Corporations in Court: Big Business Litigation in U.S. Federal Courts, 1971–1991

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This article provides an overview of federal litigation involving the largest 2,000 U.S. corporations over the period 1971–91. Reporting from a unique data set of the authors' construction, it finds that although the aggregate volume of business litigation grew during the 1970s and early 1980s, it has actually been declining in recent years in all major categories of cases; business-related litigation is heavily concentrated, with an extremely limited number of business "mega-litigants" accounting for most of the activity; this concentration is particularly evident in tort, with the result that the tort trend line outside the concentration is actually flat or declining; a good deal of the growth in litigation outside the tort area can be attributed to business itself; and big business wins overwhelmingly, as plaintiff and defendant, in cases that involve it. The general applicability of these findings is limited by the data's restriction to federal court litigation and the structure of the Integrated Federal Court Data Base from which the authors' data set was constructed. This granted, the report is by far the most comprehensive treatment of U.S. big business litigation to date, and its findings are strikingly at odds with the premises of much current policy discussion.

It is often asserted that since the early 1960s, a steady expansion of individual rights by a pro-consumer judiciary has induced an explosion of

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Support for the research reported here was provided by Abt Associates, Inc., the Fund for Research on Dispute Resolution (Ford Foundation), the Graduate School Research Committee of the University of Wisconsin–Madison, the Hewlett Foundation, and the RAND Institute for Civil Justice. The authors thank Nicholas Pace and Matthew Zeidenberg for exceptional research assistance, William Humphries, Lane Kenworthy, and Michael Sandfort for the same, and Marc Galanter and Deborah Hensler for early advice on the project. The findings and views expressed in the article are those of the authors and do not necessarily represent those of the organizations and individuals who provided support.

0897-6546/96/2103-497$01.00

litigation against American corporations. Proponents of this view tend to focus primarily on the growth of torts, especially personal injury claims based on product liability theories. In this context, businesses are seen as targets. They are thought of as the victims of a progressively steeper tilt in the litigation playing field, with aggressive plaintiffs' lawyers leading the charge on the business goal line.[1]

A good deal of evidence has also been developed for the notion that business litigation has expanded concurrently in other areas, such as labor and civil rights issues and contractual relationships.[2] Here, the litigation is more likely to pertain to the routine of business itself, and in the contract area particularly, businesses may well be plaintiffs as often as they are defendants. Some have argued that litigation becomes a way of governing business relations when other approaches fail and that other approaches fail more regularly during troublesome economic times.[3] If so, then the increase in individual rights that has purportedly produced such growth in tort actions may in fact be no more responsible for whatever "litigation explosion" might have occurred than business itself.

Whether considered separately or together, these trends are presumed to have had a considerable impact on U.S. firms. They are seen as squandering substantial resources on unproductive and unnecessary litigation, which has little purpose other than promoting the transfer of money from one packet to another.[4] The general consequence is seen as a significant increase in the costs of doing business and a decrease in entrepreneurial activity and the number and type of products and services being made available to the public by U.S. companies. This further erodes the ability of U.S. business to compete with foreign adversaries, which, it is asserted, do not face similar obstacles.

Attempts have been made to codify these concerns about the burdens imposed by the legal system on American business into a statement of na-

1. See, e.g., ATRA (American Tort Reform Association), *Legislative Watch* (1993); Peter Huber, *Liability: The Legal Revolution and Its Consequences* 233 (New York, 1988); Walter Olson, *The Litigation Explosion: What Happened When America Unleashed the Lawsuit* 7 (New York: Dutton, 1991).

2. See, e.g., T. Dunworth & T. Eisenberg, "The Individual Versus Business in the Courts," *The World and I* 488 (Washington: Washington Times Corp., 1991); T. Dunworth & N. Pace, "Statistical Overview of Civil Litigation in the Federal Courts," *RAND Working Paper R-3885-ICJ* (Santa Monica, Cal.: RAND Corp., 1990); Marc Galanter, "The Life and Times of the Big Six: Or, the Federal Courts Since the Good Old Days" (prepared for Symposium on the Role of the Federal Courts, New York University, 1987) ("Galanter, 'Life and Times'"); M. Galanter & J. Rogers, "A Transformation of American Business Disputing? Some Preliminary Observations," *Disputes Processing Research Program (DPRP) Working Paper #10-3* (Madison, Wis., University of Wisconsin, 1991) ("Galanter & Rogers, 'Transformation'") ; Richard Posner, *The Federal Courts: Crisis and Reform* (Cambridge: Harvard University Press, 1985) ("Posner, *Federal Courts*").

3. See, e.g., Galanter & Rogers, "Transformation"; Stewart Macaulay, "Non-contractual Relations in Business: A Preliminary Study," 28 *Am. Soc. Rev.* 55 (1963).

4. Jonathan Rauch, "Demosclerosis," *Nat'l J.*, 5 Sept. 1992, at 1998.

tional policy (President's Council on Competitiveness 1991, Federal Courts Study Committee 1991, Civil Justice Reform Act 1990), and a steady stream of bills designed to alleviate the situation have been introduced over the past 20 years in Congress and in state legislatures.

These efforts have, of course, been met by opposition from a variety of interest groups. These fall into two general camps. One consists of those who believe that the expansion of consumer rights and increased consumer access to the legal system is a good and necessary thing even if it does impose additional costs on business; another consists of those who see any increased protection of business against legal action as a threat to their own activities and livelihood.

A number of scholars have also become engaged on both sides of these issues, often offering documentary support of one kind or another for their views. Such support itself, however, is often considered inaccurate, inconclusive, or irrelevant by the other side. The result has been a serious and ongoing debate about what empirical information is available (or can be developed), what should be used, and how it should be used, as well as what it means.[5]

What this debate illustrates most dramatically is that we lack a clear understanding of the scope and character of business litigation. There are no generally accepted statements, for instance, that give us the following kind of very basic information:

How many lawsuits involve businesses?
What areas of the law are most relevant (torts, contracts, etc.)?
Do particular types of cases dominate business litigation?
Which companies are involved?
Which sectors of the economy are most affected?
Who are the opposing parties?
Who wins and who loses?

This information vacuum makes it extremely difficult to create a satisfactory empirical context for even the most basic questions raised by those on either side of the issues. Despite this, policies are formed and legislation is passed, often seemingly rationalized by little more than carefully selected anecdotes that seem to support a particular policy when taken in isolation—and that can easily be countered by other anecdotes that are support-

5. See, e.g., Deborah Hensler, "Taking Aim at the American Legal System: The Council on Competitiveness's Agenda for Legal Reform," 75 *Judicature* 244 (1992); Brookings Institution, *The Liability Maze* (Washington: Brookings Institution, 1991); G. Butler & B. Miller, "Fiddling While Rome Burns: A Response to Dr. Hensler," 75 *Judicature* 251 (1992); Stephen Daniels & Joanne Martin, "Myth and Reality in Punitive Damages," 75 *Minn. L. Rev.* 1 (1990); J. Kakalik & N. Pace, *Cost and Compensation Paid in Tort Litigation* (Santa Monica, Cal.: RAND Corp., 1986); Peter Huber, "Dan Quayle, the Lawyers and AIDS Babies," *Forbes Mag.*, 28 Oct. 1991.

ive of an opposing point of view. The empirically degraded character of the discussion virtually ensures excess combativeness and policy mistakes.

To begin to remedy this problem, the present study aims to answer the above sorts of questions for federal district court litigation involving large business firms. The study focuses on litigation involving large corporations because of (1) their significance to the national economy, (2) their high visibility to legislators and other policymakers, and (3) the greater availability of public records concerning their business activities. The study focused on federal courts because they are currently the only context within which an empirically grounded answer to the above sorts of questions can even be approached. Businesses themselves are loath to provide access to internally maintained litigation records, and most state courts do not keep case information in such a way as to make statistical analysis feasible. But the federal court system has for the past two decades maintained records of all cases filed in district courts, and these are available to the public in the machine-readable form needed for large-scale systematic analysis.[6]

At the core of the work is a data set, of our construction, consisting of upwards of 456,300 district court cases in which large businesses appeared as a party. The class of large firms on which we focus consists of roughly 2,300 firms identified by *Fortune* magazine, at any point over the period 1971–87, as among the top 500 U.S. industrial or service corporations in its annual listing of same. After taking into account name changes, mergers, and so on, 1,905 separate corporations remain.[7] In a form of shorthand, we refer to this group as the "Fortune 2000" or "F2000" companies. Excluding a range of cases in which those firms were not likely to figure as parties (e.g., student loan collection cases), we then combed the public data set of federal district court cases for those cases in which those firms appeared as first-named plaintiff or defendant over the period 1971-91.[8] After an intensive and iterated search process—in part computer-driven, in part computer-aided, in part involving multiple investigators "eyeballing" tens of thousands of records—we eventually found the 456,300 cases that make up our core data set.

We present here the first of a series of reports on what that data set tells us about the structure and evolution of big business litigation in the United States over the past two decades. Where appropriate, we contrast

6. These data can be obtained from the Inter-University Consortium for Political and Social Research (ICPSR) at ICPSR, University of Michigan, Institute for Social Research, P.O. Box 1248, Ann Arbor, MI 48106-1248. ICPSR also maintains a site on the World Wide Web which can be accessed by pointing a browser to http://icpsr.umich.edu/icpsr_homepage.html.

7. The number is net of mergers, name changes, and other mutations.

8. The difference between the 1971–87 time frame for selection of corporate names and the 1971–91 time frame for observation of data derives from the need to allow sufficient time after a particular firm came into existence for disputes to reach the litigation stage. We acknowledge that the selection of a four-year period is somewhat arbitrary.

the experience of the large firm litigants with that of the non-F2000 general population ("GenPop") of civil litigants (smaller business firms, individuals, and government) over the same period. The report focuses chiefly on the "front door" of the courthouse. In greatest detail, we examine F2000 filing patterns and party role (plaintiff or defendant status) over time and for different case types. But we also provide initial findings about the "back door" of the courthouse—the "How are cases disposed of?" and "Who wins or loses?" sorts of questions—with particular emphasis on litigation win rates for the F2000 population.

Our aim is purely descriptive, with no attempt being made to explain what is observed (such explanation will be a natural focus of subsequent work), but the facts alone we believe to be of considerable interest, not least because they give a picture quite different from the one often presented by pro-business interests such as the American Tort Reform Association and commonly asserted in current policy debate.[9] In this view:

- Litigation volume in the U.S. is steadily increasing and business litigation is growing at particularly high rates;
- The increase in business litigation is a general phenomenon, more or less equally affecting all business sectors and, within specific sectors, all firms;
- The primary burden of business litigation derives from product liability and other tort litigation, long a particular focus of concern to business;
- Litigation against business is overwhelmingly initiated by individual and government plaintiffs; and
- The results of litigation are generally unfavorable and unfair to business defendants.

By contrast, at least for the F2000 (which represent between two-thirds and three-quarters of the assets and sales of *all* U.S. businesses), we find:

- Although the aggregate volume of business litigation grew during the 1970s and early 1980s, it has actually been declining in recent years in all major categories of cases;
- Business-related litigation is heavily concentrated, with a very small number of business "mega-litigants" accounting for most of the activity;
- This concentration is particularly evident in tort, where, for litigants outside the relatively small category of "mega-litigants," the tort trend line is actually flat or declining;

9. Given the large amount of controversy in this area, frequent divisions even among individuals "on the same side" regarding major policy choices, and the above-noted lack of agreement even on the basic facts of the matter, the "conventional" view we now characterize is a deliberate construction and certainly not offered as the only view out there.

- A good deal of the growth in litigation in categories other than torts can be attributed to business itself; and
- Big business wins overwhelmingly, as plaintiff and defendant, in cases that involve it.

These findings pose serious challenges to the view that the deficiencies of the civil justice system have spawned a general, growing, successful antibusiness litigation explosion by individuals and government.

We emphasize that these findings are limited by the data on which they are based, namely, records of federal court litigation. Little is known about business litigation levels and trends in state courts, and it has not been clearly demonstrated that state and federal court filing patterns move in tandem. Nevertheless, a very substantial amount of litigation is captured here, involving a very substantial proportion of the U.S. business community, and the findings offer something that policymakers and scholars have heretofore lacked: a survey of the basic landscape of business disputing in the United States.

