grossman and Herbert M. Kritzer from the Political Science Department. William L.F. Felstiner, now at The Rand Corporation, was for most of the contract period affiliated with the Social Science Research Institute of the University of Southern California. Austin Sarat is a political scientist at Amherst College.

In addition to the senior staff, key staff members included Richard Miller, who was project manager and director of the screening survey; Jill Anderson, who was codirector of the study of alternative dispute processing institutions; and Lynne Williams, Kristin Bumiller, Laura Guy, Elizabeth McNichol, Jeffrey Marquardt,

Stephen McDougal, Judith Hansen, George Brown, Dan Krymkowski, Rick Schroeder, Betsy Ginsberg, Rob Sikorski, Mary Pfister, and Jeanette Holz.

Scholars associated with the project in more limited roles and for briefer time periods included Marc Galanter, Neil Komesar and Stewart Macaulay of the University of Wisconsin Law School, Steven Penrod and Dan Coates from the University of Wisconsin Psychology Department, Frank Gollop (now at Boston College) from the University of Wisconsin Economics Department, Earl Johns Jr., from the University of Southern California, and Terenc igworth from Public Sector Research, Inc.

We are also indebted to Daniel Meador and Maurice Rosenberg who were, in turn, Assistant Attorneys General in the Office for Improvements in the Administration of Justice (OIAJ). The project was begun, and continued for most of its tenure, under their stewardship. Within OIAJ, Harry Scarr, Charles Wellford, and Mae Kuykendall served as project monitors. Their advice and counsel on matters both bureaucratic and academic was always helpful to us, and their strong support of our efforts is much appreciated. Cheryl Martorana served in the same capacity when the contract was transferred to the National Institute of Justice. Her tolerant good spirits and sage advice have helped make this final report a reality.

Most of our survey work was carried out by Mathematica Policy Research (MPR) of Princeton, New Jersey. Lois Blanchard, Joey Cerf, Paul Planchon and, at an earlier stage, John Hall, were central to the success of our efforts. Ken Kehrer, an MPR vice president and

director of the survey division, was a strong supporter throughout the CLRP-MRP connection.

Throughout the project, our efforts were divided between theoretical and empirical tasks. The theoretical efforts centered around dispute decision making and drew upon work in a variety of disciplines, including economics, political science, sociology and psychology. Most of this work was done in the early months of the project and much of it was published in the special issue on dispute processing of the Law & Society Review (Vol 15, Nos. 3-4, 1980-81). Issues addressed by this theoretical work included lawyer effort, household investment decisions, dispute emergence and transformation.

The empirical efforts of the project were directed toward three goals: the development of a large data archive on dispute processing and litigation to be made available for widespread scholarly use; the collection of data bearing especially on the costs of civil litigation; and the analysis of as much of these data as time and funds permitted.

The data base includes information from the court records of 1,659 cases in state and federal courts; information from the institutional records of cases sampled from various alternative dispute processing institutions; a screening survey of households; and surveys of lawyers, litigants, organizations and disputants identified by the screening survey. All survey instruments were developed by CLRP staff. Primary responsibility for fielding the surveys (except for the organizational screening survey) was subcontracted to MPR.

Volume I of this final report describes the collection and archiving of the data base, and the overall theoretical perspectives utilized in its design, collection, and analysis. Volume II contains the core of the analysis undertaken so far. It includes descriptive statistics on the lawyers in our data base and their cases, the construction and empirical analysis of a model explaining the time investment of lawyers (the major costs of litigation), and an assessment of the costs of civil litigation compared with its benefits. Volume III contains the papers that resulted from the early theoretical work of the project (including those published in the Law & Society Review), and a number of subsidiary empirical analyses undertaken during the contract period. Some of these, such as our studies of court delay and the pace of litigation, utilized institutional records data almost exclusively. Others relied primarily on the screening survey.

Chapter 1

INTRODUCTION

In this volume we present the results of our first effort to understand the "costs" of civil litigation, using data from the lawyer survey and court records. The resulting analysis provides insight into factors that increase and decrease time spent on cases. It also demonstrates that some things one would expect to be important determinants have little, if any, influence.

Why Hours? The Reasons for Studying the Investment of Lawyer Time

The study of lawyer time, or hours, is an illustration of the investment approach to the study of litigation decisions described in Volume I. This approach conceptualizes the dispute decision process as one in which actors invest resources with a view to securing a return. For plaintiffs, the return is either money or some positive nonmonetary outcome. For defendants, the "return" is the minimization of potential liability.

Much of the analysis in the literature of litigation as investment sees the process as a decision by parties to spend either money or their own time on litigation (see Posner, 1973). It might, therefore, seem most appropriate to make disputants' decisions to spend time and money the dependent variable for any empirical investigation of the determinants of litigation investment decisions. Since this is not what we have done, we will explain why we have focused on lawyer hours instead. The reasons for this decision are complex, and include practical and empirical as well as theoretical concerns.

The theoretical reasons for looking at lawyer time instead of disputant's investment of money and time have been suggested by Johnson (1980-81). Drawing on substantial prior literature, Johnson argued that the attorney, whether paid on an hourly, flat or contingent fee basis, plays an independent role in determining how much time will be invested in a case. In his view, since most clients exercise little if any influence on lawyers' decisions, the real investment decision is made by the lawyer. While goals and resource constraints of the client play a role in determining the decision, these are mediated through the lawyer's own calculus, which includes elements other than those which would have animated the client. If the lawyer is often the real "investment decision-maker," then it makes sense to look at the investment process from the lawyer's point of view. And what lawyers decide to do, primarily, is spend time, not money.

The second reason that influenced our decision to focus on lawyer hours was practical; the best data we have come from the lawyer survey. For reasons explained in volume I, the response rates of our lawyer surveys were significantly better than those for disputants, making the data more reliable. Moreover, the lawyer questionnaire was a better overall source of information on investment decisions than the disputant questionnaire. To do the data analysis, we had to choose among the surveys. That is, because of the small number of cases for which we had data from both lawyer and client, and the even smaller number for which we had data from both sides, it was inadvisable to begin by analyzing either "sides" or "complete cases." This meant we had to focus on the survey

respondent as the principal unit for analysis and, because of limited resources, to choose among the surveys. Since the amount of information about the case in the lawyer survey was greater, this, in turn, argued for reliance on it for our primary data.

The third reason was because of the data patterns. When we assembled the attorney sample for analysis, we realized that a very significant percentage of these lawyers were paid on a contingent fee basis (71% of all plaintiffs, 41% of all lawyers).[1] If we were going to explain investment decisions by a group of lawyers of whom 41% were paid on a contingent fee basis, it was obvious that we could not use legal fees as all or part of our dependent variable. Under the pure contingent fee system, the lawyer gets a stated percent of the outcome if the client recovers, and nothing (except possibly expenses) otherwise. Therefore, the "fee" is not a measure of investment by either the client or the lawyer. The lawyer is the real investor, and the investment is time. The contingent fee client, for the most part, invests only an opportunity. Moreover, since contingent fees are fixed, there is little variation worth studying. As a result, lawyer time or hours is the only feasible unit for analysis of litigation

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1 There are several reasons why we have a high percentage of contingent fee lawyers in our sample. First, a very significant number of plaintiffs in civil cases are represented by attorneys paid on this basis. Secondly, the way we selected the subset of respondents for the hours analysis may have led to overrepresentation of contingent fee lawyers. From the beginning, we assumed that the "stakes" in the case--the amount the plaintiffs thought they could recover or defendents felt they would have to pay--would play a major role in determining litigation investment, whether conceptualized in terms of time or money. This led us to limit the sample to cases in which we could get monetary estimates of stakes. There is reason to believe that contingent fees are more likely in such cases than in civil suits as a whole.

investment decisions by contingent fee lawyers and for comparing hourly and contingent fee lawyers. Moreover, it turns out hours are also a better device for comparing investment behavior among hourly fee lawyers as well. We observed significant variation in the rates paid to attorneys in various parts of the country (see Chapter 3). If we had used legal fees as our dependent variable, we would have had to remove the effect of regional variations on fees before we could analyze the effect of our independent variables on our measure of investment.

The Relationship Between Hours and "Costs"

We see the decision to focus on hours as a significant refinement of our initial strategy of studying litigation decisionmaking as an investment process. It highlights the resource that is really allocated by the primary litigation decisionmaker--the lawyer--at the same time as it makes best use of our data. It permits us to study a sample of hourly and nonhourly lawyers drawn from various legal markets using a measure that can compare their decisionmaking on an easily constructed and commonly understood scale. At the same time, however, this focus moves our analysis somewhat off the center of the policy debate over the "costs" of litigation. The study we present in this volume explains a lot about the factors that shape attorney decisionmaking in various cases. But does it speak to the concern over costs?

If we think of "costs" from a litigant's point of view, the issue is not how many hours does a lawyer spend to achieve a result,

but what resources, in time and money, must the client spend to achieve it. It turns out that these two things are closely related. Using data from the disputant survey, we found that legal fees make up the bulk of litigant costs. Fees paid to lawyers (including expenses charged) make up 99% of the out-of-pocket costs in the median case for individual clients, and 98% in the median case for organizations. Even when we add in the monetary value of client time spent on cases, fees and related expenses still account for 88% of the costs for individuals and 72% for organizations (see Figure II-1-A). If we assume that the expense items in lawyers' bills are roughly proportional to the actual fees charged,[1] then the number of hours lawyers spend on a case is the most important single factor in determining the monetary or monetizable cost of civil litigation for clients whose lawyers work on an hourly fee basis.

[Figure II-1-A here]

Thus, a study of hours is a direct way to understand "costs" for the clients of hourly fee lawyers, who make up 56% of our sample. This direct relationship between hours and costs does not, however, hold for the 41% who were paid by contingent fees.[2] What is the

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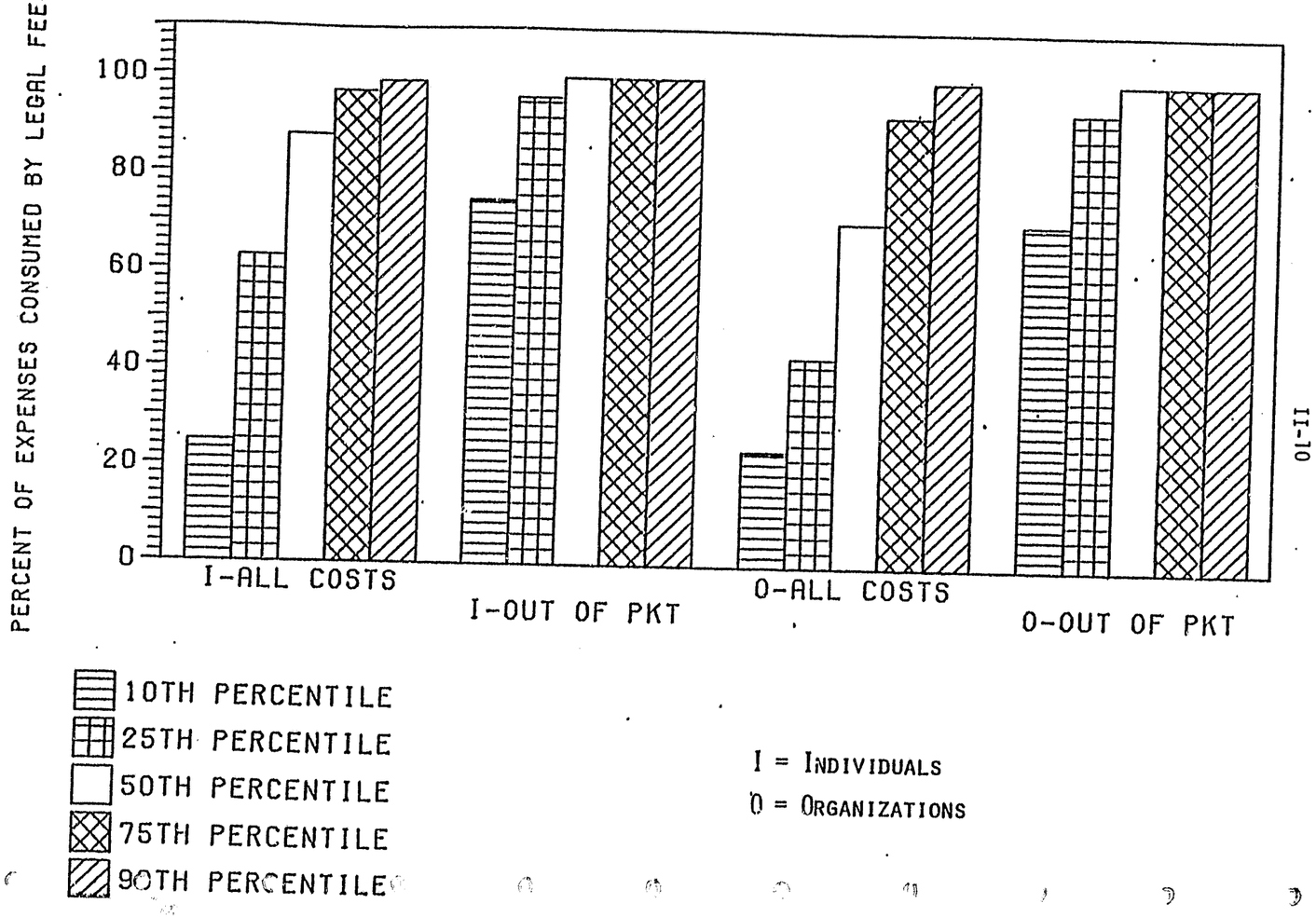
1 In fact, expenses, as distinct from fees, make up a very small percentage of the total bill for most lawyers (see Figure II-3-I, in the next chapter).

2 Three percent of the lawyers in the sample were paid on a lump sum or "flat fee" basis, i.e., they received an amount specified in advance. For purposes of analysis, we group these together with the contingent fee lawyers, because they formed too small a subsample for separate analysis, and we reasoned that the incentives facing the flat fee lawyer were more similar to those facing a contingent fee lawyer than to those facing an hourly one.

Figure II-1-A

LAWYER FEES AS A PERCENTAGE OF LITIGANT COST



relationship, if any, between hours spent by lawyers and the "cost" of litigation for the client of the contingent fee lawyer?

Very little analysis has been done on this question. However, a reasonable argument can be made that the relevant "costs" of the litigation process for clients of contingent fee lawyers are the factors that determine how much effort the lawyer will put in on the client's behalf. If increased effort (more hours) by the lawyer yields higher recoveries for the clients, then it is always in the client's interest to have the lawyer invest more time. Anything that constrains the lawyer from putting in less than the "optimal" hours on a case is a cost to the client (see Johnson, 1980-1). If we look at things from the viewpoint of the client of a contingent fee lawyer, therefore, factors influencing the investment of lawyer time are relevant to assessing the extent to which civil litigation is a cost effective claims processing system. For this reason, an analysis of time investment by contingent fee lawyers, valuable in itself, can also contribute to the debate over the high "cost" of litigation.

Although we feel, therefore, that our investigation of the determinants of lawyer time investment can contribute, directly and indirectly, to the discussion of the costs of litigation, we do not want to make too much of this relationship. For the reasons indicated, we chose to try to explain the number of hours that are spent in cases. This analysis stands by itself as a contribution to the understanding of litigation as a behavioral system. Its implications, as we shall suggest, are broad, encompassing legal and policy issues beyond the so-called cost question.

Chapter 2

CONSTRUCTING A MODEL TO EXPLAIN LAWYER TIME INVESTMENT

How do we go about explaining the factors that determine lawyer time investment? The data included in the analysis below draw upon interviews with 719 lawyers in 564 separate cases. Each lawyer was asked to estimate the number of hours they and other lawyers in their firm or office spent working on the case. The number of hours spent per case by the lawyer or lawyers representing a single client or set of clients varied from eight or less (our lowest category) to 2,200 hours. In the median case the lawyer spent 30.4 hours (the mean is 72.9 hours). The distribution is set forth in Table II-2-A.

Table II-2-A
Distribution of Lawyer Hours Per Case
(All Lawyers)

Total Hours	Percent of Cases	Cumulative Percentage
0 - 8	13	13
9 - 24	28	41
25 - 40	19	60
41 - 80	19	79
81 - 120	9	88
over 120	12	100
	100	

Median: 30.4
N = 719

Although there is substantial variation, it is notable that lawyers in our sample typically spent relatively little time on a case. Sixty percent of the lawyers (or firms) invested less than one person week (defined as 40 hours) on the cases we asked them about; in 13% of the cases they devoted eight hours or less. These

findings suggest that the typical case in our sample is a relatively simple affair.[1]

In addition to asking for the total number of hours lawyers spent, we sought to determine how time was allocated among a series of different litigation activities. Table II-2-B shows the mean responses to this question: it suggests that most time in most cases is devoted to pleadings and factual investigation, meeting with clients and settlement.

[Table II-2-B here]

Our concern is to explain the total number of hours spent on a case by the lawyers we interviewed. The information on the mix of activities is itself interesting, and it would be illuminating to analyze the determinants of this mix as well as of the total amount of time invested. We analyze this issue briefly in Section 3, but our principal concern is to answer the question--What explains why lawyers spent a lot of time on some cases and not on others?

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[1] The fact that the typical case in our sample is relatively small and simple is, itself, an important finding. For a detailed description of the basic parameters of our sample of cases, see Chapter 3. It is also important to note that, as the discussion at the end of Volume 1 suggests, the cases for which we obtained interviews with lawyers tended to be a "larger" and more "complex" than those for which we had no interviews. Thus, if our figures are biased in any way, they overstate the size of cases, and the overall world is in fact smaller and more simple than our data seem to suggest; this point is further reinforced by the fact that, while we excluded only very large cases from the sample, we also excluded substantial numbers of cases where the stated claim was less than $1,000.

Table II-2-B

Mean Hours Devoted to Activities

Activity	% of Time Spent
Conferring	16.0
Discovery	16.7
Factual Investigation	12.8
Settlement Discussions	15.1
Pleadings	14.3
Legal Research	10.1
Trials and Hearings	8.6
Appeals and Enforcement	.9
Other	5.5
	100.0

N = 704[a]

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[a] We did not ask lawyers who reported spending less than 8 hours to break down that time into specific activities.

Constructing a Model

To explain hours, we constructed a model of the time investment process. We use the term model to indicate that what we are talking about is an abstraction. In the same way that a model airplane is only a partial replication of reality, the intent of a conceptual model is to omit some aspects of the empirical world in order to be able to focus more effectively on others. Our goal is to focus on the most important aspects of the lawyer time investment. The particular form of the model used in our analysis was constructed to facilitate our chosen form of statistical analysis: multiple regression. Multiple regression explains a dependent variable--here hours--in terms of a series of independent "predictor" variables. We adopted a linear specification--that is, a relatively simple linear combination of the predictor variables (the dependent variable is represented as a weighted sum of the predictor variables)--because it is the model typically used by social scientists, enabling us to use analytic techniques that are highly developed, statistically tractable, and have properties that are well known and well tested.[1] The particular type of model that we develop is referred to variously as a causal model, or path model, or structural equations model (see Asher, 1976; Duncan, 1975).

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[1] There are a variety of alternative models that have been developed by statisticians and mathematicians that might actually be "better" for looking at legal fees or other aspects of dispute processing such as settlement (see, for example, Zeeman, 1976, on catastrophe theory; or Southwood, 1978, for a discussion of a number of types of models that incorporate complex statistical interactions). Since we had no theoretical basis for expecting such models to apply to our substantive problem, we did not explore them.

Time - The Dependent Variable. Our model uses as the dependent variable the total number of hours each lawyer reported they or their firm spent on the case in question. If the lawyer gave us a single time estimate, this was used. Otherwise, we summed the time spent on individual activities (see Table II-2-B) to get a single figure for the case.

Explaining Time Investments. Once we decided on the investment approach to civil litigation, we began a search for theoretical explanations of dispute decisions in general and the time investment decision in particular. A number of formal and informal studies were helpful in survey design and data analysis. (See Volume III.)

This theoretical work helped us identify the variables likely to influence litigation decisions. The model does not, however, incorporate all the factors we or others have identified. First, we were not able to measure some of the possible influences theorists have suggested. In addition, since the analysis we report here is limited to data from the lawyer survey, we could not incorporate the factors measured exclusively via the disputant survey. Finally, we neither found nor could create a complete "theory" of litigation investment. As a result, our data gathering was frequently inspired by a kind of common sense reasoning and empirical feel built up through informal investigations, pretest data, etc. As we moved to data analysis and model construction we were guided as well by the data themselves and our intuitive efforts to understand them.

Independent Variables. This interactive process of theoretical analysis, common sense reasoning, and empirical investigation of the

data enabled us to identify five major factors we expected to influence significantly the amount of time lawyers spend on cases: (I) the characteristics of the "case" itself, i.e., its size, complexity, and duration; (II) the events that occurred; (III) the nature of the participants; (IV) the goals of the participants (including lawyers); and (V) the way the case was processed and managed. To measure the existence and strength of these factors, we developed a series of variables using responses to the survey and information from court records. In some cases the individual variables reflect answers to a single question; others are constructed from responses to a series of questions through the technique of factor analysis (for a description see Chapter 2). The complete model has 29 individual variables, grouped into 8 sets or clusters measuring specific dimensions of the model (see Table II-2-C). A few of the clusters are actually single variables, but most are made up of a series of separate indicators of the basic dimension whose effects we sought to measure.[1] The clusters, in turn, are grouped under the five principal influences or factors we identified. Two of these factors (case characteristics and events in

Table II-2-C here

[1] In this discussion, we are using the terms "factor," "cluster," and "dimension" in a nontechnical way. We do not intend to imply that our clusters are unidimensional in a spatial sense.

Table II-2-C

The Overall Model

Factor	Number of Individual Measuring Cluster	Variables in Clusters
I Case Characteristics	(same)[a]	(3)
II Events in the Case	(same)[a]	(5)
III Nature of Participants	Client Type	(1)
	Lawyer Characteristics	(6)
IV Participant Goals	Client Goals	(2)
	Lawyer Goals	(5)
V Processing and Management	Court Type	(1)
	Case Management	(6)
		(29)

[a] Factor includes only one cluster, with same title as factor.

in case) are measured by a single cluster, the others by two clusters.[1] In the following sections we describe each of the variable clusters, the reasons we included them, the individual variables used to measure the concept represented by the cluster, and their hypothesized effects.

I CASE CHARACTERISTICS

We reasoned that the major case characteristics determining the number of hours spent on the case would be the amount of money on monetary equivalent ("stakes") involved in the case, its overall complexity, and the length of time it took to process. These were thought of as case characteristics, in order to distinguish them from procedural events in the case, the motivation of the client other than seeking money or its equivalent, the way the case was handled, the lawyer's own goals, and the abilities and background of the particular lawyer involved.

From the beginning, we considered that stakes would be one of the most important determinants of time investments and thus one of the best predictors of hours. The importance of the stakes variable derives from the investment model of lawyer time allocation. If

[1] The reader will note that we have not included "area of law" (torts, contracts, etc.) in the model. Although we use this variable in some of our bivariate analyses, we decided to exclude it from the regression model because both theoretical reasoning and preliminary data analysis suggested that area of law has its influence on hours not directly, but through its influence on the other nonevent independent variables. This is discussed further later in the volume.

litigation is the process of investing time to secure an expected return, stakes is the measure of the return anticipated. It was, however, easier to conceptualize than to measure stakes. We wanted a measure of what lawyers and their clients really thought might be gained or lost through the lawsuit in question. Obviously, we could not use the amount in the complaint to measure the plaintiff's real expectations of gain or the defendant's real view of the amount that could be lost. For tactical and procedural reasons, these figures were likely to deviate significantly from the figures the parties actually used to calculate the worth of a case to plaintiffs or the exposure of defendants. To secure a better estimate of the figures that the parties were actually using, we asked the lawyers to tell us what they thought their clients should and would have taken or paid to settle the case. If the lawyer gave us a monetary amount, this was used as the measure of stakes. If they replied with something other than money, we asked if they could monetize the value of the performance. Cases where stakes could not be expressed in money or money equivalents were excluded from the main analysis.[1]

For plaintiffs, stakes measure what could realistically be gained by litigation expenditures, for defendants the amount they would be willing to pay to avoid further proceedings and trials. We reasoned

[1] Of the 1382 court cases in which we had lawyer interviews, 24% were excluded for lack of any stakes information. Another 14% were excluded for lack of monetizable stakes information. A comparison of the cases included in the analysis with those omitted for these reasons is set forth in Chapter 4.

that the higher the stakes, the more time would be invested in the case. Indeed, as we explain more fully later our initial view was that stakes would be the strongest predictor of hours.

Some cases involve few and clearcut issues of law, and easy questions of proof. In others, legal issues and factual proofs are numerous and difficult. The more complex the law involved, or the more difficult the problems of proof, the more time it should take to conduct the litigation. To measure complexity, we used the lawyer's subjective estimate, as indicated by the lawyer's response to the following question:

> "On a scale of 1-5, if one is simple and 5 is very complex, how would you rate this case as to its complexity of fact and law?"

Much of the discussion of the costs of litigation is in terms of delay. The length of time a case takes from filing to termination (elsewhere called pace [Grossman et al., 1981]) was expected to have an independent effect on the number of hours lawyers would put in; i.e., if the case stretched over a long period of time, the lawyer would have periodically to refresh his/her memory of the case, or would "find" things to do. We measured duration simply as the number of days elapsed from filing the case to its termination through settlement, adjudication, or abandonment.

II EVENTS IN THE CASE

A lawyer's time will be influenced by the events that occur in a case. Is there substantial discovery? Does the case go to trial? Our events variable cluster sought to measure the relationship

between the presence of several events and the number of hours attorneys spend on cases by including three pretrial factor scores that reflect (i) the number of pleadings documents, (ii) the number of nondiscovery motions and briefs, almost all of which are related to motions, and (iii) the number of discovery related events, including depositions, interrogatories, requests for admissions, medical exams and the like, plus discovery related motions.[1] In addition, the cluster includes dummy variables indicating (i) whether there was a trial and (ii) whether there was settlement negotiations.

Our events variables were taken primarily from court records. They tell us if events of a certain kind occurred and, if so, how many (e.g., how many separate discovery events are in the file). The court records data did not indicate the amount of time involved in any event, merely its presence or absence. The events variables, therefore, give us an independent measure that permits us to determine how many hours are associated with a given event or type of event in a case sequence. (For example, we can estimate how many hours are added to a case, other things equal, if there is a trial.) They also serve as a crude measure of the degree of strategic interaction in the case, as explained below.

---

[1] We started out looking at simple counts of these variables, as shown in the court records, but multicollinearity problems necessitated transforming these simple measures. Consequently, these variables were constructed by a type of factor analysis of the simple counts. For a detailed discussion of how they were derived see Technical Appendix I.

III - NATURE OF PARTICIPANTS

The two types of participants in a case are, of course, the clients and the lawyers. With respect to clients, we classified them as either individuals or organizations, because the literature contained some suggestion (Galanter, 1974) that organizations tended to devote more resources to litigation than did individuals, although we did not expect the distinction to have a strong effect. With respect to lawyers, our classification was more complex. We created six separate indicators designed to measure variation in the lawyer's capacity and predispositions. Specialization measures whether the case in our sample fell within the lawyer's speciality or not. Law school performance is the lawyer's self-report of performance as a law student. Amount of general experience is the number of years the lawyer had been practicing law. Court room experience is the proportion of the lawyer's time devoted to court cases. Personal capacity measures the lawyer's feeling of efficacy, as indicated on a standard measure of personal efficacy. Craftsmanship is the likelihood (self-reported) of spending extra time to make marginal improvements on legal documents: the more likely this was, the higher the craftsmanship score.

We expected that the first five variables, which measured ability and self-confidence, would be inversely related to the amount of time lawyers spent on cases; the idea is simply that a more experienced, specialized, and confident lawyer would not have to spend as much time on a case as would an attorney who was newer to the field of law, to the courtroom, or to practice in general.

The craftsmanship variable was expected to work the other way, that is, lawyers who were more oriented toward "craftsmanship" would spend more time on their cases, other things equal.

IV PARTICIPANT GOALS

Participant goals were measured for both clients and lawyers. For client goals, we asked lawyers what they thought their client's goals were in the case. The goals variable, in a sense therefore, modifies the stakes variable. Lawyers were asked if they thought their clients were out to get as much money as possible, or just a "fair amount" (for defendants, to pay the least or pay a fair amount). (Most, though not all, respondents saw these as mutually exclusive.) We expected the lawyer whose clients wanted to get the most (pay least) to put in more time on a case than the lawyer in an otherwise identical case whose client only wanted "fairness." We assumed that those clients (about 24% of our respondents' clients) who wanted to neither "get most/pay least" nor "get fair/pay fair" were primarily concerned with goals other than money, even in those instances where their lawyers were able to express the stakes in monetary terms.

We reasoned that lawyers may have motives independent of their clients' purposes which would affect the amount of time they spend on cases. To get information on lawyer goals, we asked our respondents why they had taken the case in question. From the answers, we constructed five lawyer goal variables, designed to

measure the predominance of different factors in the lawyer's decision to take the case:[1]

These are:

challenge - did the case present a challenge; was it intellectually interesting?

public service - did it provide an opportunity for service to public; was it taken because of sympathy for the client?

professional visibility - would the case increase the lawyer's community standing, improve the lawyer's position in the firm, create publicity for the firm?

making money - was the case taken primarily for the amount of money the lawyer would earn?

service to regular client - did the lawyer take the case simply to service a regular client?

We hypothesized that professional visibility and challenge might lead to more hours than just making money, but we had no a priori expectations about the effect of "public service" or service to regular clients.

V - PROCESSING AND MANAGEMENT

Since we thought that differences in procedures, status, customs, or other aspects of federal versus state courts might have an independent effect on the amount of time lawyers would spend,

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[1] These measures of lawyer goals were created by factor analysis. For a detailed description of the factors these variables represent, see Technical Appendix I.

although we had no firm expectations about its nature, we included state/federal identification as a dichotomous variable court type.

With respect to management, we used three indicators: standard operating procedures, plans, and client control. We thought that the lawyers who developed standard operating procedures (SOPs) would be able to reduce the number of hours spent on a case, other things equal. To test this, we used two variables for SOPs--pretrial SOP (a factor score that took acount of the existence of SOPs for pleadings, motions, and discovery), and estimating case value SOP if the attorney used standard procedures to determine case worth. We thought that explicit planning would increase lawyer efficiency and thus decrease the time spent on a case, which we measured by three dichotomous variables: plans for motions, plans for settlement, and plans for discovery.

We thought that client control would influence hours spent differently for hourly fee lawyers than for contingent fee lawyers because fee arrangments would affect the incentives of lawyers. Hourly fee lawyers, who can pass their time costs on to the client, would be more likely to spend time than would contingent fee lawyers. Further, following Johnson (1980-81) we thought that it would often be in the client's interest to reduce the hours spent by the hourly fee lawyers and try to increase the time spent by those on contingent fees. For these reasons we expected that a high level of client control for hourly fee lawyers would reduce the number of hours those lawyers worked on a case, other things equal. In contrast, we expected that for fee lawyers high client control would

lead to an increase in the number of hours the lawyer would work in the case (see Rosenthal, 1974). The client control variable was measured on a scale created by combining information about (1) reporting procedures to the client and (2) the client's participation in key decisions in the case.

Table II-2-D sets forth all the individual variables in the model. The signs in the table show the expected direction of effect (0 designates variables we thought would have an effect, but for which we could not in advance predict direction).

[Table II-2-D here]

Our discussion so far explains why we thought some variables and clusters would increase the hours devoted to the case while other would decrease it. Our next task in building the model is to explain how factors and clusters are related to one another and which are likely to have the greatest effect.

Initial Expectations - The Stakes Model. When we deisgned our survey, we were operating with a modified stakes model of the litigation investment decision (see Trubek, 1980-81). We saw litigation as the process of investing resources (time and money) to secure a return. The expected return was measured by our stakes variable--the amount of money or monetary equivalent realistically to be gained or lost--and we expected stakes to be the primary factor determining the amount of time spent on cases. We recognized that factors other than stakes were likely to influence litigation investment decisions, but these were conceived of as modifying an investment of time or money that would primarily be determined by stakes (see Figure II-2-A).

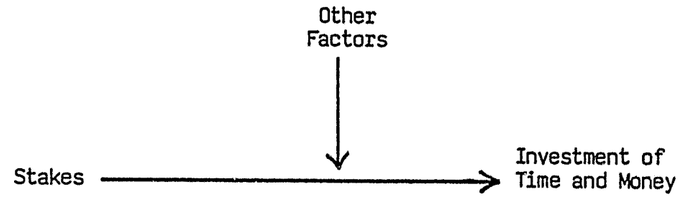
Table II-2-D

Complete Model-Variables, Clusters, Expected Direction

Factor	Cluster	Individual Variables	Expected Sign
I	CASE CHARACTERISTICS		
		Stakes	+
		Complexity	+
		Duration	+
II	EVENTS IN THE CASE		
		Pleadings Factor	+
		Motions Factor	+
		Discovery Factor	+
		Presence of Trial	+
		Presence of Settlement Discussion	-
III	NATURE OF PARTICIPANTS		
	Client Type	Individual/Organization	+
	Lawyer Characteristics		
		Specialization	-
		Law School Performance	-
		General Experience	-
		Courtroom Experience	-
		Personal Capacity	-
		Craftsmanship	+
IV	PARTICIPANT GOALS		
	Client Goals	Get Most/Pay Least	+
		Get Fair/Pay Fair	-
	Lawyers Goals	Challenge	+
		Public Service	0
		Professional Visibility	+
		Make Money	-
		Service to Regular Client	0
V	PROCESSING AND MANAGEMENT		
	Court Type	State/Federal	0
	Case Management	Pretrial Events SOP	-
		Estimating Case Value SOP	-
		Plan for Motions	-
		Plan for Settlement	-
		Plan for Discovery	-
		Client Control (contingent fee)	+
		(hourly fee)	-

Figure II-2-A

Stakes Model of Investment



In the model shown in Figure II-2-A, stakes can be thought of as driving the investment process. Early analyses of our data, however, made clear that the stakes model, at least in the simple form we had envisioned, was an inaccurate picture of the litigation investment process. This can be seen in the information in the scatterplots of lawyers' hours and stakes displayed in Figures II-2-B and II-2-C. The vertical axis of each figure shows the number of hours spent on a case and the horizontal axis shows the stakes in a case; each point represents the hours-stakes combination for one case in our sample of lawyers. Figure II-2-B shows all cases in which stakes were less than $100,000 and hours were less than 200. While the figure shows a general rise in the level of investment as the stakes increase, the rise is primarily in terms of the upper limits of time spent on the case; that is, the range of investment level increases as stakes rise, but there are still many cases with high stakes for which the level of investment is very low. We interpret this to mean that stakes does not actually drive the investment process; it acts, rather, as a "cap" (upper limit) on the investment that will occur.