In presenting our findings here, we proceed in six steps. In section I, we review some of the research that has been developed during the past two decades on civil litigation trends in general and on business disputing in particular. The review is meant to be illustrative, not exhaustive; it focuses on the work that seems to us to be most pertinent to our current undertaking. In section II, we characterize the big firms that are the subjects of this study and summarize the procedures used to locate their litigation in federal courts. In section III, we provide an overview of the incidence and distribution, over time and by case type, of litigation involving those corporations. In section IV, we consider their filing patterns in more detail. In section V, we contrast the litigation experience of the target firms with that of the general population of district court litigants. In section VI, we report litigation success rates for the F2000 firms and the general population. A brief Conclusion (sec. VII) summarizes the results.

I. SOME THEORIES: SOME FACTS

A. Transaction Costs, Long-Term Continuing Relations, and Litigation

The study of law in a social context, or what is commonly termed the "law and society" movement, takes law and litigation as parts of a social world in which contracting and social relationships between actors are primary. Thus, in order to understand business litigation, one needs to understand the underlying business relationships and why they, in extreme cases, lead to litigation.

A business relationship involves one or more transactions. A transaction is an exchange of some quantity of goods or services (or both) between two parties at a mutually agreeable price. Hence, transactions vary in terms of price and quantity, the parties involved, and the goods or services exchanged. Transactions in the economy also vary to the degree that they are part of close or ongoing business relationships or arm's-length or one-time-only relationships. At one end of this continuum is the internal transaction between two divisions of the same firm; at the other, the spot-market transaction between two firms with no expectation of any continuing relationship. Williamson's view of transacting suggests that actors engage in continuing long-term relationships to the extent that their particular line of business involves asset-specific investments in physical and human capital.[10] Consider the case of an engineer employed by a large chemical firm. As a result of education, the new employee may have a broad knowledge of chemical production processes but know none particularly in depth. After some time with the firm, the employee will have acquired an intimate knowledge of the firm's particular production process, perhaps undergoing extensive training in the interest of becoming more productive. In addition, the engineer will probably have become better acquainted with her coworkers, making the entire team more productive. The employee and firm have both made asset-specific investments in one another. While the engineer and firm may have chosen one another in a competitive labor market, the relationship after some time has passed is substantially different. Neither the firm nor the engineer is as valuable to outside parties as they are to each other. Put differently, the costs to both parties of severing the relationship are high. Consideration of asset-specific investments bears on everything from the location of coal-fired power plants to the design of operating systems for computers to an individual employee's decision about whether to undergo company-sponsored training. Macneil has suggested that the arm's-length transaction is the exception rather than the rule, and he advocates replacing the standard model of contracting with a relational model of contracting.[11] This implies that governance structures can vary depending on the types of business relationships required for a particular mode of production.

In Macaulay's classic study of automobile manufacturers and their dealers, he found precisely this type of relationship.[12] Manufacturers and their dealers, who engaged in relationships lasting for years, were unwilling to do anything to disturb the relationship, particularly something so extreme as threatening or starting litigation. Firms in long-term continuing relations,

10. Oliver Williamson, *The Economic Institutions of Capitalism* (New York: Free Press, 1984).

11. I. R. Macneil, "Reflections on Relational Contract," 141 *J. Institutional & Theoretical Econ.* 541 (1985).

12. Macaulay, 28 *Am. Soc. Rev.*

such as those Macaulay described, were likely to develop dispute resolution mechanisms that avoided lawyers and the courts. Continuing relations between businesses are valuable to the extent that the parties value future transactions, the stakes of the transactions are high, and there is a high probability of continued relations.[13] In the case of the automobile manufacturers and their suppliers, suppliers often see the potential for a continuing contractual relationship as lucrative and are unwilling to do anything to disturb it. Reciprocally, however, the disruption of relations between a dominant and a highly dependent party may trigger litigation because of that dependence. Auto dealers, for example, tend to have much more tense relationships with auto manufacturers.[14] At the time of Macaulay's study, a dealer dropped by a manufacturer was typically out of business and had nothing to lose by beginning litigation.

B. The Dispute Pyramid

With the underlying cause of litigation a transaction, relationship, or contract gone awry, litigation may be viewed as the apex of a "dispute pyramid."[15] At the bottom of the pyramid are business contracts, both of the arm's-length variety (one transaction per contract) and of an ongoing relation (typically multiple transactions per contract). When a subset of these transactions is perceived as injurious by one or more of the parties, grievances result. Going up the pyramid, with successively fewer participants in each category, we have informal grievances, formal claims, ongoing disputes, disputes involving lawyers, and, at the apex of the pyramid, litigation consisting of case filings, settlements, trials, and appeals.

In an earlier attempt to map dispute evolution, Felstiner, Abel, and Sarat offer "naming, blaming, and claiming" to capture the parties' changing perceptions of underlying facts.[16] "Naming" occurs when the aggrieved party recognizes an injury; "blaming" occurs when he or she attributes the cause of the injury to another party; "claiming" occurs when he or she contacts that other party and asks for redress. The movement of a dispute across the naming, blaming, and claiming landscape corresponds closely to movement up the disputing pyramid. Parties' actions and intentions may change over time as they communicate—with the other party, with agents or law-

13. M. Galanter, S. Macaulay, & J. Rogers, "The Transformation of American Business Disputing," Project Proposal to the Fund for Research on Dispute Resolution (1989).

14. L. Kenworthy, S. Macaulay, & J. Rogers, "The More Things Change . . .: Business Litigation and Governance in the American Automobile Industry" (unpub., University of Wisconsin, 1995).

15. Marc Galanter, "Reading the Landscape of Disputes: What We Know and Don't Know about Our Contentious and Litigious Society," 31 *UCLA L. Rev.* 4, 11 (1983).

16. W. Felstiner, R. Abel, & A. Sarat, "The Emergence and Transformation of Disputes: Naming, Blaming, Claiming . . .," 15 *Law & Soc'y Rev.* 631 (1980).

yers, or with all of these. For instance, if the accused party finds himself or herself in a sympathetic relationship to the aggrieved party, perhaps because he or she has suffered a similar injury in the past, he or she may take a more conciliatory stance. Conversely, a harder line may be adopted when it is determined that the opposition has deep pockets, or an interest in minimizing the publicity and exposure surrounding the dispute in question. Thus, there are numerous factors involved in the evolution of a dispute, many of them hidden from sight.

In studying business litigation, it would obviously be desirable to map the amount and type of activity at different levels of the pyramid or at the naming, blaming, and claiming stages. If we could identify what is taking place at the beginning, it would in principle be possible to track a dispute from that point to the litigation arena and to develop a comprehensive picture of business disputing. However, we typically have data only on the apex of the pyramid, and this is an uncertain guide to the structure of what lies below. Though we may feel confident that a substantial proportion of grievances become visible through the court process for some classes of disputes—such as mass torts based on asbestos, the Dalkon Shield, and other products, or claims arising out of air crashes and other similar events—for the normal range of business litigation this is almost certainly not the case. It seems reasonable, for instance, to assume that only a tiny fraction of contract disputes will generate a court filing. Both theory and common sense suggest that parties will resolve these and most other conflicts with as little expense and inconvenience as possible. Nevertheless, largely because they are nearly all we have, data on the apex demand our attention. Interpretations of those data then demand our caution.

An illustrative example of this difficulty lies in the problem of explaining the increase in litigation that has been observed in federal and state court caseloads during the past two decades. Is such an increase simply due to an underlying increase in the number of transactions and contracts? That is, has the size of the base increased with the consequence of more or less proportional expansion at each subsequent stage of dispute processing? Or is the increase due to an expansion in litigiousness: an increase in the propensity for disputes to ascend the pyramid, so that the apex of the pyramid enlarges even if the base does not? Or is it a combination of the two?

Inferences about the former possibility may be drawn from underlying economic data, but insofar as such underlying data are expressed in money amounts rather than numbers of contracts and transactions, the relationship between these data and the bottom of the pyramid will be inexact at best. Inferences about an increased propensity to sue have of course been the subject of considerable attention and argument and are fueling much of the debate on civil reform, particularly as it pertains to torts. At the moment, however, neither the "expanded transactions base" nor "increased propen-

sity to sue" accounts have much systematic empirical basis or, at least, not one related systematically to actual litigation trends.

C. Civil Litigation Caseloads and Case Processing

For many years, the Administrative Office of the U.S. Courts has published annual compilations of federal court caseloads aggregated across a number of dimensions. The National Center for State Courts has produced similar, though less comprehensive, statistics for state courts. Both sets of publications have documented that, beginning in the 1960s, significant increases began in the annual number of civil cases filed. During the late 1960s, these accelerated, and further growth took place during the 1970s and into the middle of the 1980s. These statistics are of course consistent with the notion that there has been some kind of "litigation explosion," though as noted general acceptance of this view has not been forthcoming.

As data availability and quality have increased, especially in the federal courts, a series of studies have emerged that have focused on the caseload issue and have sought to categorize and classify the filing expansion that has, without question, taken place.

Using the reported data of the Administrative Office, Posner notes that the number of civil cases in federal district courts rose from 51,000 to 241,000 between 1960 and 1983,[17] an almost fivefold increase. The percentage of civil cases as a proportion of total cases rose from 64.5% to 87.1%. He notes that the real value of the minimum amount in controversy required for diversity jurisdiction filings,[18] which was raised in 1958 to $10,000, had by 1985 declined by two-thirds since its pre-1958 level of $3,000 was set. This seeming imbalance was presumably rectified when the most recent increase (to $50,000) was made in 1988. He observes that when it was raised in 1958 (from $3,000), diversity filings dropped immediately by 32%. However, an upward trend was resumed shortly afterward. In effect, Posner notes, the price of admission to federal court had fallen, so more litigants entered. Diversity filings tripled over Posner's period of study; beyond the effects of inflation, he attributes this increase to the increase of potential plaintiffs' rights in state law, paralleling the expansion of rights in federal law.

Posner also observes that the increase in cases may be driven by the fact that federal funding has become available for poor and indigent people through the Legal Services Corporation and for indigent criminal defendants through the Criminal Justice Act of 1964. This allows more people

17. Posner, *Federal Courts* (cited in note 2).

18. The jurisdiction of the federal courts extends to suits between parties who are citizens of different states, and either party to a lawsuit can seek federal jurisdiction (28 U.S.C. 1332).

access to the courts. He doubts, however, that the increased supply of attorneys has driven the increase in litigation, because the supply has not grown as quickly.

Posner also notes that legislation—notably Title VII of the Civil Rights Act of 1964—and expansion of causes of civil rights actions by an activist Supreme Court—has led to a large increase in the number of civil rights matters that could be litigated. This may account for some or most of the increase in civil rights litigation. Similarly, an increase in rights may account for the increase in prisoner petitions, such as the right of a prisoner to access a law library. The state prison population has not grown as quickly as prisoner petitions have, but sentences have increased, so a prisoner may have more time to prepare a petition.

Galanter, also using the Administrative Office reports, found that the number of civil cases in the federal courts, in the period from 1960 to 1986, increased by 329%.[19] Over four-fifths of that increase, he found, was due to six categories, which he called the "big six"—civil rights cases, prisoner petitions, social security cases, recovery cases, other contract cases, and tort cases. The big six accounted for 64.3% of civil case filings in 1960 and 78% in 1986. Tort cases declined from 31.2% of filings in 1960 to 16% in 1986. Recovery cases increased from 4.4% to 16.1%. Contracts decreased from 22.9% to 18.7%. Civil rights cases increased, enormously, from 0.5% to 7.9%. Prisoner petitions increased from 4.3% to 13.3%. Social security cases increased from 1.1% to 5.7%. All other case types were, in 1960, 5% or less of the caseload. Galanter points out that there is not a generalized explosion of litigation, but rather different case types have followed different trajectories, and he recommends looking at the situation by disaggregating by case type. Each case subpopulation, Galanter suggests, has a distinctive story. As we see from the above data, the big six consists primarily of the "big two"—contracts and torts. Recovery cases, which primarily consist of attempts by the federal government to recover student loans, have increased mainly because of increased federal efforts to do so, as a result of a recommendation in 1977 from the General Accounting Office.

Dunworth also utilized Administrative Office data in his studies of product liability litigation and general federal court litigation.[20] But instead of using the aggregate statistics of the Administrative Office publications, Dunworth used the underlying data base, consisting of several million case records, to conduct more detailed analysis. The product liability study examined all known product liability cases filed in federal district courts from

19. Galanter, "Life and Times" (cited in note 2).

20. Terence Dunworth, "Product Liability and the Business Sector: Litigation Trends in Federal Courts," *RAND Working Paper R-3668-ICJ* (Santa Monica, Cal.: RAND Corp., 1988) ("Dunworth, 'Product Liability'"); T. Dunworth & N. Pace, "A Statistical Overview of Civil Litigation in the Federal Courts," *RAND Working Paper R-3885-ICJ* (Santa Monica, Cal.: RAND Corp., 1990) ("Dunworth & Pace, 'Statistical Overview'").

the middle of 1973 to the middle of 1986. The objective was to determine the number and economic sector of companies that had been involved in product liability suits and the volume of cases in which they were defendants, and to assess whether the general view of product liability as a universal phenomenon could be supported or denied by the actual patterns that were found.

Nearly 86,000 product liability suits were filed during the study time period, and at least 19,500 different businesses were named in them. Most sectors of the economy were represented to some degree, but a few industries predominated. Asbestos-related suits accounted for nearly 21,000 of the cases, with an additional 30,000 involving companies in tools/machinery/equipment industries, pharmaceuticals, and motor vehicle manufacturing. Perhaps of greatest significance in this study was the finding that when cases were associated with particular defendants, a dramatic dichotomy was revealed. Nearly half of all the 86,000 cases had been brought against fewer than 80 defendants, while the other half involved more than 19,000 defendants. When the individual firms were grouped by industry, the dichotomy was preserved for asbestos, pharmaceutical, and motor vehicle companies, and it was noted that the average number of suits faced by the 80 defendants was in the thousands, while the average for all other defendants was less than three. This led to the conclusion that product liability litigation should not be considered a homogeneous entity. A tiny number of defendants are named in thousands of suits, and thousands of defendants are named in one or two suits.

Dunworth and Pace used the same data base to conduct a more general analysis of the entire federal civil caseload, with a particular emphasis on time-to-disposition, and the relationship of various court and case characteristics to it.[21] The objective was to document the nature of time to disposition and to attempt to explain whatever variation might be found between districts and case types.

The study underlined what was in essence already known about general filing trends. From the end of World War II until the mid-1960s, federal court filings showed little change in annual volume. After that time, the well-known increases took place across most case types and in most districts. Despite this, however, remarkable stability was found in case processing times and characteristics. For the entire federal court system, there were virtually no changes in average time to disposition for private civil cases across this period (the median was 9–10 months in every year from 1971 to 1986; the average was 13–15 months) or in the proportion of cases that took less than one year (60%), one to two years (25%), two to three years (10%), or more than three years (9%). Beneath these flat systemwide trends was considerable variation in absolute levels, however, from district to dis-

21. Dunworth & Pace, "Statistical Overview."

trict and from case type to case type. Some districts had median disposition times of less than 6 months, others more than 18. Some case types terminated rapidly, some more slowly. However, within these subcategories, the consistency over time that was noted for the entire system tended to persist.

When the court process and court resources were examined as possible explanatory factors for time to disposition variation, Dunworth and Pace discovered that, in fact, there was no detectable relationship between the way a district handled cases and the time it took, or between the districts judicial resources and the way it handled cases. For example, districts that had higher proportions of trials did not have slower disposition times; and districts with lower numbers of judicial officers did not have fewer trials (or slower disposition times).

Heydebrand and Seron describe what they call the "rationalization of justice" in the federal courts.[22] Cases are increasingly handled administratively rather than by adjudication. If a case is terminated, this may be as much the work of magistrates and attorneys as of judges themselves. Depending on the case type, different actors will be involved in different points of the process. For instance, magistrates are typically involved in those few prisoner petition cases that make it to trial. Prisoner petitions and labor cases are less likely to take up resources of the courts than other types of cases. Also, government cases tend to be disposed of more expeditiously, as are criminal cases. The effect of increased workload on the courts tends to be an increase in the use of pretrial conferences, plea bargaining, and other mechanisms to avoid a trial. In civil cases, delays vary according to the caseload of a particular district.

Galanter studied what happens to groups of similar cases ("congregations") as they work their way through the court system.[23] Cases may be similar in that they originate in a single event (e.g., an accident) or in that they stem from a problem with a particular product or type of product (e.g., asbestos), or they may all stem from the assertion of a (violated) right.

Some case congregations, such as those stemming from an airline crash, spike and then fall off. Others, such as litigation stemming from increased economic activity, rise and then level off (the so-called curvilinear model associated with Toharia[24] and Friedman[25]). Galanter identifies a number of facts, both exogenous and endogenous, affecting the time course of a case congregation. These include preventive efforts to avoid litigation,

22. W. Heydebrand & C. Seron, *Rationalizing Justice: The Political Economy of Federal District Courts* (Albany: State University of New York Press, 1990).

23. Marc Galanter, "Case Congregations and Their Careers," 24 *Law & Soc'y Rev.* 371 (1990).

24. Jose Toharia, "Economic Development and Litigation: The Case of Spain," 4 *Jahrbuch für Rechtssoziologie & Rechtstheorie* 39 (1976).

25. Lawrence Friedman, "Trial Courts and Their Work in the Modern World," 4 *Jahrbuch für Rechtssoziologie & Rechtstheorie* 25 (1976).

regime changes, recordkeeping to show due care, lack of recordkeeping to hide lack of due care, promotional efforts to reach new plaintiffs, rationing of scarce legal resources, anticipation efforts on the part of parties to prepare for litigation, information-sharing and coordination efforts, lawyer expertise (improvement), lawyer turnover, and outcome stabilization as a case type becomes more familiar to lawyers and the courts. All these factors may affect a particular case congregation in a particular way, leading to a particular time distribution of cases.

Turning to long-term trends, Friedman and Percival discuss civil litigation in two California counties, one urban (Alameda) and one rural (San Benito), between 1890 and 1970.[26] The caseload over this time period ranged from 4.8 to 10.2 cases per thousand population in San Benito and between 7.6 and 13.5 in Alameda. In Alameda County, in 1970, 51.7% of the cases heard were family cases, 15.7% were contracts cases, 2.3% were property cases, 27.1% were tort cases, 1.3% were governmental cases, and 1.3% were corporate cases. Over the period studied, family and tort cases rose at the expense of property and contract cases. The shift was even more pronounced in San Benito County. In 1970, plaintiffs won 96% of their cases in Alameda and 97% in San Benito. It seems that these courts have taken on an almost purely administrative role. The use of these courts by business for any purpose other than to collect debts has dwindled. Any matter over $5,000 must be brought to Superior Court, so this is where all the significant business litigation has gone.

Similarly, Kagan, Cartwright, Friedman, and Wheeler studied the composition of cases in state supreme courts.[27] They studied a sample of 16 states, in each year divisible by five from 1870 to 1970 (the same sample used in their 1987 study mentioned above). They found that the state supreme courts have increased their ability to select cases over that period. Many states created intermediate courts of appeals to reduce the supreme court's workload and improve its selectivity. The result is that in the most recent 30-year period (1940–70), supreme courts had the following breakdown of cases: 15.0% debt and contract, 10.9% real property, 1.4% corporations and partnerships, 22.3% torts, 18.2% criminal, 19.4% public law, and 11.8% family and estates. They note that supreme court workloads have declined from a peak early in this century, mainly because some cases could be sent first to an appeals court. Also, there has been a shift away from commercial to noncommercial law. They note that few of the Fortune 500 are involved in their pool of 5,904 cases.

26. L. Friedman & R. Percival, "A Tale of Two Courts: Litigation in Alameda and San Benito Counties," 10 *Law & Soc'y Rev.* 267 (1976).

27. R. Kagan, B. Cartwright, L. Friedman, & S. Wheeler, "The Business of State Supreme Courts, 1870–1970," 30 *Stan. L. Rev.* 121 (1977).

Turning to business disputing, Cheit studied business litigation in Rhode Island.[28] He studied all 264 business-versus-business cases from the federal district court filed in 1966, 1973, 1980, and 1987. In addition, he studied 581 business-versus-business cases filed in state court in 1987. In his federal sample, he found an increase in the proportion of total cases that were business litigation. He also found, in his federal sample, that the dispute pyramid tended to be "top-heavy"; that is, a surprising proportion of cases reach later stages of the dispute process. He found that litigation correlated with economic activity, and there were sectoral differences. For instance, he noted that there were many more cases involving the construction industry than the electronics industry and concludes that this is because construction contracts tend to be one-shot, that is, not part of long-term continuing business relationships.

Finally, Munger explores the tradition in the study of litigation which views law as a part of and a window into economic and social development.[29] Looking at the work of Hurst,[30] who felt that law held community values and was turned to as problems arose in the course of economic development, Munger finds that Hurst admitted that there typically are economic interests that the law primarily serves and that marginal actors make more use of the law. Munger is skeptical of Hurst's use of normative effects theory, which holds that law moves in to fill the gaps when behavior violates norms, thus "adjusting the system" in a functional way, so that actors adjust their behavior to conform to new areas of law that adapts to new circumstances. There is a tension, Munger finds, in Hurst's use of this theory to explain the use of law in economic development in Wisconsin's lumber industry and his seeming admission that law serves powerful interests.

Munger studied civil litigation during the "takeoff" and maturation of the coal industry in three adjoining West Virginia counties. He notes that normative effects theory tends to predict a curvilinear relationship between civil litigation rates and economic activity. He studied rates of litigation between companies, between coal companies, and between companies and individuals in this period. He considers rates normalized by population and by the log of coal production and argues that the latter is the proper variable, because population increases may lag economic activity and economic activity drives litigation. However, when he uses the population-adjusted rate, he finds that the curvilinear model does not fit well. He makes a case for a model that takes account of separate processes of social change, each of

28. Ross Cheit, "Patterns of Contemporary Business Litigation in Rhode Island" (prepared for Law & Society Association Annual Meeting, Berkeley, Cal., 1990).

29. Frank Munger, "Law, Change, and Litigation: A Critical Examination of an Empirical Research Tradition," 22 *Law & Soc'y Rev.* 57 (1988).

30. James Willard Hurst, *Law and Economic Growth: The Legal History of the Lumber Industry in Wisconsin, 1836–1915* (Cambridge: Harvard University Press, Belknap Press, 1964).

which may act independently. To test this, he tries to use proxies for the 1890s depression, rates of coal company failures, and World War I, but he finds consistent effects only for the latter cause (World War I). His studies of litigation fail to validate the normative effects theory and fail to support the alternate theory (of separate processes of social change) that he considers.

McIntosh studied civil litigation in St. Louis from 1820 until the 1970s.[31] His thesis is that social, economic, and political changes and instability generate cyclical patterns of litigation in time. In times of rapid technological change, changes in bank viability, or civil unrest, one would expect the volume of litigation per capita to rise. McIntosh juxtaposes a detailed socioeconomic history of St. Louis with a time series of litigation broken down by case type. This, together with an empirical model of multivariate regression, allows McIntosh to make strong parametric claims about the joint movements of instability and litigation and to also complement these with claims about the direction of causality in the model. As proxies for the level of socioeconomic stability, he uses proportion of total labor employed in manufacturing and population density, which are designed to correspond roughly to industrialization and urbanization. For political stability, he uses voter turnout in state legislative elections, degree of single-party control of state legislative seats, and closeness of the vote in state legislative elections. Finally, he includes a variable designed to measure court availability, under the hypothesis that individuals recognize when disputes are being processed slowly through the courts and adjust their decisions to register claims accordingly.