Figure II-2-B

HOURS BY STAKES, CASES UNDER $100,000

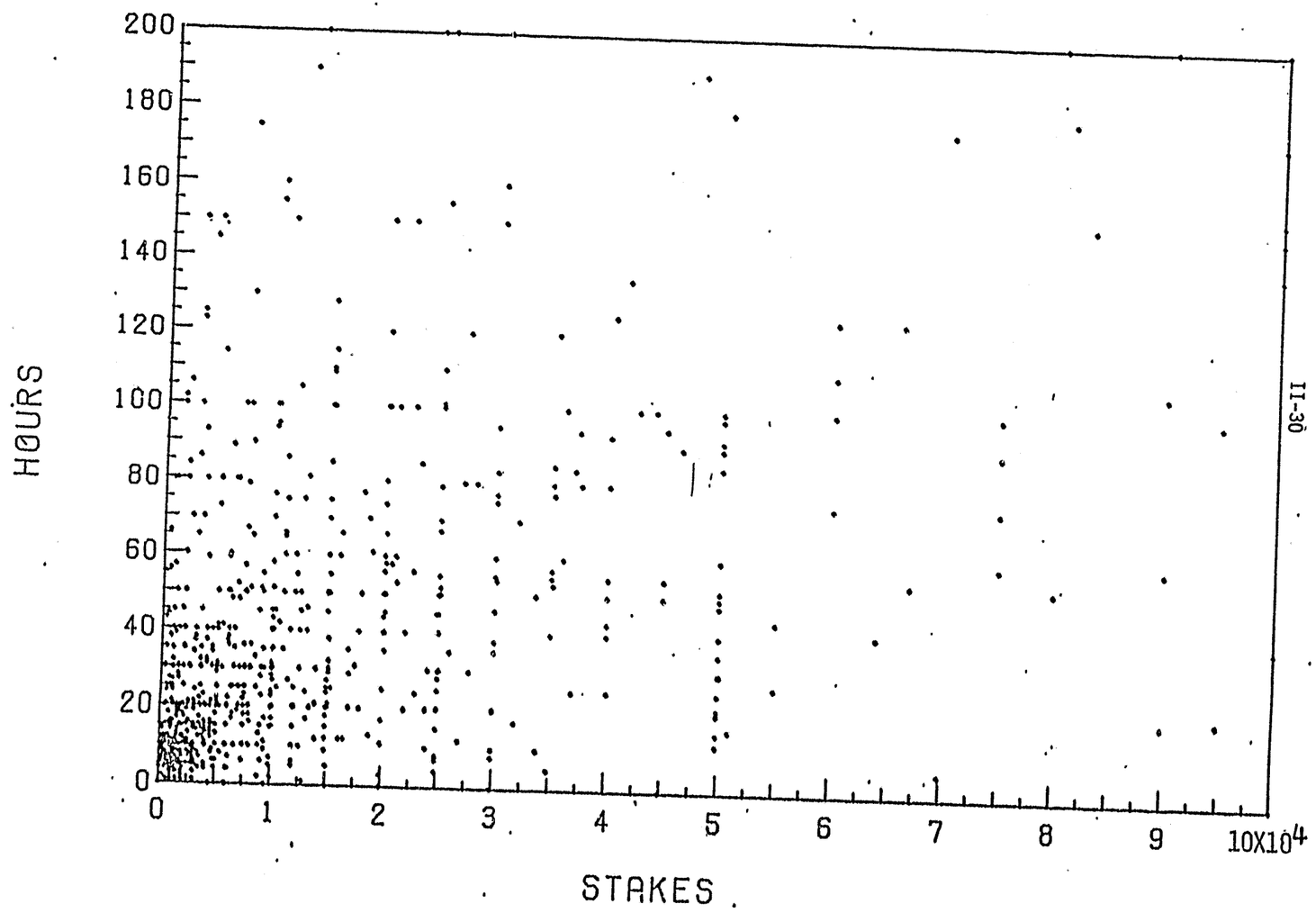
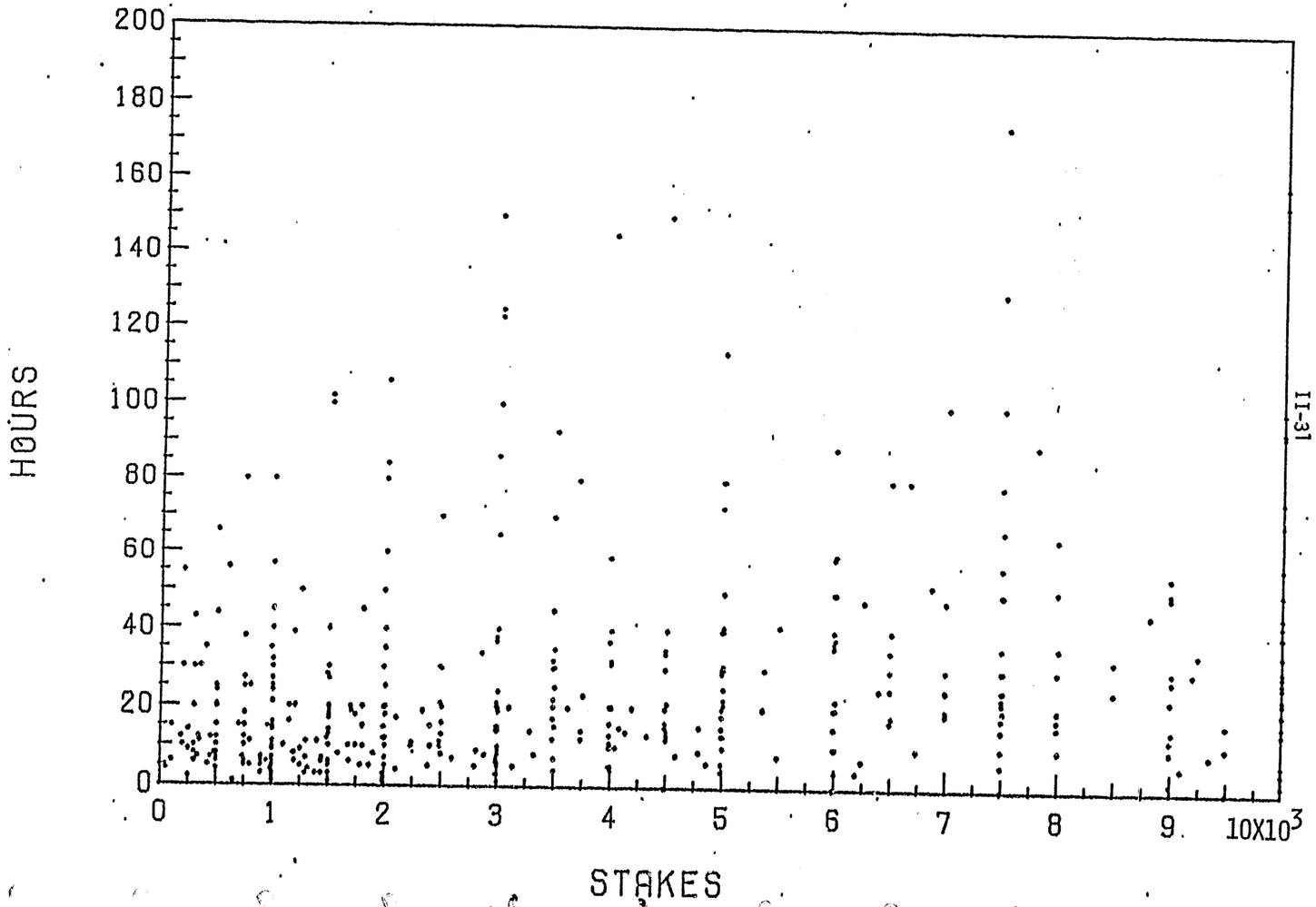


Figure II-2-C

HOURS BY STAKES, CASES UNDER $10,000



Another way of making the same point is to view stakes as a necessary but not a sufficient condition for investment.

The Revised Model - "Events" as the Driving Force in Investment. Since our data suggested that the stakes in a case place a limit on the amount of time invested, but have less impact on the amount of time put in below the limit, we needed to revise our ideas about the principal determinants of investment.

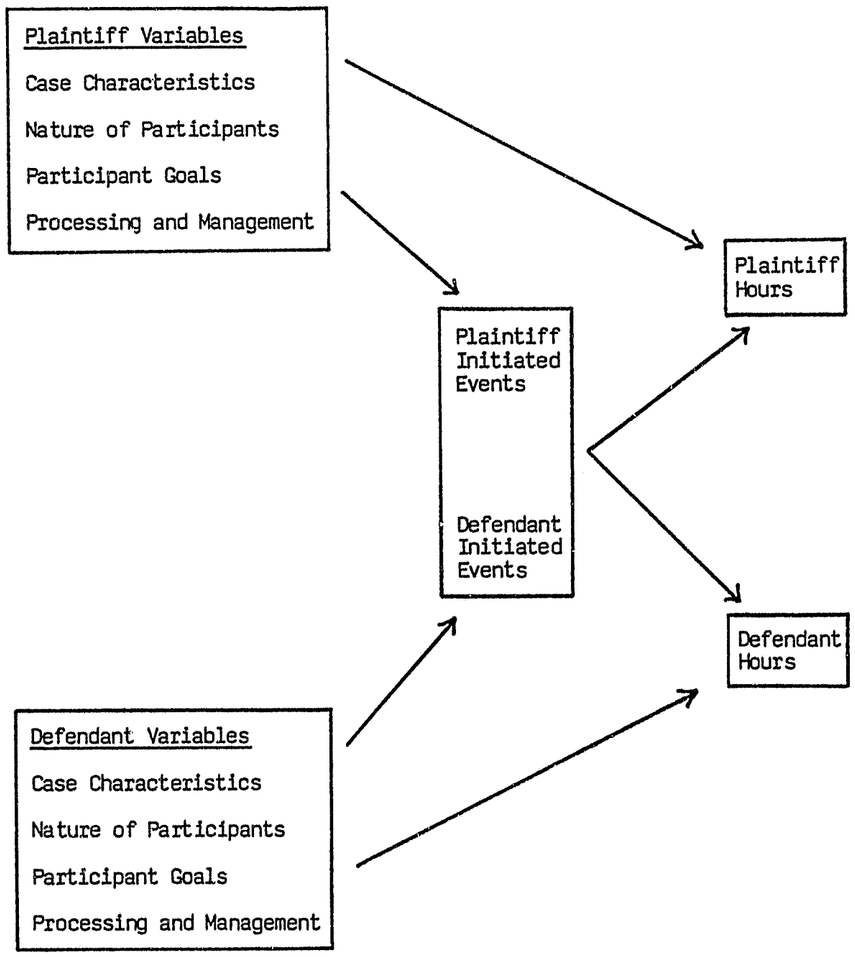
Figure II-2-D illustrates the model we developed to replace the stakes approach. In this model, the number and nature of the procedural moves and countermoves (that is, events) initiated by the litigant and his opponent are the primary determinants of investment. The figure shows causal relations by arrows (that is, the procedural moves made by plaintiff help explain the moves made by defendant, and vice versa). In the simplified scheme of Figure II-2-D, hours are determined in part by events, and in part by the other variables. Thus, the number and type of events are affectd by two factors that work on both plaintiffs and defendants. The first is non-event variables like participant goals, lawyer goals, and case management. The second is the events initiated by the other side in the case.

[Figure II-2-D here]

The logic behind the model is clearcut. Litigation is an interactive process. If one side makes a move, the other may be forced, by that fact, to take some action. What anyone does in a case is necessarily influenced by what the other side has done (or is expected to do). According to the model in Figure II-2-D, hours

Figure II-2-D

Revised Model of Litigation Investment



are strongly influenced by the number and type of events, which in turn are caused by strategic interaction between plaintiff- and defendent-initiated events--which we cannot measure directly--and by the other variables we have put in the model. To test the model, we now need a way to measure events that is independent of our hours measure.

This can be achieved with our data because our "events" variable is taken (as noted) from the court records and measures the type and frequency of actions, not the actual time devoted to each event. The actual number of hours spent per event for each case is taken from our lawyer survey data.

We have said that we expected strategic interaction to be a major determinant of litigation investment decisions. It should be kept in mind, however, that we cannot measure interaction directly because of the conceptual and statistical difficulties involved in obtaining valid regression estimates for models involving explicit two-way causation.[1] Instead, we use number and type of events as a surrogate for the degree of interaction (the more interaction there is, the more and the greater the range of events there will be).

---

[1] In order to obtain estimates for models of this type (known variously as simultaneous equations models or nonrecursive causal models), one must solve what is known as the "identification" problem, the solution to which requires substantial additional information which does not necessarily exist and which in any event we do not have (for reasons that are both practical and conceptual). Technical Appendix II presents a nonmathematical discussion of the problem and its possible solutions.

The Effect of Fee Arrangements

A key variable is still excluded from the model as we have presented it: the effect of fee arrangements. As noted, three basic arrangements determine lawyers' fees in litigation: the hourly fee, in which the lawyer charges a fixed sum per hour plus expenses; the contingent fee, in which the client pays a stated percent of any sums recovered, or nothing except expenses if no money is paid the defendant; and the flat fee, in which the lawyer receives a fixed sum for litigation services. Since we know that 41% of our respondents were paid on a contingent fee basis and 3% received flat fees, the issue arises whether fee arrangement has an independent effect on hours, and if so, how this should be taken account of in our analysis.

There is a substantial theoretical literature on the economics of the fee structure (e.g., Johnson, 1980; Rosenthal, 1974), although little empirical work has been done. The theoretical work is in substantial agreement that, in an otherwise comparable case, an hourly lawyer is likely to put in more time, everything else being equal, than is the contingent fee lawyer. The basic argument is that the hourly fee lawyer's economic incentive is to bill as many hours as possible, subject to certain limited constraints. The contingent fee lawyer, in contrast, is motivated to expend the fewest number of hours possible to achieve a given result.[1]

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[1] A more complete discussion of the economics of fee arrangements appears in Chapter 4.

For these reasons, we expect fee arrangements to be an important predictor of hours, and hourly lawyers to spend more time on cases. When we began the analysis, we did not have any strong expectations that fee arrangements would <u>also</u> have an effect on many of the other variables in our model. From the reasoning in the literature, and the nature of cases we thought it likely that contingent fee lawyers would handle, as already indicated, we thought client control would work differently for hourly than for contingent fee lawyers. This was merely a corollary of the basic idea that these lawyers had different incentives regarding time spent, so that client control--thought to move the lawyers more toward the best interests of the client--would act on these incentives to produce different results. We had no reason <u>a priori</u> to believe that other variables--like case characteristics, events, or other processing and management variables--would work differently for the two fee types.

This initial approach suggested that including fee arrangements as another of the independent variables in our model would take sufficient account of the hourly/contingent fee effect. However, our preliminary regression analyses indicated that the relative importance of those clusters and variables that <u>did</u> affect hours for both hourly and contingent fee lawyers was substantially different for the two groups. Moreover, many variables and several clusters that had clear effects on hours for the hourly lawyer had little or no effect on the contingent fee lawyer. The clearly appropriate statistical procedure, therefore, was to analyze the responses of

hourly and contingent fee lawyers in separate regressions.[1]

Thus, we report separately on the analyses of lawyer time investment for hourly and contingent fee lawyers. In addition, we include a section in Chapter 4 in which we set out more fully the theoretical issues presented by fee arrangements, discuss explanation for our findings on the differences between lawyers paid by these different arrangments, and relate the findings to the literature.

[1] As noted, we included the 3% of our sample paid on a flat fee in the same group as the contingent fee lawyers.

Chapter 3

THE LAWYERS AND THE CASES

This chapter provides basic descriptive information about the cases in our sample and the lawyers we surveyed. The data, as noted, come from two sources: the court records and the lawyer survey. The information about the lawyers comes from the sample of lawyers representing private parties who answered the long-form questionnaire described in Volume 1. The data on cases are derived from that survey and from the court records.[1]

Characteristics of Lawyers

From data provided by the 1,387 lawyers representing private parties who responded to the long-form questionnaire, we have analyzed characteristics that relate to the lawyers' practices--firm size, years in practice, specialization, and income.

Seventy-eight percent of the lawyers practiced with firms (2 or more lawyers); the modal size of firm was 5-9 lawyers. The distribution by firm size is shown in Table II-3-A.

[1] The sample sizes reported in this section vary because of the two different sources. Court record information came from a file which contains one record for each case in the sample. Information obtained from the lawyers came from the survey file, which contains one record for each lawyer interviewed, so that a case can be included more than once.

Table II-3-A

Size of Firms for Lawyers Practicing in Firms

Number of Lawyers	N	Percent	Cumulative Percent
2	132	12.4	12
3-4	261	24.5	37
5-9	312	29.3	66
10-19	170	16.0	82
20-49	129	12.1	94
50+	61	5.7	100
	1065	100.0	

In addition, 17% of the sample were solo practioners, 3% were house counsel, and 2% worked for legal aid.

The number of years these lawyers had spent in practice ranged from less than 1 year to more than 50. The largest single groups were in each of the first 6 years of experience (6 or 7% of the sample was in each group at the time of the interview). Half the sample had been practicing less than nine years: three-quarters had less than 19 years' experience and were, thus, likely to be less than 50 years old. Table II-3-B summarizes our years in practice information.

Table II-3-B

Lawyers: Number of Years in Practice

Number of Years	N	Percent	Cumulative Percent
0-5	470	34	34
5-10	332	24	58
10-20	314	22	80
20+	271	20	100
	1387	100	

Mean 11.74
Median 8.99

As Table II-3-B(1) shows, this profile is more consistent across Pennsylvania, California and New Mexico, than for Wisconsin (at the high end) and South Carolina (at the low). It does not vary significantly by area of law involved in the cases sampled, as shown in Table II-3-B(2) except for public law cases: lawyers who take cases in public law have been in practice for a significantly shorter time than the sample as a whole. This result should not be surprising.[1] The more recently graduated lawyers are more likely to have learned about these topics in law school, and thus may be more likely to engage in these areas of practice (Macaulay, 1979).

[1] Note that "public law" includes litigation in relatively new areas like antidiscrimination law.

Table II-3-B(1)

Median Years of Practice by District

District	N	Median Years
Wisconsin	288	11.6
Pennsylvania	298	8.5
South Carolina	269	7.0
New Mexico	251	8.2
California	261	8.3

Table II-3-B(2)

Median Years of Practice by Area of Law

Area of Law	N	Median Years
Tort	527	9.0
Contract	339	8.6
Domestic Relations	37	10.0
Property	72	8.5
Regulation	119	9.4
Public Law	103	5.8
Multiple	159	8.8

We have judged the degree of specialization of these lawyers by five different measures--percentage of professional time spent on matters in litigation and on matters in the same field as the case about which they were interviewed, number of similar disputes that have been handled prior to the case in question, the level of outside activities in the field in question, and a self-ranking of expertise. Most of these measures point to a group of lawyers who,

despite their relatively short legal careers, were in these cases engaged in activities with which they were quite familiar.

Although the sample includes only 27 lawyers (2%) who spent less than 10% of their time on litigation, it includes 274 lawyers (20%) who devoted 95% or more of their time to that activity. Tables II-3-C and II-3-D summarize the distribution.

Table II-3-C

Percentage of Time Spent on Litigation

	N	Percent	Cumulative Percent
0-25	159	11	11
26-50	282	21	32
51-75	319	23	55
76-100	627	45	100
		1387	100
Mean	67.46		
Median	74.99		

Table II-3-D

Time Spent on Litigation

Percent Lawyers		Percent Litigation
80	at least	40
60	" "	61
20	" "	94

Each lawyer was asked to name the major field of law relevant to the case and the percentage of his/her practice devoted to that

field. These proportions are not as large as those of time associated with litigation but, as seen in Tables II-3-E and II-3-F, they are considerable.

Table II-3-E

Percentage of Practice in Field of This Case

Percent Time in Field	N	Percent of Cases in Field	Cumulative Percent
0-25	492	38	38
26-50	294	23	61
51-75	206	16	77
76-100	303	23	100
	1295	100	
Mean	46.86		
Median	44.80		

Table II-3-F

Percentage of Practice in Field of This Case

Percent Lawyers		Percent this Field
80	at least	13
60	at least	30
20	at least	81

Cross-tabulation of percentage of time in litigation and percentage of time in the field of the case indicates that these factors are not independent of one another. As Table II-3-F(1) shows, the cell with the greatest number of lawyers represents those who gave as their answer 75-100% of their time by both criteria; the

diagonal representing the same proportion of time on both criteria (upper left to lower right) includes 33% of the sample; that representing extremes on both criteria (lower left to upper right) includes only 22%.

Table II-3-F(1)

Cross Tabulation of % Time in Field by % Time in Litigation

		% Time in Field				
		0-25	25-50	50-75	75-100	Totals
% Time in Litigation	0-25	78	28	23	19	148
	25-50	122	77	31	37	267
	50-75	129	73	55	36	293
	75-100	163	116	97	210	586
	Totals	492	294	206	302	1294

The lawyers were then asked about the number of disputes they had previously handled in the field involved in the case (Table II-3-G). The responses suggest a high degree of familiarity with disputes in that field.

Table II-3-G

Number of Disputes in Field Handled by Sample

Number of Years in Practice	Median Number of Similar Disputes	N
0-5	50	465
6-10	200	321
11-20	500	304
21-57	500	259

The lawyers were also asked to rank their own expertise in the relevant field (Table II-3-H).

Table II-3-H

Self-Ranking of Expertise

Ranking	N	%
Expert	553	40
Somewhat Expert	525	38
Not Expert	222	16
NA	87	6
	1387	100

These rankings mirror the data on time devoted to cases in the pertinent field. Eight-four percent of the sample spent at least 25% of their time working in the field; 78% considered themselves at least somewhat of an expert in it.

This level of expertise was generally reflected in significant activity in the field not connected with efforts on behalf of specific clients. The lawyers were asked whether they had taken or taught courses or workshops in the relevant field, written articles or books about it, or served on any bar association or government committee that dealt with it. A lawyer, thus, could have participated in five forms of outside activity. As Table II-3-I indicates, more than one-half (56%) of the respondents had been involved in one or two activities and nearly one-half (44%) had participated in two or three.

Table II-3-I

Number of Outside Activities in Field

Number of Activities	Number of Lawyers	Percent	Cumulative Percent
0	217	16	16
1	389	30	46
2	334	26	72
3	239	18	90
4	119	9	99
5	14	1	100
	1312	100	

Lawyers in the sample were also asked about their average annual income from practicing law for the three years preceding the 1980 interview. Table II-3-J and Figure II-3-A show the general distribution.

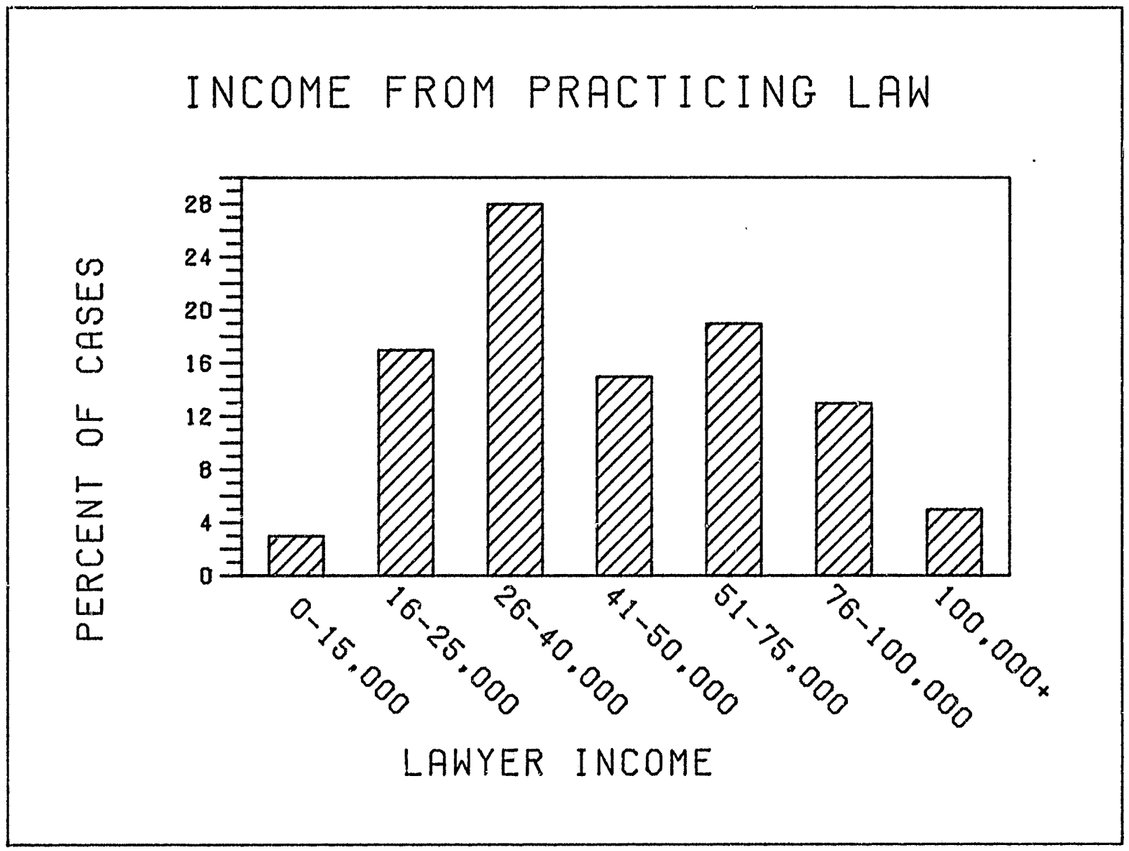
Table II-3-J

Income from Practicing Law

Amount	N	Percent	Cumulative Percent
0-$15,000	32	3	3
$16-25,000	201	17	20
$26-40,000	313	28	48
$41-50,000	175	15	63
$51-75,000	221	19	82
$76-100,000	143	13	95
$100,000+	61	5	100
	1146	100	
Mean $53,000			
Median $45,000			

Such income at the extremes was rare--92% of the sample earned between $15,000 and $100,000. Over one-half (60%) earned between $15,000 and $50,000; roughly the same number (62%) earned between $25,000 and $75,000.

Figure II-3-A


INCOME FROM PRACTICING LAW
PERCENT OF CASES
0
4
8
12
16
20
24
28
0-15,000
16-25,000
26-40,000
41-50,000
51-75,000
76-100,000
100,000+
LAWYER INCOME

The unavailability of 1980 census data prevented our placing the income of these lawyers in the context of lawyers generally. But, as can be seen in Table II-3-K, the sampled lawyers indicated that in general they earned more than other lawyers in the same firm.

Table II-3-K

Comparison of Practice Income Sample to Other Lawyers in Same Office

Comparison	N	Percent	Cumulative Percent
Higher	404	43	43
Same	373	40	83
Lower	157	17	100
	934	100	

There are two problems in using constant dollar estimates from the 1970 census--the data either omit female lawyers but include judges or omit those earning less than $15,000. The comparative data, in any event, are:

Table II-3-K(1)

Lawyer's Annual Income in 1978,
Dollars by Source

Source	Mean	Median
CLRP	53,000	45,000
Male Lawyers, census	46,000	40,000
All Lawyers, income over $15,000, census	--	44,000

Census sources: U.S. Bureau of the Census, Earnings by Occupation and Education, Table 1 (p. 12), 7 (pp. 46-51). Washington, D.C.: Government Printing Office, 1977.

We also explored the relationship for our sample between income, years in practice, and degree of specialization. As might be expected, median income rose with years in practice until the 20th year and then dropped slightly. Table II-3-L and Figure II-3-B demonstrate this relationship.

Table II-3-L

Law Practice Income by Years in Practice

Number of Years in Practice	N	Mean	Median
0-5	432	33,322	30,000
6-10	277	51,280	45,000
11-20	238	73,361	70,000
21-57	208	70,872	60,000
	1146		

In Table II-3-L(1) we divide all lawyers in our sample into four groups, those who had been in a field 0-5, 6-10, 11-20, and 21-57 years, respectively. Each of these groups is divided again into five subgroups, determined by the percentage of their practice in their field of specialization. Specialization in a field has less impact on overall income than the overall length of experience. Nevertheless, we do see a relationship between specialization and income. For each of our four groups, the highest income was earned by those within the group who devoted the greatest percentage of their time to the field in which the case in question falls. Moreover, the differences between the least and most specialized within age brackets ranged from $7,000-15,000 annually.

Figure II-3-B

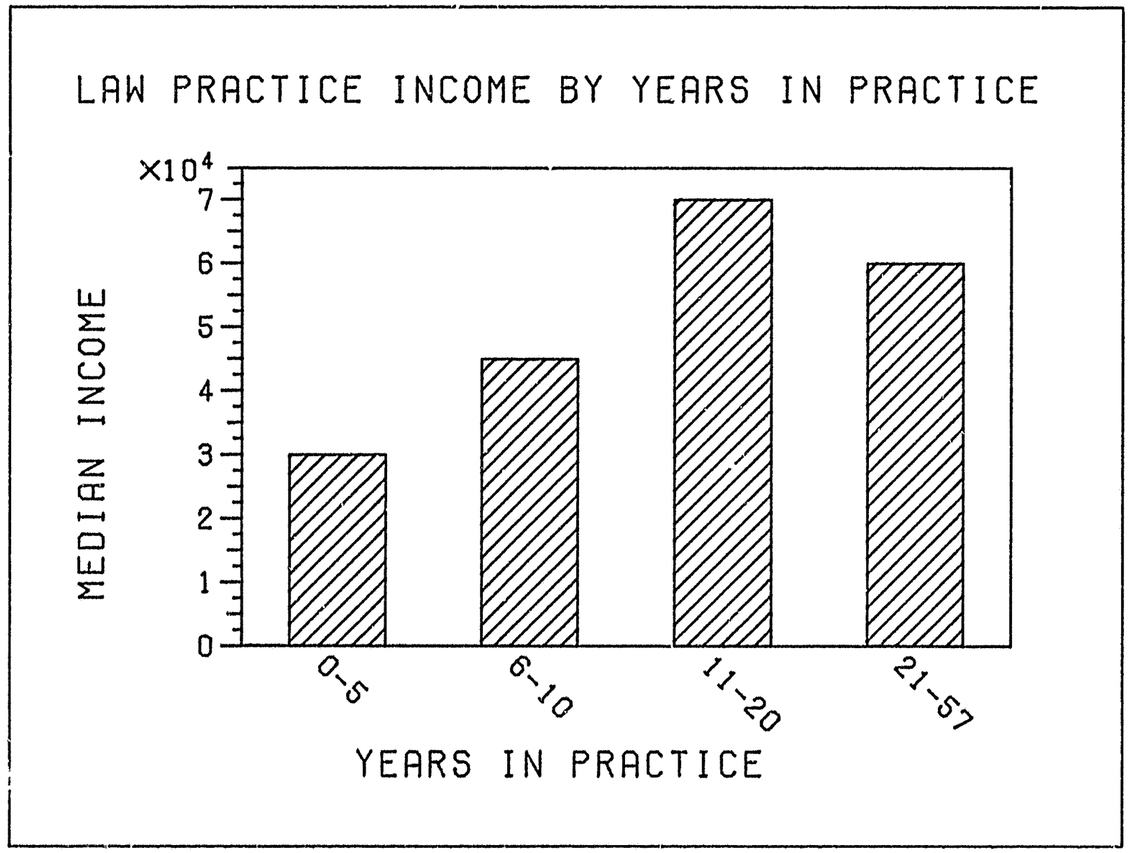

LAW PRACTICE INCOME BY YEARS IN PRACTICE
MEDIAN INCOME
×10⁴
7
6
5
4
3
2
1
0
0-5
6-10
11-20
21-57
YEARS IN PRACTICE

Table II-3-L(i)

Income from Law Practice by Years in Practice by % Practice in Field

% Years in Field	% Practice in Field	N	Median
0-5		394	
	0-10	83	$23,000
	11-25	70	28,000
	26-50	95	27,000
	51-75	55	30,000
	76-100	91	30,000
6-10		262	
	0-10	57	$40,000
	11-25	47	43,000
	26-50	53	50,000
	51-75	38	40,000
	76-100	67	50,000
11-20		235	
	0-10	47	65,000
	11-25	43	62,000
	26-50	48	60,000
	51-75	39	65,000
	76-100	58	75,000
21-57		202	
	0-10	38	$60,000
	11-25	36	60,000
	26-50	49	60,000
	51-75	38	65,000
	76-100	41	75,000
		1,093	

Table II-3-M

Status of Lawyers Practicing in Firms

Status		Percent
Senior Partner	196	19
Member of Executive Committee	1	0
Head of Litigation Department	3	0
Partner	509	48
Associate	317	30
Other	38	3
	1064	100

The status of lawyers in firms in the sample is shown in Table II-3-M. As expected, partners in firms make considerably more money than associates.

Table II-3-N

Law Practice Income by Status

Status	N	Median Income
Partner	570	$60,000
Associate	275	30,000

In summary, the sample is dominated by young lawyer specialists with incomes generally better than those of other lawyers in their firms and probably slightly better than lawyers in general.

The Cases

There is an image of the typical case in civil litigation as large, procedurally intricate, and expensive. Surely there are many such cases. But they are not, according to our data, typical.

If one were to draw a purely impressionistic picture from our data, the "typical civil lawsuit" in this country would be a dispute in a state court over a modest amount of money in which there is a small amount of pretrial activity, but in which the case is settled without a final judgment on the merits being rendered by the court. In this typical case the plaintiff, represented by a lawyer on a contingent fee, will recover something, and the lawyer will receive one-third of the recovery as a fee. The defendant's hourly fee lawyer will receive in fees about half what is paid to the plaintiff in settlement. Thus, the cases in our sample are neither large nor complex in a procedural sense.[1]

The Size of Cases. The best measure we have of the size of cases is our stakes variable. The lawyers we interviewed were able to provide a monetary estimate of stakes in 859 (62%) of the cases in the lawyer survey. The stakes they reported ranged from $0 to $2,500,000.

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[1] This is all the more striking when it is remembered that we sampled an equal number of cases from federal as from state courts--thus greatly oversampling federal cases, which constitute only a tiny fraction of all the civil lawsuits filed in the U.S. each year. Since federal cases tend to be larger, longer, and more costly, our sample may still overrepresent size, time, and complexity.

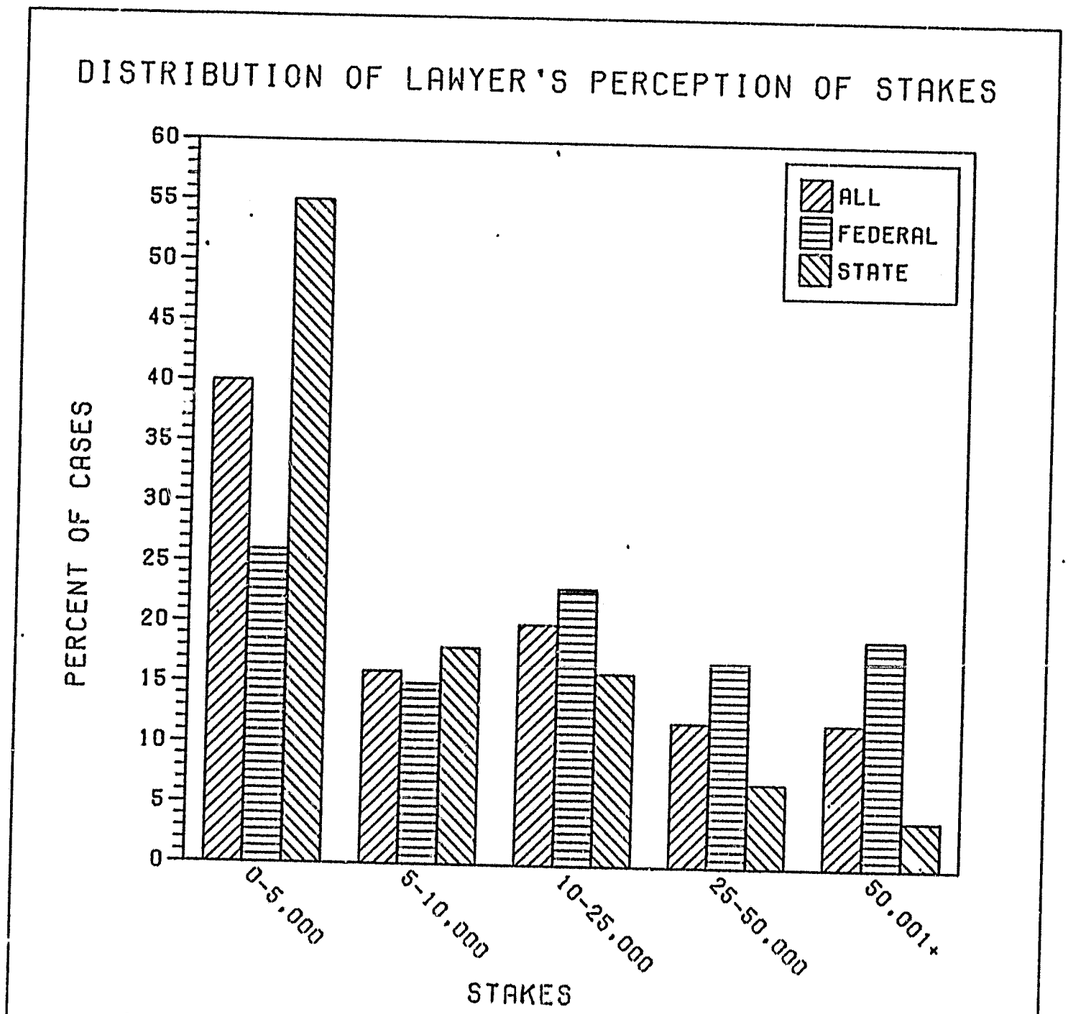
Table II-3-O and Figure II-3-C show the distribution of stakes. When measured by stakes, most state court cases are quite small. Fifty-five percent involve less than $5,000; about three-quarters of the state cases have stakes of under $10,000. Federal cases are somewhat larger, but even here, in 41% of the cases the stakes were less than the jurisdictional minimum in diversity cases of $10,000.

Table II-3-O

Distribution of Lawyer's Perception of Stakes

	All Cases	Federal	State
0-5,000	40	26	55
5,001-10,000	16	15	18
10,001-25,000	20	23	16
25,001-50,000	12	17	7
50,001+	12	19	4
	100.0 (859)	100.0 (448)	100.0 (411)

Figure II-3-C


DISTRIBUTION OF LAWYER'S PERCEPTION OF STAKES
ALL
FEDERAL
STATE
PERCENT OF CASES
60
55
50
45
40
35
30
25
20
15
10
5
0
0-5,000
5-10,000
10-25,000
25-50,000
50,001+
STAKES

The median stakes figures are similarly revealing. Table II-3-P shows median stakes by court type. For state cases the median is less than $5,000; even for federal courts it is only $15,000--not much more than the jurisdictional minimum in diversity cases.