D. Bargaining and the Decision to Litigate

Complementing studies of the relational background of disputing and long-term trends in civil litigation are attempts to model the actual decision to litigate. The locus classicus is the model of Priest and Klein,[32] who begin with the assumption that a dispute will be litigated only if the costs of litigation are exceeded by its expected benefits:

$$P_p - P_d > (C - S)/J ,$$

where P_p is the plaintiff's probability estimate of a liability verdict, P_d is the defendant's estimate of the same, C is the combined costs of litigation for the parties, S is the combined costs of settlement, and J is the size of the judgment if liability is found. All else equal, the incidence of litigation should vary directly with an increase in the difference between the parties'

31. Wayne McIntosh, *The Appeal of the Civil Law: A Political-Economic Analysis of Litigation* (Urbana: University of Illinois Press, 1990).

32. G. Priest & B. Klein, "The Selection of Disputes for Litigation," 13 *J. Legal Stud.* 1 (1984).

probability judgments of success (P_p - P_d), a decrease in the cost of litigation (C), an increase in combined settlement costs (S), or an increase in the size of judgments if liability is found (J).

Without a difference in the parties' assessments of the probability of a plaintiff win (without, that is, $P_p - P_d > 0$), however, litigation will not even get started. Errors of the plaintiff or defendant must cause them to estimate that a case lies on a different side of the decision standard than the estimate of the other party.

In the limit, as the parties' errors become small, the area in the distribution of cases around the decision standard becomes rectangular, and the probability that each side will win approaches 50%.[33]

When the parties' stakes in the litigation differ, the outcome from litigation may deviate from the 50% rule. This occurs frequently; the most common examples given are malpractice and product liability cases, in which the defendants may lose reputation as well as having to pay a monetary award and if the defendant loses, other plaintiffs may come forward. The model of the decision to litigate in this case indicates that when plaintiffs have greater stakes, they win more often, and many more cases are taken to litigation. When defendants have greater stakes, many fewer cases are taken to litigation, and the defendant wins most of these.

Bizjak and Coles find that the filing of a private antitrust action against a company causes the company to lose stock market valuation of an average of $4 million.[34] The plaintiff's stock value goes up, on average, $3 million. In addition to legal fees and costs, these wealth changes reflect the costs of injunctive relief, copycat suits, and effects on credit. Clearly, this is a case where asymmetric stakes affect the outcomes and where there are strong incentives to settle in this negative sum game.

Many authors have raised important criticisms of the Priest and Klein model. One major shortcoming of the model is its failure to account for possible strategic behavior by the parties to the suit. As Cooter and Rubinfeld observe of Priest and Klein as well as of similar efforts, "Most models have assumed that settlement occurs automatically whenever the surplus . . . is positive. This assumption has the effect of ruling out strategic behavior. Its main justification is pragmatic—predictions can be derived

33. This assumes, of course, that the parties' estimates are normally distributed around their true values and that the parties' estimates are independent of one another. The former assumption is reasonable, but the latter one may not be if information is exchanged between the parties prior to deciding whether to litigate. Of course, any information received by one party from the other should cause the two parties' estimates to converge if it is not misinformation or bluster.

34. J. Bizjak & J. Coles, "The Effect of Private Antitrust Litigation on the Stock-Market Valuation of the Firm," 85 *Am. Econ. Rev.* 436 (1995).

readily from non-strategic bargaining models, whereas strategic bargaining models are often intractable."[35]

One of the first individuals attempting to introduce strategic behavior into the modeling of litigation and settlement was P'ng.[36] He did so by specifying the dispute as a game in extensive form with three stages. The defendant is in violation with probability q and not in violation with probability $(1 - q)$. He knows for certain whether or not he is in violation, but this information is completely unknown to the plaintiff. In the first stage, the plaintiff, who perceives that she has been harmed, decides whether or not to file an action. In the second stage, the defendant either makes an offer to settle for some predetermined amount S or does not make an offer. If the defendant offers to settle, in the third stage the plaintiff can either agree to settle for S or can reject the offer and go to trial where the judgment W is rendered. If the defendant does not offer to settle, the plaintiff may drop the suit or continue the suit to trial. This game is then solved for the Nash equilibria, that is, the collection of strategy pairs (plaintiff strategy, defendant strategy) such that neither player has incentive to deviate from his or her strategy. The outcome associated with each such Nash equilibrium is then presented and compared with previous results.

If the expected value of the judgment (based on the probability q that the defendant is in violation) is very large, the suit will probably go to trial. If the defendant's legal costs are sufficiently large relative to the amount of the judgment, the suit will settle. If the plaintiff's legal costs are sufficiently high relative to the expected value of the judgment, the suit will settle or the plaintiff will drop the case. It is possible that the plaintiff may not sue at all, even if she has been harmed, a result that clearly depends on whether the cost of suing is negligible. In addition, the model allows for the possibility that the plaintiff will sue just to see if she can extort a settlement out of the defendant, an action that Cooter and Ulen note has been used a number of times against developers in New York City.[37] This sort of action is only rational when the trial is more costly to the defendant (cost overruns and scheduling problems in the case of developers) than it is to the plaintiff. Finally, it is shown that the defendant may make no move in equilibrium which depends on his or her type. This follows from the fact that if the defendant were allowed to make such a move, the plaintiff would immediately be able to identify the defendant's liability and act accordingly. Clearly the introduction of game theory into the model makes for a richer theory of the selection of litigation for trial, both in terms of more accu-

35. R. Cooter & D. Rubinfeld, "Economic Analysis of Legal Disputes and Their Resolution," 27 *J. Econ. Lit.* 1067, 1076 (1989).

36. I. P. P'ng, "Strategic Behavior in Suit, Settlement, and Trial," 14 *Bell J. Econ.* 539 (1983).

37. R. Cooter & T. Ulen, *Law and Economics* 486 (Glenview, Ill.: Scott Foresman, 1988).

rately presenting the settlement negotiation process as it actually occurs, but also in terms of explicitly modeling the information structure of the game.

Kritzer studied bargaining by attorneys.[38] He identified a set of cases and interviewed attorneys on their bargaining and settlement behavior. According to Kritzer, the amount of effort that goes into bargaining and reaching a settlement is directly related to the stakes, as he illustrated with examples of the Pennzoil/Texaco and Agent Orange cases at one extreme and a small bicycle injury at the other. He noted that attorneys tend to agree on the general value of a case, and little bargaining goes on in relatively low stakes cases. Attorneys lower their costs by adopting norms on bargaining behavior, avoiding extensive bargaining and posturing, and creating a system for evaluating the worth of a case based on past experience. Kritzer's work explains why the vast majority of cases are settled: attorneys and judges share norms on what they are worth.

Two-sided incomplete information bargaining models with interesting results, that is, models which have any explanatory power at all, have been introduced relatively recently to the economics literature. One of these models, presented by Chatterjee and Samuelson,[39] is cited by Kritzer and sets up a bargaining model in extensive form that seems similar to the litigation bargaining process. As opposed to models with one-sided incomplete information which often have a multitude of Nash equilibria, this model generates a unique Bayesian Nash equilibrium. In addition, the comparative statics at the end of the article relate the allocation of the gains from trade to measures of bargaining power such as the initial beliefs about whether a player is "tough" or "soft."

E. Outcomes: Do the 'Haves' Come Out Ahead?

Students of litigation have a natural interest in the outcomes of cases. What are the characteristics of parties that win cases? For instance, do larger companies prevail more often in litigation, and do companies win over individuals? These are difficult questions to answer in any definitive way. Observations concerning outcomes are constrained by the fact that outcome data are largely restricted to those disputes that reach the top of the pyramid—that is, disputes that result in litigation and an observable court result of some kind. The other outcomes, which occur at lower levels of the pyramid, are generally invisible to outside observers. However, since court dispositions occur in no more than a small proportion even of those cases that are actually filed in court, resolution at these lower levels is by far the most

38. Herbert Kritzer, *Let's Make a Deal: Understanding the Negotiation Process in Ordinary Litigation* (Madison: University of Wisconsin Press, 1991).

39. K. Chatterjee & L. Samuelson, "Bargaining with Two-sided Incomplete Information: An Infinite Horizon Model with Alternating Offers," 54 *Rev. Econ. Stud.* 175 (1987).

characteristic path that disputes follow. Thus, virtually all outcome information is biased and should be used to make inferences to the general population of disputes only with the greatest caution.

Given these caveats, however, the most common view about outcomes is that parties with more resources do tend to come out ahead. This is at variance with Priest and Klein's theoretical result that plaintiffs and defendants should win about equally in litigation, given equal stakes. Galanter suggests that those players with more resources will tend to come out ahead because they tend to be "repeat players" who are more likely to behave to their own advantage in a dispute, because they have learned from previous mistakes.[40] They also tend to have better representation, because money buys better representation, and because they tend have continuing relationships with lawyers, who learn from representing them in similar cases. They can also afford expert witnesses and the expenses of discovery. Also, judges tend to come from an upper-class background, or at least have reached the upper classes, and may favor upper-class or corporate litigants.

Wheeler, Cartright, Kagan and Friedman, in their study of state supreme courts, also found that the economically more powerful party, especially when it was the state, did tend to prevail, but the tendency was weak.[41] The advantage held up across case types and time periods. Their sample was taken from state supreme court decisions of 16 states chosen to represent the country as a whole, and they chose 18 cases randomly from each court in each year divisible by five in the period 1870–1970. In this sample, they found that businesses tended to prevail over individuals by a margin of 2.7% when the individual was the plaintiff, and businesses prevailed over individuals by 1.8% when the business was the plaintiff. Parties represented by firms tended to do better than those represented by a solo practitioner. These margins were rather lower than what one might expect if one subscribes to the Galanter theory. But, the authors suggest, they are also a blow to an idealist view of the courts as a neutral forum.

Governments tended to prevail by a much wider margin. In civil cases, the government edge was 4.8% over individuals and 6.3% over businesses. In criminal cases, the numbers were 21.5% and 6.6%, respectively. However, only a small proportion of criminal cases go to trial—usually those in which the government's case is weak rather than strong, and conviction rates by plea are of course much higher than conviction rates by trial.

40. Marc Galanter, "Why the 'Haves' Come Out Ahead: Speculations on the Limits of Legal Change," 9 *Law & Soc'y Rev.* 95 (1974).

41. S. Wheeler, B. Cartwright, R. Kagan, & L. Friedman, "Do the 'Haves' Come out Ahead? Winning and Losing in State Supreme Courts, 1870-1970," 21 *Law & Soc'y Rev.* 403 (1987).

Songer and Sheehan studied the success rates of different types of litigants in the United States Courts of Appeals.[42] They selected cases terminated in 1986 in the Fourth, Seventh, and Eleventh circuits. They collected data on both published and unpublished decisions. They created five categories of litigants: individuals, businesses, state and local government, the federal government, and others (including unions, fraternal organizations, nonprofits, etc.) They subdivided business into a "big business" category and a residual category (banks, railroads, manufacturers, insurance companies, airlines, and oil companies were taken to be big business). They also subdivided individuals into underdogs (including the poor and racial minorities) and a residual category.

They found that individuals won 12.% of their appeals, businesses won 22.6%, state and local government won 41.2%, and the federal government won 58.2%. They find strong support in their data that the stronger party tends to prevail when these parties are pitted against one another. Overall, the stronger party had an advantage of 28.6%. Business tended to do better than individuals by 8.6%. Thus, they found a stronger advantage for business in the federal courts of appeals than Wheeler *et al.* found in the state supreme courts.

II. MATCHING FIRMS AND CASES

Business is the biggest consumer of the $100 billion annual U.S. legal services market and an extremely active player in our civil justice system. But just what business does in the courts has long eluded systematic analysis. While a small industry of business and legal press has grown up to chronicle litigation activity, it generally treats litigation on a case-by-case or firm-by-firm basis. Within the scholarly cross-discipline known as "law and society," business use of law has simply not been a major object of study. Within law schools, "law and economics" scholarship remains defined by its use of microeconomic reasoning to explain or criticize legal doctrine, at some remove from the actual legal behavior of business firms. And students of the actual workings of the civil justice system have generally confined their investigations to the very broad, and heavily process-defined, movement of masses of anonymous cases, without much attention to their legal subjects.