Table II-3-P

Median Perceived Stakes by Court Type

State	Federal
4,500 (411)	15,000 (448)

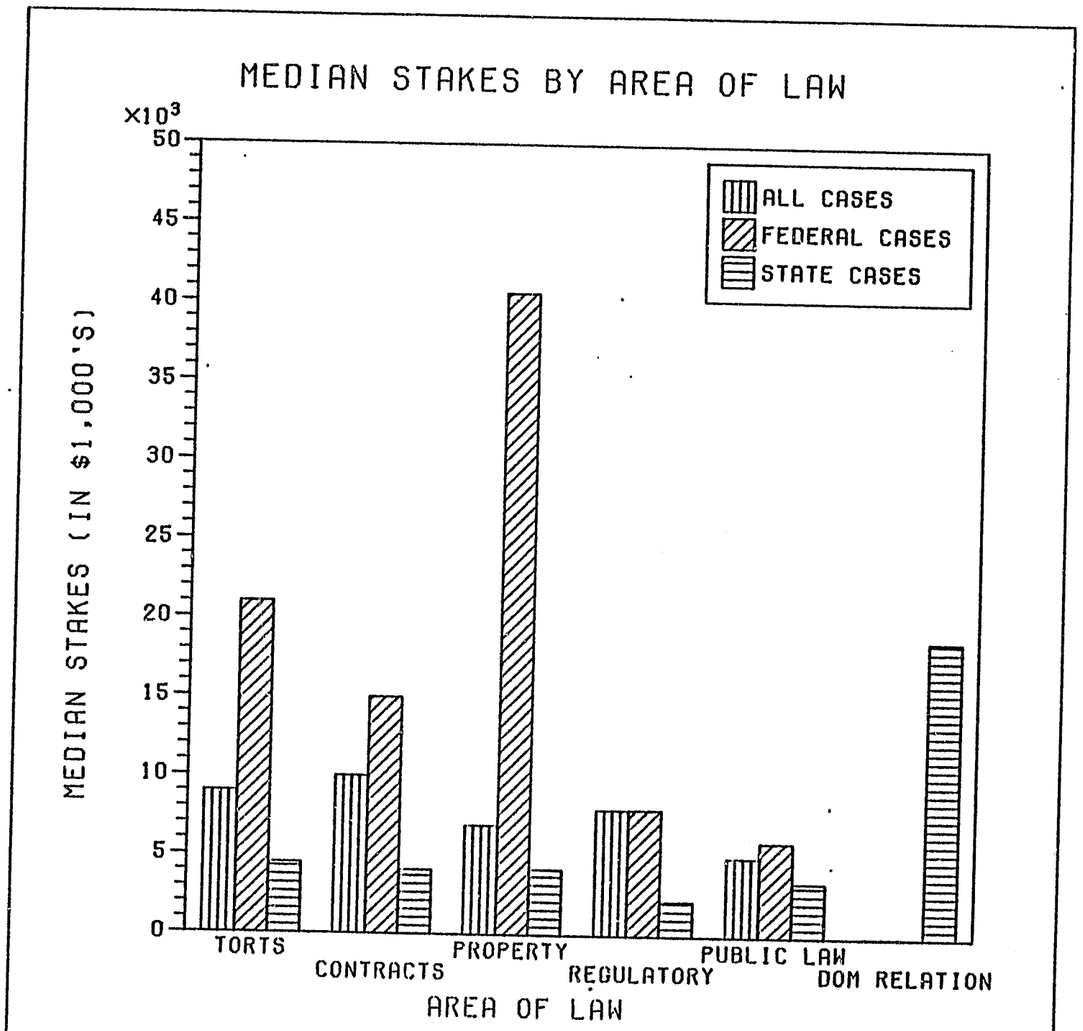
This information can be further broken down by area of law, as is done in Figure II-3-D.

[Figure II-3-D here]

Activity in Cases. The profile of case activity that emerges from our data suggests that most lawsuits are rather simple. Only 9% of the cases in our court records sample went to trial; 88 percent of the lawyers in the survey sample reported that their cases were settled by the parties.

From the court records data (Table II-3-Q) we find that in 57% of all cases there were no recorded discovery events and only 5% of all cases had what we considered to be a large number of recorded discovery events. (Discovery is more likely in federal courts: 45% of the state cases have no recorded evidence of discovery, 65% of the federal cases have at least one discovery event.)

Figure II-3-D


MEDIAN STAKES BY AREA OF LAW
×10³
50
45
40
35
30
25
20
15
10
5
0
MEDIAN STAKES (IN $1,000'S)
ALL CASES
FEDERAL CASES
STATE CASES
TORTS
CONTRACTS
PROPERTY
REGULATORY
PUBLIC LAW
DOM RELATION
AREA OF LAW

Motions were more common--80% of all cases had at least one motion (87% in federal courts, 72% in state courts). Many of these motions, at least in state courts, were relatively straightforward. Using the existence of briefs with the motion as a crude indicator of the complexity of the motion, and assuming that all the briefs were associated with motions, we find that briefs were filed in only 12% of the state cases (although this rose to 58% of the federal cases).

Table II-3-Q

Number of Events

(1) Discovery

	All Cases	Federal	State
0	57	52	62
1-5	31	31	30
6-10	7	10	5
11-15	4	6	2
26-50	1	1	1
51+	a	a	0
	100 (1649)	100 (809)	100 (840)

[a] less than 1 percent

Table II-3-Q Continued

(2) Motions

	All Cases	Federal	State
0	20	13	28
1-5	75	79	69
6-10	4	7	3
11-25	1	1	a
26-50	0	0	0
51+	0	0	0
	100 (1649)	100 (809)	100 (840)

(3) Briefs

	All Cases	Federal	State
0	66	42	88
1-5	28	46	11
6-10	4	8	1
11-25	2	4	*
26-50	a	a	0
51+	0	0	0
	100 (1649)	100 (809)	100 (840)

[a] less than 1 percent

Although trials were rare and pretrial activity not particularly intense, settlement negotiations were frequent. Settlement negotiations occurred in 78% of all the cases in the lawyer survey

sample with parties slightly more likely to have settlement discussions in state courts (Table II-3-R).

Table II-3-R

Lawyers Reporting Settlement Negotiations

	Percent	N
All Cases	78.1	(1382)
Federal	75.7	(775)
State	81.2	(607)

The "Cost" of Cases: Legal Fees. In Chapter 2 we indicated that legal fees (including expenses charged to clients by lawyers) constitute almost all the direct monetary costs of litigation to the client and most of the private cost of litigation even when the monetary value of the client's time is included. Here we briefly describe the fee information in our lawyer survey sample. (A more detailed discussion of fees is included in Technical Appendix III.)

For the sample as a whole, legal fees were less than $1,000 in almost half the cases. At the lower end, only 8% of the cases involved fees over $10,000. The state cases show a more distinct pattern--about 60% of the fees were under $1,000, and only 2% over $10,000 (Table II-3-S and Figure II-3-E).

Table II-3-S

Total Legal Fees

	All Lawyers	Lawyers in Federal Courts	Lawyers in State Courts
0-1000	46	34	59
1001-2500	24	23	25
2501-5000	14	18	10
5001-10,000	8	12	4
10,001+	8	13	2
	100 (1536)[a]	100 (804)	100 (732)

[a] This number of cases is larger than the 1387 lawyers who answered the long-form questionnaire, as the lawyers were also asked about fees on the short form. (There are 2088 lawyer interviews altogether.)

If we break this down by fee arrangement, we find that, overall, the distribution of hourly and contingent fees were rather similar [Table II-3-U(A) and Figure II-3-F]. For cases under $10,000, however, the pattern shifts somewhat--the contingent fees in these cases tended to be smaller than the fees paid to hourly lawyers. Fees in federal courts were higher than those in state courts. Table II-3-T shows the median fees, broken down by fee arrangements and court type.

Figure II-3-E

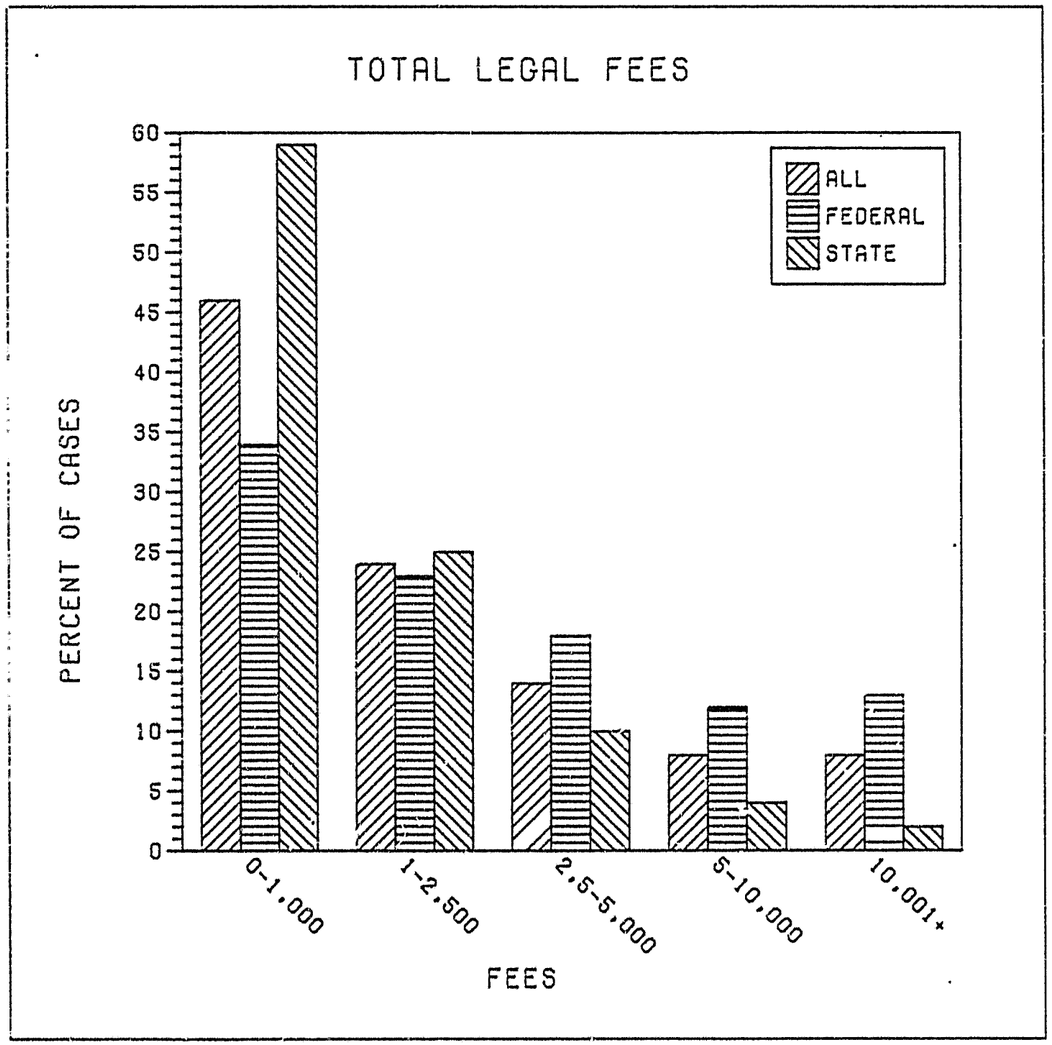
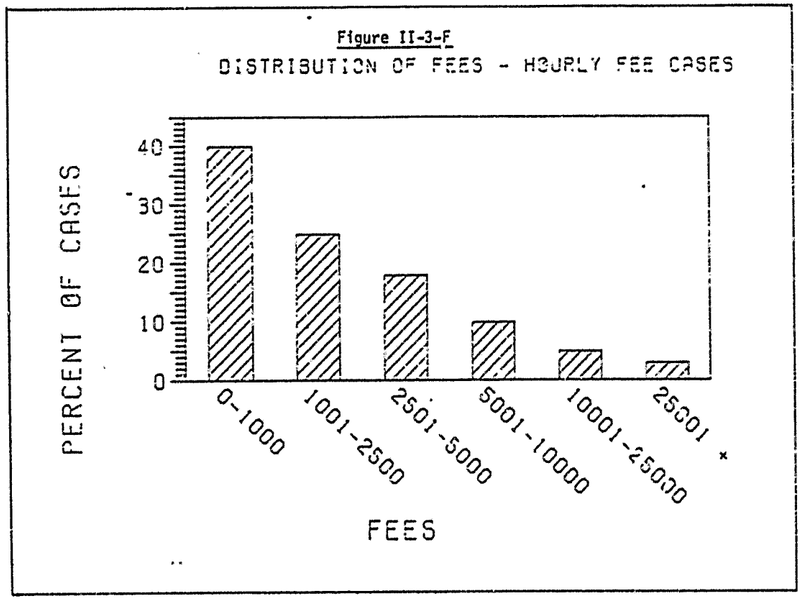


Figure II-3-F



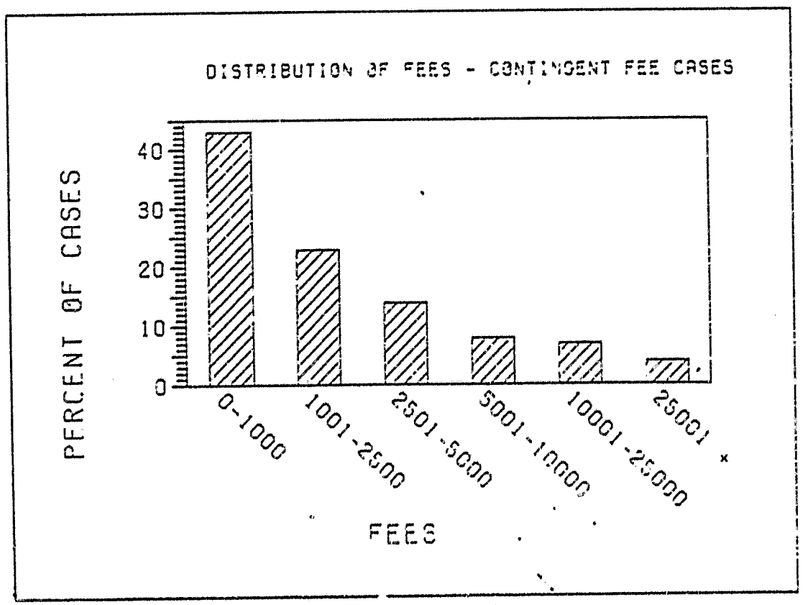


Table II-3-T

Fees by Type of Court
(Medians)

	Type of Court	
	Federal	State
Fees*** Hourly Cases	2635.00 (389)	810.50 (268)
Fees*** Contingent Fee Cases	2225.00 (211)	950.50 (250)

***Significant at the .01 Level

Chapter 4

THE TIME INVESTMENT OF LAWYERS

This chapter constitutes our basic analysis of lawyer time investment. We demonstrate that our model predicts a significant amount of the variation in the dependent variable hours, and we explore the effect of each of the variables in our model. Some of these are looked at first through simple bivariate analysis; all are then examined for their independent effects using multiple regression. We show that most of our variable clusters and individual variables do contribute to explaining investment by hourly fee lawyers. Results for contingent fee lawyers are somewhat different. The overall model contributes to explaining their behavior (although not as well as for hourly lawyers); however, some variables which had a direct effect on time investment by hourly lawyers do not have any for the contingent fee lawyer, and the effect of some variables is different.

Bivariate and Multiple Regression Analysis

The analysis of lawyer time investment went through several phases. We began with bivariate analysis--looking at the relationship between hours and a number of our individual variables taken one by one. This form of analysis demonstrates some very general relationships, but is much less pwoerful than the second tool we employed--multiple regression--which allows us to estimate the idependent effect of each variable in the model, holding the effects of other variables constant. In some cases, the regression

analysis confirmed the findings reached through the simpler bivariate calculations. But in several cases relationships that seemed to exist when looked at through bivariate analysis disappeared or changed dramatically when we employed regression techniques. It is easy to see why this could occur. Bivariate analysis merely shows that there is a correlation between the variable in question and hours. It cannot tell us if this correlation is the result of causal relations between the variable we are examining and hours, or is actually brought about because the variable being investigated correlates with another variable not in the analysis but whose action actually is causing the change in hours we observe via our bivariate tables.

A simple example illustrates the difference. I our bivariate analysis we find that the cases with trials involved twice as many hours as those without trials. This suggests that going to trial leads to major additional time investments. However, when the trial variable is analyzed in the regression equation we find the effect of the trial variable, per se, is actually very modest. The substantial increase in hours for the cases which went to trial is largely explained by variables other than the fact of the trial itself--the stakes, complexity, number of events in the case, etc. We report the bivariate results largely for descriptive purposes--they help us see some of the dimensions of the data set: any causal inferences must rest on the regression findings.

Simple Two- and Three-Variable Analyses

This section presents basic descriptive data on two dimensions of lawyer time--the overall amount of time spent, and the distribution of that time among the various activities associated with civil litigation (e.g., conferring with clients, doing legal research, preparing pleadings and motions).[1]

Distribution of Hours. Table II-4-A presents the distribution of total lawyer time (hours) for hourly and contingent fee lawyers.[2] Sixty percent of the hourly lawyers spent less than 40 hours on the cases in our sample; 59 percent of the contingent lawyers did so--not a statistically significant difference. In other words, well over one-half of the cases in our sample consumed less than one week of lawyer work time.

Lawyers in our sample were subsequently asked to estimate the percentage of the time spent for each case on each of eight specific activities--conferring with client, discovery, factual investigation other than discovery, discussions aimed at settlement, preparing and responding to pleadings and motions, legal research, immediate preparation for and participation in trials or hearings, appeal or

---

1 These data are the same as those presented in Section 2, broken down by fee type.

2 In order to insure comparability with the results of our regression analysis, we have restricted our attention here to lawyer respondents who were included in our regression analysis. We did in fact carry out the bivariate analyses employing all cases for which data were available and obtained essentially the same results.

Table II-4-A

Total Lawyer Hours, by Fee Type

Total Hours	Hourly	Contingent/Flat
0-8	10%	16%
9-24	32%	23%
25-40	18%	20%
41-80	19%	20%
80-120	9%	8%
121	12%	13%
	100	100
	N = 401	N = 318

enforcement, and other activities. Responses to this question were used as our measure of the mix of lawyer time. As Table II-4-B indicates, most of the time spent by hourly fee lawyers was devoted to settlement discussions, preparing pleadings, conferring, and discovery. Although the order is somewhat different, the same four activities plus factual investigations consumed most of the time spent by contingent fee lawyers.

Table II-4-B

Mean Hours Devoted to Activities

	Hourly	Contingent/Flat
Conferring	15.3	17.9
Discovery	15.0	14.5
Fact Investigation	11.5	14.5
Settle Discussion	16.6	14.5
Pleading	16.3	13.2
Legal Research	10.6	9.4
Trial and Hearing	8.3	8.9
Appeal and Enforcement	1.0	.67
Other	5.1	6.0
	100.0	100.0
	N = 390	N = 314

Table II-4-C shows the distribution of total hours by area of law. Cases categorized as "other," namely, those that involve multiple legal questions, were most time consuming for hourly fee lawyers; public law cases were most time consuming for contingent fee lawyers. Contingent fee lawyers spent somewhat more time tort cases and somewhat less time on contract cases than did hourly lawyers. Differences are more pronounced in property and public law cases, although the small number of cases of each type suggest caution in interpreting those differences.

CONTINUED

1 OF 3

Table II-4-C

Median Hours by Area of Law

	Hourly	Contingent
Tort	29.6 (139)	30.3 (185)
Contract	30.5 (146)	25.0 (57)
Domestic Relations	21.5 (6)	8.3 (3)
Property	29.7 (19)	12.5 (16)
Regulatory	38.0 (35)	42.5 (12)
Public Law	27.5 (16)	57.5 (9)
Multiple	40.3 (39)	45.5 (34)

Note: Sample sizes in parentheses.

Bivariate Effect of Selected Variables on Hours. As noted, we expected the relationship between case worth or stakes and lawyer hours to be straightforward: Cases with higher stakes tend to require and justify a greater investment of lawyer time. Table II-4-D shows this is indeed true for both hourly and contingent fee lawyers, with the contingent fee lawyers spending relatively less time than hourly lawyers in small stakes cases (in which their opportunity for recovery is more obviously limited).

Table II-4-D

Median Hours by Stakes

Stakes	Hourly**	Contingent**
$0-2000	16.0 (99)	11.0 (47)*
2001-5000	21.0 (70)	14.7 (62)*
5001-10000	35.0 (67)	29.8 (57)
10001-50000	43.0 (113)	54.8 (116)
50000+	100.5 (48)	157.0 (36)

* Differences between hourly and nonhourly lawyers are statistically significant at the .05 level only at the first two levels of stakes.

** Relationship between stakes and hours is statistically significant at the .05 level.

Table II-4-E displays the relationship between the lawyer's evaluation of case complexity and the number of hours spent on the cases in our sample. The more complex a case, the more time lawyers are likely to spend on it. This is true for both hourly and contingent fee lawyers. Any difference between the two is less obvious, although the one statistically significant difference goes in the same direction as for stakes.

With respect to the number of events in each case, one would expect a direct relationship with the investment of lawyer time. The relationship between events and lawyer hours is displayed in Table II-4-F. For both hourly and contingent fee lawyers the

relationship goes in the expected direction.[1]

One particularly important event is the trial. Trials are relatively rare events in civil litigation, their occurrence is generally thought to be associated with an increased investment of lawyer time. Table II-4-G indicates that this is indeed the case. Our bivariate analysis shows the occurrence of a trial is associated with a more than 100 percent increase in lawyer hours for both hourly and contingent fee lawyers, with contingent fee lawyers increasing the time spent significantly more. We cannot, of course, interpret the meaning of this association until we control for other influences through the regression analysis reported later in the chapter.

---

1 Events as used in the bivariate analysis is the sum of all events recorded in the court records. These include motions, briefs, discovery, trials, pleadings, among others. This variable is different from the three events factors used in the regression analysis. (For their derivation see Technical Appendix I.)

Table II-4-E

Median Hours by Complexity

Complexity		Hourly**	Contingent**
1	Simple	18.0 (94)	11.6 (75)*
2		25.5 (126)	29.6 (95)
3		35.5 (104)	49.8 (76)
4		84.8 (57)	53.5 (44)
5	Very Complex	99.0 (20)	132.5 (28)

* Difference between fee arrangements is statistically significant at the .05 level.

** Relationship between complexity and hours is statistically significant at the .05 level.

Table II-4-F

Median Hours by Events

Events	Hourly**	Contingent**
0-9	14.6 (113)	16.3 (111)
10-24	28.5 (154)	34.6 (133)
25+	79.5 (134)	79.8 (74)

** Relation between hours and events is statistically significant at the .05 level.

Table II-4-G

Median Hours by Trial/No Trial

Trial	Hourly**	Contingent**
No	28.0 (353)	30.1 (281)
Yes	74.5 (48)	80.0 (37)*

* Difference between fee arrangements is statistically significant at the .05 level.

** Relationship between trial and hours is statistically significant at the .05 level.

Civil cases vary considerably in duration (the time they take from filing to disposition). Our expectation was that greater duration would be associated with a greater investment of lawyer time. As Table II-4-H shows, this is indeed the case for both hourly and contingent fee lawyers. But only in cases at the highest level of duration is there a statistically significant difference in time investment between the two types of lawyers.

While bivariate analysis shows that lawyers put in more time on cases that last longer, it should be noted that our multivariate analysis shows that this effect largely disappears when all other variables are controlled for, meaning that something else in the model actually accounts for the hours increase.

Table II-4-H

Median Hours by Duration

Duration (in days)	Hourly	Contingent/Flat
0-174	19.0 (73)	15.3 (70)
175-546	29.5 (223)	35.3 (165)
546+	50.8 (105)	40.2 (83)*
	**	**

* Difference between fee arrangements is statistically significant at the .05 level.

** Relationship between duration and hours is statistically significant at the .05 level.

Introducing Simple Controls. As we have seen, each of the variables we have examined is associated positively with greater investments of lawyer time. In order to begin to examine the interaction effects of these dimensions on lawyer hours we examined a variety of three-way tables in which the influence of several of the dimensions and fee type could be analyzed simultaneously. Table II-4-I presents the relationship between area of law (only tort and contract cases were present in sufficient numbers to allow for their inclusion in three-way tables) and four of the variables. The effect of stakes, complexity, duration, and events on lawyer hours remains significant for the subset of tort and contract cases. Area of law itself does not have a significant effect--the results for tort and contract are essentially the same.

Table II-4-I

Median Hours by Area of Law
by Other Case Dimensions

		Torts		Contract	
		Hourly	Non-Hourly	Hourly	Non-Hourly
Stakes					
1	$0-2000	15.0 (27)	11.0 (26)	12.3 (31)	16.0 (5)
2	$2001-5000	22.3 (29)	14.7 (38)	19.0 (21)	10.2 (14)
3	$5001-10000	29.8 (28)	29.6 (37)	36.0 (25)	20.0 (8)
4	$10001-50000	50.5 (44)	54.9 (61)	32.0 (45)	50.0 (26)
5	$50000+	99.0 (11)	151.3 (23)	111.5 (24)	140.0 (4)
		**	**	**	**
Complexity					
1	Simple	20.8 (39)	12.5 (46)	14.0 (31)	9.3 (13)
2		23.5 (42)	29.8 (66)	25.5 (50)	17.0 (15)
3		29.8 (39)	49.7 (43)	31.5 (36)	50.0 (16)
4		86.0 (14)	51.0 (18)	84.0 (21)	50.0 (5)
5	Very Complex	175.0 (5)	202.5 (12)	110.0 (8)	90.0 (8)
		**	**	**	**
Events (#)					
1	0-9	13.3 (37)	14.9 (65)	18.0 (43)	16.0 (25)
2	9-24	29.0 (63)	34.8 (88)	25.5 (56)	21.0 (17)
3	24+	66.0 (39)	70.5 (32)	79.8 (47)	77.0 (15)
		**	**	**	**
Duration (in days)					
1	0-174	15.0 (11)	14.9 (39)	21.3 (39)	10.5 (14)
2	175-546	23.5 (80)	32.0 (89)	29.9 (81)	39.8 (35)
3	547+	37.5 (48)	39.6 (57)	52.0 (26)	29.5 (8)
		**	**	**	**

** Relationship between Hours and Control Variable is statistically significant at the .05 level.

(i) Stakes

Tables II-4-J and II-4-L through N display the effects of stakes on hours at each level of complexity, events, duration and trial. In each table the relationship between stakes and hours remains statistically significant. Greater stakes lead almost uniformly to a greater investment of hours no matter how complex a case, or how many events occur, or how long it lasts, or whether it goes to trial.

(ii) Complexity

Examining the effect of complexity when the other variables in this preliminary analysis are accounted for reveals a pattern not dissimilar to that revealed in the stakes tables. Table II-4-J shows that increases in complexity are associated with a greater investment of lawyer time, no matter what the stakes. Table II-4-K indicates that complexity is similarly associated with lawyer hours in most categories of events. Only among hourly lawyers in the first and last categories of events is there a drop in hours spent at the highest level of complexity. Table II-4-M shows that complexity affects hours if we control for trial: while cases with trials involve more hours than those without, cases rated more complex in each category (trial/no-trial) involve more hours than the less complex ones.

(iii) Events

Events displays a statistically significant relationship with lawyer hours for both tort and contract cases. Table II-4-L shows events to have a similar effect at each level of stakes except among contingent or flat fee lawyers at the three highest levels of stakes.

Table II-4-J

Median Hours by Stakes by Complexity

Stakes ($)	Complexity 1 Simple	2	3	4	5 Very Complex
1 0-2000					
H	10.5 (30)	15.3 (29)	18.0 (28)	26.0 (8)	32.0 (4)*
C	6.5 (20)	14.8 (19)	9.0 (4)	14.0 (2)	520.0 (2)*
2 2001-5000					
H	16.0 (23)	20.0 (23)	37.3 (21)	70.0 (3)	---- *
C	10.1 (25)	15.3 (19)	20.5 (16)	40.0 (1)	40.0 (1)*
3 5001-10000					
H	30.0 (15)	28.0 (29)	41.5 (14)	51.0 (7)	135.5 (2)*
C	10.0 (9)	22.5 (24)	25.5 (11)	40.0 (9)	30.0 (4)*
4 10001-50000					
H	20.0 (23)	38.0 (7)	35.0 (29)	84.8 (21)	98.0 (7)*
C	25.5 (18)	50.5 (28)	59.5 (37)	53.5 (22)	100.0(11)*
5 50000+					
H	52.0 (3)	57.0 (8)	103.5 (12)	140.5 (18)	100.0 (7)*
C	30.0 (3)	100.0 (5)	92.0 (8)	207.9 (10)	210.0(10)*
	*	*	*	*	**

* Relationship between Hours and Control Variable is statistically significant at the .05 level.

** Relationship between Hours and Stakes is statistically significant for continent fee cases only, at this level of complexity.

Table II-4-K

Median Hours by Complexity by Events

Complexity Scale	Fee Type	Events 1 0-9	2 10-24	3 25+
1 Simple	H	12.0 (35)	19.5 (42)	32.0 (17)*
	C	9.0 (41)	14.7 (25)	20.5 (19)*
2	H	15.0 (41)	28.0 (49)	57.5 (36)*
	C	15.3 (32)	30.3 (52)	35.0 (11)*
3	H	15.5 (30)	30.0 (36)	82.4 (38)*
	C	30.5 (20)	39.8 (35)	77.0 (21)*
4	H	75.0 (5)	70.5 (20)	99.8 (32)
	C	43.8 (13)	40.5 (11)	101.5 (20)*
5 Very Complex	H	8.5 (2)	100.0 (7)	98.0 (11)*
	C	75.0 (5)	85.5 (10)	197.5 (13)
		*	*	*

* Relationship between Hours and Control Variable is statistically significant at the .05 level.

Table II-4-L

Median Hours by Stakes by Events

Stakes ($)	Fee Type	Events 1 0-9	2 10-24	3 25+
1 0-2000	H	9.7 (32)	18.0 (50)	39.5 (17)*
	C	7.5 (24)	12.0 (19)	30.5 (4)*
2 2001-5000	H	12.0 (19)	29.0 (31)	50.0 (20)*
	C	10.4 (29)	19.5 (30)	31.0 (3)*
3 5001-10000	H	17.8 (17)	31.0 (27)	65.0 (23)*
	C	25.0 (19)	29.8 (28)	40.0 (10)
4 10001-50000	H	21.0 (35)	39.8 (36)	74.5 (46)*
	C	45.0 (31)	54.0 (47)	70.5 (38)
5 50000+	H	41.0 (10)	102.0 (10)	125.5 (28)*
	C	53.0 (8)	195.0 (9)	198.3 (19)
		*	*	*

* Relationship between Hours and Control Variable is statistically significant at the .05 level.

Table II-4-M

Median Hours by Complexity by Trial

Complexity	Fee Type	Trial No	Trial Yes
1 Simple	H	16.0 (88)	36.5 (6)*
	C	11.6 (71)	4.0 (4)
2	H	24.9 (112)	46.5 (14)*
	C	25.5 (86)	50.0 (9)
3	H	30.4 (89)	80.0 (15)*
	C	45.5 (68)	82.5 (8)
4	H	80.0 (47)	96.0 (10)
	C	50.3 (35)	128.0 (9)*
5 Very Complex	H	99.7 (17)	98.0 (3)
	C	130.0 (21)	150.0 (7)
		*	*

* Relationship between Hours and Control Variable is statistically significant at the .05 level.

Table II-4-N

Median Hours by Stakes by Duration

Stakes ($)	Fee Type	Events 1 (0-9)		Events 2 (10-24)		Events 3 (25+)	
1	H	10.3	(23)	15.5	(66)	21.5	(10)
0-2000	C	7.0	(15)	9.5	(22)	15.0	(10)
2	H	13.0	(9)	19.9	(34)	30.3	(27)*
2001-5000	C	9.8	(18)	14.8	(23)	19.3	(21)*
3	H	17.8	(13)	36.3	(39)	36.0	(15)
5001-100001	C	25.0	(11)	29.8	(33)	30.0	(13)
4	H	24.3	(19)	38.5	(66)	66.5	(32)*
10001-50000	C	50.5	(20)	54.0	(71)	60.0	(25)
5	H	73.5	(9)	87.5	(18)	175.0	(21)*
50001+	C	35.0	(6)	197.5	(16)	127.0	(14)
		*		*		*	

* Relationship between Hours and Control Variable is statistically significant at the .05 level.

Similarly, in Table II-4-K more events are associated with more hours at each level of complexity. Here again the effect is not statistically significant among contingent fee lawyers in the most complex cases nor among hourly lawyers at the fourth level of complexity.

Relationship to Mix of Activities. To this point we have looked at the relationship of some of our variables plus area of law and total lawyer hours; we now turn to an analysis of the effect of some of these same variables on the mix or distribution of lawyer hours (events, trial, and duration are excluded). Recall that we found that most lawyer time is spent conferring with clients, preparing pleadings and motions, and in discovery. Table II-4-O presents a comparison of the mix of lawyer hours by area of law. While differences are, on the whole, not very great, some clear contrasts emerge. Compare tort, domestic relations, and public law cases. In tort cases the greatest preparation of lawyer time is invested in discovery. In domestic relations it is devoted to conferring with one's client, while in public law cases lawyers devote proportionally greater amounts of time to preparing pleadings and motions and doing legal research. These differences reflect the mix of factual, interpersonal, and legal elements usually associated with each type of case. One should also note the patterns are somewhat similar for hourly and contingent fee lawyers in each area of law, with the exception of torts. In tort cases contingent fee lawyers devote more time to conferring, factual investigation, and settlement discussions, and proportionally less time to discovery.

Table II-4-P shows the association of stakes and lawyer activities. At the lowest level of stakes the greatest proportion of lawyer time for both hourly and contingent fee lawyers is devoted to conferring, preparing pleadings and motions. At the highest level most time is devoted to discovery and other forms of factual investigations. The proportion of time devoted to conferring, settlement discussions, and pleading and motions declines substantially (except for the proportion of time spent by hourly lawyers in settlement discussions).

Case complexity has a somewhat similar effect on the distribution or mix of lawyer time (see Table II-4-Q). As complexity increases the proportion of lawyer time devoted to conferring, settlement discussions, and preparing pleading and motions declines, while time devoted to discovery, other forms of factual investigation, and legal research displays an overall increase. Here again one sees considerable similarity in the patterns for hourly and contingent fee lawyers.

Table II-4-O

Mean Hours Devoted to Activities by Area of Law

Activity	Fee Type	Tort	Contracts	Dom Rel	Property	Regulatory	Pub Law	Multiple
Confer	H	15.6 (134)	14.1(143)	26.7 (6)	14.4 (18)	18.2 (34)	20.4 (15)	12.8 (39)
	C	16.7 (181)	18.6 (57)	31.7 (3)	17.8 (16)	14.0 (12)	11.1 (9)	16.3 (34)
Disc	H	25.0	12.3	11.7	8.5	13.3	13.0	19.2
	C	18.6	10.9	1.7	10.9	17.7	14.8	13.8
Fact	H	11.3	11.8	5.0	8.9	13.9	10.0	11.8
	C	15.2	13.0	11.7	14.1	10.9	12.4	16.0
Settle	H	13.5	17.2	21.7	17.1	15.9	10.0	16.3
	C	15.1	14.5	16.7	11.3	16.2	4.9	13.0
Plead	H	12.7	16.6	13.3	23.5	15.2	19.2	14.6
	C	12.1	16.0	13.3	14.7	10.6	18.0	12.7
Legal R	H	7.2	12.8	4.2	7.7	12.8	13.5	14.4
	C	7.3	11.5	1.0	7.0	19.4	18.6	13.0
Trial	H	9.0	7.7	14.2	13.4	4.6	9.9	7.6
	C	8.4	7.2	17.3	16.4	6.2	13.9	10.1
Appeal	H	.4	1.8	3.3	1.4	.5	.3	.8
	C	.2	2.0	0	1.3	0	0	.8
Other	H	5.4	5.7	0	5.1	5.6	3.8	2.6
	C	6.3	6.3	6.7	6.5	5.0	6.2	4.4

Table II-4-P

Mean Hours Devoted to Activities by Stakes

		Stakes					
		1	2	3	4	5	
		0-2000	2001-5000	5001-10000	10001-50000	50000+	
Activity	Fee Type						
Conf	H	16.9 (99)	14.6 (68)	16.3 (66)	15.1 (111)	12.1 (46)	
	C	20.0 (47)	18.8 (61)	17.4 (66)	15.8 (104)	12.1 (36)	*
Disc	H	11.7	18.9	21.2	18.0	19.8	*
	C	8.6	13.1	18.3	18.1	19.8	*
Fact	H	9.5	11.4	9.6	12.4	16.2	*
	C	13.2	12.4	15.6	14.3	18.6	
Settle	H	15.9	15.5	14.3	16.1	15.88	
	C	18.4	18.7	13.3	13.5	7.5	*
Plead	H	18.7	13.7	15.1	14.4	12.8	*
	C	16.5	13.0	11.9	13.3	10.4	
Legal R	H	13.8	8.5	8.8	9.9	11.5	*
	C	4.1	7.1	10.8	10.5	14.9	*
Trial	H	7.5	10.1	8.6	8.4	6.6	
	C	9.9	8.3	5.5	9.7	11.6	*
Appeal	H	.64	.93	1.5	1.0	1.5	
	C	1.0	.4	1.0	.39	1.03	
Other	H	5.5	6.5	4.6	4.8	3.8	
	C	8.3	8.2	6.2	4.5	4.1	

* Mean Hours devoted to Activities are significantly different for different levels of stakes.

Table II-4-Q

Mean Hours Devoted to Activities by Complexity

		Complexity					
		1	2	3	4	5	
		Simple				Very Complex	
Activity	Fee Type						
Confer	H	17.3 (93)	16.9 (124)	14.0 (99)	12.0 (55)	10.8 (19)	*
	C	20.9 (74)	17.1 (93)	14.7 (75)	15.0 (44)	14.1 (28)	*
Disc	H	13.8	16.9	18.9	18.9	23.9	*
	C	10.8	16.4	19.1	18.0	16.3	*
Fact	H	8.6	11.8	11.3	15.6	12.8	*
	C	11.5	15.0	14.5	17.8	15.5	*
Settle	H	21.1	16.2	13.0	11.4	10.6	*
	C	20.1	15.1	12.2	10.9	9.8	*
Plead	H	17.6	15.8	14.3	12.3	14.4	
	C	14.3	12.2	14.3	12.2	11.8	
Legal R	H	6.9	9.5	11.8	17.0	12.5	*
	C	2.5	8.9	11.1	12.2	20.5	*
Trial	H	9.0	6.4	9.3	9.0	9.5	*
	C	8.0	8.8	9.4	10.2	9.0	
Appeal	H	1.1	.5	.8	2.4	1.3	
	C	.6	.5	.7	.7	1.1	
Other	H	4.7	6.0	6.4	1.5	4.1	*
	C	11.4	5.9	4.1	3.1	2.0	*

* Mean Hours devoted to Activities are significantly different for different levels of stakes.

Recapitulation of Bivariate Analysis. Before turning to a discussion of the regression results, let us briefly recapitulate the results developed through the tabular analysis just presented. We looked at the influence of six variables on hours: number of pretrial events, stakes, complexity, presence of a trial, duration, and area of law. Looking at simple bivariate relationships, we found that pretrial events, stakes, complexity, trial, and duration all worked as common sense would lead us to expect: the number of hours increased with the number of events, stakes, complexity, duration, and the presence of a trial. All of these relationships held up when we introduced, in turn, each of the remaining five variables, though the relationships between hours and both duration and trial were substantially diminished. For area of law, we initially found some differences between different areas of law in the number of hours spent on the case by lawyer, but when we introduced a number of the other variables as controls, those relationships disappeared; this is not at all surprising since there is no a priori reason to expect area of law to have any direct influence on hours though area of law can be expected to affect some of the prior variables like complexity, stakes, or number of pretrial events.

Regression Analysis of Lawyer Investment of Time

In this section, instead of looking at one or two variables at a time, we combine a large set of variables into a single analysis. The tool that we use is multiple regression, which we will describe

more fully below. This approach has the potential of allowing us to assess the importance of each of the variables in our anlysis, controlling for all other variables.

Recall that we are employing a 29-variable model that uses eight variable clusters to measure five primary "factors" or dimensions of the process of litigation time investment. Table II-4-R repeats the complete set of variables used in the model analyzed in this section.

[Table II-4-R here]

There are several goals of the analysis presented below: (1) to test our model; (2) to determine whether the bivariate relationships hold up when a large set of theoretically relevant controls are introduced; and (3) to ascertain the relative importance of specific variables or sets of variables.

Before turning to the results of the analysis, however, we need to deal with a number of methodological questions. The next section of this chapter presents a discussion of multiple regression intended for the reader who has little or no background in the techniques. This is followed by a section describing the steps taken to prepare the data for analysis and some of the statistical problems we encountered. (A summary for the nontechnical reader is included.) Our basic regression analyses are then presented in two parts. First, we discuss how well the overall model explains hours responses, and the relative importance of our eight variable clusters. Second, we analyze each of the individual 29 variables. Finally, we deal with basic differences in behavioral responses between hourly and contingent fee lawyers.

Table II-4-R

Complete Model: Variables and Clusters

Factor		Cluster	Individual Variables
I	A	CASE CHARACTERISTICS	1 Stakes 2 Complexity 3 Duration
II	B	EVENTS IN THE CASE	4 Pleadings Factor 5 Motions Factor 6 Discovery Factor 7 Presence of Trial 8 Presence of Settlement Discussion
III		NATURE OF PARTICIPANTS	
	C	Client Type	9 Individual/Organization
	D	Lawyer Characteristics	10 Specialization 11 Law School Performance 12 General Experience 13 Courtroom Experience 14 Personal Capacity 15 Craftsmanship
IV		PARTICIPANT GOALS	
	E	Client Goals	16 Get Most/Pay Least 17 Get Fair/Pay Fair
	F	Lawyer Goals	18 Challenge 19 Public Service 20 Professional Visibility 21 Make Money 22 Service to Regular Client
V		PROCESSING AND MANAGEMENT	
	G	Court Type	23 State/Federal
	H	Case Management	24 Pretrial Events SOP 25 Estimating Case Value SOP 26 Plan for Motions 27 Plan for Settlement 28 Plan for Discovery 29 Client Control and Participation

Regression Analysis - Introduction for the Nontechnical Reader

This section explains the logic of regression analysis and provides an introduction to the types of statistical information employed in the substantive discussion that follows. (Readers familiar with or not interested in the statistical details of regression may skip it without loss of continuity.)

Multiple regression allows the examination of the independent impact of individual variables. As noted in chapter 2, the particular variant of multiple regression that we use assumes that lawyer hours can be explained as the weighted sum of the values of the explanatory variables. For example,

$$\text{HOURS} = A + B_1 (\text{STAKES}) + B_2 (\text{COMPLEXITY}) \qquad (1)$$

In this simple model, HOURS is the variable that we want to explain or predict (the "dependent" variable); STAKES and COMPLEXITY are the variables that we use to explain or predict HOURS (the "independent" variables). The symbols A, B_1, and B_2 represent the "parameters" or "coefficients" linking STAKES and COMPLEXITY to HOURS. In order to understand what these parameters mean, let's simplify the model for the moment by dropping COMPLEXITY; this yields a "bivariate" regression equation:

$$\text{HOURS} = A + B (\text{STAKES}) \qquad (2)$$

In this simplified equation we are saying that for every unit increase in STAKES, we predict an increase of B hours of lawyer time; the symbol A tells us how many hours of lawyer time we should expect if STAKES is zero.

Let's say that STAKES is coded in units of $100. Reasonable values of A and B are on the order of 5 and .3 respectively; rewriting equation 2 using these values, we have:

$$HOURS = 5 + .3\ (STAKES) \qquad (3)$$

This tells us that for any particular level of STAKES (expressed in $100 units), we would predict the number of HOURS by multiplying STAKES by .3 and adding 5. Thus, for a case involving $1,000, we would predict 8 (5 + .3 x 10) HOURS; if the case involved $1,100 (a one unit increase in STAKES), we would increase our prediction of HOURS by .3.

Let us now think in terms of a particular case, which we will refer to as the ith case; we can represent the number of HOURS spent on the case by the following equation:

$$HOURS_i = A + B\ (STAKES_i) + E_i \qquad (4)$$

The symbol E that we have introduced here is called the error term. In regression analysis, we seek to get values of A and B such that we minimize values for the error terms (the E's). The smaller the error terms, the better the explanatory power of the model.[1]

Where we have more than one predictor variable in the equation (as in equation 1 above), the same technique can be applied to analyze the effect of two or more independent variables on the dependent variables. This is multiple regression, in which we estimate a coefficient for each predictor variable--represented by

[1] The standard technique for doing this (described in most statistics texts) is to find the values of A and B that minimize the sum of the squares of the error terms across the sample that we are working with; this technique is referred to as "least squares."

the B's in equation (1). Each of these B coefficients represents the effect a unit change in the corresponding predictor variable has on the dependent variable, if all other predictor variables in the equation remain unchanged. In presenting the results, the coefficient for each variable is reported separately. Thus, the coefficient for stakes would be .3 in the example given; if the coefficient for complexity were 3, this would mean that for each step increase in complexity we would increase our prediction of hours by 3.

This discussion suggests why multiple regression is such a useful tool for analysis--it allows us to look at a relatively complex phemomenon and isolate the effects of individual variables on clusters of variables.[1]

Regression analysis also permits us to assess the predictive quality of a model by establishing how much it improves the prediction over the simple average of the values of the dependent variable. That is, if we knew nothing about the predictor variables, we would use the mean of the dependent variable as our predicted value for every case. The measure of the error that would be made using the mean as the predicted value is called the "total variation" or the "sum of squares total" (SST): that is, the sum of

[1] Readers who are interested in more detailed information on regression analysis can consult any one of the many text books available on the subject. Particularly readable texts include Hilton (1976), Kerlinger and Pedharzur (1973), and Cohen and Cohen (1975).

the squares of the differences between the observed dependent variable and the predicted dependent variable (i.e., the mean):

$$SST = \Sigma (Y_i - \bar{Y})^2 \qquad (5)$$

where Σ simply means "summed across all cases," and $\bar{Y}$ is the mean of the dependent variable. This value is then compared to the error we would make based upon the regression equation (again computed as a sum of squares, but now referred to as the "sum of squares error" or SSE):

$$SSE = \Sigma (Y_i - \hat{Y}_i)^2 \qquad (6)$$

where $\hat{Y}_i$ is the value of the dependent variable that would be predicted using the regression equation. The summary statistic, called the "coefficient of determination," or R^2, is the proportionate reduction in error achieved by using the regression estimate rather than the mean as the basis of prediction of the dependent variable:

$$R^2 = \frac{SST - SSE}{SST} = 1 - \frac{SSE}{SST} = 1 - \frac{\Sigma(Y_i - \hat{Y}_i)^2}{\Sigma(Y_i - \bar{Y})^2} \qquad (7)$$

Data Preparation and Statistical Complexities

As with most large and complex data sets, before we could conduct a multiple regression analysis of the data from the lawyer survey, we had to carry out a number of technical adjustments. This section reports the most important of these in detail, aimed primarily at the technical reader. For those who are not concerned with these technical matters a few summary observations should suffice.

Nontechnical Summary. First, it is important to recognize that we had to exclude a sustantial number of respondents (and thus cases) from the analysis. We could not include cases where we lacked information on the number of hours the lawyer spent in the case--this led us to drop 54 cases. In addition, we could not include cases where the lawyer was not paid on a fee for service basis--this excluded another 153 cases. Finally, we had to drop 523 cases because the respondents in these cases could not or did not supply us with a money value for stakes. The last group of cases was omitted because we felt that stakes was so important in explaining hours that an analysis which omitted this variable would be of little value, and we were not able to find an appropriate way to supply missing data on stakes.

The resulting regression subsample differs in nonrandom ways from our overall lawyer sample. On many parameters, the regression subset is not significantly different from the overall sample. However, the set of cases with monetary stakes information, and therefore included in the regression sample do differ from the full

set in that they: (i) are more heavily weighted toward tort and contract case and include fewer divorce, regulation and public law case; (ii) have more state cases; and (iii) include a higher percentage of cases involving plaintiffs and contingent fee lawyers. Our conclusions should be interpreted accordingly. Second, we did not have data on the other 28 variables for all the cases that remain in the regression subset. Since eliminating all cases with missing data would have left an inadequate sample for analysis, we made estimates for these missing items. Third, for statistical reasons we had to consider the problem of including multiple respondents from the same case. Fourth, we had to transform the stakes variable to conform to our requirement that all independent variables have a linear effect on the dependent variable. Although this was not necessary for most of our variables, we recognized that the rate of increase in stakes associated with increases in hours would not be constant over the whole range of stakes we observed, but that the number of extra hours associated with a unit increase in stakes would be smaller the higher the stakes. We were able to express this curvilinear relationship in a linear form by using the square root of the reported stakes figure in the regression equation, described further below.

Finally, our data had two features that required further adjustment. As the data were originally structured, the error terms for each observation varied systematically among different subsets of cases in the sample (the property is called heteroscedasticity).

Since this reduces the precision of the regression estimates, we counteracted it by giving different weights to different observations. In addition, we found that some of our original predictor variables were highly intercorrelated. This feature (called multicollinearity) made it difficult to interpret our regression coefficients and to analyze the independent contribution of each variable on hours; to deal with this, we transformed the intercorrelated variables we identified in order to produce a new set of variables which were uncorrelated with one another.

The reader who wants more informaton on these matters should read the rest of this section; other may skip it without loss of continuity, after noting the following two points: (1) In the presentation of the results, reference will be made to "corrected" and "uncorrected" regressions; these references are to whether the data were corrected for heteroscedasticity before the regressions were performed. Typically, we focus on the corrected form. (2) We originally included separate, raw counts on the numbers of a variety of types of court events: pleadings, motions, briefs, and discovery; and separate indicators of standard procedures for pleadings, motions, discovery, and estimating the value of cases. This created a problem of high intercorrelations among the variables, so the original variables were transformed into uncorrelated scores: three events variables and two standard procedures variables.

The Problem of Missing Stakes Information. As with all of the analyses reported in this volume, the data used here are drawn from

the lawyer survey discussed in Volume 1. Because of the detailed level of information required, we used only respondents interviewed with the long form of survey instrument. This gave us a total of 1382 respondents.[1] From this pool, 663 cases were excluded from the analysis for one of the four reasons mentioned above: (1) the fee arrangement with the lawyer was something other than fee for service (house counsel, pro bono, prepaid, legal aid, etc.), (2) we had been unable to obtain information on hours, (3) we had been unable to obtain information on a dichotomous (0, 1) variable, or (4) we had not succeeded in obtaining usable information concerning the stakes in the case.

The fourth criterion requires further discussion. Of the predictor variables used in the analysis that were derived from the lawyer questionnaire, only stakes was deemed to be of such importance that lack of information on that variable would be sufficient grounds for excluding the case from the regression analysis. Stakes information could have been missing for a variety of reasons: the respondent refused to answer the stakes question, the respondent never formed an estimate of the stakes in the case (at least in the terms of the question we asked), the stakes involved in the case included a nonmonetary component which the respondent was unable to monetize, or the stakes were exclusively nonmonetary.

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[1] This number differs from the 1387 used in earlier analyses because an additional five cases were deleted for a variety of reasons unrelated to methodological considerations.

Most of the omitted cases were because of problems with the stakes variable: 483 cases were missing only stakes, 54 cases were missing only hours, and 40 cases were missing both hours and stakes.[1] This raises the rather important question of whether lawyers deleted for lack of stakes information differed systematically from those retained for analysis.

These exclusions made it necessary to determine how the resulting regression subsample compares with our overall sample of cases. This was done by comparing the cases involving respondents who gave us monetary stakes information, both with those in which stakes had a nonmonetary and nonmonetized component and with those without stakes information.

[Table II-4-S here]

Table II-4-S presents the results of a series of comparisons of those three groups. Perhaps most striking overall is the lack of strong differences on most of these parameters. Respondents with stakes information described their cases as somewhat less complex, but typically these cases involved no fewer events. Respondents with stakes information were more likely to be in the state courts, and more likely to be representing a plaintiff. One of the biggest differences had to do with the fee arrangement. Hourly fee lawyers were least likely to have an idea of stakes; contingent fee lawyers

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[1] Of the 523 respondents without stakes information, 331 said that they had never formed an opinion "about what the case was worth in terms of what [their] client(s) would be willing to take or do to settle the case;" the other 192 said they had formed such an opinion but saw the stakes as including a significant nonmonetary component which could not be monetized.

Table II-4-S

Comparison of Selected Parameters of Cases Included in Analysis with Those in Cases Omitted For Lack of Monetary Stakes Information

Selected Parameters	Cases Used	Cases Omitted	
	Monetary Stakes Information Available (N = 859)	Lawyers Could Not Monetize Stakes (N = 192)	No Stakes Information Available (N = 331)
1) % Federal cases in subsample	52.2	63.0	62.2
2) % Cases rated highly complex (top two categories)	20.0	28.0	23.3
3) % of lawyers with incomes from legal practice exceeding $75,000	19.1	27.9	17.7
4) % of lawyers with strong sense of craftsmanship	61.9	60.1	62.9
5) % of lawyers on hourly fee	48.8	57.3	59.5
6) % of lawyers on contingent fee	36.7	12.5	16.6
7) % of lawyers representing plaintiffs	59.5	45.3	45.3
8) Experience-- Average number of years of legal practice	10.9	12.8	13.2
9) Specialization-- Average percent of time spent on court cases	68.4	65.3	66.5

Selected Parameters	Cases Used	Cases Omitted	
	Monetary Stakes Information Available (N = 859)	Lawyers Could Not Monetize Stakes (N = 192)	No Stakes Information Available (N = 331)
10) Average number of hours lawyer spent on case sampled	71.5	67.9	72.8
11) Total number of case events (docket entries)	12.3	12.5	12.8
12) Average client control score	-0.02	0.19	-0.08
13) Average hourly rate	67.0	56.5	63.4
14) % of clients individuals	53.4	37.0	38.7
Area Of Law[a]			
15) % Involving Torts	51.3	30.7	31.8
Contract	35.0	25.9	35.5
Domestic Relations	1.8	6.9	4.0
Property	7.0	8.5	8.9
Regulation	8.8	28.0	17.1
Public Law (e.g., discrimination)	6.9	15.9	18.7

[a]These percentages do not necessarily add to 100% because a case may involve issues in more than one area.

were most likely to (not surprisingly). Another difference worth noting is in area of law. Our regression sample includes more torts and contract cases and significantly fewer domestic relations, regulation, and what we have labeled as "public law" cases than would have been included had we used all the cases from the lawyer survey.

Taking all of these differences into account, the reader should be cautioned that to the degree we are seeking to generalize from the analysis presented in this chapter, the generalizations apply strictly to cases where lawyers form opinions about monetary stakes.

Supplying Missing Data. For the remaining variables, we replaced missing data with the mean or the median of the appropriate variable, in order to maximize the sample for analysis. Where a variable was a composite of responses to several individual questions from the survey and one of those responses was missing, we filled in the missing response with a mean or median value and used it in constructing the analytic variable. Note that a variable obtained from the court records--duration, type of client, type of court, and number of events--were not subject to missing data problems.[1]

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[1] As noted above, we decided not to try to fill in missing information for stakes (after reviewing a variety of alternatives such as using information on offers or demands indicated in pleadings) because the range of stakes was such that our estimate would involve tremendous error, and because the value of stakes played a central role in our thinking about the hours analysis both substantively and methodologically.

Multiple Respondents from the Same Case. In order to make valid inferences from a set of statistics to the universe from which the data are drawn, it is necessary that each observation be selected independently of all other observations. The random sampling scheme that we used for court cases meant that our cases met this test; however, since we could (and often did) interview more than one lawyer from a given case, the lawyers in our sample did not necessarily satisfy the independence assumption. This did not turn out to be a large problem because our division of the analysis into hourly and contingent fee lawyers tended to separate lawyers in our sample from the same case--since hourly fee lawyers tend to be on the defendant side of the case and contingent fee lawyers tend to be on the plaintiff side. For the few situations with multiple respondents from the same side of the case, we selected one of the respondents at random and tagged the remaining respondent(s) for possible exclusion where desired; a total of 76 (about 10% of the total) were tagged for exclusion when necessary. The primary analysis was done both including and excluding these respondents. Since there were no appreciable differences, in the results presented here we decided to leave in those extra respondents to maximize the usable sample.[1]

Curvilinearity: Transforming the Stakes Variable. A linear effect is one in which there is a constant direct effect of one

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[1] Table II-TA-L in Technical Appendix IV shows the regression results when "repeat" respondents are removed.

variable on another; that is, an increase in the predictor variable of 10 units will have the same effect on the dependent variable, regardless of whether that increase is from 10 to 20 or from 1,000,000 to 1,000,010. Both intuition and some of the analyses presented previously indicate that such an assumption for stakes is inappropriate. Common sense suggests that as stakes goes up, the time spent on a case by lawyers should go up, but as stakes get higher and higher, the rate of increase in hours associated with the change in stakes should be lees, if for no other reason than that there is simply a limit on how much even a large firm of lawyers can do.

To develop this discussion, let us for the moment assume a very simple bivariate model:

$$HOURS = A + B(STAKES) \qquad (8)$$

More standard statistical notation represents the dependent variable as Y and the independent or predictor variable as X. Thus, equation (8) is equivalent to:

$$Y = A + BX \qquad (9)$$

Linear regression requires us to assume that the values of the weight coefficient , B, are constant across the range of values of X. For a relationship that is nonlinear--the relationship in this instance--the objective is to transform one or both of the variables in some systematic way in order to make the linearity assumption more realistic. Because there are variables to be considered in addition to stakes, we chose to leave the dependent variable (hours) alone and focus our efforts on transforming stakes. There is a

variety of possible statistical transformations that we might use: inverse, logarithmic, powers (e.g., stakes squared or cubed), or roots (e.g., square or cube root), plus various combinations of these.

With respect to stakes, our common sense argument suggests a transformation such that the transformed variable increases almost as rapidly as the original variable at low values but that the rate of increase of the transformed variable tapers off as the magnitude of the original variable increases.

A tentative look at six types of transformation (inverse, $\log_{10}$, square, cube, square root, and cube root) suggested that only a root function provided a significant improvement in the fit between stakes and hours. To ascertain which root function to use, we carried out a regression of the form:

$$\log(hours) = A + B(stakes), \qquad (10)$$

derived by taking the logarithms of both sides of equation:

$$hours = A\ (stakes)^B \qquad (11)$$

Because of the way logarithms work, if we are correct in our interpretation that a root function is the appropriate form of transformation, the estimate of B should be something under one (around one half for a square root and around one third for a cube root). Equation 10 was estimated using a standard regression procedure (ordinary least squares - OLS). The value obtained from B with all cases grouped together was .44, which is closer to .5 than to .33. This suggests that if a single, simple transformation function is to be selected, it should probably be the square (rather than the cube) root.

Figure II-4-A

HOURS BY STAKES — CONTINGENT FEE CASES

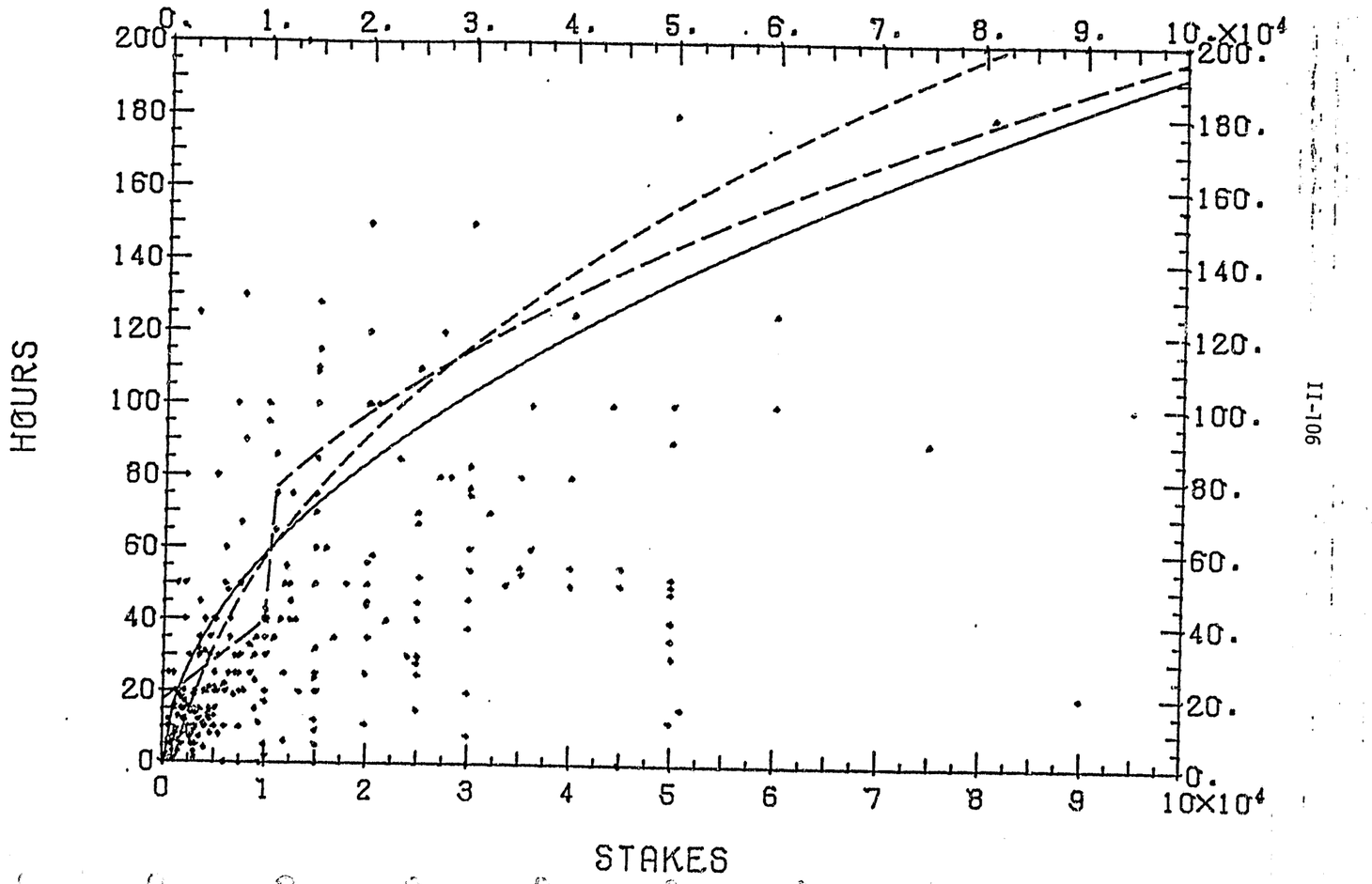
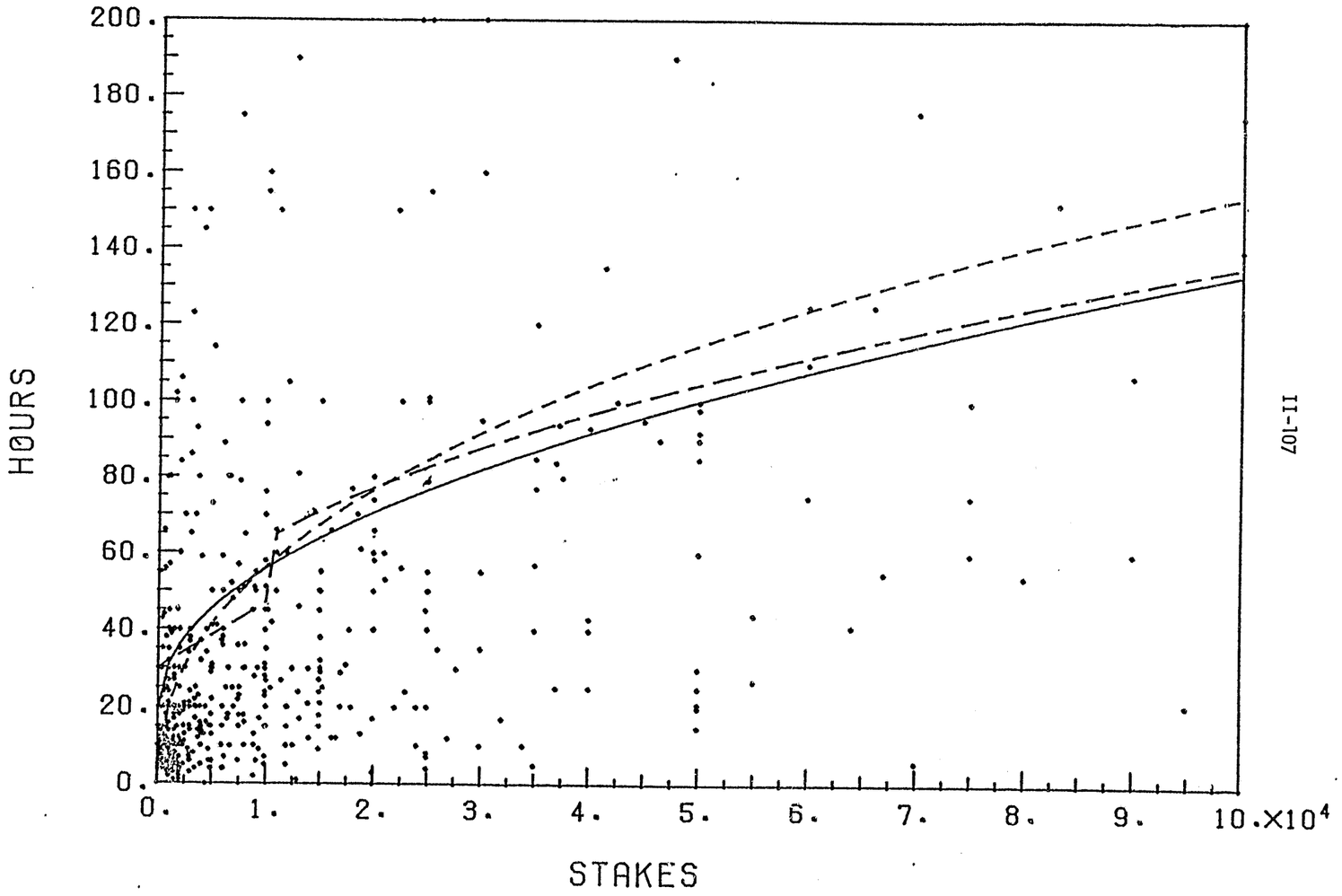


Figure II-4-B

HOURS BY STAKES — NONCONTINGENT FEE CASES



Figures II-4-A and II-4-B graph the lines that would be obtained from a square root function for a simple bivariate equation:

$$Y = A + B\,X^{1/2} \qquad (12)$$

The solid lines shown in the figures are the ones that we obtained from equation 12. The figures also show two alternative formulations based on the square root function: The short broken line is based on

$$Y = A + B_1X^{1/2} + B_2X. \qquad (13)$$

The long broken line (with the jump at $10,000) is based on

$$Y = A + C_1B_1X^{1/2} + C_2B_2X, \qquad (14)$$

where C_1 equals 1 if stakes exceed $10,000 and 0 if stakes are $10,000 or less (the latter value allows the effect of stakes to be linear under $10,000 and curvilinear over $10,000). Clearly, neither of these alternative formulations produce enough of an improvement to justify the additional complexity they would introduce. As a result, in the analysis that follows we will be reporting the effect of the square root of stakes, and any reference to the impact of stakes should be interpreted in terms of the square root of stakes rather than in terms of the original value of stakes.

Heteroscedasticity. Estimates will be most precise if the variation (variance) of the error term in the estimating equation (see equation (4) above and associated discussion) is uniform throughout the sample. If parts of the sample are characterized by larger errors than other parts, the estimates will still be unbiased, but will be characterized by wider ranges of uncertainty than would otherwise be the case. This condition is called heteroscedasticity.

Typically, we want to be able to say with a certain degree of confidence that an independent variable does or does not have an effect on the dependent variable of interest (i.e., hours). This is normally measured by the variability of the coefficients (called the standard error) in relation to the size of the coefficients. This, in turn, gives us the probability that the variable has an effect or, equivalently, the probability that it has no effect. If the variable has no effect, its coefficient is zero. The lower the probability that the coefficieint is zero, the more likely it is that the predictor variable has an effect on the variable to be predicted. When we judge the probability to be low enough, we say that the coefficient is statistically significant at that probability level. A probability that is typically used as a cutoff level is the .05 level, that is, the level at which there is only a 5 percent chance that the coefficient is zero.

The major reason to suspect that heteroscedasticity is a problem in our data is that errors in predicting lawyers' hours from the stakes involved is likely to be larger the higher the stakes. This is because lawyers in small stakes cases have less leeway in the amount of time that they can decide to spend on the case than lawyers in a high stakes case. Such a situation is consistent with the scatterplot shown in Figure II-4-A and II-4-B, in which the scatter for the smaller cases is much more concentrated than it is for larger cases.

There is a variety of possible methods of correcting for heteroscedasticity, all of which have the same basic goal: to

weight less heavily those observations that are likely to have the larger errors of prediction and to weight more heavily those observations that are likely to have the smaller errors of prediction. If, for example, the variance of the error terms is a function of the level of stakes, using some function of stakes as the basis of weighting our observations should alleviate the problem. Using the variable with the problem as the weighting basis is, in fact, one standard approach to overcoming it (see Hilton, 1976: 94-100). This is exactly what we did. Recall that we decided to use in our regression equation not the actual value of stakes but the square root of stakes. Since our heteroscedasticity problem indicated that we should weight large stake cases less heavily, we decided to weight the observations by the inverse of the square root of stakes; this in effect meant that we were dividing both sides of equation (12) by the square root of stakes:

$$\frac{Y}{X^{1/2}} = A\,\frac{1}{X^{1/2}} + B\,\frac{X^{1/2}}{X^{1/2}} + \frac{E}{X^{1/2}} \qquad (15)$$

The assumption implicit in carrying out this transformation is that the new error term, $E/X^{1/2}$ is not heteroscedastic. Scatter plots of the error terms from the transformed equation confirmed this to be the case.[1]

Multicollinearity. Multicollinearity means that some of the predictor variables are detectably intercorrelated. Typically, the

[1] See Table II-TA-L in Technical Appendix 4 for a comparison of the corrected and uncorrected results.

regression coefficients estimated in the presence of multicollinearity will be extremely unstable; often, variables appear to have the opposite effect to what theory and common sense would suggest. For example, among a set of variables, some of the coefficients will be in the right direction; others will be in the wrong direction. This is what happened in our early analyses. We found that our set of event variables and our set of standard operating procedures variables were both highly intercorrelated.

There are a variety of methods available for coping with multicollinearity: omitting variables, transforming variables, and using more complex estimating algorithms. We opted for the second alternative because it preserved our original model and was easy to carry out. Using a procedure called principal components analysis, which is essentially the same as factor analysis, we transformed the original four events variables (number of briefs, number of pleadings, number of motions, number of discovery events) into three new, uncorrelated variables; the new variables could be identified with the original variables: one representing both motions and briefs (lawyerly activities) and the other two representing pleadings and discovery separately. We transformed the original four standard operating procedures variables (pleadings, motion, discovery, estimating case value) into two uncorrelated variables, with one of the new variables combining standard procedures for pleadings, motions, and discovery, and the remaining variable representing standard procedures for estimating the value of cases. (The component loadings for the two sets of original and transformed variables are shown in Technical Appendix 1.)

Assessing the Strength of the Model

Overall Predictive Power. As we noted in our review of regression, if our model predicted the number of hours perfectly, the R^2 would have a value of 1; if the factors specified in the regression equation provided no better prediction than merely using the average number of hours in an case, this statistic would have a value of 0. The R^2 for hourly fee lawyers is .43; for contingent fee lawyers it is .35.[1] By social science standards these R^2s are acceptable. They tell us that using our model as a predictor rather than the mean, reduces the predictive error by almost half in the case of hourly fee lawyers and over a third for contingent fee lawyers.

Effects of Variable Clusters. We now turn (i) to see which of our 8 variable clusters contribute significantly to explaining the number of hours, and (ii) to assess the relative importance of the various clusters.

The results are shown in Table II-4-T, which presents a summary of the independent impact of each of the eight variable clusters for hourly and contingent fee lawyers. For each of our variable

[1] These R^2 are the uncorrected ("ordinary least squares") regression estimates--the appropriate statistic for assessing the overall predictive power of the model (see Hilton, 1976: 100). When we come to hypothesis testing, however, as noted above, we are interested in the role of the individual variables or groups of variables in explaining the dependent variable. That is, we want to assess the statistical significance of the individual coefficients. For this we need "weighted least squares" regression estimates, the R^2 of which are always lower--in this case, .20 and .23 for hourly and contingent fee lawyers, respectively.

clusters, we present three statistics: degrees of freedom (df), the F-statistic (and its associated probability, p), and change in the R^2 of the weighted regression. The degrees of freedom is equal to the number of variables in the cluster (the importance of this column will become evident later). The F-statistic tells us whether the variable cluster contributes significantly to prediction of the dependent variable (that is, if the regression coefficients of the cluster, taken together, differ from 0); the probability (p) associated with each F-statistic tells us the likelihood that these coefficients are in fact equal to 0. As noted, only if the probability is very low can we reliably conclude that the variable cluster has an effect on hours. We follow the standard convention of saying that a variable cluster has an effect (i.e., the coefficients, as a set, differ from zero) if p is less than .05. The final statistic in Table II-4-T is the "R^2 change." This figure, below each cluster, is useful in assessing the relative importance of that cluster to which it refers.[1]

With respect to hourly lawyers, the first thing we see in Table II-4-T is that all but two of our variable clusters contribute significantly to the explanation of the variation in the dependent variable, hours. For all our clusters except type and lawyer characteristics, the probability that the cluster has no influence on hours is less than 1 chance out of 10,000 (.0001). Moreover,

[1] Note that R^2 change figures only tell us the relative importance of a cluster within each of the two regressions reported in Table II-4-T: you cannot compare R^2 change statistics across the columns of the Table.

Table II-4-T

Independent Contributions of Each Variable Cluster to the Prediction of Hours

Cluster	df	Hourly F	Hourly p	Contingent Fee F	Contingent Fee p
A Case Characteristics	3	6.27	.0001	3.70	.025
R^2 Change		.0240		.0057	
B Events in the Case	5	17.49	.0001	149.76	.0001
R^2 Change		.1116		.3846	
C Client Type	1	.42	.5172	3.52	.0618
R^2 Change		.0005		.0018	
D Lawyer Characteristics	6	1.94	.0735	.27	.9501
R^2 Change		.0148		.0008	
E Client Goals	2	11.74	.0001	.99	.3719
R^2 Change		.0300		.0010	
F Lawyer Goals	5	9.78	.0001	.44	.8229
R^2 Change		.0624		.0011	
G Court Type	1	13.76	.0001	.22	.6421
R^2 Change		.0179		.0001	
H Case Management	6	5.60	.0001	.42	.8671
R^2 Change		.0429		.0013	
df denominator	371			288	
N [a]		401		312	
R^2 [b]		.43		.35	
Base for F statistic [c]		.5207		.8521	

Notes to Table II-4-T

[a] The denominator degrees of freedom (df for the F statistic shown in the body of the table) is equal to N minus the number of independent variables plus 1.

[b] This figure, is derived from the uncorrected regression.

[c] This figure is derived from the corrected regression (the regression program reports it as the R^2 statistic); (see Hilton, 1976: 100). This value is used to compute the F statistic for each group:

$$F = \frac{R^2 \text{ Change}/df}{(1 - \text{Base})/df_2},$$

where df is the number of variables in the cluster and df_2 is the denominator degrees of freedom.

since the probability associated with lawyer characteristics is quite low (only .0235 above our .05 standard) and the set includes 6 variables, it is quite possible that one or more of the individual variables within the set will be significant.[1] Thus, not only does our eight cluster model as a whole predict hours relatively well; for the hourly lawyers, at least, most of the clusters we have selected have independent explanatory power as well.