Of the many reasons for this neglect, certainly the most important has been the sheer cost of retrieving meaningful information about business litigation. The importance of such litigation to the firms involved commonly makes them reluctant to divulge it. Even when firms are willing to talk, the complexity of litigation administration—in-house, contracted out to vari-

42. D. Songer & R. Sheehan, "Who Wins on Appeal? Upperdogs and Underdogs in the United States Courts of Appeals," 36 *Am. J. Pol. Sci.* 235 (1992).

ous law firms and practitioners—commonly bars easy identification of sources of authoritative information on it. Even when sources are known, recordkeeping practices are far from uniform. And the most obvious move—going to the courts themselves for records of cases—was until recently almost prohibitively expensive.

In recent years this last barrier has been substantially removed, at least for the federal courts, through the public dissemination of machine-readable data files on cases filed there. This development opens at least the possibility of doing large-scale study of different sorts of litigants, via retrievable court records of their activity. But to realize that possibility in analysis of business litigation, considerable effort needs to be made to match subject firms to appropriate records.

The present study attempts to move beyond existing literature by focusing on the actual litigation activity of firms, and doing so for a sufficiently large and important number of firms to give the analysis some systematic weight. Again, the heart of the effort is a data set consisting of those 450,000-plus district court cases in which about 2,000 of the largest firms operating in the U.S. appeared as plaintiff or defendant between 1971 and 1991. In this section, we briefly report what firms we focused on and how we found what turned out to be many needles in the haystack of federal court data.

A. The Fortune 2000 Companies

For many years, *Fortune* magazine has produced annual listings of the 500 largest industrial firms operating in the United States. From time to time, the 500 largest service firms have also been identified. Between 1971 and 1987,[43] more than 2,000 firms were listed by *Fortune* as belonging to one of these two groups. These comprised the initial population from which the firms whose litigation we examine here were selected.

The procedures we followed to identify and classify the companies in these lists have been previously reported in some detail.[44] Briefly, once a given legal name was developed from the *Fortune* lists, reference sources such as the corporate listings maintained by *Standard and Poor's*[45] or *Dun and Bradstreet*[46] were used to ascertain the primary four-digit SIC code for

43. That our last additions to this list came in 1987 is due to the point at which we began the study (circa 1990) and the *Fortune* and ICPSR data available at that time.

44. T. Dunworth, M. Galanter, & J. Rogers, "Corporations in Court: Recent Trends in American Business Litigation" (presented at Law & Society Association annual meeting, Berkeley, Cal., 1990) ("Dunworth *et al.*, 'Corporations'").

45. Standard & Poor's Corporation, *Standard Corporation Descriptions* (New York: Standard & Poor's Corp., 1994).

46. Dun & Bradstreet, *Million Dollar Directory* (New York: Dun & Bradstreet, Inc., 1994).

these corporations. They were then assigned to a particular sector of the economy based on the first digit of this code.[47]

The initial list of *Fortune* magazine names was reduced to a total of 1,905 firms to adjust for mergers, name changes, and other factors.[48] As a form of shorthand, we refer to these 1,905 firms here as the "*Fortune* 2,000" or "F2000" group of companies. A full list of the F2000 is provided in appendix C. The primary economic sectors to which these companies belong and their aggregated assets as of 1988 are presented in table 1.

TABLE 1
Number of F2000 Firms and (Partial) Assets by Economic Sector

Sector	No. of Firms by Sector, 1970–87	% of Firms by Sector	Assets of Top 1,000 Firms in 1987 ($ Millions)	% of Assets by Sector
Ag/min/cons	421	22.1	498,010	12.7
Oil/refining	41	2.2	253,389	6.5
Primary goods	38	2.0	32,292	0.8
Final goods	365	19.2	729,366	18.6
Util/comm	103	5.4	606,171	15.4
Trans	116	6.1	137,432	3.5
Whsle/retail	163	8.6	224,704	5.7
Banking	200	10.5	39,884	1.0
Insurance	139	7.3	978,963	24.9
Other Fin/Real	211	11.1	71,942	1.8
Services	75	3.9	295,165	7.5
Unknown	33	1.7	56,074	1.4
Total	1,905	100.0	3,924,019	100.0

Clearly, the F2000 are in no way representative of the general population of U.S. business establishments. By definition, they are the very largest firms, with problems and opportunities substantially different from those of smaller businesses. In addition, since the sizes of even dominant firms vary greatly by sector, a cross-sectoral population of firms selected only on size will not weight each sector proportionately to its weight in the general economy. So, for example, the insurance industry, accounting in 1988 for only about 2% of U.S. Gross Domestic Product (GDP), claims a 25% share of F2000 assets, and firms belonging to that sector are numerically over-

47. A caveat about this process: When a company has more than one category of business, it customarily has more than one SIC code classifying its activities. However, it was impossible, in this particular study, to determine which aspect of a multifaceted company's activities led to the particular lawsuits that we located. We therefore assigned each company and its assets to the economic sector represented by its primary SIC code, and we did the same thing with the litigation reported in this document.

48. A typical situation was one in which a company changed its name sometime during the 20-year window of this study. When we detected such a change, we searched for litigation under both names, and then combined the results under the latest name that we found.

represented in the F2000 relative to the economy as a whole. Conversely, wholesale and retail trade (16% of U.S. economic activity) and the service industry (18%) are, respectively, represented in our sample at shares of less than 7% and less than 8% of total F2000 assets and numerically vastly underrepresented in the F2000 relative to the economy as a whole.

Despite these vagaries, the F2000 list clearly contains the most important firms in the country, with very impressive collective weight and sectoral dominance. Again as of the late 1980s, the *Fortune* 500 industrial firms accounted for $1.7 trillion in assets (about 76% of the assets of all industrial firms); $116 billion in capital expenditures (about 70% of capital expenditures for all industrial firms); and $1.9 trillion in sales (about 63% of total industrial sales). The *Fortune* 500 service firms were similarly dominant. The top 100 commercial banks, for example, accounted for 87% of the assets of all FDIC-insured banks; the top 50 life insurance companies accounted for 52% of all life insurance company assets; and the top 100 transport and utility firms account for 69% of capital expenditures in that sector. Putting the *Fortune* service and industrials together in 1988, the F2000 firms together accounted for $91 billion in profits in 1988, or 66% of all firm profits.[49] And if this is the dominance, in any single year, of the top 500 industrial firms and top 500 service firms, note that the F2000 list here is cumulative, net of bankruptcies and mergers, of all firms appearing in any such year over the 1971–87 period. Thus, even though the assets of the "second-tier" 900 firms are less than the first 1,000, they are still vast. However measured, the firms covered in this study account for about 75% of the "action" (sales and assets) in the U.S. economy.

B. Matching F2000 to the IFCDB

Between 1971 and 1991, the years on which we report, about 3.6 million civil cases were docketed in federal district courts. During this time the Administrative Office of the U.S. Courts (AOUSC) maintained a machine-readable data base containing an individual record on each case that was filed. In the mid-1980s this data base was standardized and placed in the public domain, thus enabling longitudinal analysis of federal court litigation for the first time. The standardized data base, which has come to be know as the Integrated Federal Court Data Base[50] ("IFCDB"), is the source of the case filing information presented in this article.

49. All data are taken from an interview with Merle Sprinzen, *Fortune* magazine research director, March 1990.

50. The Integrated Federal Court Data Base (IFCDB) is derived from reports on case filings and closings that are made by each federal district and circuit court to the Administrative Office of the U.S. Courts. The Federal Judicial Center maintains the data base, and it is distributed to interested researchers by the Inter-University Consortium for Political and Social Research (ICPSR) at Ann Arbor, Mich.

The initial task we faced was to identify the types of cases that, in principle at least, could have involved a business as plaintiff, defendant, or both. It is within this subset that F2000 company names might be found. Not all civil cases meet this criterion. For instance, there is no reasonable expectation that a business might have been involved in student loan cases, and it would be misleading to include these cases in the pool from which F2000 cases are identified. There are other case types that are similarly non-business by their nature. All such case types have been excluded from this analysis. In addition, only original federal court proceedings or cases transferred directly from state courts to federal courts were included. This avoided the double counting that would have resulted if cases reopened after being remanded from appellate courts or transferred from another district were retained. After completing the exclusions, there remained more than 2.4 million cases filed between mid-1970 and mid-1991 with the potential for business involvement. A breakdown of the filings retained and excluded within each of the five general bases of federal jurisdiction is presented in table 2.[51] This indicates that of the 703,158 cases brought by

TABLE 2
Number of Cases Retained and Dropped by Jurisdictional Basis

	Retained		Dropped		Total	
	No.	%	No.	%	No.	%
U.S. plaintiff	368,548	52.4	334,610	47.6	703,158	100.0
U.S. defendant	141,252	28.8	348,430	71.2	489,682	100.0
Federal question	1,018,531	69.1	454,711	30.9	1,473,242	100.0
Diversity	890,528	100.0	9	0.0	890,537	100.0
Local question	0	0.0	27,959	100.0	27,959	100.0
All cases	2,418,859	67.5	1,165,719	32.5	3,584,578	100.0

the United States as plaintiff, 334,610 were cases that had no possibility of involving a business party. These were dropped from the data base used in our study, leaving 368,548 that could, at least in principle, involve a business. A similar interpretation of the other jurisdictional bases can be made. Appendix A provides further detail on the sorts of cases retained and dropped.

Our second task, then, was to match the plaintiff and defendant names as contained in this subset of IFCDB records with the names of the F2000 corporations. The details of this time-consuming and difficult matching

51. A more extended discussion of the rationale for excluding certain kinds of cases is provided in appendix B. Appendix table B1 documents the effects of the exclusion by specific nature of suit.

process have been reported in earlier reports,[52] with the basic story being this. An earlier version of this study involved hand checking of the IFCDB party information from a sample of five years within the period of this study, searching for any variants of the corporate names listed in appendix C below. From this study, we found a long list of party strings from the IFCDB that contained an F2000 party. It was not practical to visually inspect all the 21 years of information in the IFCDB that were included in this version of the study. Instead, we developed search strings for automated search. By trial and error, we verified that these strings would have found all the strings (and more) located through visual inspection in the first version of the study. We made the strings general enough so as err on the side of matching strings that were not what we were looking for. In addition, we used approximate match software[53] that permitted preliminary errors in the match, to allow for typographic errors in the entry of the party strings into the IFCDB. We then visually inspected all of the computer output, selecting only those cases which were true matches of F2000 names. In addition, the results of this final "hand checking" were routinely confirmed, at least on a selective basis and often on an exhaustive one, by two or more investigators.

As result of this matching process, we were eventually able to identify 456,300 cases in which an F2000 firms was a lead plaintiff or lead defendant. These cases—representing 19% of all relevant (potentially business-related) district filings over the 1971–91 period—provide the basic data set reported on here.

B. Undercounting

The procedures followed in the matching process give us considerable confidence that our data set does not contain a significant number of "false positives"—alleged matches between firms and cases that in fact are false. Within the limitations of the IFCDB and the range of case types retained, we are also confident that our search procedures were not so stringent as to generate a significant number of "false negatives" or rejections of bona fide matches.

This said, we also know that the generation and structure of the IFCDB itself will tend to underestimate the number of cases in which our firms are active. This is so for two reasons.

First, the IFCDB fields that contain party identification are free-form text fields, and there is no standard way in which any given party name is

52. See, e.g., Dunworth *et al.*, "Corporations"); T. Dunworth & J. Rogers, "Corporations in Court: Big Business Litigation in U.S. Federal Courts, 1971–91" (presented at conference on Changing Patterns of Business Disputing, University of Wisconsin, Madison, 1993).

53. S. Wu & U. Manber, "Agrep: A Fast Approximate Matching Tool," Proceedings of the USENIX Conference (Berkeley: Usenix Association, 1992).

represented by district court clerks who enter the information. This makes it virtually certain that some cases where an F2000 company was lead plaintiff or defendant have not been matched due to the fact that the representation of the name was not comprehensible.[54] Because of the inclusiveness of our machine-search routines, and our hand checking of tens of thousands of these fields over the past few years, we are not particularly concerned about the impact of this sort of underreporting. Its magnitude is almost certainly small, and the distribution of errors almost certainly random.