What about the relative importance of these clusters? While all but two have a significant effect, their relative strength varies. The R^2 change is one indicator of the level of the marginal contribution of each variable set. Looking at the R^2 change entries in Table-4-T we see, not surprisingly , that events are the most important cluster. Not only is the R^2 change for events higher than for all other clusters, it is almost twice as large as that for the next highest cluster, lawyer goals. This would tend to confirm our view that events play a major role in determining the number of hours spent on cases, and are much more important than stakes, which is just one of the variables in the relatively unimportant case characteristics cluster.

However, if we really want to make a full comparison among the variable clusters, we must take into account the number of variables in each cluster; this is because the more variables there are in a

---

[1] The p value tends to be a conservative probability estimate (thus working against the acceptance of a set of variables as significant) if one has an a priori expectation regarding the direction of influence of one or more variables in the cluster.

cluster, the greater the effect on the dependent variable, other things equal. To get a crude indicator of rankings taking this into account, we divided the cluster R^2 change statistic by the number of variables in the cluster (i.e., the cluster's degrees of freedom). This yields a basis for rank ordering the clusters, as is done in Table II-4-U. Even with the adjustment, events stand out as most important followed by court type and participants' (lawyer and client) goals. Case factors (characteristics and management) come next in importance and participant characteristics (client type and lawyer characteristics) come last.

[Table II-4-U here]

With respect to contingent fee lawyers, (remember this group includes flat fee lawyers as well), we have already indicated our theoretical reasons for believing that our model will not work the same way for these lawyers as for the hourly fee ones. And we have shown that the overall predictive power of the model for contingent fee lawyers is slightly lower than for the hourly fee type; as measured by the unweighted R^2. Turning back to Table II-4-T we see that the results of our cluster analysis are strikingly different for the contingent fee lawyer. Only two of our clusters are significant--case characteristics and events. Moreover, the R^2 change for events is very large, suggesting that this is the primary driving force in investment decisions by contingent and flat fee lawyers. The other clusters have no effect--not only are the R^2 change figures very low but, in addition, except for client type the probabilities associated with the F-statistics are so high that there can be little doubt about their lack of statistical significance.

Table II-4-U

Hourly Lawyers - Relative Effect of Variable Clusters

Variable Set	R^2 Change	df	R^2 Change df	Rank
Events	.1116	5	.0223	1
Court Type	.0179	1	.0179	2
Client Goals	.0300	2	.0150	3
Lawyer Goals	.0624	5	.0125	4
Case Characteristics	.0240	3	.0080	5
Case Management	.0429	6	.0072	6
Lawyer Characteristics	.0148	6	.0025	7
Client Type	.0005	1	.0005	8

One question this raises is whether our model of lawyer investment does not, in fact, hold for contingent fee lawyers. That model posited that lawyers' time investment was a function of a variety of types of variables, whereas here we find that very few of the variable clusters that we expected to influence time have a direct influence on lawyer behavior. Recall, however, we posited that the nonevent variables should have a combination of direct effects and indirect effects (through events) on lawyer effort. What we have found here is that very few of the variables have a direct effect; but what about indirect effects?

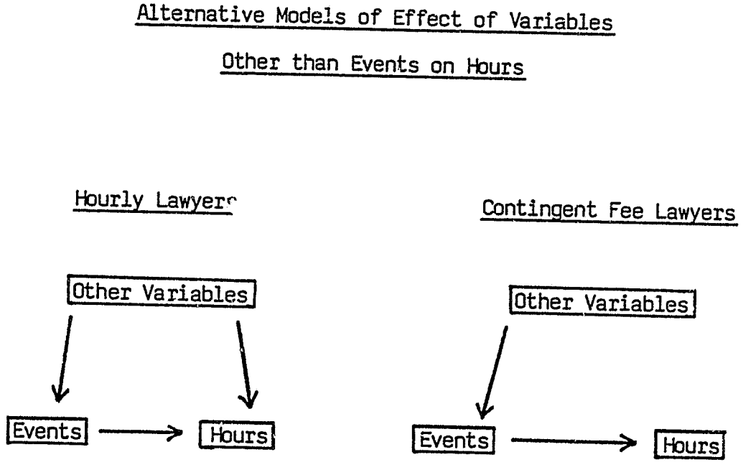
Note that in Table II-4-T we reported that for contingent fee lawyers, only case characteristics and events in the case showed a statistically significant correlation with hours (i.e., had substantial R^2 changes and p scores below .05). These findings could mean one of two things. They could signify that variables like lawyer goals, case management, etc., which do help explain variations in time investment by hourly lawyers, have no effect on the decisions of contingent fee lawyers. Alternatively, they could mean that these variables influence hours, but only through another variable in the equation (such as events). Our basic model for hourly lawyers predicted that our variable clusters were influencing hours in two ways--directly and also indirectly by their influence on the type and number of events in the case; the regression results for hourly lawyers set forth in Table II-4-T confirm this hypothesis. It could be the case, however, that for contingent fee lawyers the clusters do influence hours, but only indirectly via events. If that were the

case we would find no correlation between hours and these clusters, because the events coefficient would account for all of the variation in hours. These possibilities are shown in Figure II-4-C.

Figure II-4-C

Alternative Models of Effect of Variables

Other than Events on Hours



To test this hypothesis, we reran our regression leaving events out of the equation.

[Table II-4-V here]

Summary results of the regression analyses omitting events are shown in Table II-4-V. The results for contingent fee lawyers are clear. When the events variables are left out, three of the clusters which had not previously shown a relationship with hours--lawyer goals, case management, and court type--now show such a

relationship.[1] Based on the logic developed above, we would argue that these three sets of variables have an indirect influence on contingent fee lawyers' time, through events.[2] Note that only lawyer goals (and not client goals) influence lawyer effort in contingent fee cases. For hourly fee cases, of course, we found that both client and lawyer goals influenced lawyer time investment.

Conclusion. The model we specified has essentially three stages: nonevent variables, events, and hours. The nonevent variables were posited to have both direct effects and indirect effects (through their effects on events) on hours. This basic model holds up very nicely for hourly fee lawyers, but for contingent fee lawyers, we need to modify our statement of the model somewhat. The only sets of variables that directly influence their hours are events, case characterisitcs, and disputant type; the remaining variables, if they have any influence, affect hours only indirectly through events. We return to a more detailed analysis of the differences between hourly and contingent fee lawyers. But before we do that, we complete our discussion of the basic model by looking at each of the 29 variables that constitute it.

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1 For purposes of completeness, we show parallel results for hourly fee cases in Table II-4-V; note that, excluding events, all of the other variables except client type show an independent relationship with lawyer effort. This confirms our view that these variables have direct and indirect effects for hourly fee lawyers.

2 Note that the results for lawyer characteristics approach significance, suggesting that one or more of those variables might have an influence too.

Table II-4-V

Summary Regressions Excluding Events in the Case (B)

	Variable Cluster	Hourly F	Hourly p	Contingent Fee F	Contingent Fee p
A	Case Characteristics	13.09	.0001	33.84	.0001
	R^2 Change	.0610		.1845	
C	Client Type	0.81	.3684	4.03	.0456
	R^2 Change	.0013		.0073	
D	Lawyer Characteristics	3.51	.0022	1.95	.0730
	R^2 Change	.0328		.0213	
E	Client Goals	11.11	.0000	0.88	.4149
	R^2 Change	.0346		.0032	
F	Lawyer Goals	7.95	.0001	8.87	.0001
	R^2 Change	.0618		.0806	
G	Court Type	27.42	.0001	6.57	.0109
	R^2 Change	.0426		.0119	
H	Case Management	13.24	.0001	4.49	.0002
	R^2 Change	.1236		.0489	
N		401		318	

Analysis of Individual Variables

In this section, our concern is to describe and explain the effect (or lack of effect) that each of our 29 independent variables has on time investment. Because we already know that the patterns are very different, we discuss the hourly and contingent fee lawyers separately.

Hourly Lawyers. The individual regression coefficients are set forth in Table II-4-W.[1] This table reports the effect of each individual independent variable, taken alone, on the number of hours spent on a case. The table provides two items of information for each variable. The first item is the regression coefficient of the variable. Recall that these coefficients can be understood in terms of the amount of change in hours that is associated with a unit change in the corresponding predictor variable; in interpreting the specific coefficients, then, one must keep in mind the unit of measurement used for the corresponding variable. It is not possible to directly compare the coefficient for one variable to the coefficient for another variable unless the units of measurement used for the two variables are the same. The second item of information shown in the table is the "standard error" of each regression coefficient. This statistic is essentially an estimate of the accuracy of our estimate of the corresponding regression

[1] For simplicity, we only report the results corrected for heteroscedasticity here. A complete tabular presentation of the regression results, corrected and uncorrected, is set forth in Table II-4-FF in Technical Appendix IV.

coefficient. If you are interested in .05 probability estimates of significance, for example, you will want to know that for 95 samples out of 100, the true regression coefficient for the entire population from which our sample is drawn will lie within the interval formed by adding and subtracting almost twice (the exact multiple is 1.96) the standard error to and from our estimate of the regression coefficient.

From this it can be deduced that the variable in question has a statistically significant effect at the .05 level if the regression coefficient is greater than 1.96 times its standard error. (In order to save the reader the reader the effort of having to do these calculations, we have indicated in the tables that follow which coefficients fail to meet the appropriate criterion by enclosing the regression coefficients in parentheses.) In cases where we have a clear hypothesis required the direction of influence of the variable of interest, the multiple regarded for a .05 probability test of significance is somewhat smaller (about 1.65) than the 1.96 we have used. Where this becomes relevant, we include it in the text discussion of the particular variable's effect.

[Table II-4-W here]

(1) Complexity. Not surprisingly, an increase in the legal and factual complexity of the case, as estimated by the lawyer, increases the number of hours the hourly fee lawyer devotes to the case. Complexity, as the reader will recall, is measured on a five-point scale. The regression coefficient for complexity is 3.154 and the results are statistically significant--this means that

TABLE II-4-W

Individual Regression Coefficients

Complete Model

Factor	Cluster and Individual Variables	Hourly b	Hourly Standard Error	Contingent Fee b	Contingent Fee Standard Error
I CASE CHARACTERISTICS	A Case Characteristics				
	1 Stakes	.257	.051	.152	.086
	2 Complexity	3.143	1.464	9.942	3.680
	3 Duration	(.009)	.006	(-.014)	.011
II EVENTS IN THE CASE	B Events in the Case				
	4 Pleadings Factor	(-1.140)	1.975	9.706	5.021
	5 Motions Factor	18.008	2.503	37.281	6.206
	6 Discovery Factor	16.851	2.659	79.719	3.443
	7 Presence of Trial	(6.735)	5.905	(6.805)	11.956
	8 Presence of Settlement Discussion	(2.758)	6.000	(-.528)	11.967
III NATURE OF PARTICIPANTS	C Client Type				
	9 Individual/Organization	(-2.613)	4.030	-16.577	8.840
	D Lawyer Characteristics				
	10 Specialization	(2.817)	1.872	(1.130)	4.418
	11 Law School Performance	(3.021)	2.239	(-3.627)	5.421
	12 General Experience	(.024)	.187	(.008)	.388
	13 Courtroom Experience	(.005)	.063	(.009)	.139
	14 Personal Capacity	(-1.223)	2.463	(-2.552)	5.085
	15 Craftsmanship	5.489	2.438	(3.962)	4.551

Table II-4-W continued

Factor	Cluster and Individual Variables	Hourly b	Hourly Standard Error	Contingent Fee b	Contingent Fee Standard Error
IV PARTICIPANT GOALS	E Client Goals				
	16 Get Most/Pay Least	-17.649	4.487	(4.098)	7.488
	17 Get Fair/Pay Fair	-17.446	3.867	(-6.893)	8.708
	F Lawyer Goals				
	18 Challenge	(1.726)	1.981	(-3.262)	4.215
	19 Public Service	-11.689	2.438	(2.814)	4.991
	20 Professional Visibility	6.712	2.136	(-1.535)	5.356
	21 Make Money	(1.543)	2.806	(6.647)	5.017
	22 Service to Regular Client	(3.895)	3.525	(2.904)	9.482
V PROCESSING AND MANAGEMENT	G Court Type				
	23 State/Federal	13.240	3.537	(-4.161)	8.943
	H Case Management				
	24 Pretrial Events SOP	3.701	1.527	(2.662)	3.607
	25 Estimating Case Value SOP	(1.251)	1.675	(.672)	3.059
	26 Plan for Motions	(4.423)	4.415	(-14.695)	13.836
	27 Plan for Settlement	-8.938	3.850	(.485)	7.767
	28 Plan for Discovery	14.337	3.447	(-5.883)	7.252
	29 Client Control & Participation	(-3.543)	2.293	(-.725)	4.762

for each point increase on our scale, controlling for all other variables, the lawyer spends a little over three extra hours on the case. Thus, of two cases which have the same stakes, events, goals, participants and processing, the most complex will take 12 hours more than the least complex.

In order to see what this means in a relative sense, let us discuss an "average" case. This case represents the case with the mean number of hours (60 and a complexity level of 3).[1] Thus, in this hypothetical average case, the most complex case (60 plus 3.1 plus 3.1 or 66.2) involves an investment of 20% more time than would occur in the last complex case (60 - 3.1 - 3.1 or 53.8 hours) which, otherwise, was similar on all our variables. (Note that since the median number of hours is 30.4, using medians instead of means as the indicator of central tendency would have led to very different percentage results.)

(2) Stakes. The stakes in the case also has a significant effect on the number of hours invested by the hourly fee lawyers. The stakes coefficient in Table II-4-W is .2566, positive and statistically significant. What does this tell us about the relationship between stakes and hours? Recall that we have used the square root of the actual stakes in our analysis--to translate this coefficient into a specific stakes/hours relationship we need specific stakes values. Assume we want to know the change in the

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[1] The "average case used here was arrived at by assigning each value in our regression equation its mean value, multiplying that value by the regression coefficients obtained in our regression analysis of hourly lawyers (Table II-4-W) and summing the products.

number of hours that results from an increase in stakes from $10,000 to $20,000. To determine this, we take the difference between the square roots of these stake figures and multiply it by the coefficient. Thus, an increase in stakes from $10,000 to $20,000 will increase the amount of time on the case by: $.2566(20{,}000^{1/2}-10{,}000^{1/2}= .2566(141-100)= .2566(41)= 10.6$ hours. Similar computations can be done for all stakes increases, for each level of stakes. Table II-4-X shows the effect of stakes on hours. To read the table, start with the horizontal column ("From") and read down until you are horizontally across from the figure in the vertical ("To") stakes column to which you want to increase stakes. The number at the intersection shows the additional hours that will be invested by hourly fee lawyers for this increase in stakes. Thus, an increase from $1,000 to $2,000 in stakes leads to an increase of 3.4 hours, from $20,000 to $50,000 an increase of 21.1 hours, and from $90,000 to $100,000 an increase of 4.2 hours.

[Table II-4-X(1) here]

What is striking about these figures is how rapidly the number of hours invested per $1,000 of increase in stakes decreases as the stakes go up. An increase of stakes from $1,000 to $10,000 will lead the lawyer to spend an additional 17.5 hours--almost 2 hours per 1000 increase in stakes. On the other hand, an increase from $90,000 to $100,000 leads the lawyer to invest only 4.2 hours--less than half an hour per $1,000 of stakes. Figure II-4-D shows this decline in additional time investment very clearly. To read Figure II-4-D, start with any level of stakes. The point above this line

Table II-4-X(1)

Effect of Stakes on Hours[a]

Hourly Lawyers

Stakes	From: $1,000	$2,000	$5,000	$10,000	$20,000	$50,000	$75,000	$90,000
To:								
$1,000								
$2,000	3.4							
$5,000	10.0	6.7						
$10,000	17.5	14.2	7.5					
$20,000	28.2	24.8	18.1	10.6				
$50,000	49.3	45.9	39.2	31.7	21.1			
$75,000	62.2	58.8	52.1	44.6	34.0	12.9		
$90,000	68.0	65.5	58.8	51.3	40.7	19.6	6.7	
$100,000	73.0	69.7	63.0	55.5	44.9	23.8	10.9	4.2

[a] $.2566(TO^{1/2} - FROM^{1/2})$

on the curve shows the additional hours (measured on the vertical scale) invested for a $1,000 increment of stakes to the stakes level you are reading. The marginal hours invested per $1,000 in stakes starts high and drops rapidly to slightly over 1 hour at the point of an increase from $9,000 to $10,000. An increase in stakes from $99,000 to $100,000 leads to less than 1/2 hour in additional time investment. This figure and Table II-4-X(1) suggest that lawyers perceive that the marginal utility of time investment declines as investment goes up. Since time investment does go up with stakes, this means that as stakes increase the expected return from each incremental hour of time goes down.

[Figure II-4-D here]

(3) Duration. The duration of the case had no independent effect on hours. The coefficient is positive but very low and not significant. If we were to ignore the lack of significance,[1] we could argue that these findings confirm our initial view that the length of time a case lasts, of itself, increases the time hourly lawyers spend and thus affects litigant costs. But the effect is very weak in any case, and the impact slight: An increase of 111 days in duration adds only 1 hour to a case.

The regression, thus, suggests that the duration of cases does not, by itself, raise costs much, if at all. Of course, that finding does not mean that duration may not have an indirect effect, via

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[1] A plausible strategy, since duration is the one variable that was statistically significant in the uncorrected regression but turned out not to be significant in the corrected regression.

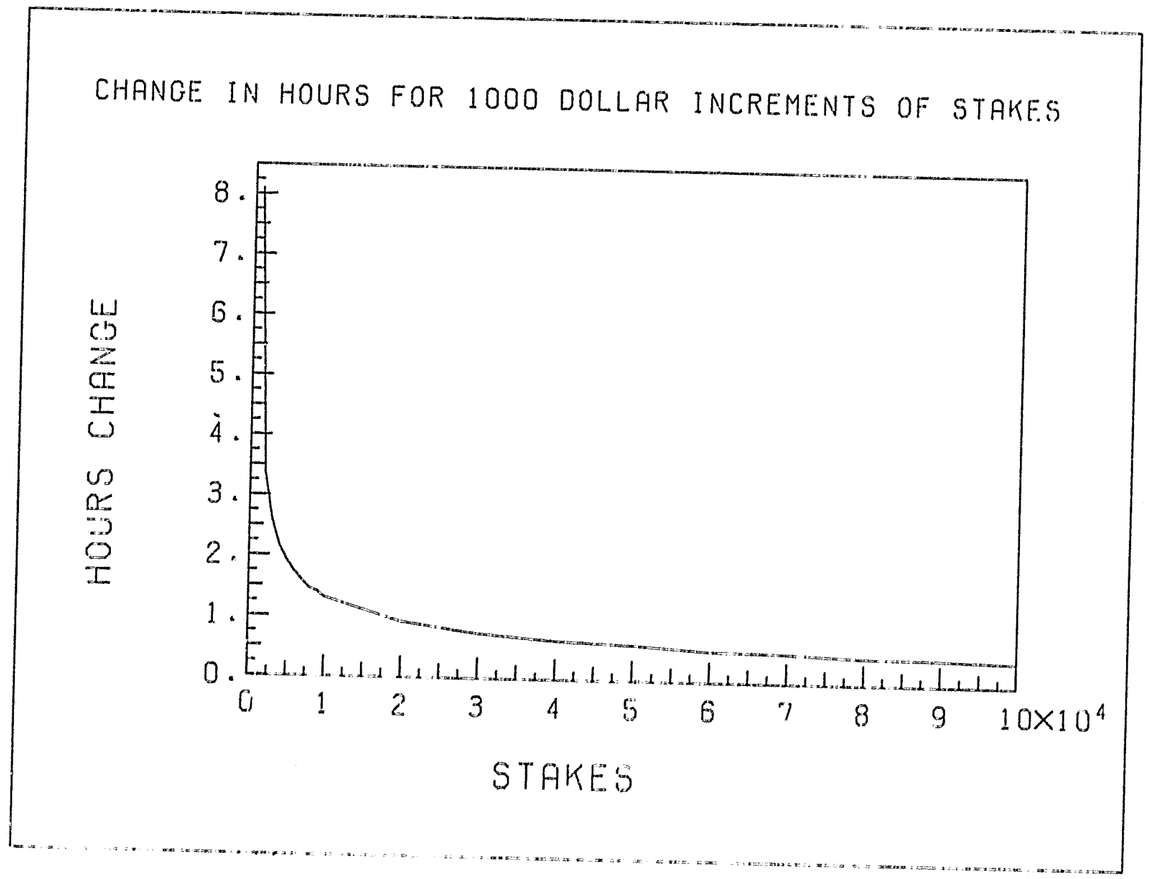
CHANGE IN HOURS FOR 1000 DOLLAR INCREMENTS OF STAKES
HOURS CHANGE
8.
7.
6.
5.
4.
3.
2.
1.
0.
0 1 2 3 4 5 6 7 8 9 10X10⁴
STAKES

Figure II-4-D

events, on hours. Moreover, there are costs other than increased legal fees, involved in the longer case.

(4), (5), (6) - Pretrial Event Factors. These three variables are best discussed together. Interpreting the specific meaning for the three pretrial events variables together presents somewhat of a problem because they are composite variables that have been standardized to have a mean of 0 and a standard deviation of 1, and the composite is computed from variables that have themselves been standardized. Nonetheless, it is clear from the analysis that it is motions (and related briefs) plus discovery that affect lawyer time in pretrial.

For motions and discovery, a shift of about .055 to .058 on the scale of the composite corresponds to an increase in one hour of lawyer's time. A crude estimate based on the standard deviations of the original variables suggests that the typical discovery event consumed about 2 hours of lawyer time, the typical motion involved about 12 hours, and the typical brief about 14 hours.[1]

[1] These numbers were arrived at by multiplying .055 times the appropriate composite weight ("factor score coefficient") times the original item's standard deviation, and then taking the inverse. For briefs, the resulting figure was then doubled because the events variable does not distinguish sides (i.e., we count briefs for both sides).

Pleadings show no statistically significant effect. This does not mean that lawyers spent no time on pleadings;[1] rather, it tells us that variations in pleadings do not make a difference in hours.

(7) Presence of Trial. Given all the talk about the high cost of trials, we had expected that the presence of a trial would increase significantly the number of hours lawyers spend. The data, however, do not confirm this expectation. Indeed, the trial coefficient is not nearly statistically significant at the .05 level. But even if we retain the trial effect, since the coefficient is at least in the expected direction, we see that the presence of a trial adds only 6.7 hours to a case: if we apply this to our average case, it means that going to trial for our hourly lawyers involves spending an additional 11% of their time on the case. This finding confirms the overall picture that emerges again and again from our data, that civil litigation tends to be a rather cut and dried, routine, simple matter and even the relatively rare case that gets to trial is far from a clash of titans or even a dance of Dickensian nitpickers.

(8) Presence of Settlement Discussion. We had thought that settlement discussions would lead to quicker termination and thus to fewer hours. Our data say that this variable is not associated with fewer hours: if anything, it has the opposite result. What we wanted to measure was a "willingness" or "orientation" to settle, of which "discussion" may be a poor indicator. Indeed, we found that

[1] The number of pleadings events in a case ranged from 1 to 22. Fifty-five percent of cases had 1 or 2 pleadings events and 92% had 7 or fewer.

settlement discussions are very common: 78% of the attorneys reported having such discussions. This led us to suspect that "discussions" go on even when the parties have no real interest in settling. This suspicion is confirmed by the impact we found for Variable 27-Plan for Settlement discussed below. Since this variable significantly reduces hours, it is probably tapping the kind of settlement-proneness we had hoped to but did not catch with variable 8-presence of settlement discussion.

(9) Client Type - Individual or Organization. For hourly lawyers, at least, the type of client does not seem to influence the amount of time spent.[1]

(10-15) Lawyer Characteristics. These six variables are best discussed together. The most striking thing is that only one (15-Craftsmanship) has any statistically significant effect on hours. The other five were introduced into the model to test notions we had about what might be called lawyer "productivity." Our hypothesis was that the more specialized, qualified, and experienced lawyers would be able to do a task more quickly and thus at lower cost than novice lawyers, those who had not worked very much in the particular field, etc. If this is true, it follows that, if all other aspects of a case were held constant, the variables which measure these lawyer characteristics (e.g., more

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1 As we suggested in our description of the variables, this particular variable is subject to substantial error, particularly for hourly lawyers, which may account for its lack of statistical significance.

specialization and courtroom experience) should reduce hours. Our first expectations were not confirmed: these variables have no significant effect on hours, one way or the other. One explanation of the data is that increased capacity cuts two ways, leading to more as well as less work. Another is that these was not enough variation in our sample to catch the effects that lawyer experience and specialization actually have on hours. On the one hand, most of the cases in our sample were small, rather routine, and involved a relatively small amount of "lawyering." On the other hand, most of the lawyers in our sample were relatively specialized and experienced. Thus, there may not be much room for the small differences in our lawyer characteristics variables to show up in reduction of hours in these small cases. To test this, we would have to look at a subsample of the larger cases to see if any of these variables reduce hours in those cases.

One cannot draw any direct policy conclusions from the lack of significance we found in this variable because we have only looked at the amount of time lawyers spent on cases. In our regression analysis, therefore, we did not assess, therefore, what "results" they achieved for clients, so we cannot say whether clients get a net return from differences in legal expertise. As we have noted, the fact that the more highly "qualified" lawyers spend the same amount of time as other lawyers on a case does not tell us whether they do the same things, or whether they invest their time in a way that, from the client's point of view, is more profitable. In chapter 5, we do set forth a preliminary analysis of "results" in

this sense--this analysis provides stronger evidence for the proposition that clients may not benefit from increased lawyer expertise.

This leads us to the last of the individual variables in the lawyer characteristics cluster--15-Craftsmanship. This variable is based on the lawyers' answers to a question asking if they are likely to spend more time working on a document in order to make marginal improvements in it. It is perhaps not surprising that the lawyers who say they would put in that extra time spend more time on their cases, everything being equal, than other attorneys. But it is surprising that the effect is so substantial. Since this variable is coded on a three-point scale, and there is an increase of 5.5 hours for each increase on the scale, the lawyers who told us they would be most likely to put in extra time spent 11 hours more than the lawyers at the other end of the scale. This means that in "average" 60-hour case, craftsmanship adds almost 20% to the hours billed to the client. Whether the client secures a commensurate return we cannot say: it is interesting to note, however, that this variable does not affect the number of hours the contingent fee lawyers, who work "for themselves" as it were, put into a case.

(16-17) Client goals. These variables were taken from a question asking attorneys to indicate what they thought their client's goals were. We report two variables: 16-Get Most/Pay least, which is supposed to tap an interest in securing the maximum "return" in money terms; and 17-Get Fair/Pay Fair, which was supposed to tap a less rigidly a profit maximizing approach. These

variables both have negative coefficients of over 17, indicating that when they are present lawyers invest 17 fewer hours. It is clear that these variables are not measuring the differences in client attitudes that we had originally sought to tap with this question, since they have almost identical effects. But what do these findings mean? The explanation probably lies along the following lines. Although we report only two of the client goals cluster, it really has three dichotomous variables--the two we report, which tap goals involving money only, and a third which measures the presence of other goals. In 20% of our cases, the lawyers reported that there was some other goal not exclusively involving money. The two coefficients we report, therefore, can be interpreted as saying that those lawyers who thought their clients only sought money put in 17 fewer hours on a case than those whose client's principal goal was to get something other than or in addition to the money being sought--quite a large difference, given the average time spent on the cases in our sample.

(18-22) Lawyer goals. We used five variables to measure lawyer goals--two of these, 19-Public Service and 20-Professional Visibility--show strong, statistically significant but opposite effects on hours. Three, 18-Challenge, 21-Make Money, and 22-Service to Regular Client do not have an impact.

Looking at these variables as a group, we reached several tentative conclusions about the role of lawyer goals in the time investment process. First, it seems clear that hourly lawyers have substantial discretion in determining the number of hours they spend

on a case and that they use this discretion to pursue their own goals, even if these may not be the same as those of their clients (see Johnson 1980-81, Rosenthal, 1974). The reasoning behind this conclusion is as follows. If the primary goal lawyers have in taking a case is to make money or serve a regular client, then lawyer goals have no independent effect on hours. But if the lawyer's motive in taking the case involves a strong desire for professional advancement the hourly fee lawyer will spend significantly more time on the case, which, presumably, the client is paying for, than the other factors in the case would lead us to expect. On the other hand, if the lawyer takes the case with "public service" (which includes "sympathy for the client") in mind, the lawyer will spend significantly less time than the other factors in the case would lead us to expect.

We stress that these conclusion are tentative. To verify them, we must look more closely at the kinds of cases, clients and attorneys that fall in the three classes of lawyer goals we have discussed and at the billing practices followed in these cases. We should note further that the lawyer who said that they took the case for its challenge did not seem to put more time in on these cases.

Court Type. The "court type" variable produced one of the most surprising results for hourly fee lawyers. The coefficients of 13.240 indicates that after we control for all the other variables in the model hourly fee lawyers spend about 13 hours more on a case if it is being litigated in federal court than if that case is being litigated in a state court. If we think in terms of the typical

case, this differential is quite substantial. If we set all variables (other than court type) to their mean values, we would expect a case in a state court to require 46.9 lawyer hours versus 60.2 hours in federal court; this is a 28.2% differential (using the state court as the baseline).

There are several possible explanations. One is that the observed difference does not reflect any real differences in the way cases are handled in the state and federal courts but is instead a statistical artifact arising from the way our analysis was performed. It may be that we have structured the model in such a way that important differences between state and federal cases are ignored; or it may be that our model omits some important variable(s) that might otherwise account for the difference between state or federal cases.

We know, for example, that federal cases involve substantially higher stakes. If we are wrong in assuming that "big" and "little" cases are enough alike to be appropriately examined together in a single regression analysis, the federal-state difference will be reflecting the differing level of stakes in the two groups of court cases, and will disappear when the two groups are analyzed separately. To test this explanation, we repeated our regression analysis separately for "larger" and "smaller" cases, dividing them more or less arbitrarily at the $10,000 level. This modification did not account for the state-federal difference. For cases under $10,000 the federal-state difference produces a significant coefficient of 14.06; for larger cases the difference produces a

significant coefficient of 24.67 (23.9 if we throw out "very big" cases, i.e., cases involving more than $100,000). The fact that the coefficient for larger cases is substantially greater than that for smaller cases probably indicates that some of the other variables have less effect on big cases than on little ones. These results suggest two things. First, the court effect is more than a simple reflection of the typically bigger cases found in the federal courts. Second, the bigger the case, the greater the difference between state and federal courts.

With respect to the possibility that we may have omitted some important differentiating variable, one obvious candidate is area of law. We omitted area of law because our data led us to believe that the specific substantive area has no effect over and above its indirect effect through the other variables in our model. The indication that an important variable might have been omitted makes it worthwhile to explore whether area of law might account for the federal-state difference, particularly since we know that the percentage of state cases in our sample involving torts and contracts are 52.4 and 38.1, respectively, compared to 30.0 and 49.4 percent for federal cases. Ideally this comparison would be done by computing separate regression coefficients for various areas of law and determining whether or not the federal-state difference holds up. There are enough cases to do this for only two areas of law: torts and contracts (we should note that these are not mutually exclusive categories since a single case can present both contract and tort issues). When we do obtain separate coefficients for tort

and contract defendants' lawyers,[1] we find insignificant federal-state coefficients of 9.75 (standard error 6.24, N =104) for cases raising a tort issue, and 10.21 (standard error 8.51, N = 69) for cases raising a contract issue. That these coefficients are not statistically significant may largely reflect the very small sample sizes. However, the coefficients are sufficiently similar to the original coefficients to make it unlikely that area of law accounts for the whole difference between the amount of lawyer time devoted to state versus federal cases. Let us, therefore, turn to possible explanations for the court effect that are substantive rather than methodological.

The increased amount of lawyer time in federal litigation might be the result of more systematically demanding procedures or judges, or of other structural factors that generally differentiate federal from state litigation. We know that federal cases are characterized by a greater number of events. But we have already controlled for these events and for differences in complexity (as measured by the lawyers' subjective judgements) in our regression model. Another possibility is that the court effect is a direct consequence of the Federal Rules of Civil Procedure (FRCP). Is there something about the FRCP that results in lawyers who are litigating cases under them spending more time than on cases litigated under other rules. Some of the states in our sample employ procedural rules modeled after

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1 Time and budget constraints have so far restricted us to defendants' lawyers in our tort/contract analysis.

the FRCP (e.g., Wisconsin), while others use rules that bear little resemblence to them (e.g., Pennsylvania). If a simple "rules effect" accounts for our observed federal-state difference, then there should be little or no difference between the amount of time required in a FRCP state case and the time required in federal cases (controlling for the other variables in our model). We examined this explanation by including separate dichotomous variables for state cases from each of our five districts; coefficients were obtained for larger (including and excluding "very" big cases), and smaller cases. The results are shown in Table II-4-X(2). The negative coefficients in the Table show how much less time a case takes in the state courts in each of five districts as compared to all federal cases. As the Table shows, the "rules effect" explanation for the court effect fails. Wisconsin, a state which has rules very similar to the Federal rules, has coefficients for the various subsets of cases that are very similar to the original gap between state and federal cases. In smaller cases (under $10,000) Pennsylvania (a non-FRCP type state) was closest and New Mexico (an FRCP-type state) furthest away, while in larger cases (over $10,000) Pennsylvania was furthest away and New Mexico was closest. When we look at all cases regardless of size, South Carolina (a non-FRCP type state) is closest to the federal court cases in hours expended.

This breakdown, however, does suggest another consideration. South Carolina was our least urban location. It contained the smallest (and probably the least differentiated) bar; it may be that

the similarity between state cases in South Carolina and federal cases reflects a single bar practicing in both types of courts. The larger differences observed in the other sites may reflect differences in the lawyers who practice in the state and federal courts.

Table II-4-X(2)

Comparison of Federal Courts with Individual State Courts
(Controlling for Size of Case)

	Wisc	Penn	S. Car	New Mexico	Calif
Cases Over $10,000	-15.48	-57.63	-24.87	-6.48	-30.29
Cases Under $10,000	-15.42	-9.55	-9.83	-20.56	-15.26
Cases between $10,000 and $100,000	-17.08	-51.46	-26.26	-.72	-30.76
All Cases	-13.41	-9.19	-8.25	-21.49	-14.90

Even though we cannot explain the court effect by difference in the formal rules of procedures in the state and federal courts, however, it may be that the standards of practice in the two kinds of courts differ significantly in ways that cannot be accounted for by the rules themselves. The court effect may reflect differences in the way litigation is done in the federal and state courts. Such differences in practice may result from expectations or demands of the judiciary, or may arise from within the lawyers themselves (i.e., lawyers involved in a federal case may think of the federal court as the "big time" and take care to be better prepared as they handle a federal case than they would be if handling the same case

in a state court). We have some anecdotal evidence to support this interpretation. Our field coding staff reported that many of the federal courts required briefs (or, alternatively in New Mexico, a statement that a brief was not to be filed); furthermore, the field staff found that, as noted, cases in the federal courts tended to be more complex, involving more extensive pleadings and motions. A coder in Los Angeles put it this way: Reading a federal court file was like reading a story; there was a discernible "plot" and a conclusion. Reading a state court case, in contrast, was like reading a recipe. It is difficult to generalize from anecdotal evidenc such as this; we know that the state court in Los Angeles is notoriously slow, for example, while the federal court there has a reputation for active judicial monitoring of its cases. But can we detect any systematic differences across our research sites?

While our data do not permit us to explore all the areas of practice that might account for the difference in lawyer time, there are two specific areas we hope to examine in the future: the practice of briefing motions, and the use of pretrial conferences. Our hypothesis is the judicial expectation that motions accompanied by written briefs will tend to be indicative of a higher level of preparation. Likewise, we view the early use of pretrial conferences as a potential indicator of greater judicial attention and involvement with cases which, in turn, will lead to higher levels of preparation (which can only come with a greater expenditure of time). We hope to look at both of these questions through our court records information.

We have also considered whether there was any structure of incentives over and above the specific requirements of court rules and judge demands that might lead lawyers to put more effort into a federal than a state case, such as differing informal reward and incentive structures for federal and state court lawyers. For example, if federal litigation is more visible, and if it is perceived by the profession, the public, or clients as more important or more demanding than state court litigation, lawyers would have stronger incentives to invest more time in federal court cases (and they would feel justified in doing so). Federal courts, in this explanation, is the "big time," and lawyers might be expected to invest more effort in winning in the main arena. This explanation is similar to our professional visibility variable, which shows that lawyers (say they) work harder on cases which might enhance their professional standing. Informal conversations with lawyers who practice in the federal courts provide some support for this argument, but other federal court lawyers attribute the difference to the explicit standards of practice rather than to any informal norms of this kind.

One last explanation for the court effect concerns differences between the state and federal bars. As noted earlier, when we observed that a small overall difference was found in the district that had the least differentiated bar, we thought there might be some significant differences in the state and federal bars in the larger urban areas, and these differences might lead to an increased level of effort among federal court lawyers. Pursuing this line of

reasoning we examined lawyers' median years in practice, median percentage of time in court, income, number of years of practice, size of firm, specialization in field of case, percent of time spent on litigation, self-ranking of their expertise in the field. Of these, only size of firm varied substantially between state and federal lawyers. Eighty percent of the federal court lawyers and 75 percent of the state lawyers belonged to a law firm. However, 77 percent of the state lawyers were in firms of less than 10 lawyers, compared to only 58 percent of the federal lawyers, and nearly 25 percent of the federal lawyers were in large firms of 20 or more lawyers, compared with just 8 percent of the state lawyers. This is certainly consistent with the explanation advanced above, but it is not so clear cut as to permit us to advance it more than tentatively.