Second, and much more important, is the fact that the IFCDB contains only the first-named plaintiff or defendant in civil actions, while of course many cases involve more than one party on either side of the dispute. Short of physical examination of the pleadings in the 2.4 million cases that concerned us, there was no way to avoid this problem for the years that we surveyed. It is only in the past few years, and then only on a staggered schedule, that the AOUSC has provided for the creation at district court levels of machine-readable files containing complete party listings—an innovation known generically as ICMS and commonly referred to by the courts as the CIVIL information system. By using CIVIL data from a subset of districts, and comparing the rate of matching on cases and individual corporate appearances achieved using the IFCDB versus using the ICMS *on the same set of cases*, we were able to estimate the dimensions of this undercount. The results are reported in appendix B.

The bottom line is that the IFCDB "first-named only" structure does significantly underestimate the total number of cases in which at least one F2000 party appears, and it underestimates to an even greater degree the number of those appearances themselves. This is due to the fact that F2000 firms are named in pleadings in other than lead positions. In the aggregate, the IFCDB-based search finds about 66% of the cases involving our parties and about 50% of their appearances in them. Applying that estimate to 456,300 cases found through the IFCDB search would "correct" that figure to about 689,000 cases, or 29% of our "relevant" population of 2.4 million district court cases. This is a significant adjustment and should be kept in mind whenever the total volume of litigation in which the F2000 are involved is being considered.

For many of the purposes of this report, however, the undercount is less important than it may appear. As regards the incidence of cases, we think it plausible to assume that the dimensions of the undercount have not changed significantly over time. In other words, it seems reasonable to think that cases filed today are no more or less inclined—on the average—to include multiple parties than in the past. If this hypothesis is accepted,

54. The converse—that non-F2000 names have been improperly included—is much less likely because an affirmative decision was required before the inclusion of any variant on a corporate name.

the fact of an undercount should not disturb the basic trend data reported below, and it is this basic trend that is the key to gauging the presence of absence of a litigation "explosion" over time. The missing cases would simply elevate the absolute values on that trend line throughout. And as regards the analysis of cases by industry sector or case type, the estimated undercount, though not uniformly distributed, is sufficiently dispersed to create few problems with the broad conclusions we will be reporting here. As noted, we managed through the IFCDB-based matching to capture about two-thirds of the estimated number of F2000 cases, and across the lead sectors of the economy, the capture rate ranged from 60% to 85% of that estimate. Furthermore, in the nonasbestos product liability, other torts, insurance, other contracts, and civil rights and labor categories, the capture rate again averaged just over 70% of the estimated total, and it varied by case type within the relatively narrow band of 64%–78%.

Summing up, while we would obviously prefer being able to report 100% capture rates, we know that our basic data set includes the vast majority of relevant cases, and the sectoral and case variation in the dimensions of what it is missing do not appear to introduce substantial distortions in reporting, at least at the gross levels of reporting offered here. In future work, as we move to finer-grained reporting and empirically grounded explanations of the patterns observed, the issue will become more salient. For the time being, however, and with a modicum of care in interpreting the results, we can learn much from the data that are available to us.

III. BASIC FILING PATTERNS

A. Basic Incidence

Again, our basic data set, based on IFCDB files, show that the 1,905 F2000 firms were involved in 19% of relevant federal court litigation during the two decades we studied; and again, correcting for undercounting via the ICMS, we know the real figures are probably closer to 29% of the relevant cases. Does the fact that a relatively small number of the largest U.S. firms in some way "account for" such a large share of federal litigation mean that they are "overrepresented" in the federal courts?

Looked at simply as legal personalities, of course they are. At present, according to the Department of Commerce, there are about 2.3 million business enterprises in the United States. As a share of that population, then, the 1,905 firms in this study make up a vanishingly small 0.086%. And as legal individuals—where corporations join government and the biological population—they of course represent an even smaller fraction. Let's say there were, in 1991, about 250 million such "personalities." Then our 1,905 firms represent less than 0.0001% of the population. If litigation were

thought to equally involve all "stakeholders" in American society, these firms are taking about 300,000 times their "share."

Without putting too fine a point on it, however, the use of law and distribution of legal services is mostly about money. The F2000 control most of the material assets of society and otherwise dominate most economic activity within it; it should not surprise that they are also major players in the courts. As large firms engaged in numberless arm's-length transactions over wide spaces, moreover, it is to be expected that they would be especially prominent in the federal reaches of our civil justice system. As major economic actors, they are more likely to be affected by federal statutes of different kinds. As institutions with dispersed activities they are more likely to be involved in contract and tort actions involving parties from different states, thus potentially triggering invocation of the "diversity" jurisdiction of the federal courts.[55]

B. Basic Distributions

We now consider, in broad strokes, how this activity has been distributed. There are three aspects of such distribution: how the volume of litigation has changed over time, what the composition of the caseload is, and who accounts for that composition.

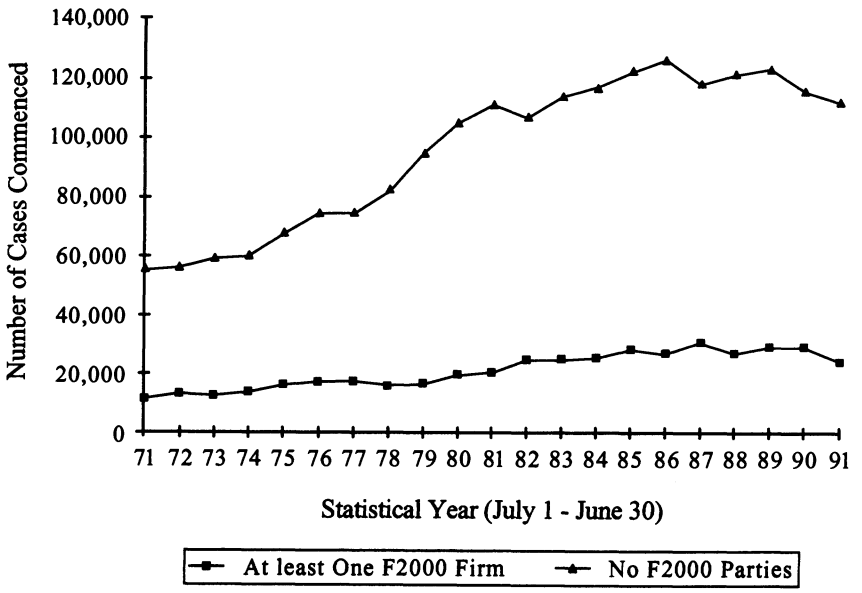

FIGURE 1
Filings in district court, 1971–1991

55. For a definition of diversity jurisdictions, see note 18 *supra*.

Regarding volume over time, the annual filing patterns for the 2.4 million cases, split between those with at least one F2000 party and those with no F2000 party, are shown in figure 1. There is an obvious similarity between the two trend lines. With minor fluctuations, both rose steadily until the mid-1980s and then declined. Cases not involving F2000 firms grew 129% between 1971 and 1986; F2000 growth was 170% of 1971 levels by its peak in 1987. By 1991, the comparisons to 1971 were +103% and +116%, respectively. So there is a slightly greater overall growth in litigation for the largest firms, but the differences do not suggest a radically different litigation experience, *in the aggregate*, between the two groups. Nor does it suggest an ongoing "litigation explosion." Furthermore, the substantial increase that did occur through the late 1980s has for several years been subsiding, both for F2000 companies and for all other litigants.

Regarding the composition of the caseload, table 3 provides a first, crude, aggregate registry of filings by case type: torts, contracts, and other types of litigation. It shows significant contrasts between the experience of the F2000 and other parties. Specifically, torts are the most prevalent category for F2000 companies (38.5%) but the smallest category for other parties (22.7%). And contract litigation is somewhat more common for the F2000 companies (29.6%) than for other litigants (25.4%). If in their general level of activity the F2000 closely resembled the general population, here their status as business firms begins to come into focus.

The most striking findings for public policy, however, are revealed only when we look to the distribution of activity for the F2000 corporations themselves. In particular, there are two facets of their litigation that signifi-

TABLE 3
Federal Court Cases with Potential Business Involvement, F2000 Companies and Other Parties

	Cases Involving an F2000 Company			Cases Involving Other Parties Only			Total		
Type of Case	No.	% of Case Type	%	No.	% of Case Type	%	No.	% of Case Type	%
Torts	175,613	38.5		445,833	22.7		621,446	25.7	
% of tort cases			28.3			71.7			100.0
Contracts	135,037	29.6		499,332	25.4		634,369	26.2	
% of contract cases			21.3			78.7			100.0
Other	145,650	31.9		1,017,181	51.8		1,162,831	48.1	
% of other cases			12.5			87.5			100.0
Total	456,300	100.0		1,962,346	100.0		2,418,646	100.0	
% of case type			18.9			81.1			100.0

cantly affect interpretation of the forces that have led to the aggregate filing patterns just reported.

The first of these is the existence of *mega-litigants* among the F2000 group: firms with a volume of litigation very much greater than the norm. Once individual cases have been linked to specific companies, it becomes possible to consider the variation in caseload between one company and another. Doing this reveals pronounced differences between the corporations examined in this study. For example, one company was a lead party in more than 10,000 federal court cases during the 20-year period beginning in 1971 and ten others had more than 5,000 cases. At the other end of the scale, however, almost 100 of the F2000 corporations had no detectable cases at all, and 170 more had fewer than ten.

The situation is explicated more fully in figure 2, which illustrates the general nature of the variability between companies by plotting the cumulative distribution of appearances in federal court for each of the F2000 companies. Data points on the vertical axis represent the cumulative percentage of appearances as plaintiff or defendant, while data points on the horizontal axis represent individual companies.[56] For purposes of the presentation, companies' data points are ordered on the X-axis from most numerous appearances on the left to least numerous appearances on the right. Only companies with at least one located case are included.

In this type of chart, a 45-degree curve would be produced if each company in the study had the same number of cases. The fact that the curve rises so steeply in the leftmost portion of the chart indicates that a very small number of companies have a very large number of cases. That the curve flattens as it approaches the right-hand part of the graph indicates that each additional company on the X-axis adds fewer and fewer cases to the overall total. Eventually the curve becomes a horizontal straight line, which means that there are some companies (about 90) that add nothing to the overall total—that is, they never appeared as a lead party in any federal court litigation.

For purposes of illustration, we categorize the data by grouping the companies into three classes according to their number of appearances during the 20-year window of the study. The categories are as follows:

56. In this article, each case in which an F2000 company is either lead plaintiff or lead defendant is termed an appearance for that company. Because there are some cases in which F2000 companies are *both* plaintiff and defendant, the total number of appearances is greater than the total number of cases. Our rationale for using the number of appearances rather than the number of cases as the measure of the litigation volume that individual companies face is that we see no difference between a case in which an F2000 company faces another F2000 company and one in which it does not, at least not with respect to the issues we are considering in this section of the report. At other times in the report, the analysis will focus on cases, not appearances. We endeavor to make it contextually obvious to the reader which we are dealing with at any given time. However, in general, the word "appearances" pertains to firms and the word "cases" pertains to lawsuits.