(24-25) SOPs. Our expectations were that if lawyers had standard operating procedures (SOPs) their use in a case would reduce hours. We found, however, that 24-Pretrial Events SOP increased hours, while 25-Estimating Case Value SOP had no effect. One explanation for the positive effect of the pretrial SOP variable may be that these procedures are used in cases in which the pretrial events consume more than an average amount of time because, relative to our whole sample, the cases present more complex issues of fact and law. Recall that our events variable only measures the number and type of event (so many depositions, so many interrogatories), not the "intensity" of the event. The SOP variable may be picking up an intermediate type of case, one in which there are enough issues to warrant investment in standardization but not so many that

the case requires "hand-tailoring." If this is true, substantial further analysis would be needed to test the "productivity" thesis that lay behind the inclusion of this variable.

(26, 27, 28) Planning. The theory behind the planning variables was similar to that employed to generate the SOP indicators. We reasoned that lawyers who planned their litigation activities would spend less time than those who approached things in a more ad hoc manner. Once again, our expectations were not confirmed. One of our planning variables (26-Plan for Motions) has no statistically significant effect, while another (28-Plan for Discovery) is associated with a 14-hour--and thus very substantial--increase in hours. The only variable in this set which performed as expected is 27-Plan for Settlement--lawyers who report they had such a plan spent 9 hours less on a case.

How are we to explain this pattern of results? Once again, our tentative conclusion is that the variables are measuring something rather different from what we had expected. The negative correlation for settlement plans and the positive one for discovery plans are both statistically significant and the effects are strong. Let us look at these two variables more closely.

Variable 27-Plan for Settlement predicts an investment of 9 less hours or 15% in the "average" case. What may be going on here is that the settlement plan variable is measuring some kind of propensity to settle which leads to easier settlements than other cases in the sample. Given the interest in facilitating settlement in civil cases, this interpretation--that there is a subset of cases

in which lawyers (and presumably clients) are more prepared to settle than in others--is important. Without further analysis, of course, we cannot confirm this interpretation of the data or indicate what factors correlate with this "settlement orientation," if indeed that is what we have identified.

Variable 28-Plan for Discovery predicts a 14.2-hour increase in time invested by hourly lawyers, or over 23% in the average case. As we have indicated, we think what is occurring is that the lawyers who reported a "plan" for discovery are involved in those cases where discovery events are more time-consuming and complex than average. We know that the actual time spent on the average discovery event varies substantially.[1] This suggests that our "plan" variable may actually be picking up that element of "discovery intensity," which is not caught by Variable 6-Discovery Factor.

(29) Client Control and Participation. Once again, we are confronted with an unexpected finding. We had reasoned that in the case of the hourly lawyer, increased client control and participation would reduce the hours lawyers spend. While the direction of the coefficient is as we anticipated, the coefficient is not statistically significant. If this result can be interpreted

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[1] When we looked specifically at cases with at least one discovery event, we found lawyers reported spending 20 minutes per discovery event in the median case where there was no plan for discovery and over 2 hours in the median case where there was a plan. (This figure was calculated by multiplying the percentage of time lawyers reported spending on discovery by the total number of hours spent on the case and dividing by the number of discovery events.)

as a finding that client control does not make much of a difference, it would call into question a number of ideas about the ways clients can effectively limit their litigation costs.

Contingent Fee Lawyers. To simplify the task of comparing hourly and contingent fee lawyers, we constructed a summary of the important differences (see Table II-4-Y). These include: (i) the number of variables that are significant, (ii) the coefficients for variables that are significant for both types of lawyers. As we can see, many more variables in the model are significant for hourly lawyers than for contingent fee lawyers. Thirteen of the variables in the model have significant coefficients for hourly lawyers, only six for contingent fee lawyers. Four variables have significant coefficients for both--stakes, complexity, motions, and discovery. The size of the coefficients (strength of effect), however, varies widely between the two groups. Thus, stakes has less of an effect on hours for contingent fee lawyers; complexity, motions, and discovery have more. Pleadings and client type have a significant effect for contingent fee lawyers but not for hourly. (The client type variable means that contingent fee lawyers spend 16 hours more on a case for an organizational client than for an individual.)

[Table II-4-Y here]

It is clear that the hourly and contingent fee lawyers respond to different incentives and their investment decisions are influenced by different variables. But what might explain the nature and degree of the differences we observed? Since the question is a complex one, we take it up in detail in the next section.

Table II-4-Y

Hourly and Contingent Fee Lawyers - Comparison of Significant Variables and Coefficients

Variable	Coefficient (If Significant) Hourly	Contingent Fee
1. Stakes	.257	.152
2. Complexity	3.154	9.942
4. Pleadings	N.S.	9.706
5. Motions	18.008	37.281
6. Discovery	16.851	79.719
9. Client Type	N.S.	-16.577
15. Craftsmanship	5.489	N.S.
16. Get Most/Pay Least	-17.649	N.S.
17. Get Fair/Pay Fair	-17.446	N.S.
19. Public Service	-11.689	N.S.
20. Professional Visibility	6.712	N.S.
23. Court Type	13.240	N.S.
24. Pretrial Events SOP	3.701	N.S.
25. Plan for Settlement	-8.938	N.S.
26. Plan for Discovery	14.227	N.S.

N.S. - coefficient not statistically significant at the .05 level.

Assessing the Difference Between Hourly and Contingent Fee Lawyers

We think the different patterns of hourly and contingent fee lawyer behavior constitute one of the most interesting of our findings; this section discusses those differences in detail. Before we get into substantive findings, however, we present a methodological confirmation that fee type differences do indeed lead to different investment patterns. (The nontechnical reader may skip this section without loss of continuity.)

The Overall Differences - A Technical Digression. In the previous sections we presented a substantial amount of detailed information suggesting that our model works differently for hourly than for contingent fee lawyers. It is possible to carry out a formal test of this argument using regression analysis. The basic hypothesis we want to test is that the set of regression coefficients that we obtained for contingent fee lawyers differs significantly from the set that we obtained for hourly fee lawyers.

A fairly straightforward technique for carrying out this kind of comparison (see Specht and Warrent, 1976) involves adding to the regression equation a set of terms that correspond to the hypothesized differences between the regression coefficients. In effect, for each variable in the equation, two regression weights are permitted, one coefficient for the first group (it does not matter which) plus a coefficient that represents the deviation of the second group's regression coefficient from the first group's coefficient. If an equation involved only one predictor variable,

this modified model would look like:

$$Y = A + BX = B'X'$$

where Y, A, B, and X are defined as for equation (9), B' is equal to the difference between regression coefficients for the two groups, and X' is equal to the original variable for the first group and 0 for the second. The model as written presumes that the constant term for the two groups is equal; this can easily be relaxed by adding to the model a term A' which is equal to the difference between the constant terms for the first group, and is equal to zero for the second group. The formal test of the difference of the regression coefficients for the two groups is a test of the hypothesis that the additional terms in the regression equation significantly improve the R^2. This test is based on the idea that, if the coefficients are in fact different, allowing for the differences in the regression equation will significantly increase the accuracy of the prediction of the equation over and above the equation that does not allow for the difference between groups.

The results of this test are shown in Table II-4-Z, both corrected and uncorrected for heteroscedasticity. The results are clearcut: regardless of whether we correct the data for heteroscedasticity, we find clear evidence, based on the F-statistics and their associated probability levels, of the difference between the regression coefficients for hourly lawyers and for contingent lawyers.

Table II-4-Z

Global Test of the Difference Between Hourly Fee and Contingent Fee Lawyers

	Corrected for Heteroscedasticity	Not Corrected for Heteroscedasticity
(a) Test of Interaction		
F	13.45	1.84
p	.0001	.0044
df	30/659	30/662
(b) Test of Equation without Interaction		
F	45.50	11.68
p	<.0001	<.0001
df	29/689	29/689
(c) Test of Complete Equation with Interaction		
F	41.32	6.88
p	<.0001	<.0001
df	59/659	59/659

Prior Theoretical Discussion of the Effect of Fee Arrangement.

Most of the prior work uses economic analysis to investigate the behavioral effects of fee arrangement differences. For our purposes, the most important conclusion to be derived from this analysis is that fee arrangement should have a direct effect on hours. That is, if we imagine two lawyers handling identical cases, the one paid on a contingent fee will, according to the theory, spend fewer hours than the lawyer paid on an hourly basis.

This conclusion can be derived from Rosenthal's (1974) analysis of the conflicting motives of contingent fee lawyers and their clients. Rosenthal argues that lawyers paid on a contingent fee basis are, in essence, working for themselves. For this reason they

CONTINUED

2 OF 3

have interests that differ substantially from the interests of their clients. Maximization of benefits for the lawyer and the client occurs, so the argument goes, at different points in the development of any case. While the contingent fee lawyer (assuming a full agenda of cases) seeks a settlement early enough to produce a high return per hour of time invested, the client is typically concerned with the highest possible total recovery.

Rosenthal argues that the greatest benefit to the lawyer tends to come early when relatively little effort has been devoted to the case. The calculation goes something like the following: after 10 hours' work, the lawyer may be able to get a settlement for $3,000 receiving 33% or $1,000; this would give the lawyer a return of $100 per hour of effort. An additional 10 hours of work might raise the recovery to $4,500, with $1,500 going to the lawyer. But the return is only $75 per hour. Spending another 20 hours might raise the recovery another $1,500 to $6,000 (with $2,000 going to the lawyer), but now the lawyer is only making $50 per hour. Actually taking the case to trial could then raise the return to $10,000 but might take another week of the lawyer's time (a total of 80 hours would be invested in the case); even if the lawyer now demanded 40%, the hourly return would still be only $50 ($4,000 for 80 hours' work).

The client, in contrast, does not care about the lawyer's hourly return, but is only interested in the net amount recovered. Table II-4-AA shows the return the client would receive from the example used above. As the table shows, it is in the client's interest for the case to go to trial; in fact, the client's return goes up as the

lawyer's hourly return goes down. Although this example obviously oversimplifies, the basic point is still valid: the incentives for the contingent fee lawyer to reduce the amount of time spent on a case.

While Rosenthal's analysis does not predict directly that fee arrangements will affect hours, such a conclusion is implicit in the model he develops. In a more comprehensive theoretical analysis of the implications of fee arrangements, Johnson (1980-81) develops a comparative analysis of fee types and predicts that contingent fee lawyers will spend less time on cases than those paid on an hourly basis. Johnson starts from the baseline of what he calls the "alter ego" lawyer. This is simply a lawyer who does what is in the best overall interest of the client (both legally and economically) without regard for his/her own economic interest. The decision

Table II-4-AA

The Economics of Contingent Fees

Hours of Lawyer Effort	Gross Recovery	Lawyer's Contingent	Net Recovery To Client	Lawyer's Total Fee	Lawyer's Hourly Fee
10	$ 3,000	33 1/3%	$2,000	$1,000	$100
20	$ 4,500	33 1/3%	$3,000	$2,500	$ 75
40	$ 6,000	33 1/3%	$4,000	$2,000	$ 50
80 (trial)	$10,000	40%	$6,000	$4,000	$ 50

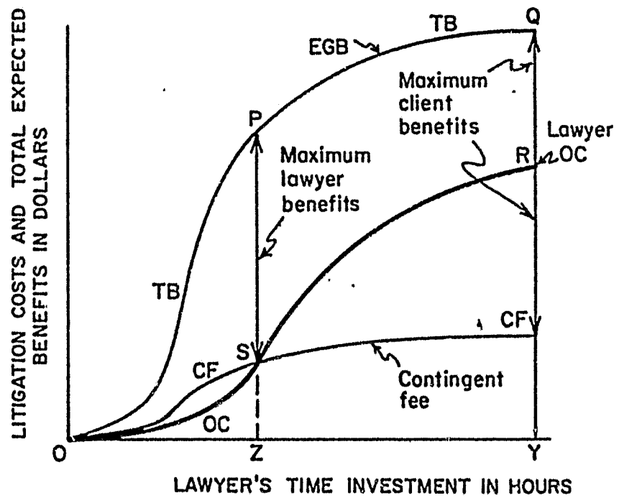
criterion of the alter ego lawyer regarding the amount of time to devote to a case is to work on the case until the net benefit of the client is maximized.

However, most lawyers will not be on the baseline, because the economic incentives for lawyers typically are not consistent with the goal of the maximum benefit for the client. We have already made an argument for why this is true for contingent fee lawyers; that basic argument is portrayed graphically in Figure II-4-E. The line labeled TB shows the total recovery, and the line labeled CF shows the contingent fee; we must add another line showing the "opportunity cost" (OC) of the lawyer's time, assuming that the time were to be devoted to the most lucrative alternative activity. The contingent fee lawyer's best return from the case comes when the opportunity cost line crosses the contingent fee line; as Figure II-4-E shows, this occurs well before the client's maximum benefit point is reached.

For the hourly fee lawyer, in contrast, the economics of practice encourage spending more time on any case than is necessary to achieve the maximum benefits for the client. The basis for this argument is simply that the more time the lawyer can bill, the more money the lawyer makes. Johnson argues that even when you take into account market forces, firm capacity, client relations, and the like, there is a strong incentive for the hourly lawyer to "overinvest" compared to the benchmark of the alter ego lawyer. Since the contingent fee lawyer on this analysis will "underinvest" compared to the same benchmark, Johnson's analysis amounts to

Figure II-4-E

Contingent-Fee Lawyers: Comparing Client and Lawyer Benefits[a]



[a] From Johnson (1980-81: 587)

predicting that in the same case the hourly fee lawyer will spend more time. Thus, Johnson hypothesizes that, everything else being equal, contingent fee lawyers will spend less time on cases than will hourly lawyers. Our task is to test this hypothesis.[1]

Are We Measuring a Fee Type or a Plaintiff-Defendant Effect?. Before we turn to evaluation of the hypothesis concerning the effect of fee arrangements per se on hours, we need to deal with a subsidiary issue. Most of our contingent fee lawyers represented plaintiffs. In contrast, more of our hourly lawyers represented defendants than plaintiffs.[2] Therefore, it is possible that the "hourly/contingent fee" differences we have been reporting are really plaintiff-defendant differences. To test whether this is the case, we examined a set of cases for which we have adequate information about hourly contingent fee lawyers on the same side of the case.

Table II-4-BB sets forth the comparative analysis with respect to plaintiffs; we do not present a similar comparison for defendants because there are not enough cases of defendants represented by contingent fee lawyers to permit statistical analysis (only 10

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[1] As noted, we group flat fee lawyers with contingent fee lawyers because we have too few flat fee lawyers to make an adequate sample for analysis. Logic supports this grouping because the basic incentive for flat fee lawyers should be much the same as for contingent fee lawyers: They should try to spend as little time in the case as possible since, once a flat fee has been agreed upon, that fee will be billed regardless of the amount of time actually worked.

[2] To be precise, 27.2% of hourly fee lawyers in our sample represented plaintiffs compared to 82.1% of contingent fee lawyers.

lawyers in the contingent fee group were representing defendants). The analysis includes 123 hourly fee lawyers and 302 contingent fee lawyers. Not surprisingly, since most of the contingent fee lawyers represent plaintiffs, the contingent fee plaintiff regression is virtually identical to the overall contingent fee regression. Likewise, it is not surprising (since most of the hourly fee lawyers do not represent plaintiffs) that the regression analysis for the subset of hourly lawyers representing plaintiffs differs in substantial ways from the overal regression analysis for hourly fee lawyers. These changes should not be overinterpreted, however, because many of them are likely to reflect the much smaller number of cases in this analysis.

What is more important is that many of the differences between hourly and contingent fee lawyers remain. We find, for instance, coefficients for client goals for the hourly fee lawyers that are much higher than for the contingent fee lawyers, which is exactly what we found when we compared all hourly all contingent fee cases. We find comparable differences when we look at the pretrial events variables; the influence of pretrial events is much smaller for hourly lawyers than for contingent fee lawyers, as before.

Before we can be confident of our findings, however, we must test for the possibility that the type of cases in the hourly fee plaintiff subset is very different from the contingent fee subset, and that this difference may be the reason for our results. One simple indication of the problem is the difference in the median stakes for the two sets of cases: $14,300 for hourly fee cases

Table II-4-BB

Comparing Plaintiffs by Fee Type

	Hourly Cases		Contingent Fee Cases	
	b	std. error	b	std. error
A Case Characteristics				
1 Stakes	.273	.084	.152	.091
2 Complexity	17.905	4.494	9.958	3.915
3 Duration	(-.013)	.016	(-.014)	.011
B Events in the Case				
4 Pleadings Factor	(.588)	3.237	10.588	5.514
5 Motions Factor	17.982	5.741	37.417	6.427
6 Discovery Factor	23.519	7.218	79.140	3.609
7 Presence of Trial	(-45.034)	23.113	(7.511)	12.162
8 Presence of Settlement Discussion	(-5.163)	17.053	(-1.237)	13.124
C Client Type				
9 Individual/Organization	(-10.677)	9.032	-19.475	9.563
D Lawyer Characteristics				
10 Specialization	(5.595)	5.275	(.743)	4.793
11 Law School Performance	(-2.023)	4.804	(-3.254)	6.050
12 General Experience	(.168)	.485	(-.059)	.414
13 Courtroom Experience	(-.005)	.131	(.066)	.152
14 Personal Capacity	(-12.343)	7.501	(-2.939)	5.289
15 Craftsmanship	(9.329)	7.724	(4.167)	4.790
E Client Goals				
16 Get Most/Pay Least	-17.007	8.428	(4.313)	7.944
17 Get Fair/Pay Fair	-19.264	14.499	(-4.605)	9.689
F Lawyer Goals				
18 Challenge	(1.342)	6.190	(-4.996)	4.511
19 Public Service	(-4.266)	5.461	(5.138)	5.595
20 Professional Visibility	(2.567)	6.458	(-1.738)	5.766
21 Make Money	(5.972)	7.302	(7.718)	5.462
22 Service to Regular Client	(-16.314)	10.156	(6.804)	10.682

	Hourly Cases		Contingent Fee Cases	
	b	std. error	b	std. error
G Court Type				
23 State/Federal	(1.429)	9.917	(-4.480)	9.485
H Case Management				
24 Pretrial Events SOP	(-1.609)	3.927	(3.133)	3.931
25 Estimating Case Value SOP	(-1.895)	4.127	(1.380)	3.381
26 Plan for Motions	(2.724)	12.663	(-17.740)	14.691
27 Plan for Settlement	(21.271)	15.594	(.864)	8.345
28 Plan for Discovery	(2.779)	9.866	(-6.057)	7.747
29 Client Control and Participation	(3.852)	5.279	(.194)	5.153
CONSTANT	-20.082	--	41.486	--
d.f.	(93)	--	(270)	--

versus $10,000 for contingent fee cases. To cope with this problem, we isolated a set of comparable cases. Specifically, we compared hourly fee plaintiffs' lawyers with hourly fee defendants' lawyers with respect to contract cases.

The results of the comparison of plaintiffs and defendants in contract cases are shown in Table II-4-CC. Because of the relatively small number of cases, the tests of significance are not too useful; the coefficient estimates will, however, allow us to answer the basic question of whether the difference between hourly and contingent fee lawyers is nothing more than a "side effect"; the answer, based on this analysis, is clearly no. Comparing contract plaintiffs' lawyers paid on an hourly basis to contract plaintiffs' lawyers on contingent fee arrangements, we still see substantial differences in the coefficients (e.g., complexity, stakes, events variables). At the same time, this table makes it fairly clear that there are substantial differences between plaintiffs' and defendants' lawyers, holding fee arrangement and area of law constant (look, for example, at the coefficients for complexity, stakes, and events). Overall, this would suggest that the differences we have observed between fee arrangements do reflect pure fee-type effects, but also a degree of side-of-case effects.

Do Contingent Fee Lawyers Spend Less Time on Cases?

Because it is not possible to disentangle side and fee arrangements completely we believe that the best way to examine the hypothesis that hourly fee lawyers invest more time than contingent fee lawyers is to compare hourly and contingent fee lawyers

Table II-4-CC

Plaintiffs Versus Defendants: Contract Cases Only

	Defendant's Hourly		Plaintiff's Hourly		Plaintiff's Contingent Fee	
	b	std. error	b	std. error	b	std. error
A Case Characteristics						
1 Stakes	.243	.130	(.159)	.111	.866	.298
2 Complexity	(-.925)	3.557	20.214	10.502	35.441	12.055
3 Duration	(-.002)	.019	(-.039)	.030	(.0003)	.058
B Events in the Case						
4 Pleadings Factor	-12.800	6.355	(-1.642)	5.614	-49.662	17.383
5 Motions Factor	24.202	6.627	21.587	12.053	57.576	22.301
6 Discovery Factor	28.365	8.470	32.063	13.542	(-8.111)	29.858
7 Presence of Trial	(8.109)	14.718	(-35.137)	35.102)	(-69.748)	70.602
8 Presence of Settlement Discussion	(7.648)	17.390	(2.749)	25.675	(54.479)	35.154
C Client Type						
9 Individual/Organization	(6.753)	10.668	-29.107	17.294	(-20.826)	26.744
D Lawyer Characteristics						
10 Specialization	10.109	5.090	-15.506	8.318	(-18.204)	14.654
11 Law School Performance	(-4.478)	6.708	(-5.144)	7.131	(11.785)	16.775
12 General Experience	(.831)	.499	(-.190)	.834	(-.722)	1.332
13 Courtroom Experience	(.285)	.156	(.017)	.195	(-.928)	.467
14 Personal Capacity	(5.136)	6.471	(4.604)	11.739	(32.855)	15.156
15 Craftsmanship	(4.224)	7.547	(4.463)	10.440	40.024	18.083

Table II-4-CC continued

	Defendant's Hourly		Plaintiff's Hourly		Plaintiff's Contingent Fee	
	b	std. error	b	std. error	b	std. error
E Client Goals						
16 Get Most/Pay Least	(-15.730)	14.525	(-11.632)	16.205	(11.375)	29.369
17 Get Fair/Pay Fair	(-15.351)	9.350	(1.015)	28.496	(-2.928)	32.394
F Lawyer Goals						
18 Challenge	(3.637)	5.500	(-1.626)	8.946	(1.707)	12.521
19 Public Service	-17.000	7.077	(2.287)	11.788	-34.307	14.060
20 Professional Visibility	(6.149)	5.544	(-9.726)	9.557	(31.274)	17.274
21 Make Money	(4.032)	7.689	(13.665)	11.772	(-36.442)	21.115.
22 Service to Regular Client	21.267	9.621	(-14.779)	13.908	(-22.790)	28.331
G Court Type						
23 State/Federal	(10.207)	8.505	(6.845)	16.684	(-38.183)	26.147
H Case Management						
24 Pretrial Events SOP	(-1.906)	3.861	(-4.113)	6.589	(.684)	10.279
25 Estimating Case Value SOP	-13.133	4.943	(-8.296)	7.232	-38.382	13.110
26 Plan for Motions	(-5.013)	12.426	(4.349)	21.128	(-15.524)	27.514
27 Plan for Settlement	(7.152)	10.837	34.611	23.141	-50.319	29.350
28 Plan for Discovery	17.992	9.507	(-5.564)	14.540	(11.265)	18.608
29 Client Control and Participation	(-5.795)	6.030	(-.121)	7.641	(-19.415)	18.171
CONSTANT	-29.767	--	-1.849	--	-145.353	--
Overall F	8.56		1.86		1.23	
p.	.0001		.0265		.2609	
d.f.	29/69		29/50		29/41	

representing plaintiffs. The general picture which emerges from this comparison is that differences, where they exist, are either not statistically significant or move in the opposite direction to that which Johnson hypothesized. Overall, although median hours suggest that hourly lawyers spend slightly more time on cases than do contingent lawyers (see Table II-4-DD), the difference is not statistically significant. When we construct an hours/events ratio to determine how much time is invested per event, the direction of the difference shifts, with contingent lawyers spending slightly (but not significantly) more time per event.[1] When one uses stakes as a denominator for hours, contingent fee lawyers appear to spend slightly (but still not significantly) more time per dollar value of the case. The hourly lawyer spends two hours per $1000 of case worth, the contingent fee lawyer spends 1/3 more time per $1000 of case worth.[2]

When we examine the hourly/contingent difference in cases of comparable monetary value, we see that the patterns displayed in Table II-4-DD remain (see Table II-4-EE). In cases with stakes under and over $10,000 the hourly lawyer spends slightly more time.

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[1] This difference may be a function of the fact that contingent lawyers typically have a somewhat lower number of events in the cases they handle (15.75 events for hourly lawyers; 13.04 for contingent fee lawyers) or because they handle different types of events.

[2] Here again differences may be a function of differences in median values of the denominator between hourly and contingent lawyers.

Table II-4-DD

Hours by Fee Arrangement
(Plaintiffs Only)

	Hourly	Contingent	
Median Hours	37 (123)	35.1 (300)	N.S.
Hours to Events Ratio	2.00	2.38	N.S.
Hours to Stakes Ratio	.002	.003	N.S.

Here again, however, the differences are not statistically significant. Looking at hours per event, contingent fee lawyers appear to spend slightly more time per event no matter what the monetary value of the case.

Finally, because hourly and contingent fee lawyers work with different cases and different clients, it is not possible to talk about the effect of fee arrangements <u>everything</u> else being equal across the entire range of cases in our sample. We can, however, look at that difference for the "mean" case in our sample. The "mean" case for these purposes is a construct obtained by assigning each variable in our regression equation its mean value, multiplying that value by the regression coefficient obtained in our regression analysis of hourly and contingent fee lawyers and summing the products. As Table II-4-FF reveals, contingent fee lawyers spend almost 18 hours (79.45 versus 61.90) more than hourly lawyers on such a case. This result does not lend comfort to a theory that predicts greater time investments in (similar) cases handled by hourly lawyers.

Employing the procedure for estimating hours for the mean case, it is also possible to get a more precise picture of the stakes effect. This can be done by assigning stakes any single non-mean value and plotting a line between the value for hours in the equation with stakes at that value and the value obtained when stakes, along with all other variables, is set at the mean. Our earlier examination of hours by different levels of stakes (see Table II-4-EE) produced insignificant results. However, as Figure II-4-FF reveals, when other variables are taken into account hourly lawyers spend less time than contingent fee lawyers at the stakes levels we have plotted. We must be careful with these data since we are looking at only one variable (stakes). Nevertheless, this analysis does add another bit of evidence to an empirical picture quite different from what Johnson's theoretical work has led us to expect.

As far as investment of hours is concerned, we have several types of data which suggest that contingent fee lawyers are no more parsimonious than their hourly counterparts. We think that the mistake of Johnson's analysis is to conceptualize the way contingent fee lawyers think about their work and the way that hourly lawyers think about theirs in the same terms. Contingent fee lawyers respond to the total potential recovery. They are interested in maximizing a <u>net</u> result which is determined by how much they can get for their clients. We argue that they invest more time because they work for themselves as they work for their clients, and they are not

Table II-4-EE

Hours by Fee Arrangements by Stakes
(Plaintiffs Only)

Median Hours

	Under $10,000	Over $10,000
Hourly	19.5 (56)	75.0 (67)
Contingent	18.7 (153)	65.0 (147)
	N.S.	N.S.

Hours to Events Ratio

	Under $10,000	Over $10,000
Hourly	1.22 (56)	3.03 (67)
Contingent	1.60 (153)	3.88 (147)
	*	N.S.

* Significant at the .05 level.

Table II-4-FF

Hourly/Contingent Fee Difference in the Mean Case
(Plaintiffs Only)

	Variable	Mean	X	Hourly Coefficient	=	Product	X	Contingent Fee Coefficient	=	Product
1	Stakes	133.620		.273		36.478		.152		20.3102
2	Complexity	2.496		17.905		44.700		9.958		24.8601
3	Duration	445.760		-.013		-5.795		-.014		-6.2406
4	Pleadings Factor	.016		.588		.010		10.588		.1739
5	Motions Factor	-.009		17.982		-.159		37.417		-.3306
6	Discovery Factor	.011		23.519		.263		79.140		.8832
7	Presence of Trial	.118		-45.034		-5.324		7.511		.8880
8	Presence of Settlement Discussion	.896		-5.163		-4.624		-1.237		-1.1080
9	Individual/Organization	.515		-10.677		-5.494		-19.475		-10.0218
10	Specialization	.064		-5.595		-.358		.743		.0475
11	Law School Performance	.027		-2.023		-.054		-3.254		-.0872
12	General Experience	10.914		.168		1.834		-.059		-.6439
13	Courtroom Experience	67.720		-.005		-.339		.066		4.4695
14	Personal Capacity	-.002		-12.343		.025		-2.939		.0060
15	Craftsmanship	2.502		9.329		23.342		4.167		10.4263
16	Client, Get Most/Pay Least	.389		-17.007		-6.623		4.313		1.6796
17	Client, Get Fair/Pay Fair	.389		-19.264		-7.502		-4.605		-1.7933
18	Challenge	-.010		1.342		-.014		-4.996		.0515
19	Public Service	-.048		-4.266		.205		5.138		-.2471
20	Professional Visibility	.031		2.567		.081		-1.738		-.0546
21	Make Money	.069		5.972		.410		7.718		.5298
22	Service to Regular Client	.424		-16.314		-6.920		6.804		2.8863
23	State/Federal	.530		1.429		.757		-4.480		-2.3740
24	Pretrial Events SOP	-.015		-1.609		.024		3.133		-.0468
25	Estimating Case Value SOP	-.017		-1.895		.032		1.380		-.0236
26	Plan for Motions	.174		2.724		.474		-17.740		-3.0841

Table II-4-FF continued

Variable	Mean	X	Hnurly Coefficient	=	Product	X	Contingent Fee Coefficient	=	Product
27 Plan for Settlement	.695		21.271		14.792		.864		.6008
28 Plan for Discovery	.627		2.779		1.743		-6.057		-3.7993
29 Client Control and Participation	.004		3.852		.016		.194		.0008
CONSTANT	1.000		-20.082		-20.082		41.486		41.4860
				Hourly Sum	61.90			Non-Hourly Sum	79.45

constrained by the client's own ability or willingness to pay.[1] The mistake of the Johnson hypothesis is to assume that contingent fee lawyers carry out their entrepreneurial economic calculations on a dollar basis.

What About the Differences in Variables and Coefficients: The Need for More Theoretical Work. Having cast some doubt on the thesis that contingent fee lawyers spend less time on cases, we return now to the question we posed earlier: What might account for the very different patterns of significant variables and size of coefficients in our basic regression analysis? We consider this to be a crucial issue. However, before any further empirical work can be fruitful, we must develop a theoretical basis on which build this analysis. If it is true that the economic analysis developed by Johnson, Rosenthal, et al. does not accurately model the behavior of contingent fee lawyers, then we must construct an alternative notion of the dynamics of fee arrangements before we are able to account for the clear, interesting, but as yet not fully explained differences we have observed. This will take more time and research funds than were available for the study reported here.

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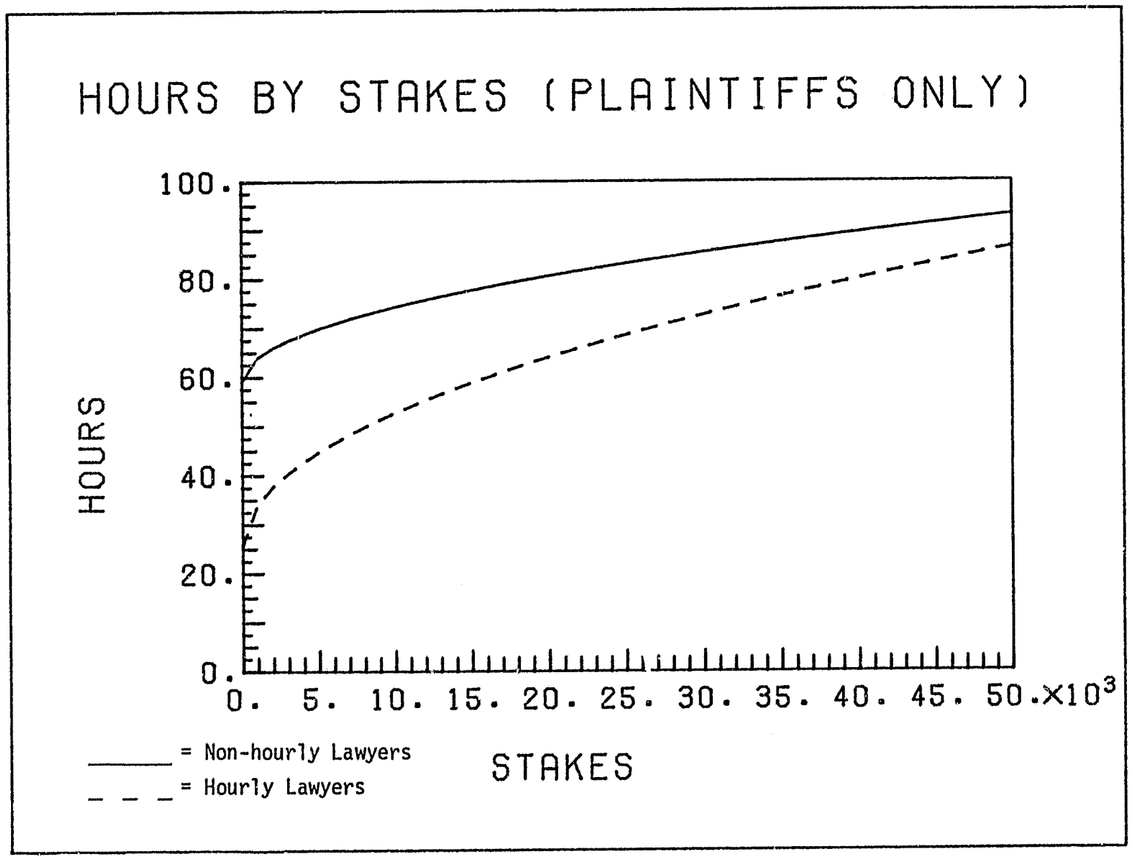
[1] This is consistent with the larger coefficient for stakes that we found for hourly fee lawyers (compared to contingent).

Figure II-4-F


HOURS BY STAKES (PLAINTIFFS ONLY)
HOURS
100.
80.
60.
40.
20.
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0. 5. 10. 15. 20. 25. 30. 35. 40. 45. 50.X10³
STAKES
= Non-hourly Lawyers
= Hourly Lawyers

Chapter 5

DOES LITIGATION PAY? ASSESSING COSTS AND BENEFITS

An important question generated by the investment approach to civil litigation is: Do the litigation investments pay off? We have already discussed the broad issues which this question raises. In this section we report on the analyses we have completed. We focused on a relatively narrow issue: do the monetary returns from litigation exceed the time and money which clients invest in the process? Although we recognize that an answer to this question will not resolve the debate over the cost-effectiveness of litigation as a social process for resolving disputes, it is obvious that an understanding of the economics of litigation from the parties perspective is central to the whole issue. We also include a very limited analysis of the monetary costs of litigation from a social perspective, but our data are too sparse to permit us to reach any firm conclusions on this matter.

Overall, we conclude that litigation "pays" for the parties who engage in it. By and large, plaintiffs recover more than they invest in litigation. Further, we can say that in a certain sense the same results hold for defendants. Naturally, the question of assessing the "returns" to defendants of litigation investments, even in money cases, is more complex than for plaintiffs. But the measures we use show positive net returns for defendants as well.

Methodological Issues

We encountered a series of methodological problems. To permit any calculations of net results, we had to restrict our measures of benefits and costs to monetary factors. For reasons already discussed, we used the fees paid to lawyers as our primary estimate of the monetary costs of litigation. Measuring monetary benefits proved more complex. We use the dollar amount plaintiffs recover as their gross benefits. But what measure should we use for defendants? We conceived of the defendant's benefits as the reduction of a potential cost. Measuring the true "exposure" of a defendant in a case, and thus the difference between what was paid and what might have been paid, proved extremely difficult. We explain below how we dealt with these issues.

Plaintiffs

Plaintiffs usually recover something in a lawsuit, but in the world of ordinary litigation recoveries are modest. In the total sample for which we have monetized figures for recoveries (N = 398), plaintiffs received something in 89% of the cases, but in 59% of the cases recoveries are less than $10,000.

(a) Recovery to fees ratios. -- To assess the relationship between costs and benefits for plaintiffs, we use two measures. The first is the ratio of recovery to fees. This measure gives an overall picture of whether the dollars plaintiffs recovered in lawsuits exceed the dollars they paid out. We use fees alone as our cost indicator. However, as we shall show, the results would not

change substantially if we used more complete data on plaintiff costs.

(i) Overall results. -- The amounts plaintiffs receive usually exceed the fees they pay. Since 71% of the plaintiffs in our sample were represented by lawyers paid on a contingent fee, this is hardly surprising: those contingent fee lawyers who secure no recovery receive no fee at all, and contingent fees when paid usually equal a preestablished fraction (usually 1/3) of the amount recovered. Since most contingent fee cases lead to some recovery, the overall results are quite positive: plaintiffs secured net benefits in 89% of all our cases, and in 86% of the cases in federal courts. Even if we look only at plaintiffs who paid their lawyers on an hourly basis, we find they secure recoveries at least equal to fees in 78% of the cases.

Table II-5-A provides more detailed data. We report the recovery ratio for three percentiles--the 25th, 50th, and 75th. These are the ratios at those points in the overall distribution of fees to recovery ratios. The range of ratios is quite large. For plaintiffs who were represented by hourly lawyers and recovered less than $10,000, 25% had recovery/fee ratios of 0 or less (fees greater than recovery), 25% had ratios of 6.00 or higher, and the median ratio was 2.15. Table 10 breaks down the ratios by the amount recovered, the court, and the fee arrangement.

The table shows that for hourly lawyers, the larger the case, the higher the ratio: for cases under $10,000 the median ratio is 2.15; for cases from $10-50,000, it is 7.03. Overall, plaintiffs

with hourly lawyers did better in state courts than in federal courts: the median ratio for federal cases is 3.65 compared with 4.94 in state courts. The patterns for contingent fee lawyers are what one would expect: recovery/fee ratios are about 3 to 1. It is interesting to note that even for contingent fee lawyers the ratios increase as the amount recovered goes up, although the change is small.

Table II-5-A

Ratio of Recovery to Fees - Plaintiffs by Fee Type

Hourly Lawyers

	Recovery			Source		
Percentiles	<10	10-50	50+	Federal	State	All
25	0.00	3.75	10.50	.31	2.15	1.75
50	2.15	7.03	18.00	3.65	4.94	4.19
75	6.00	26.01	82.30	18.65	14.40	18.00
(N)	(44)	(18)	(14)	(42)	(34)	(76)

Contingent Fee Lawyers

	Recovery			Source		
Percentiles	<10	10-50	50+	Federal	State	All
25	2.27	2.82	2.92	2.32	2.50	2.48
50	2.80	3.04	3.10	2.99	2.88	2.93
75	3.18	4.29	3.72	3.60	3.55	3.56
(N)	(181)	(86)	(24)	(124)	(167)	(291)

There are some cases in which plaintiffs pay their lawyers more than they recover. Twenty-two percent of all plaintiffs with hourly fee lawyers fell in this category. If we look at the first line in Table II-5-A (25th percentile for hourly lawyers) we see this is

most likely to occur when the recovery is under $10,000. Nonetheless, taking plaintiffs as a whole, most are net gainers. Even when we add to fees the other monetary costs of litigation (i.e., out-of-pocket costs plus the monetary value of the plaintiff's time) we estimate that 88% of all our plaintiffs recovered more than they paid out.[1]

(ii) Measuring the "yield" of litigation investments: other factors influencing recovery/fee ratios. -- Our data can be read as indicating that the average dollar invested in a large claim yields more than the dollars spent on smaller claims. We find that the larger the recovery, the higher the ratio of dollars recovered to fees paid the lawyer. Especially in light of the fact that plaintiff recoveries and stakes are closely correlated (plaintiffs' stakes as reported are about 120% of their recovery), this finding suggests that "investors" get more for their money in the larger cases. Following this same line of reasoning, we used recovery/fee ratios to test the effect of other factors on the relative yield of dollars invested in litigation. Some of the results are striking.

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[1] As we have indicated, these figures use fees instead of total costs, since we do not have total cost figures on a case-by-case basis. However, we do have estimates of total costs (i.e., fees and out-of-pocket costs plus monetary value of plaintiff's time) for all our plaintiffs, and these can be used to adjust the findings derived from the fee data. The median ratio of lawyers fees to total costs for individual plaintiffs is .88 and for organization plaintiffs is .72. If we use medians to estimate total cost, it follows that in a case in which an individual's recovery/fee ratio is above 1.14, and an organization's ratio is above 1.39, the litigant has secured a net economic gain from litigation. Applying these ratios to the distribution of recovery/fee ratios, we find 88.3% of our plaintiffs were likely net gainers.

We first examined the effect of case and processing factors. Using our duration variable, we found that the longer a case lasts, the lower the ratio of recovery to fees. Remember that we already found that the duration of the case has little or no effect on the number of hours a lawyer spends on it. Therefore, it seems either that hourly fee lawyers will charge more in cases that last a long time, or recoveries are relatively lower in such cases. We also found that plaintiffs who settled before trial had somewhat higher ratios than those who went to trial: the median recovery/fee ratio for cases that were settled was 2.99, that for cases tried was 2.73.

We also examined the effect of various lawyer activities on the recovery/fee ratios. Recall that we asked the lawyers to indicate how they allocated their time among six different activities: client conferences, discovery, other fact investigation, settlement discussion, pleadings and motions and legal research. For each activity we then divided the lawyers into two groups: those who spent more than the median amount of time on the activity, and those who spent less. For each of these two groups we calculated the recovery/fee ratios for their cases.

The results strengthen the impression that plaintiffs get a higher return from a settlement-oriented strategy than from emphasis on formal adjudication. Thus, the recovery/fee ratio is higher when the attorney spends relatively more time on settlement discussions, but is lower when relatively more time is devoted to legal research. Spending relatively more time on discovery also decreases the ratio of recovery to fees.

We also looked at the effect of some of our lawyer productivity variables. Recall that we found that factors like lawyer experience and specialization did not affect the number of hours the lawyers spent on cases. We have already noted that this finding, by itself, did not prove that clients do not secure productivity gains in litigation. We reasoned that more experienced and expert lawyers could provide benefits to clients even if they spent the same number of hours on the case as the novice, since the specialist might think of more things to do to further the client's cause. If this were the case, however, we would expect that clients with more specialized lawyers would secure higher recoveries, in relation to fees paid. When we tested our experience and specialization variables against recovery/fee ratios, we found no evidence that these factors increase the client's "yield": neither greater experience nor higher degrees of specialization had a statistically significant effect. We recognize that this negative finding may be a statistical artifact, since the range of experience and specialization in our sample is modest. But the finding may also suggest that whatever gains that do accrue from greater specialization are not passed on to the clients, but are absorbed by the higher fees which older and more specialized lawyers tend to charge (Trubek, et al., 1983).

(b) Plaintiff "success"--net recovery to stakes ratios. -- Recovery/fee ratios provide one way to assess the relationship between the costs and the benefits of litigation for plaintiffs. There are other ways to measure this that may yield additional

insights. One such measure is the ratio of net recovery (actual recovery less fees) to stakes. We thought that the use of the recovery to fee ratio could overestimate net benefits in some cases (because the client recovered much less than predicted) and underestimate them in others (because the lawyer managed to secure a recovery higher than predicted). As a consequence, we also analyzed net recovery/stakes ratios. Since it assessed net returns in light of an expected goal (stakes), we call this measure "success." The formula used is:

$$\text{Plaintiff success} = \frac{\text{Recovery - Fees}}{\text{Plaintiff's Highest Stakes Estimate}}$$

The higher this ratio, the better the plaintiff has done in relation to expectations. Since the stakes question elicited gross figures (amount the case should settle for, not what the client should get after paying the attorney) success ratios above 1.0 would be exceptional. In a contingent fee case where the lawyer's fees equalled 33% of the recovery, and the recovery was exactly the same as the stakes estimate, the ratio would be two-thirds.

(i) Overall analysis. -- Overall, the analysis of success confirms much of what we learned using recovery to fee ratios. Success increases as the size of recoveries go up. In some of the smaller cases the ratio is zero: this suggests that in these cases, which fall in or below the 25th percentile of cases involving recoveries under $10,000, fees exceed recovery so there is no net recovery. The data also show that there is a sort of threshold effect; in all cases certain costs must be incurred regardless of

the stakes. This effect can be seen from the fact that success ratios increase dramatically as we move from cases under $10,000 to those in the $10,000-50,000 range, and then increase only modestly above $50,000. This occurs because for cases under $10,000, fees are much higher, relative to recoveries, than they are above that threshold.

These patterns can be seen clearly in Table II-5-B. For hourly lawyers, the median success ratio is .400 for cases where recovery is less than $10,000. The ratio shoots up dramatically to .800 in the cases between $10,000 and 50,000, and then rises to .934 in the cases over $50,000.

Table II-5-B

Net Recovery/Stakes Ratios - Plaintiffs

A) Hourly Lawyers

	Recoveries ($000s)			Court		
Percentiles	< 10	10-50	50+	Federal	State	All
25	.00	.733	.682	.057	.310	.190
50	.400	.800	.934	.709	.536	.600
75	.537	.955	.998	.944	.955	.945
N	32	13	12	30	27	57

B) Contingent Fee Lawyers

	Recoveries ($000s)			Court		
Percentiles	< 10	10-50	50+	Federal	State	All
25	.127	.305	.368	.142	.330	.231
50	.442	.580	.538	.400	.564	.493
75	.642	.724	.760	.665	.682	.668
N	164	75	23	119	143	262

(ii) Other factors. -- We repeated the tests of other factors using the success ratio. The results of these bivariate correlations show the same patterns we found for recovery/fee ratios. Thus, the longer the case, the lower the success ratio. Going to trial rather than settling lowers the ratio. We also found that the more events in the case, the lower the success ratio (Table II-5-C).

Table II-5-C

Effect of Selected Case and Processing Factors on Plaintiff Success

Factor	Effect of Factor on Net Recovery/Stakes Ratio
1. Duration of Case	Decreases *
2. Number of Events	Decreases *
3. Going to Trial	Decreases *

* Significant at least at the .05 level

Lawyer activity patterns are the same as we found before: above average legal research and discovery reduce the success ratio; above average time spent on settlement increases "success." The results for all activities are summarized in Table II-5-D.

Table II-5-D

Effect of Lawyer Activity on Plaintiff Success

Above Average Time Devoted to:	Will Have the Following Effect on the Net Recovery/Stakes Ratio:
1. Conferring with client	Increases
2. Factual investigation other than discovery	Increases
3. Settlement discussions	Increases *
4. Pleading + Motions	Increases
5. Discovery	Decreases *
6. Legal Research	Decreases *

* Significant at least at the .05 level

Once again, we failed to find any relationship between greater lawyer experience and specialization on the one hand, and increased success, on the other. No matter how we measure the yield from litigation investment, it is not increased by using more experienced and specialized counsel.

Defendants

The problem of assessing whether litigation "pays" for defendants is more complex. In the first place, for this purpose it makes little sense to compare the fees defendants pay their lawyers to the amount they must pay plaintiffs (recoveries). These ratios could be (and often are) very high and yet defendants could (and do) still consider that their litigation investment "paid off" handsomely. Assume a case in which plaintiff expects to recover $100,000 but in the end defendant only pays $10,000 and the defendant's lawyer receives a fee of $8,000. In that situation the recovery to fee ratio would be very low (1.25). Yet as long as there was some merit in the original claim and some real risk that plaintiff would have recovered a substantial portion of the claim, defendant's lawyer has been quite effective. Thus, the only sensible way to assess whether and to what extent litigation "pays" for defendants is to use the success approach. In this approach, defendant's investment in litigation is thought of as intended to reduce (or eliminate) an expenditure the defendant would otherwise have to incur. When presented with a claim, a defendant sees the expenditure on lawyer fees as a way to avoid paying some or all of

the amount claimed. If the lawyer's work reduced the claim by an amount greater than his fees, the defendant's investment has been successful.

The next problem is: How do we measure defendant success? We know what defendants pay plaintiffs, if they do. But how are we to fix the amount of the "claim" in order to measure the result of the lawyer's work? We have two possible measures--(i) the defendant's estimate of stakes and (ii) the plaintiff's estimate in the same case. Thus, there are two possible formulae for calculating results for defendants: the difference between the recovery, that is, the amount defendant paid to plaintiff, and either

(i) what plaintiffs thought they should get (P's stakes), or

(ii) what defendants thought they might have to pay (D's stakes).

The first formula is preferable because, otherwise, those cases (21% of our sample) in which defendants pay more than they thought they should, but less than the plaintiff's lawyer initially estimated plaintiff should settle for, would be portrayed as unsuccessful. Such cases are, by definition, cases in which defendants' lawyers have convinced plaintiffs to lower their expectations. Therefore, if that reduction is greater than the fees paid the defendants' lawyers in order to achieve the reduction, these cases are appropriately regarded as successful. On this argument, the best measure of success for defendants would be the ratio of the difference between the plaintiff's expectations (P's stakes) and the amount defendant had to pay (recovery) to defendant's lawyer fees. The formula for this measure (DS_1) is:

$$\text{Defendant Success}_1 = \frac{\text{P's Stakes} - \text{P's Recovery}}{\text{D's Fees}}$$

We were unable to conduct an analysis of defendant's success using this formula, however, because we did not have the necessary data (i.e., defendants' fees, recoveries, and plaintiffs' stakes) from both sides of the same case for enough cases. To provide some idea about this aspect of the costs and benefits of litigation, therefore, we decided to use the defendants' stakes, for which we did have enough data. The formula for this measure (DS_2) is:

$$\text{Defendant Success}_2 = \frac{\text{D's Stakes} - \text{P's Recovery}}{\text{D's Fees}}$$

In assessing the results of the analysis we present below, it is important to bear in mind the limitations imposed by the particular measure that we must use. Given the way that we measured stakes (which was described earlier), it is likely that the defendant's estimate of stakes would be lower than the plaintiff's perception of stakes. This, in turn, means the DS_2 will tend to underestimate the level of success achieved by defendants; in effect, DS_2 represents a lower bound of success (i.e., if a defendant is successful according to the DS_2 measure, it is almost certain that he was successful according to DS_1 or any similar measure that one might consider using.[1] In our discussion below we will not seek to assess the degree of success as indicated by DS_2, but will

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[1] An "upper bound figure" that one could obtain from the defendant lawyer data we have is the highest amount demanded by the plaintiff during actual negotiations, though even this might underestimate the amount a jury might award if the plaintiff includes a discount for uncertainty in his demand.

simply focus on the likelihood of success (i.e., the likelihood that the defendant succeeded in reducing the amount recovered from the defendant's perception of stakes more than was paid to the defendant's lawyer in fees).

(a) Overall results. -- Table II-5-E shows the likelihood of defendant success for all cases, broken down first by amount recovered and second by court.

Table II-5-E

Likelihood of Success - Defendants[a]

		By Recovery[b]			By Court	
	All Cases	<10	10-50	>50	Federal	State
Percent Successful	23.6	21.5	24.4	45.5	27.5	18.3
(N)	(191)	(135)	(45)	(11)	(109)	(82)

a As measured by the DS_2 formula.

b In $1,000's.

The first column shows that about a quarter of the defendants who invested in litigation were successful according to the very conservative measure we are using. It is perhaps more interesting to look at the variations by outcome and court. While the variations are not statistically significant (which is not surprising given the weakness of the measure we are using), they do suggest that defendants are more successful in "big" cases, and in cases taken to federal courts; however, a better indicator than we have is needed to determine if either of these effects do in fact exist.

(b) Other factors. -- We can continue the analysis of relative degrees of success by looking at some of the other factors we examined in our discussion of plaintiffs. There is some evidence that it pays for defendants to go to trial--24.4% of defendants who went to trial were successful according to our indicator, compared with only 18.5% of those who did not go to trial. This finding is not statistically significant, but it is opposite to what we found for plaintiffs.

The suggestion that what is successful for plaintiffs may not be for defendants is further confirmed by the analysis of the effect of variations in lawyer activity on the likelihood of success, shown in Table II-5-F. The pattern is very different from what was found for plaintiffs.

Table II-5-F

Effect of Lawyer Activity on Defendant Success

Above average time devoted to:	Will have the following effect on likelihood of success
1) Conferring with client	increases
2) Factual investigation other than discovery	increases
3) Settlement discussions	decreases*
4) Pleadings and motions	--
5) Discovery	increases
6) Legal research	increases

* Statistically significant at the .05 level

If the defendant's lawyer spends more than the average time in settlement negotiations, defendant's success goes down, while if the lawyer devotes more than average time to conferring with the client,

factual investigation, discovery, and legal research, it goes up though these findings are not statistically significant. The other factors have no effect. One could interpret these figures as suggesting that a defendant's lawyer secures a higher return for the client on the client's investment by a vigorous motions practice, extensive discovery and legal research and (perhaps) by insisting on going to trial. Thus, the overall pattern for the effect of defendants' time allocation on success is almost the mirror image of that for plaintiffs.

Social Costs and Benefits

The analysis so far has assessed the monetary costs and benefits of litigation from the parties' perspective. When we say that litigation "pays," we only mean that the parties often secure monetary results that exceed the fees they pay lawyers, and that these results would not change if we added in the value of the client's time and out-of-pocket expenditures. In our assessment we have focused exclusively on private costs and benefits. And even there we have not tried to factor in nonpecuniary costs and benefits, nor determine if litigation is more or less cost effective for the parties than some other way of processing disputes, either now in existence or which could be imagined.

Many of the questions raised by the debate over the costs of litigation deal with dimensions of the cost question we have not analyzed. Some of the criticism of litigation stresses the nonmonetary costs associated with this form of dispute processing

and the nonmonetary benefits which other modes promise. For example, some proponents of "alternative" modes of dispute processing believe that arbitration, mediation and bargaining may both reduce some of the pain and aggravation associated with litigation and lead to results which will be more satisfactory to the parties. Our data are limited to monetary costs and benefits, so that when we say litigation "pays" we only mean that parties frequently secure monetary results greater than their out-of-pocket costs and the monetary value of their time. We have data on the monetary costs of alternative institutions which have not yet been analyzed. But we have no way of assessing the nonmonetary dimensions of the problem.

Not only are we unable at this time to speak to whether litigation is more cost effective for parties than other dispute processing modes: we are also limited in our ability to translate the private cost calculations we have made to a social benefit/cost analysis. Naturally, when commentators express concern about the litigation "cost" problem they are often concerned with the efficacy of litigation from a social point of view. To secure such information, it is necessary to go beyond the strictly private, monetary cost/benefit analysis we have conducted. A simple point illustrates this need: since the "court costs" assessed to parties usually are far less than the actual cost of operating the courts, the taxpayers are paying part of the cost of litigation. Even the most narrow effort to assess litigation from a social point of view would have to incorporate these expenditures. Further, it would

make little sense to analyze litigation from a social point of view and restrict the analysis, as we have done, to monetary factors. Whatever benefits litigation may bring to society--and there are many--they are not likely to be measurable in dollar terms. How do we set a dollar figure on the right to a jury trial? How do we cost out the social benefits of peaceful resolution of disputes?

Questions like this suggest to us that benefit/cost analysis is of relatively limited utility for policymaking in judicial administration. This technique has severe limits as a policy tool in areas more amenable to quantification than litigation: in this area it seems impossible to develop any form of benefit/cost analysis that would answer the dilemmas now facing us.

With these caveats, what if anything might this form of analysis contribute to the policy debate? One possibility is to use the available techniques and data to narrow the range of issues. Thus, while recognizing that no benefit/cost analysis could resolve some of the judicial policy issues that face us, we might be able to pinpoint areas where problems are more serious, and to identify the questions which must be resolved by nonquantitative techniques. Let us illustrate this with a simple example. Assume a case in which the parties are exclusively concerned with money (no private nonmonetary benefits) and there are no private nonmonetary costs. Assume that the plaintiff might realistically recover as much as $20,000 but that the case goes to a jury and the verdict is $10,000. Assume further that each party pays their attorney $5,000, and that the trial costs society $11,000. (The latter figure is not

unrealistic: see Kakalik and Robyn, 1982). This would permit us to construct the analysis in Table II-5-G.

Table II-5-G

Hypothetical Social Benefit/Cost Analysis
(Thousands)

	Monetary Benefit	Monetary Cost	Net Monetary Benefit (Loss)	Net Nonmonetary Benefit (Loss)
Plaintiff	10 (recovery)	5	5	0
Defendant	10 (cost-reduction)	5	5	0
Public	0	11	(-11)	?
			-1	

On these assumptions, the trial of a case like this would be cost justified, from a social point of view, only if there are some monetary benefits to society, and/or the nonmonetary benefits to society exceed $1000. Since the first is unlikely, we would have to examine the nonmonetary benefits to society to see if they might be greater than $1000. Of course, we might say that the value of a trial by jury is unlimited, and stop there. Or we might explore the general benefits to society from peaceful dispute resolution, or more specifically from having verdicts which set a parameter for future bargaining, thus reducing the trend for trials. At least we would know what to look for and what questions to ask.

It would be nice if we could provide actual figures to use in an analysis of this type, but we cannot. We can estimate net monetary benefits for plaintiffs, but cannot do the same for defendants for reasons already explained. There are some estimates of court costs

for tort cases only. In a study for the Rand Corporation Kakalik and Robyn (1982) analyzed the court costs in tort cases in federal courts and several state courts, including California. They show that the average public cost of a tort case in the federal courts is $1740 and the comparable figure for the Superior Court in Los Angeles is $331 (1982: 92). Further, they show that expenditure varies tremendously depending on the stage at which a case is terminated. Tort cases that are filed and then settled without further attention by court personnel may cost as little as $50; those which proceed through hearings, a conference, and jury trial cost up to $9,000 in the California court and up to $15,000 in the federal courts (1982: v-vi). These data are suggestive, but we have no way to relate them to our sample.

For these reasons, we can only report some overall impressions which arise from the data we do have. We know that the lower the amount recovered the lower the ratio of plaintiff recoveries to lawyer fees. If we look at hourly fee lawyers only, we find that in federal courts plaintiff's lawyers fees equalled over 40% of the amount recovered in cases with recoveries under $10,000, and only 5% of the recovery in case over $50,000. (The comparable state figures are 19% and 5%, respectively.) This means that for plaintiffs, the net monetary gain will be much lower in the smaller cases. Our data do not permit us to say with confidence what pattern prevails for defendants, but if we merely assume that defendant ratios are uniform among case sizes, then the plaintiff results would determine relative net gains. This means that whatever level of court costs

is incurred, the smaller case is, everything else equal, less likely to be cost justified socially than the larger case. Moreover, if Kakalik and Robyn's tort figures are representative, it follows that the further the case proceeds, the less likely the social cost benefit calculus will be positive, excluding nonmonetary social benefits. It also follows that the jury trial in a federal case involving less than $10,000 will have the lowest net monetary benefit, and is most likely to show negative benefits before non-monetary social factors are incorporated in the analysis.

There is another way to look at the cost effectiveness of the small case. This analysis cannot incorporate gains from cost reduction by defendants' lawyers, and thus their importance must be qualified. But the results are striking. Table II-5-H shows the ratio of hourly lawyer fees to recovery broken down by case size. This shows that in small cases in federal courts the total fees paid to both lawyers (plaintiff and defendant) can well exceed the amount recovered.

[Table II-5-H here]

This sample is too small to draw any final conclusions and is limited to hourly lawyers only. To illustrate our point, let us construct a "typical" case using our overall data. These figures show that both clients, together, pay a substantial amount to lawyers in relation to the amount plaintiffs recover. For this purpose, we will use a case in state court in which the plaintiff recovered $10,000. In such a case, it is likely that the plaintiff's lawyer will be paid on a contingent fee basis, so that

Table II-5-H

Ratio of Lawyers Fees to Recovery
(Hourly Cases Only)

	Amount Recovered		
	< 10,000	10,000-50,000	50,000+
Plaintiff			
Federal	.4059 (11)	.1423 (11)	.0546 (12)
State	.1850 (22)	.0550 (7)	.0473 (2)
Defendant			
Federal	.8500 (77)	.1667 (41)	.0832 (11)
State	.3277 (73)	.0948 (18)	.0313 (3)

the lawyer receives $3,300 and the client gets a net return of $6,700. In the same case, the defendant will have paid the plaintiff $10,000 and the attorney $3,300, for a total of $13,300. In this case the total paid to both lawyers ($6,600) is just about equal to the plaintiff's net recovery.

A similar analysis for the federal courts yields even more discouraging results. Plaintiff's fees would be the same, but defendants pay more to their attorneys relative to outcomes, so that defendant's legal fees will equal 85% of the outcome and the total fees paid for lawyers will equal $11,800 in a case in which the net recovery is $6,700.

One must proceed with great caution in interpreting these data. As we have indicated, they do not mean that litigation is not cost

effective for the parties even in the smaller cases. Further, we do not suggest that these figures can be interpreted as showing that litigation in cases when outcomes are less than $10,000 is not socially efficient. In fact, the data we have suggest that most plaintiffs, even in small cases, usually recover much more than they pay in lawyers fees, defendants score positively on our success measure, and court costs are modest since trials and other judge-intensive activities are rare. Nevertheless, we can say that the costs of litigation, in the smaller cases, both from the clients' and society's point of view, are relatively higher than in the larger cases, and the differences are significant. Since according to our data most cases in civil courts in the U.S. involve stakes and recoveries of less than $10,000, this conclusion is quite important. It suggests why there has been concern about the costs of litigation and points to the need for further research on the economics of the "small" case.

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Technical Appendix I:
DETAILED DESCRIPTION OF VARIABLES USED IN ANALYSIS OF HOURS

This first section of the appendix presents technical descriptions of the variables used in the analysis of lawyers' time. These are presented by cluster in the same order as described in the text. A number of these variables are factor scores derived from a factor analysis of a number of variables. The second section of the appendix provides a brief description of this technique.

Variable Descriptions

Dependent Variable: Hours

This variable is simply the lawyer's report of the total number of hours she (or the firm) spent on the case.

A. Case Characteristics

1. Stakes

Our measure of stakes was obtained only for lawyers who responded yes to the following question:

> Now I'd like to ask some questions about what you thought your client(s) should take or do to settle the case. In these questions we are interested in your view of the stakes in the case, not in actual negotiations, which we will get to in a few minutes. Did you ever form an opinion about what the case was worth in terms of what your client(s) would be willing to take or do to settle the case?

The specific figure was obtained in response to:

> Based on that opinion, what did you think at that time should have been done to settle the problem?

Those lawyers who responded with something involving something other than money were asked:

> Suppose there could have been a settlement at that time which involved only a lump sum payment of money. What would you think it should have been?

Persons who still responded with something nonmonetary were omitted from the data analysis where measures of stakes were needed. Where the response included a periodic payment, we converted the periodic payment to a single lump sum by figuring the present value of those payment streams using the average prime interest rate in 1978 (9.06%) as a discount factor and establishing duration based on case type. Case types were determined by visual inspection of the court record coding form. Duration was then figured by applying the following rules:

(a) Divorce - 9 years (median of 0 - 18) unless only alimony, then use 2 years.

(b) Social Security, retirement, or black lung benefits - life expectancy, (according to sex), at age 65.

(c) Disability payments - life expectancy, (according to sex), actual age or 43 (median between 21 and 65).

(d) Mortgage payments - 10 years (median of 0 - 20).

(e) Consumer credit - 2 years.

(f) Unemployment benefits - 1 year.

(g) Tenant debt - 2 years.

2. Complexity

This variable is the lawyer's subjective estimate of the complexity of the case as measured by the response to the following question:

> On a scale of 1 to 5, if one is simple and 5 is very complex, how would you rate this case as to its complexity of fact and law?

3. Duration

This is the time, in days, from filing to termination. The filing date is taken from the court record and the termination date is taken from either the court record or the survey, whichever date is earlier. This is based on the assumption that lawyers will, in a number of cases, neglect to inform the court of a termination.

B. Events in the Case

4. - 6. Events Factors: Pleadings, Motions and Discovery

These three factors are based on a principal components analysis of four variables which are simple counts based on the court record: the number of pleading documents, briefs, discovery related events (including motions), and other motions. The principal components approach was necessitated by multicollinearity among the original simple counts of the four event types. (Principal components analysis is essentially the same as factor analysis which is described briefly below.) The resulting component loadings are:

Number of Event	Pleadings Factor	Motions Factor	Discovery Factor
Pleadings	.95	.22	.16
Motions	.37	.80	.14
Discovery	.16	.24	.95
Briefs	.08	.88	.25

7. Presence of Trial

This is a dichotomous variable (1 if the court record showed a trial, 0 otherwise).

8. Presence of Settlement Discussions

This is a dichotomous variable (1 if the lawyer indicated there had been some settlement discussions, 0 otherwise).

C. Client Type

9. Individual/Organization

This is a dichotomous variable obtained from the court record, coded 1 for individual and 0 for organization (including governmental organization). It is subject to some error because the court record may indicate that the litigant is an individual when there is really an organization (like an insurance company) lurking behind that individual. This is probably a greater problem for defendants than for plaintiffs, particularly in hourly fee cases. For example, we have a total of 109 lawyer respondents retained on an hourly fee basis whose client was formally an individual (recall that we have a total of 401 hourly fee lawyers in the sample we are looking at). Of these 109, 45 represent defendants in tort cases; it is likely that the "real" clients in most of these cases were insurance companies.

D. Lawyer Characteristics

10., 11., 14. Specialization, Law School Performance, Personal Capacity

These three variables are scales created from a factor analysis of a set of nine specific items from the questionnaire:[1]

PC1: How likely are you to feel sure of yourself even when people disagree with you--very likely, somewhat likely, not too likely, not at all likely?

PC4: How often do you have trouble making up your mind about important decisions--very often, somewhat often, occasionally, or hardly ever?

PC5: How sure do you feel that your life will work out the way you want it to--very sure, somewhat sure, not too sure, or not sure at all?

LAWEXP: Whether or not the respondent reported serving on the law review while a law student (0 no, 1 yes, 2 officer of the law review).

RANK: The respondent's rank in his or her law school class reported by the respondent.

LNND: The natural logarithm of the number of disputes in the field of law that the sampled case is in that the lawyer had handled previously.

PERFIELD: The percent of the respondent's practice in the field of law the sampled case is in.

---

1 The personal capacity items are derived from the scale by Campbell, et al. described in Robinson and Shaver (1969:102-105).

SELFRANK: The lawyer's self ranking of substantive expertise in the area of law the sampled case is in.

ACTS: A scale based on answers to questions about the following specific activities the lawyer has done in the field of law the sampled dispute is in since being admitted to the bar:

(1) taken a course

(2) taught a course or workshop, or given a lecture

(3) written or edited book(s) or article(s)

(4) served on bar association committees concerned with that area of law

(5) served on government commissions concerned with that area of law

The scale is:

0 no activities

1 yes to 1 or 4 or 5

2 yes to 2 or 3.

The results of the factor analysis of these nine indicators is shown in the following table:

	Specialization	Law School Performance	Capacity
PC1	-.09528	-.04154	.46588
PC4	-.02191	.03703	.49791
PC5	-.01338	.03702	.40990
LAWEXP	.02228	.56613	.08247
RANK	.04176	.56097	-.03953
LNND	.71294	-.06502	-.06805
PERFIELD	.78341	-.00979	.01492
SELFRANK	.71345	.06626	-.13641
ACTS	.36859	.08423	-.03087

Based on this factor analysis, three factor scores were created: measuring (1) specialization [a high score indicates high level of specialization in the area of the sampled case], (2) performance in law school (a high score indicates a high level of performance), (3) a belief in one's own ability [a high score indicates a strong belief].

12. General Experience

The number of years the respondent had been practicing law.

13. Courtroom Experience

The percentage of time the lawyer reported spending on court cases (as opposed to other types of activities).

14. Personal Capacity (see 10. above)

15. Craftsmanship

The lawyer's response to the following question:

> This question concerns your work habits. Assume a client who regularly uses lawyers but is careful about that use. If you have completed several drafts of an important document for the client, how likely is it that you would spend any additional time to make slight improvements in the document? Would you say it would be: (1) likely, (2) somewhat likely, or (3) very likely?

E. Client Goals

16., 17. Get Most/Pay Least, Get Fair/Pay Fair

This is a multiresponse variable, coded as a dummy variable with three categories: maximize/minimize monetary payment, fair monetary payment, nonmonetary goal. Two dichotomous variables were created;

the first (16.) was coded 1 if maximize/minimize was mentioned and 0 otherwise, the second (17.) was coded 1 if fair was mentioned and 0 otherwise. The responses were not mutually exclusive, though only 14 respondents out of 719 mentioned both "maximize/minimize" and "fair."

F. Lawyer Goals

18. - 21. Challenge, Public Service, Professional Visibility, Make Money

We derived the case specific lawyer goals indicators from the reason(s) the lawyer gave for taking the case. Four indicators were created from a factor analysis of ten items that measured the importance of specific considerations in the lawyer's decision to take the case.

The general lawyer goals indicators (which are used in our analysis of hourly rates) were obtained through a factor analysis of responses to the following question:

> Now I'd like to ask about some (other) factors you may have considered in deciding to take the case. I'd like you to tell me how important each of the following considerations was to you in making your decision.
>
> The effect the case might have on your professional standing in the community: was that very important, important or not important in your decision to take the case?
>
> How about:
>
> - forming a new relationship with a promising new client
> - the intellectual interest of the case
> - sympathy for the client's predicament
> - the challenge involved
> - the amount of money you expected to make on this case?

> How about the case's effect on your professional standing in your firm or office,
>
> - public service
> - opportunity for experience in a new field of law
> - obtaining publicity for your firm/office?

A factor score for each of the four dimensions was created, scored so that a high value indicated that the dimension was important.

The results of the factor analysis are shown below:

Variable	Challenge	Public Service	Professional	Money
Community standing	.20372	.07443	.60838	-.03359
Forming a new relationship	.02159	-.15224	.23258	-.18204
Intellectual interest	.79294	.16161	.15075	-.02926
Sympathy for client	.30590	.58763	-.08421	-.02695
Challenge involved	.72891	.27150	.19141	.04390
Amount of money expected	.07139	-.11585	.13026	.62259
Standing in office	.11014	-.02422	.46798	.09699
Public service	.15588	.64653	.15956	-.08705
Experience in new field	.41502	.09209	.21067	.10696
Publicity for office	.07300	.06645	.32574	.06638

22. Service to a Regular Client

If the only reason given was that the litigant was a regular client, an indicator variable was coded 1 (otherwise, 0).

G. Lawyer's General Objectives

Measures of the lawyer's general objectives were obtained through a factor analysis of responses to the following question:

> Now, I'd like to ask questions about how you view your work. Overall, in looking at your legal work, how important is each of the following considerations to you? For each one, tell me whether it is very important, somewhat important, or unimportant.
>
> (a) Intellectual challenge
>
> (b) Winning disputes or cases--is that very important, somewhat important, or unimportant?
>
> (c) Serving the community and the public

(d) Making a decent living

(e) Helping individual people with problems

And in looking at your legal work, how important is:

(f) Being your own boss or self-determination?

(g) High standing in the community

(h) Respect of family and friends

(i) Working with pleasant and interesting people

(j) Making a lot of money

(k) Comfortable working surroundings

Four factors emerged from the analysis, and factor scores were created for each of these dimensions. The factor loadings are shown below:

	Community Standing	Decent Living	Public Service	Pleasant Coworkers
Intellectual Challenge	.01100	.01340	.25408	.16289
Winning	.05971	.35359	.09279	.00595
Serving Public	.10940	-.02212	.72947	-.04057
Decent Living	.05832	.61138	.06923	.06144
Helping Individuals	.04432	.12355	.51312	-.01193
Being Own Boss	.11192	.23060	.09349	.01896
Standing in Community	.81674	.24390	.07595	.06470
Respect of Family and Friends	.60293	.14518	.09627	.21132
Interesting Coworkers	.18697	.10226	.07142	.82764
Making a Lot of Money	.14016	.58063	-.22086	.13356
Comfortable Surroundings	.15882	.36327	-.02535	.32670

H. Court Type

23. State/Federal

This is a dichotomous variable, coded 1 for federal court, 0 for state court.

I. Case Management

24., 25. Pretrial Events SOP, Estimating Case Value SOP

These two factors are based on a principal components analysis of four variables coded as follows:

Lawyers were asked whether they had, and used, standard operating procedures for estimating the value of a case, pleadings, motions, and discovery (they were questioned about each of these activities separately). An indicator was created for each of the activities, coded in the following way:

-1 has a standard procedure and used it

0 did not have a standard procedure

1 had a standard procedure, but had to deviate from standard procedures in the case.

The coding of the individual items reflected our presumption that if one took a no-SOP situation as a baseline, having and using SOP's would reduce the amount of time spent while having and not using SOP's would actually increase the amount of time spent. (Principal components analysis is essentially the same as factor analysis, described briefly below.) The component loadings which resulted are shown below:

Standard Operating Procedures for:	Pretrial Events SOP	Estimating Case Value SOP
Estimating Case Value	.31	.95
Pleadings	.88	.29
Motions	.89	.24
Discovery	.85	.36

26., 27., 28. Plan for Motions, Plan for Settlement, Plan for Discovery

Lawyers were asked whether they had and used a plan for each of the following: motions (26.), settlement discussions (27.), and discovery (28.). Three indicators were created, one for each area, coded 1 if a plan had been used and 0 if either there was no plan for the corresponding activity or the activity had not taken place.

29. Client Control

The indicator of client control is a single factor score based on the following variables (the number in parentheses is the factor loading for the variable):

Client involvement in determing case strategy (.7000)

Presence of an understanding about the client's role in decision-making about the case (.2816)

Actual role client played in decision-making about the case (.6064)

Nature of reports to the client by the lawyer (.3589)

Client participation in decision to file (.2217)

The scale is set up so that high values indicate a high level of client control over the lawyer.

I. Other Variables

For the tabular and regression analysis, many of the variables discussed above were collapsed or combined; details of the specific transformations are included in the discussions of the actual analyses. Additional variables were used as controls:

Area of law flags - Six flags were created from the court records information where up to four areas of law are recorded. The flags indicate the following areas of law: torts, contracts, domestic relations, property, regulatory law and public law. They are coded:

1 = case involved this area of law

0 = case did not involve this area of law

Area of Law - This variable indicates the area of law for cases which involved only one area. The values are:

1 = Torts

2 = Contracts

3 = Domestic Relations

4 = Property

5 = Regulatory

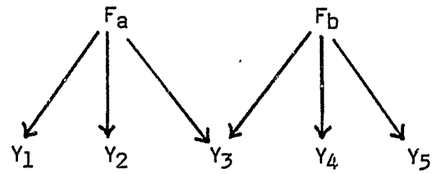
6 = Public Law

7 = More than one area

Factor Analysis

Factor analysis is a technique that can be used to take a set of variables seen as representing a smaller set of unmeasured variables and deriving estimates of the unmeasured variables. If we let the

unmeasured variables be denoted by the symbol F and the actual measured variables by the symbol Y, we can show the factor analysis model diagrammatically:



This model is saying that we have two unrelated, underlying dimensions, F_a and F_b, and five measured variables that flow from those underlying variables: Y_1 and Y_2 flow only from F_a, Y_4 and Y_5 flow only from F_b, and Y_3 flows from both F_a and F_b.