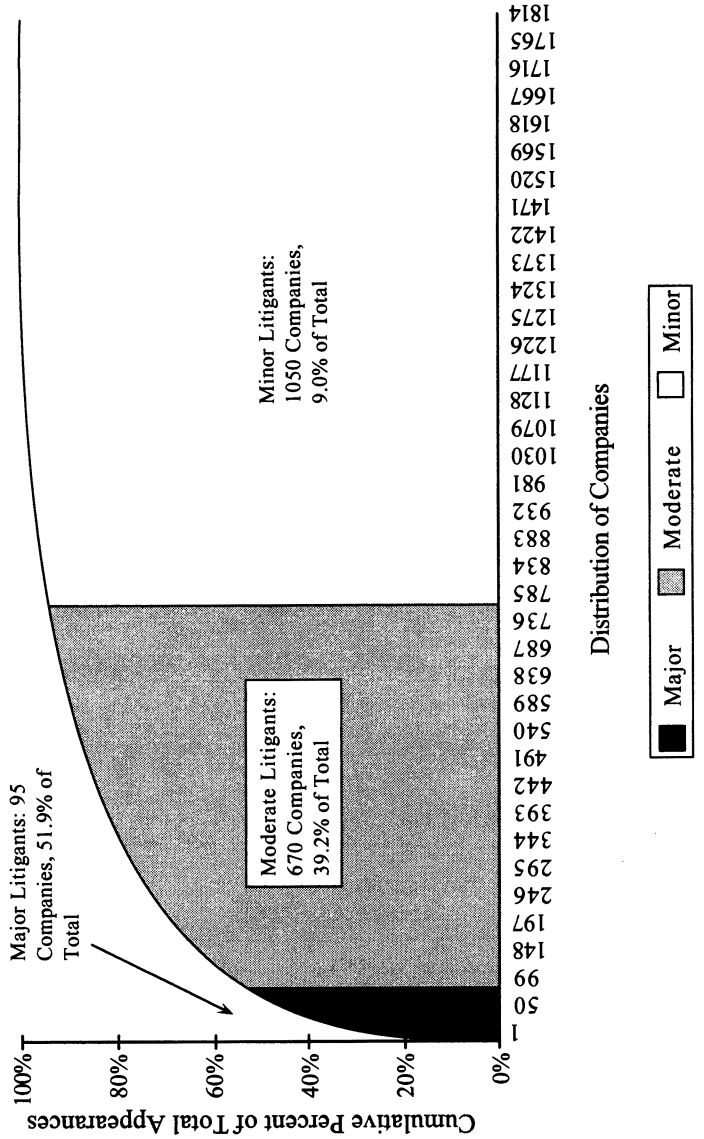

FIGURE 2
Cumulative distribution of appearances by all F2000 companies

Mega-litigants: 1,000 or more appearances
Moderate litigants: 100–999 appearances
Minor litigants: 1–99 appearances

The results of this categorization are presented in table 4. There are 95 companies in the Mega group, 670 in the Moderate group and 1,050 in the Minor group.[57] Table 4 quantifies the distribution of appearances for the three categories.

TABLE 4
Number of Appearances for F2000 Firms, Mega, Moderate, and Minor Litigants

Litigant Category & Range of Appearances	F2000 Companies		F2000 Appearances		Average Per Firm
	No.	%	No.	%	
Mega litigants (1,000 or more cases)	95	5.2	241,824	51.9	2,546
Moderate litigants (100-999 cases)	670	36.9	182,624	39.2	273
Minor litigants (1-99 cases)	1,050	57.9	41,751	9.0	40
Total	1,815	100.0	466,199	100.0	257

The table shows that a mere 95 mega-litigants, slightly more than 5% of the F2000 companies, accounted for 51.9% of all the F2000 appearances in federal district courts from 1971 to 1991—nearly a quarter of a million separate instances of litigation. The average number of appearances for this group was almost 2,500. But there were more than 1,000 other F2000 companies that were involved in fewer than 100 cases during the same period. More than 100 of this group had fewer than 5, and nearly another 100 (not included in the table) had none at all.

These findings have profound implications for the interpretation of the business litigation environment. A central tenet of the conventional wisdom on business litigation in the United States is that litigation is a *general* problem for firms, presumptively arising from some *general* background condition in the economy or society. A problem can only be described as general, however, if it indeed has some general effect. And, in fact, the

57. As in most categorizations of continuous data, the break points we use are somewhat arbitrary, and litigants at the top and bottom of the Moderate group are more like litigants at the bottom and top of the Mega and Minor groups, respectively, than they are like each other, at least with respect to frequency of appearance. Nevertheless, a categorical approach of some kind is needed to facilitate illustration of distributions of this type, and the adoption of a different schema (e.g., more numerous categories) would not materially affect the interpretations that can be made. Therefore, from time to time in the balance of this report, we employ this three-category breakdown to display frequencies of various kinds. Where appropriate, we will use narrower classifications.

distribution of litigation across the nation's biggest companies, at least with respect to suits brought in federal courts, is extraordinarily skewed.

What explains this skew? It might be thought that certain companies "drew" litigation onto themselves, on the basis of unique visibility, economic significance, size, or some other characteristic. This, however, appears not to be the case, as the skew remains even after we control for such factors. Across "brand name" firms of identical size, for example, there is wild variation in level of involvement in litigation. Another possibility is that litigation varies by economic sector or business context. This is true, but the within-sector concentration of litigation, at least at the one-digit SIC level, remains pronounced, as indicated in figure 3.[58] Or it might be that, controlling for business context, some companies are particularly aggressive managers of disputes. This may well be true, and we hope to explore such differences in firm culture in future work, but at first blush it also does not seem to capture anywhere near the range of cross-firm variation in litigation activity.

Instead, and in most substantial measure, it appears that "mega-litigants" are an artifact of "mega-disputes" in torts and, more generally, of what we will call *specialized litigation* in other areas. Such litigation is the second facet of the distribution of F2000 activity we referred to above. As understood here, it is litigation that arises out of a unique situation that will, sooner or later, disappear from the litigation scene due to the modification or elimination of the forces and circumstances that brought it into existence in the first place.

The best-known instance of this kind of litigation is of course the tens of thousands of lawsuits that have arisen from the harm caused by asbestos. There, during the first half-dozen years after the first asbestos cases were filed, a handful of companies responsible for asbestos manufacture were propelled to mega-litigant status solely by virtue of their involvement in that single wave of specialized litigation.

What has not been widely understood is that there are a handful of other case types, showing a similar pattern—a relatively large number of suits (sometimes exceeding asbestos levels for the F2000 companies), often with a relatively small number of companies being involved—that in the aggregate account for a giant share of all F2000 litigation. Specifically, almost 70% of the entire caseload of the F2000 firms is captured by seven types of cases conforming, in varying degrees, to the "specialized litigation" pattern. Table 5 displays the litigation associated with them.

58. Figure 3 maps concentration along a continuum from low to high by computing a statistic known as the Gini coefficient. This is a measure of concentration that would yield a score of zero if all companies within the sector had the same number of suits, and a score of one if a single company had all the litigation. The figure indicates that, certainly for most sectors, the intrasectoral level of inequality in litigation activity is extremely high albeit again at a high, level of sectoral aggregation.

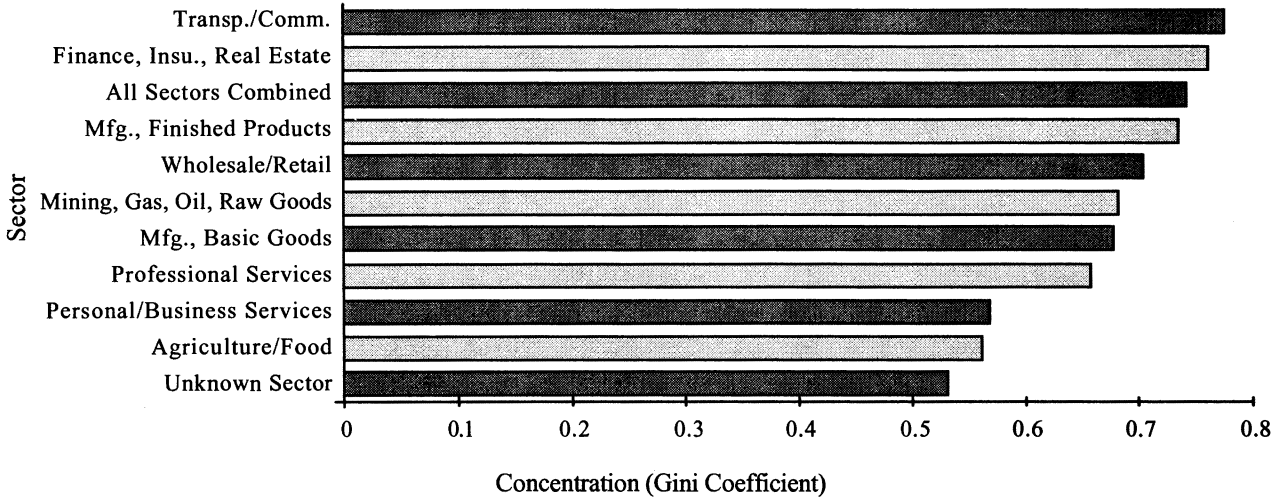

FIGURE 3
Concentration/dispersion of litigation by economic sector

TABLE 5
Seven Dominant Case Types for F2000 Firms, Federal Court Litigation, 1971–1991

	No.	%	% Share for 95 Firms with 1,000+ Cases	% Share for 670 Firms with 100–999 Cases	% Share for 1,050 Firms with 1–99 Cases
Products and FELA					
Asbestos	36,533	7.8	89.1	10.7	0.2
Nonasbestos product liability	37,364	8.0	49.8	43.8	6.3
Federal Employment Liability Act	22,046	4.7	92.5	7.2	0.2
All product and FELA cases	95,943	20.6	74.6	22.8	2.6
Contracts					
Insurance	43,750	9.4	64.7	31.1	4.2
General contracts	96,091	20.6	35.8	50.8	13.5
All contract cases	139,841	30.0	44.8	44.6	10.6
Federal statutes					
Civil rights/labor	57,833	12.4	38.2	48.2	13.0
Interstate commerce	25,309	5.4	83.9	13.3	2.8
All federal statute cases	83,142	17.8	52.1	38.0	9.9
All other actions	147,273	31.6	43.6	45.3	11.1
All cases	466,199	100.0	51.9	39.2	9.0

We see from the table that the dominant case types are not restricted to torts. In fact, the three tort categories account for only slightly more than 20% of the total number of F2000 appearances. Different sorts of contract litigation accounts for 30%, and two areas of litigation under federal statutes account for nearly 18% more. The balance of the litigation—what in table 5 is called simply "all other actions"—includes real property cases, and all contracts, torts, and actions under statutes that are not specifically identified by the other categories.

The data also indicate that, in some case types, concentration of the litigation among a small number of litigants is a good deal more pronounced than it is for the litigation as a whole. The mega-litigant firms account for 89.1% of all F2000 asbestos cases, for instance. They account for 92.5% of the personal injury torts brought under the Federal Employment Liability Act (FELA), 64.7% of insurance cases, and 83.9% of Interstate Commerce cases.[59] These proportions contrast sharply with those for general contracts

59. The percentages reported in this and other tables in this section of the report apply to F2000 litigation only. In sec. IV, the litigation involving the F2000 firms are compared with the general population of cases.

litigation, civil rights/labor actions, and even nonasbestos products liability suits, where the mega-litigant proportion ranges from 35% to less than 50%.

An even more intense degree of concentration is shown to lie behind these aggregations when the volume of litigation for individual companies is considered. It then becomes apparent that in the insurance and transportation industries, as well as in the asbestos production business, a very small number of companies is involved in a very large share of the litigation. Table 6 provides some documentation for this phenomenon.

For each of these three business groups, we list the 10 companies that have the largest number of cases within that group. Companies are ranked in each-- group in descending order of group specific litigation volume. For example, the Manville Corporation has the largest number of asbestos cases, Allstate Life Insurance Company has the largest number of insurance cases, and Penn Central has the largest number of transportation cases.[60] Listing 10 companies, rather than 15 or 20, is a somewhat arbitrary choice and is done for illustrative purposes only. However, if more companies had been added to the table, the marginal growth in the number and proportion of appearances as each new company was incorporated would have dwindled very rapidly. Even for the companies shown in the table, for instance, the first litigant in each group has many more cases than the last.

At least two things are clear from table 6. First, these 30 companies account for a large percentage of all F2000 litigation in asbestos, insurance, and transportation. Together, the top 10 asbestos companies are involved in 86.3% of *all* the asbestos litigation that we detected for the *Fortune* firms. Comparable numbers for the 10 insurance and 10 transportation companies are 51.3% and 79.6%, respectively. This simply does not leave much for the other 1,800 or so firms. Second, such specialized litigation is extremely important to the individual companies. For many of them, the cases we found are more than 90% of all the cases in which they were involved. Remove the specialized litigation, and many of them would be minor, not mega, litigants. And at the other end of the scale there are only two firms where the specialized case type accounts for less than 50% of their cases. Even there, these proportions contrast sharply with the relevance of the particular class of case to the rest of the F2000 firms. Asbestos, for instance, is only about 1% of the litigation for all firms other than the 10 listed in table 6. Insurance is only 5%. FELA and ICC cases are only 2.3%.