In factor analysis, we can get two sets of coefficients linking the Y's and the F's. The first type is called factor loadings, and are the values shown in the various factor analysis tables above. The values in these tables can be interpreted as the correlation between the measured variable and the unmeasured variable; the loadings are the primary vehicle one uses in interpreting the meaning of the underlying variables. The second set of coefficients, which we do not show, are called factor score coefficients, and are used to actually compute estimates of the underlying variables. These coefficients are not used for interpretation; their sole function is computational. For a more extensive conceptual introduction to factor analysis, see Kim and Mueller (1978).

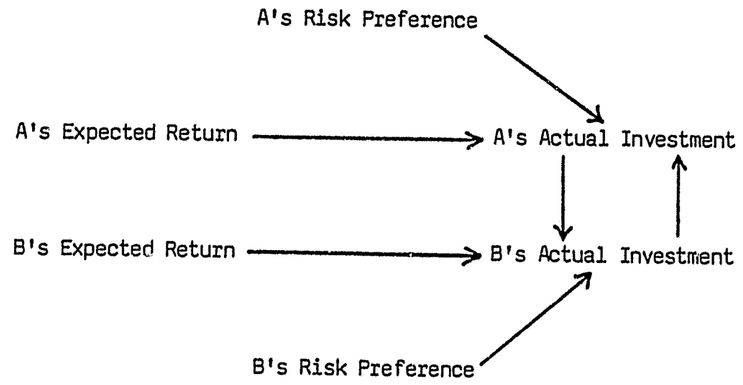
Technical Appendix II:
SIMULTANEITY, OR WHY WE CANNOT ESTIMATE THE CAUSES OF "EVENTS" IN THE MODEL

Litigation is a process of interaction, a process of action and reaction. Much of what the lawyers on one side of a case do is a function of what the lawyers on the other side do. Our model recognized the importance of interaction, which is shown in text Figure II-2-D by the arrows going in both directions between plaintiff and defendant initiated events. Statistical models involving two way causation such as this are referred to as nonrecursive models or simultaneous equations models; models of this type raise serious problems for analysis.

For purposes of illustration, let us assume that we are looking at the actual investment of time and money by individual disputants on a set of cases of comparable complexity and stakes. To keep the example simple, we will assume that there are only two "exogenous" variables (i.e., variables not caused by other variables in the model) involved in the model: expected return and risk preference. The model we are discussing can be displayed graphically, as shown in Figure II-TA-A.

Figure II-TA-A

Simplified Investment Decision Model



The model can also be presented as a pair of equations. Leaving risk preference out for the moment, these equations are:

$$P_i = a + bD_i + \Sigma_i \qquad \text{(A.1a)}$$

$$D_i = r + sP_i + \mu_i \qquad \text{(A.1b)}$$

In these equations, a and r are simply constant terms. The important symbols for our purpose are the parameters b and s: these describe the interrelationship between plaintiff's and defendant's investments. Thus, b measures the extent to which an investment D_i by defendant increases plaintiff's investment. Now the goal of an analysis of litigation as interaction would be to secure estimates of b and s. However, in order to do this using classical regression, D_i (defendant's investment) must be uncorrelated with Σ_i (the error term) and P_i (plaintiff's investment) must be uncorrelated with μ_i (the error term). If these conditions are not met, the estimates for b and s will not be consistent. Unfortunately, given a set of simultaneous equations such as that shown in equation A.1 above, it is logically impossible for these conditions to be met except in very rare circumstances (for a mathematical illustration of why this is the case, see Nagin, 1978: 1121).

This problem can be illustrated visually. Let us make the further assumption that, unknown to us, expenditures of defendants do not in fact influence expenditures of plaintiffs (e.g., b = 0), and that the actual relationships are illustrated in Figure II-TA-B(a). Note that this figure involves an equilibrium point at the intersection of the D and P lines. If the system is in

fact an equilibrium system, then the observed points (i.e., the actual pairs of expenditures by plaintiff and defendant) will deviate from the equilibrium point only by the values of the random error terms Σ_i and μ_i: these observed data points have been inserted in Figure II-TA-B(b). With these points added, it is fairly easy to see that the error terms will completely determine the results of the estimating procedure, and those error terms are nothing more than random variables; the estimates of regression parameters will be essentially random numbers.

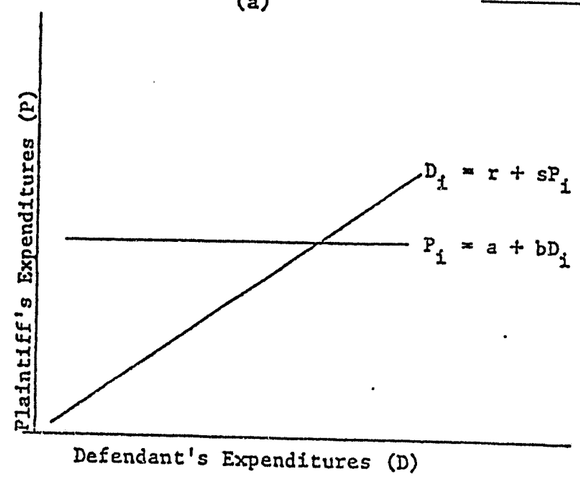
In order to overcome this problem, known as the "identification" problem, additional information is needed. This information normally takes the form of "exogenous" variables which can be determined, a priori, to be present in one equation but not in the other (the same assumption, in a somewhat more complex form, is applicable to multi-equation systems). For the moment, let us assume that the plaintiff's risk preference (R) affects her level of investment; if we can also assume that R is not correlated with either Σ or μ, then we will have succeeded in "identifying" the equation for defendant's level of investment. Note that we have identified the equation from which the exogenous variable was excluded; we still have not identified the equation for plaintiff's level of investment. Our two equations now consist of

$$P_i = a + bD_i + cR_i + \Sigma_i \qquad \text{(A.2a)}$$

$$D_i = r + sP_i + \mu_i \qquad \text{(A.2b)}$$

Figure II-TA-B Plaintiff's and Defendant's Investment Equations

(a)



(b)

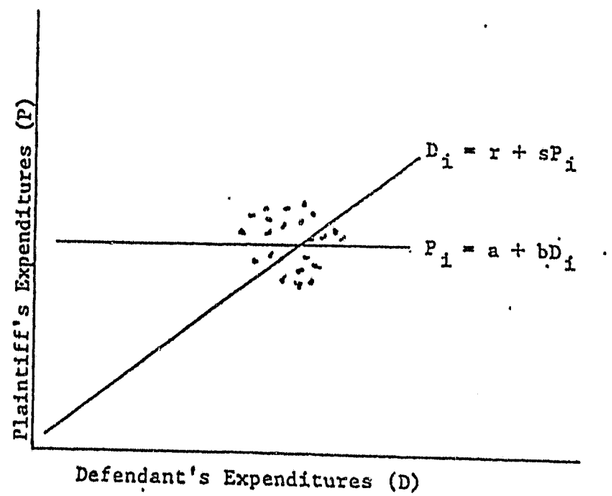
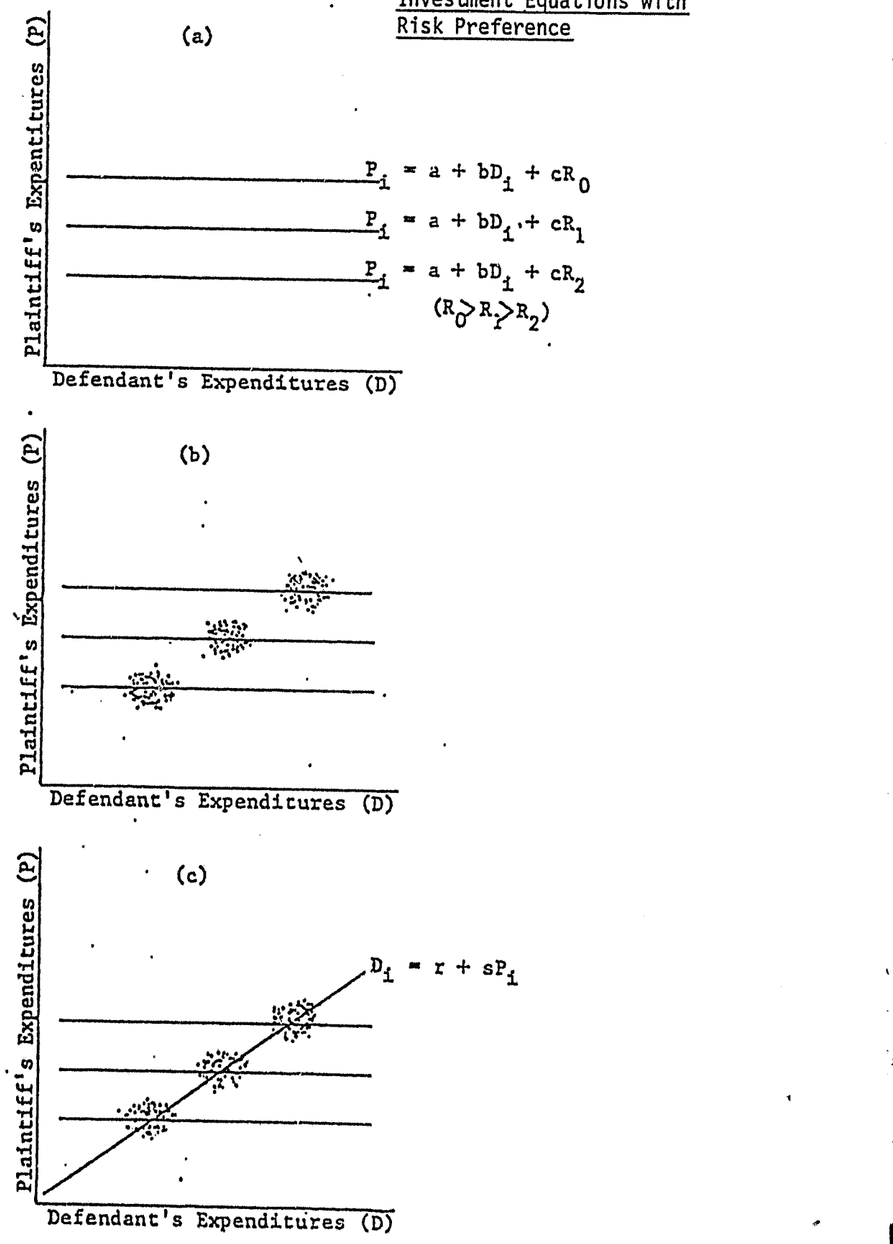


Figure II-TA-C shows how we can now obtain estimates of s in equation 2b. Let us assume that risk preference takes on only three values, R_0, R_1, or R_2; if we now graph the plaintiff investment function, we find three parallel lines, one for each value of R [Figure II-TA-C(a)]. If we then add to the Figure the scatter-plot of the observed values for plaintiff and defendant expenditures, we should observe three cluster of points, one around each of the three parallel lines of the plaintiff function [Figure II-TA-C(b)]; this can be contrasted to the single cluster of points we observed in Figure II-TA-B(b). In Figure II-TA-C(c), one can see how the three clusters serve effectively to identify defendant's expenditure function. It should be emphasized that the success of this procedure is wholly dependent upon the validity of the assumption regarding the correlation between R and the two error terms (and) in equations A.2a and A.2b, and the assumption that R should be included in A.2a, and excluded from A.2b.

This discussion describes what might be called the "simple" simultaneous systems problem: the situation for which an equilibrium can be said to exist. This generally will occur only if the slopes of the two functions--in our example, the defendant function and the plaintiff function are substantially different (e.g., one is positive and one is negative, or one approaches zero while the other deviates substantially from zero). In fact, the common sense image of the expenditure on litigation, assuming both sides have approximately equal images of the stakes, is that expenditures on one side will be matched by expenditures on the

Figure II-TA-C Plaintiff's and Defendant's Investment Equations with Risk Preference



other side; although there are practical limits on the expenditures, the situation is in some sense analogous to an auction. As Posner pointed out several years ago (1973:429), an alternate analogy is to advertising:

> each party is viewed as expending resources on advertising--in order to persuade the "customer" (the tribunal) of the superior merits of his "product" (case).

With this analogy, it is easy to see the dollar for dollar matching process that is likely to go on.

In order to obtain estimates of optimal expenditures in a situation of nonequilibrium, one must make assumptions that in effect impose an equilibrium solution. Posner outlines one such solution, the Cournot approach, which involves making the assumption that party A does not consider the impact of his expenditures on the expenditures of party B, and vice versa; with this assumption, an equilibrium can be found (see Posner, 1973: 456-458). The major issue is the reasonableness of the assumption; Posner argues that such an assumption is fairly reasonable in the litigation context (1973: 431). Economists have applied game theory to try to arrive at alternate solutions (see Shubik, 1968; Scherer, 1970: 140-145; Nash, 1950, 1951); while these solutions have been of mathematical interest, they have not generally proven to be of much use for empirical analysis.

While this discussion has been posed in terms of disputant investment, everything that has been said applies equally to the events driven model of lawyer time shown in Figure II-2-D. There is

a clear process of interaction or simultaneity, but there is no obvious equilibrium process (though there might well be a limiting process). Even if we could posit some equilibrium mechanism, we cannot be certain that the variables determining one side's investment are uncorrelated with those affecting the other. Finally, and perhaps more importantly, to solve the model one would have to have extensive information concerning "whole cases" which we have argued (in Volume I) is virtually impossible to obtain in sufficient numbers to permit reliable data analysis.

The model we used--and which is shown in Figure II-2-D--is formally described as a "block recursive" model (Kmenta, 1971: 539). This simply means that, while there may be mutual causation within blocks of variables, there is no such causation between variables in different blocks, and all of the relevant coefficients for interpretation can be computed between blocks. This approach is an accepted compromise for the analysis of nonrecursive models where the problem of identification cannot be adequately met with.

Technical Appendix III:

MORE DETAILED ANALYSIS OF FEES AND RATES

This appendix presents more detailed analyses of lawyers' fees and the hourly rates charged by those lawyers who are working on an hourly basis. The two discussions are quite different in approach. The first examines fees in relation to variables (such as stakes, complexity, and events) a few at a time. The second discussion of hourly rates is similar in style and focus to the regression analysis of hours which we present in chapter 4.

Distribution of Fees by Case Characteristics. In this section we examine the effect of factors that we considered likely to affect the fees in a case: complexity, total number of events in the case, duration of case, whether there was a trial, and the degree of client control. Simple bivariate relationships between fees and these variables will be presented for both hourly and contingent fee cases, in order to describe the entire sample of cases and to show differences between contingent fee and hourly cases. Then, for hourly cases only, regression-adjusted results will be shown to allow the identification of the independent effect of each variable.

Table II-TA-A shows the median fees for the five levels of case complexity. As expected, the more complex, the higher the fees for both hourly and contingent fee cases. The range from simplest to most complex was $758 to $4,150 for hourly cases, and $569 to $3,000 for contingent fee cases. The only anomalies are that in hourly cases the median fees were almost the same for the last two

categories of complexity, $4,150 and $4,000, and for contingent fee cases the median fees went down from $3,000 to $1,675. This decrease might be explained for contingent fee cases by lawyer tendencies to rate the cases they lost, and hence collected no fee, as the most complex. And Table II-TA-B does show that in contingent fee cases, the percentage where the lawyer collected no fee was twice as high in the most complex cases as in any other category.

Table II-TA-A

Fees by Complexity of Case

Complexity	Fees Hourly Cases***	Fees Contingent*** Flat Fee Cases
1 Simple	758 (156)	569 (107)
2	1126 (189)	1217 (135)
3	2341 (169)	1500 (111)
4	4150 (96)	3000 (65)
5 Very Complex	4000 (38)	1675 (39)

*** significant at the .01 Level

Table II-TA-B

Percent of Cases with Zero Fees by Complexity

	Complexity				
	1	2	3	4	5
%	7.0	4.0	9.0	8.0	18.0
(n)	(107)	(135)	(111)	(65)	(39)

Lawyer fees broken down by the total number of events in the case are shown in Table II-TA-C. Hourly fees follow the expected pattern, with fees increasing as the number of events increase--although the increase was much less marked for contingent fee cases. This is to be expected because, in contingent fee cases, increased activity does not necessarily lead to higher cost; the fee is only increased if the greater activity is accompanied by a greater recovery.

Table II-TA-C

Fees by Number of Events

	Number of Events		
	0 - 9	10 - 24	25+
Fees*** Hourly Cases	600 (185)	1495 (257)	3702 (215)
Fees*** Contingent Flat Fee Cases	1045 (149)	1103 (207)	2625 (105)

*** significant at the .01 level.

Table II-TA-D shows fees broken down by duration. For hourly cases the results are as expected: fees increased as the length of the case increased. For contingent fee cases, fees first increased from $993 for the shortest cases to $1,418 for medium length cases, and then decreased again, $1,170 for the largest cases.

The median fees for cases which do and do not go to trial are shown in Table II-TA-E. Median hourly fees for a case with a trial were well over twice as high as those for a case without a trial, $3,625 compared to $1,427. The opposite effect occurs, however, for contingent fee cases. The median fees, with trial, were $652, versus $1,244 for cases without trial. For contingent fee lawyers, cases with the trial are cases in which there may be no recovery and no fee, whereas most settled cases produced a fee. Table II-TA-F shows that, in fact, 21% of contingent fee cases that went to trial resulted in no fee, compared with only 6% of cases that did not go to trial.

Table II-TA-D

Fees by Length of Case (Duration)

	Duration (in days)		
	0 - 174	175-546	547-3094
Fees*** Hourly Cases	884 (132)	1500 (351)	2400 (173)
Fees*** Contingent Cases	993 (93)	1418 (238)	11170 (129)

*** significant at the .01 level

Table II-TA-E

Fees by Trial

	Trial	
	No	Yes
Fees*** Hourly Cases	1428 (580)	3625 (77)
Fees*** Contingent and Flat Fee Cases	1244 (409)	652 (52)

Significance
* .10 level
** .05 level
*** .01 level

Table II-TA-F

Percent of Cases with Zero Fees by Trial
(Contingent Fee Cases)

	No Trial	Trial
%	6.0	21.0
(n)	(409)	(52)

Table II-TA-G shows fees broken down by levels of client control. For hourly fee cases, the lowest fees were charged in cases where the client exercised the least control. For contingent fee cases, the lowest fees (median #582) were charged in cases where the client had the most control, with medium and low control median fees being $1, 390 and $1,350, respectively.

Table II-TA-G

Fees by Client Control

	Degree of Control		
	Low	Medium	High
Fees* Hourly Cases	1089 (109)	1680 (332)	1500 (216)
Fees* Contingent Fee Cases	1350 (162)	1390 (235)	582 (64)

* significant at the .01 level.

Regression Analysis of Rates Charged by Hourly Fee Lawyers

This section analyzes the rates charged by hourly fee lawyers by means of a multiple regression model combining a large number of variables in a single analysis. Because we have no strong theoretical framework for predicting rates, we have assumed that many of the variables that affect hours also influence rates. We also assume that additional variables relating to the law firm and its geographical location independently affect rates. Since we have no independent information on rates, we estimated the hourly rate as the ratio of fee minus expenses to hours.

Descriptive Analysis of Rates. Figure II-TA-D presents a bargraph of hourly rates divided into equal 20 dollar intervals, indicating a wide overall range, but one in which nearly fifty percent fall within a narrow (forty to sixty dollar per hour)

range. The courts in the sample were divided into three groups by geographical setting: urban, midurban (small city and suburban), and rural.[1] As Table II-TA-H indicates, there is a strong relationship between the urbanness of the site and the hourly rate the most striking finding is that in urban areas close to 50 percentof cases fall into the highest rate category ($60 per hour or over).

Table II-TA-H

Hourly Rate by Geographical Site

Hourly Rate	Site		
	Rural	Midurban	Urban
0-39	20.5 (18)	27.3 (38)	17.1 (21)
40-49	40.0 (32)	20.1 (28)	16.3 (20)
50-59	28.3 (26)	32.4 (45)	17.1 (21)
60 to Highest	11.9 (12)	20.1 (28)	49.6 (61)
	100% (88)	100% (139)	100% (123)

Total n = 350

X^2 = 48.40 6 d.f. (p .0001)

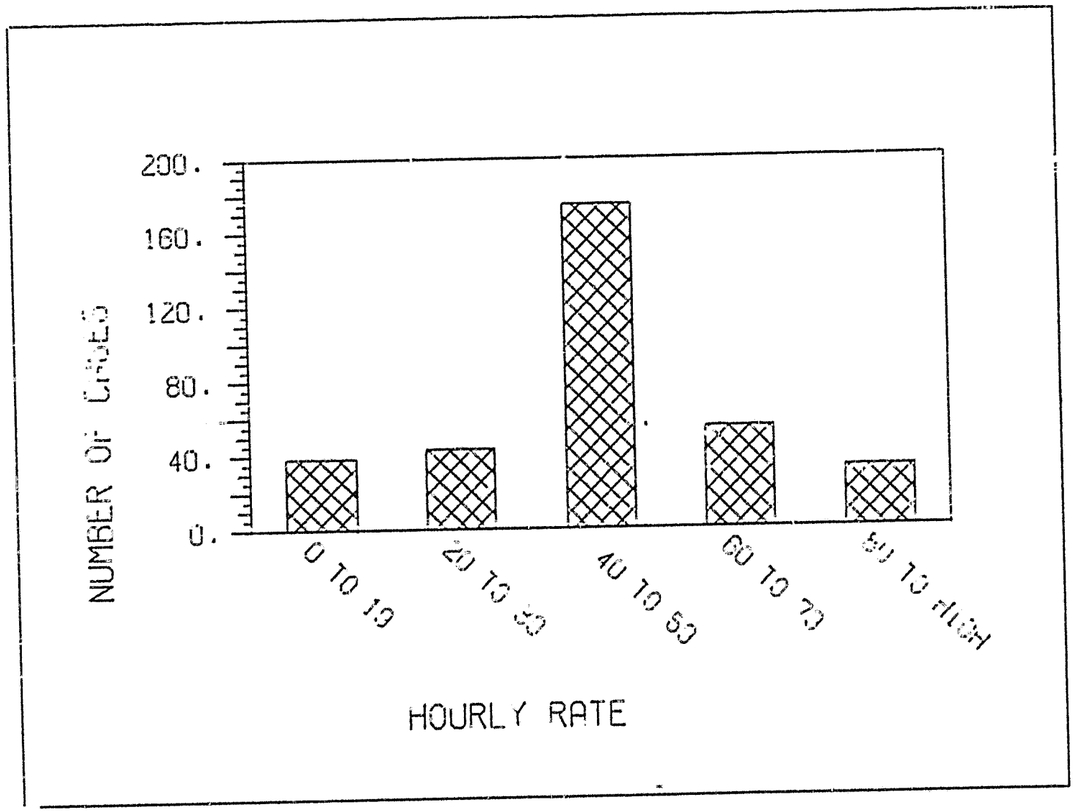
1 Urban: Federal District Court: Penn.
Federal District Court: C. Calif.
Philadelphia Court of Common Pleas
Los Angeles County Court

Midurban: Federal District Court: E. Wisconsin
Federal District Court: New Mexico
Milwaukee County Court
New Mexico State Court
Chester County Court, Penn.

Rural: Federal District Court: S. Carolina
Columbia, S.C. Court of Common Pleas
Dodge County Court, Wis.

Figure II-TA-D

DISTRIBUTION OF HOURLY RATES



We have also looked at hourly rate by size of law firm and, in multiperson firms, attorney's position in the firm. We found no first-order relationship between rates and size of firm and only a moderate relationship with position in the firm (Tables II-TA-I and II-TA-J). We may be underestimating the association between position in the firm and hourly rate, however, because we made no attempt to determine the position of lawyers who worked on the case other than the lawyer interviewed.

Table II-TA-I

Hourly Rate by Size of Firm

Hourly Rate	Size of Firm: Small (1 to 9)	Med (10 to 19)	Large (20 or more)
0-39	28.0 (26)	14.4 (14)	19.7 (25)
40-49	18.3 (17)	30.9 (30)	24.4 (31)
50-59	31.2 (29)	24.7 (24)	23.6 (30)
60 to Highest	22.6 (21)	29.9 (29)	32.3 (41)
	100% (93)	100% (97)	100% (127)

Total n = 317

$X^2 = 10.51$ 6 d.f. ($p < .10$)

Table II-TA-J

Hourly Rate by Position in Firm

	Position		
Hourly Rate	Associate	Partner	Senior Partner
0-39	31.6 (30)	15.1 (23)	15.4 (8)
40-49	25.3 (24)	27.0 (41)	17.3 (9)
50-59	24.2 (23)	24.3 (37)	36.6 (18)
60 to highest	18.9 (18)	33.6 (51)	32.7 (17)
	100% (95)	100% (152)	100% (52)

Total n = 299

Specification of the Regression Equation for Hourly Rates. In determining the total fee charged to clients, attorneys may take into consideration characteristics of the case and their relationship with the client as well as the amount of time they devoted to the case. We expect that some motives to spend more time on a case than the case itself warrants--such as personal or special professional interest (e.g., a case which enhances the ability of the attorney to bill higher rates in the future)--will result in a reduction of rate. Likewise, some motives to reduce bills such as continuing relations with clients may result in lower rates rather than reduced hours. Thus, we anticipate an interaction between the hours and rate models of legal fees. For example, if a high level of client control does not appear to reduce the number of hours spent on a case by a fee for service attorney, we might also explore

the possibility that this disincentive for overinvestment might result in lower hourly rates. The rate regression in this way complements the analysis of hours by exploring alternative ways that lawyers control the level of litigation costs.

The multivariate model predicting rates includes most of the variables used in the hours regression, specifically stakes, complexity, lawyer goals and characteristics (except craftsmanship), type of court and client goals and control. The "events" and "standard operating procedures" groups of variables are also included, because we expected that some types of activities or the routinization of activities would lower the hourly rate. A cluster of variables indicating lawyer "objectives," not included in the lawyer time investment analysis, is also added; these "objectives" variables are not case specific--they refer to general work related objectives (i.e., working conditions, public service, etc.).[1]

Two other variables, measuring the size of the law firm (a lawyer characteristic variable) and the use of paralegals (a case processing variable), are included to take into account the possibility that the how the law firm is organized affects rates. The variable indicating site (rural, midurban, and urban), which we have seen has a strong bivariate relationship with hourly rates, is included in the multivariate analysis to determine if the effects of the legal services market are still important after controlling for all other variables.

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[1] These variables are described above in Technical Appendix I.

Results of the Multivariate Analysis. The first question is how successful are we at predicting hourly rates from the variables in the model? The summary statistic, which indicates the amount of variance explained, R^2, is .23 for hourly rates.[1] This value is lower than our results for hours (which produced an R^2 of .35 and .45 for contingent fee cases and hourly fee cases, respectively). The more modest success at predicting rates is not surprising given our less sophisticated theoretical framework. In addition, the smaller variation in rates (the majority of hourly rates fall in a narrow range) makes it more difficult to account for relatively small differences.

The individual regression coefficients are presented in Table II-TA-K.[2] Coefficients enclosed in parentheses are not significant at the .05 level. Of the key variables from the hours model, none appear to influence rates. There is an indication that cases involving higher stakes may be billed at higher rates, but the difference is not statistically significant. Court type and client control also have relationships in the expected direction with hourly rates, but the relationships are again not significant.

There is also some suggestion that lawyers may charge lower rates for more routinized activities. The two variables measuring

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[1] Three outlying cases were excluded from the regression analysis. These cases had hourly rates exceeding $200 per hour. We suspect that they involved an hourly rate plus an additional percentage of recovery.

[2] The analysis of rates was not corrected for heteroscedasticity.

Table II-TA-K

Results of Rate Regression

Factor	Cluster and Individual Variable	b	Standard Error
I CASE CHARACTERISTICS	A Case Characteristics		
	1 Stakes	(.015)	.010
	2 Complexity	(-.301)	1.120
II EVENTS IN THE CASE	B Events in the Case		
	3 Pleadings Factor	(.723)	1.254
	4 Motions Factor	(-1.394)	1.203
	5 Discovery Factor	(1.199)	1.447
	6 Presence of Trial	(2.730)	3.756
III NATURE OF PARTICIPANTS	C Lawyer Characteristics		
	7 Specialization	(-.306)	1.547
	8 Law School Performance	(.758)	1.784
	9 General Experience	.642	.151
	10 Courtroom Experience	(.032)	.050
	11 Personal Capacity	(-1.544)	1.832
	12 Law Firm Size	(-.541)	.992
IV PARTICIPANT GOALS	D Client Goals		
	13 Get Most/Pay Least	(2.353)	3.005
	14 Get Fair/Pay Fair	(1.972)	3.208
	E Lawyer Case Goals		
	15 Public Service	(1.782)	1.723
	16 Make Money	(1.365)	2.162
	17 Service to Regular Client	(-.702)	2.684
	F Lawyer's General Objectives		
	18 Community Standing	(-.108)	1.529
	19 Pleasant Coworkers	3.605	1.512
	20 Decent Living	(-1.488)	1.710
	21 Public Service	(-1.084	1.512

Table II-TA-K continued

Factor	Cluster and Individual Variable	b	Standard Error
V PROCESSING AND MANAGEMENT	G Court Type		
	22 State/Federal	(3.690)	2.795
	H Case Management		
	23 Pretrial Events SOP	(-1.318)	1.244
	24 Estimating Case Value SOP	-3.385	1.280
	25 Client Control and Participation	(-1.649)	1.873
	26 Use of Paralegals	.309	.123
VI LEGAL SERVICES MARKET	I Legal Services Market		
	27 Rural	12.761	3.443
	28 Midurban	13.678	3.039
	CONSTANT	46.116	
R^2 = .23	F = 3.072	N = 314	

the use of standard operating procedures (SOP) both have a negative impact on rate, although only estimating case value SOP is significant. In fact, the use of standard operating procedures appears to have a greater impact on reducing total fees through a reduction in rates than through a reduction in hours. Most of the hourly rate attorneys are representing defendants; many of these routinized cases billed at lower rates may involve cases where lawyers have continuing relations with insurance companies.[1]

The lack of influence of lawyer goals and capacity variables is surprising. We expected that when a lawyer took a case because of a prior relationship with the client the hourly rate would be lower than otherwise. We found, however, that only the desire to work with others decreased hourly rates. The only lawyer capacity characteristic which had a significant impact on rates was the number of years in practice. (Each year in practice increased the hourly rate by $.64 per hour.) Apparently, the market does not reflect higher ratres for more specialized attorneys, but does enable more experienced lawyers to charge higher rates.

Size of firm does not appear to influence rates (we expected this result from our the bivariate analysis) while an increase in the percentage of time spent on the case by paralegals increases

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[1] It may also be that the "buying power" of insurance companies makes it possible for them to demand lower rates than other types of clients.

hourly rates.[1] Finally, strong relationship between geographical site and the level of hourly rates, a relationship that remains even when the possibly confounding effects of type of court and stakes are taken into account.

Conclusion. We have specified a simple model to explain variance in hourly rates. It appears that attorneys, even in an imperfect market, do not have a great deal of flexibility in setting hourly rates. Within a geographical region there is a fairly constant hourly rate. The only characteristic of the lawyer or the law firm which leads to a significant increase in this rate is the years of experience of the attorney. Deviations from the "going rate" for specific cases seem to occur for either highly routinized work (lower) and perhaps for claims of greater importance with higher stakes (higher).

[1] A possible explanation is that paralegals are substitutes for low rate junior lawyers who, unlike paralegals, are included in the rate analysis.

Technical Appendix IV:
COMPLETE REGRESSION RESULTS

Table II-TA-L shows the results of both the corrected and uncorrected regressions for purposes of comparison. The correction for heteroscedasticity should reduce the standard errors of the coefficients and have a random effect on the values of coefficients. In general, the results of the corrected version are similar to the uncorrected version for both the hourly and contingent regressions.

The last two columns in the Table are the results of running the hourly regression with extra respondents randomly removed when more than one lawyer was interviewed from a particular case. This was done to check whether including observations which were not independent had affected the results. If the results of the regression with the multiple cases removed are compared to the Hourly Corrected Version (the first column) it is obvious from the similarity of the results that multiple respondents did not cause a problem. Comparable results for the contigent fee cases are not included because there were so few multiple cases.

Table II-TA-L

Individual Regression Coefficients: Complete Model

	Hourly				Contingent Fee				W/O Multiple Cases Hourly	
	Corrected		Uncorrected		Corrected		Uncorrected		Corrected	
A Case Characteristics	b	Std. Err.	b	Std. Err.	b	Std. Err.	b	Std. Err.	b	Std. Err.
1 Stakes	.257	.051	.215	.038	.152	.086	.440	.080	.243	.053
2 Complexity	3.154	1.464	10.987	4.647	9.942	3.680	31.670	9.544	3.466	1.495
3 Duration	(.009)	.006	.057	.016	(-.014)	.011	(.009)	.031	(.007)	.005
B Events										
4 Pleadings Factor	(-1.140)	1.975	(5.615)	4.437	9.706	5.021	21.392	10.232	(-2.809)	2.259
5 Motions Factor	18.008	2.503	31.910	4.940	37.281	6.206	32.390	13.100	15.945	2.775
6 Discovery Factor	16.851	2.659	(7.955)	5.590	79.719	3.443	39.387	10.635	18.238	2.691
7 Presence of Trial	(6.735)	5.905	(-11.715)	15.200	(6.805)	11.956	(31.921)	30.731	(5.685)	5.089
8 Presence of Settlement Discussion	(2.758)	6.000	(2.146)	18.697	(-.528)	11.967	(31.613)	34.510	(.279)	6.061
C Client Type										
9 Ind/Org	(-2.613)	4.030	(-6.727)	10.918	16.577	8.840	(-6.565)	26.958	(-2.903)	4.069
D Lawyer Characteristics										
10 Specialization	(2.817)	1.872	(-2.799)	5.688	(1.130)	4.418	(-7.673)	12.071	(3.526)	1.960
11 Law School Performance	(3.021)	2.239	(.078)	6.887	(-3.627)	5.421	(-5.201)	14.240	(3.015)	2.413
12 General Experience	(.024)	.187	(.633)	.554	(.008)	.388	(.730)	1.048	(.099)	.199
13 Courtroom Experience	(.005)	.063	(-.194)	.188	(.009)	.139	(.779)	.399	(-.014)	.065
14 Personal Capacity	(-1.223)	2.463	(8.729)	7.086	(-2.552)	5.685	(-5.798)	14.674	(-1.386)	2.606
15 Craftsmanship	5.489	2.438	(3.646)	6.963	(3.962)	4.551	(17.718)	13.784	5.939	2.595

END

Table II-TA-L continued

	Hourly				Contingent Fee				W/O Multiple Cases Hourly	
	Corrected		Uncorrected		Corrected		Uncorrected		Corrected	
E Client Goals	b	Std. Err.	b	Std. Err.	b	Std. Err.	b	Std. Err.	b	Std. Err.
16 Get Most/Pay Least	-17.649	4.487	(-11.931)	11.792	(4.098)	7.488	(-5.403)	22.627	-21.236	4.744
17 Get Fair/Pay Fair	-17.446	3.847	(-4.232)	11.135	(-6.893)	8.708	(-40.505)	25.191	-19.340	4.050
F Lawyer Goals										
18 Challenge	(1.726)	1.981	(1.502)	5.501	(-3.262)	4.215	(4.941)	11.692	(2.097)	2.024
19 Public Service	-11.689	2.438	(9.443)	6.763	(2.814)	4.991	(8.802)	14.081	-13.963	2.544
20 Professional Visibility	6.712	2.136	22.484	6.423	(-1.535)	5.356	(7.081)	14.172	7.412	2.172
21 Make Money	(1.543)	2.806	(3.360)	7.914	(6.647)	5.017	(-.741)	14.722	(.359)	2.969
22 Service to Regular Client	(3.895)	3.525	(7.503)	10.363	(2.904)	9.482	(12.768)	26.929	(1.975)	3.881
G Court Type										
23 State/Federal	13.240	3.537	22.818	10.568	(-4.161)	8.943	-55.482	22.185	13.397	3.751
H Case Management										
24 Pretrial Events SOP	3.701	1.527	(.470)	4.978	(2.662)	3.607	(9.773)	9.673	(2.890)	1.636
25 Estimating Case Value SOP	(1.251)	1.675	-.312	4.861	(.672)	3.059	(-2.905)	9.146	1.850	1.694
26 Plan for Motions	(4.423)	4.415	(.164)	12.950	(-14.695)	13.836	(-21.249)	27.899	(8.285)	4.509
27 Plan for Settlement	-8.938	3.850	(5.489)	12.084	(.485)	7.767	(6.651)	23.477	-9.343	3.907
28 Plan for Discovery	14.227	3.447	26.659	10.648	(-5.883)	7.252	(-1.852)	20.743	15.090	3.639
29 Client Control and Participation	(-3.543)	2.293	(-6.025)	6.721	(-.725)	4.762	(-.414)	13.252	(-3.514)	2.418
CONSTANT	-1.597	--	-49.576	--	41.883	--	-152.388	--	2.654	--