What thus emerges from closer examination of filing patterns is that business litigation is not a "general" phenomenon at all. At least among the

60. We remind the reader that we are only able to identify the lead party on each side of a case. But many cases involve multiple parties, and if all had been identifiable when we constructed this data base, the number of appearances for any individual company could have been higher. This is especially true for asbestos litigation, which often involves multiple defendants. But though the number of appearances would go up, the overall number of cases would not.

large firms that dominate this economy, most litigation concerns only a very limited number of firms, operating in a very limited number of dispute contexts.

TABLE 6
Mega Litigants in Asbestos, Insurance, and Transportation

A. Ten Mega Litigants in Asbestos

Company	Appearances of All Types	Appearances in Asbestos	Asbestos as % of All Litigation	Cumulative % for Asbestos
Manville Corp.	9,522	8,598	90.3	23.5
Armstrong World Industries Inc.	8,289	8,090	97.6	45.7
Owens-Corning Fiberglass Corp.	5,722	5,405	94.5	60.5
Owens-Illinois Inc	2,429	2,039	83.9	66.1
Foster Wheeler Corp.	1,926	1,880	97.6	71.2
Fibreboard Corp.	1,788	1,714	95.9	75.9
Eagle-Picher Industries Inc.	1,781	1,695	95.2	80.5
Allied-Signal Inc.	890	759	85.3	82.6
GAF Corp.	1,026	718	70.0	84.6
Flintkote Co.	709	618	87.2	86.3
All other F1000 companies	432,117	5,017	1.2	100.0
Total	466,199	36,533	7.8	

B. Ten Mega Litigants in Insurance

Company	Appearances of All Types	Appearances in Insurance	Insurance as % of All Litigation	Cumulative % for Insurance
Allstate Life Ins Co	5,915	4,578	77.4	10.5
Aetna Life Ins. Co.	5,807	3,192	55.0	17.8
State Farm Life Ins Co	3,910	2,940	75.2	24.5
Prudential Ins Co Amer	3,265	2,364	65.2	29.9
Travelers Corp	4,439	2,247	50.6	35.0
Metropolitan Life Ins Co	3,236	2,195	67.8	40.0
St Paul Cos Ins	2,248	1,319	58.7	43.1
INA Corp.	3,153	1,308	41.5	46.0
USF&G Corp	2,572	1,232	47.9	48.9
Home Group Inc	1,676	1,075	64.1	51.3
All other F1000 companies	429,618	21,300	5.0	100.0
Total	466,199	43,750	9.4	

TABLE 6—*Continued*

C. Ten Mega Litigants in Transportation

Company	Appearances of All Types	Appearances in Transportation			Transportation as % of All Litigation	Cumulative % for Transportation
		FELA	ICC	Total		
Penn Central Corp	9,126	966	7,536	8,502	93.2	18.0
Consolidated Rail Corp.	10,339	6,702	1,486	8,188	79.2	35.2
Southern Pacific Co.	6,761	1,683	3,725	5,408	80.0	46.7
Burlington Northern Inc.	5,270	2,510	1,299	3,809	72.3	54.7
Santa Fe Industries Inc	3,932	1,031	2,108	3,139	79.8	61.3
Union Pacific Corp	3,454	1,967	608	2,575	74.6	66.8
Seaboard Coast Line Indust Inc	3,557	424	2,063	2,487	69.9	72.0
Norfolk & Western Railway Co.	2,361	1,234	323	1,557	65.9	75.3
Chessie System Inc	1,866	989	140	1,129	60.5	77.7
CSX Corp	1,476	857	45	902	61.1	79.6
All other F1000 companies	418,057	3,683	5,976	9,659	2.3	100.0
Total	466,199	22,046	25,309	47,355	10.2	

IV. MORE DETAIL

In this section, we consider in somewhat more detail the long-term trends in F2000 litigation briefly described in the aggregate in the previous section. Particular attention will be paid here to the products liability tort situation, since it has unique characteristics. In addition, we compare filing patterns for the remaining tort cases with trends in general contracts cases and nonspecialty litigation based on federal statutes. We then look at the party role that large firms have played and examine what changes in the defendant/plaintiff mix have taken place over the past two decades.

A. Filing Patterns for F2000 Litigation

In 1971, the 1,905 F2000 companies made a little less than 12,000 appearances in cases commenced that year in federal district courts. Ten years later, the number had risen to more than 21,000. And by 1987, the peak year in this two-decade study, annual appearances neared 32,000. After 1987, with the exception of a 1990 spike in asbestos cases (more on this later), there was a downward trend, and by 1991 appearances involving the F2000 firms had dropped below 26,000. Depending which year one looks at, overall growth in the F2000 caseload was therefore 167% (1987) or 117% (1991). A breakdown by general category of case is provided in figure 4.

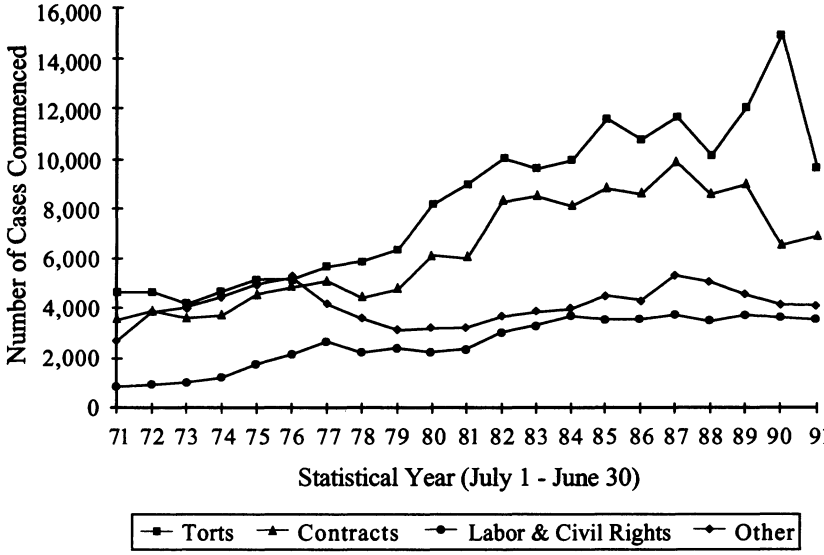

FIGURE 4
F2000 filings by type of case, 1971–1991

From this figure we see that torts have consistently been the most dominant type of case but that contract litigation has closely followed the rising tort filing trend. Labor and civil rights cases have increased steadily and all other actions—real property cases and other actions based on federal statutes—exhibit peaks in 1976 and 1987 with a significant valley between those two dates, followed by a general decline in the late 1980s and the first two years of the 1990s.

These general facets of the chart convey an initial impression that F2000 litigation experiences across various categories of cases have a number of commonalities. Contracts and torts appear to be moving pretty much in tandem, contemporaneous increases have occurred in labor and civil rights cases, and it is only in the remainder of the cases that irregularities are perceived. As should be expected from the "mega-litigant" and "specialized litigation" distinctions introduced in the last section, important variation lies beneath these aggregates.

For example, breaking torts down into asbestos product liability, nonasbestos products liability, FELA, and general torts shows very different patterns for different tort categories (fig. 5). All told, F2000 companies were involved in a total of 173,500 torts from 1971 to 1991. Of these, 36,500 were asbestos cases, 36,900 were other product liability cases, 22,000 were FELA cases, and the remainder were general torts.

But as figure 5 shows, before about 1980 only a tiny number of asbestos cases were filed in the district courts; other product liability cases were also few in number relative to general nonproducts torts. Rapid growth then

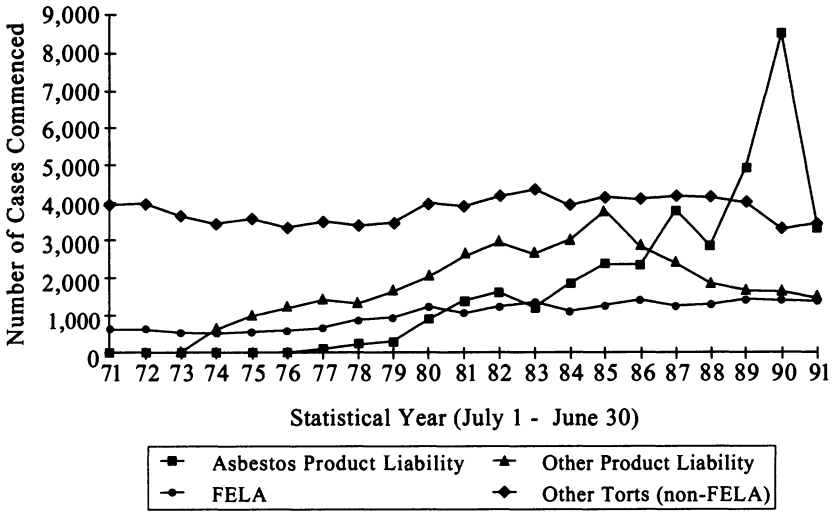

FIGURE 5
Tort filings for F2000 companies, 1971–1991

ensued in product liability filings of all kinds, peaking for nonasbestos products liability in 1985 but continuing for asbestos until 1990. Since 1985, annual product liability filings not involving asbestos have fallen steadily for the F2000 firms and are now at roughly the same level as existed in the mid-1970s (about 1,600 per year). Asbestos litigation, meanwhile, rose precipitously in 1989 and 1990 and then fell just as sharply in 1991. This movement coincided with the consolidation of district court asbestos cases in the Eastern District of Pennsylvania, after years of frustration and dissatisfaction with the fact that the courts, corporations, and attorneys involved in the cases seemed unable to bring the asbestos situation to a satisfactory conclusion.[61]

The trend line for FELA cases is also upward but moves at a more leisurely pace. Nevertheless, FELA torts increased by 139% between 1971 and the mid-1980s and then held more or less constant through the end of the study period. FELA cases, as we illustrated above in section III, are

61. Contention continues today. Plaintiffs' lawyers are reportedly feuding with each other and with the asbestos defense consortium known as the Center for Claims Resolution about a $1.3 billion class action settlement for 100,000 future potential claims by asbestos victims. See Andrew Blum, "Plaintiffs' Bar Airs Split on Asbestos Pact," *Nat'l L.J.*, 14 March 1994, at A10. We do not mean to imply here that the asbestos and Dalkon Shield litigation is unimportant or doesn't matter; obviously it does. These and other products have produced devastating situations for those on both sides of the lawsuits that have been brought concerning them. They have imposed an unmeasurable amount of suffering on individuals and families, and billions of dollars in costs on companies. But the life and scope of such litigation is finite. It does not directly involve many firms. As shown above in sec. III, more than 90% of all F2000 asbestos litigation involves only 10 companies. Consequently, we do not believe it should not be taken as a measure of the litigation burden that business in general faces.

largely brought against a small number of companies in the transportation industry. From annual filings of about 4,000 in 1972, general tort filings peaked in 1983 at about 4,300 and then fell back to less than almost 3,000 in 1990 and 1991. During the entire decade of the 1980s, annual fluctuations in filing levels were minor, and by 1991 the filing rate was lower than it had been in 1971.

Although asbestos is obviously the best known among products that have led to substantial litigation, there are a number of others. Intra-uterine devices (IUDs) are one familiar example. The Dalkon Shield, manufactured by A. H. Robbins, was the focus of more than 6,000 cases filed in federal courts in the early to mid-1980s. Other IUD manufacturers were also named as defendants in similar cases. The product Bendectin—a morning sickness drug for pregnant women—accounted for about 2,000 cases, and DES accounted for several hundred more. The small aircraft industry is often identified as a products liability target, with Beech and Piper being the companies often named. The protective helmet industry is another.

The list could be extended, with each product or class of product (and sometimes each individual company) being named in at least hundreds of suits. Eventually, the individual instances of litigation of this type conclude and new filings dwindle. For instance, very few new IUD cases were brought after 1985, the year that further filings against Robins were barred by the settlement reached in the federal court for the Eastern District of Virginia. And though asbestos may not yet have run its course, eventually it will, and there will be no new asbestos cases either. At that point, products liability tort filing levels will drop significantly except to the extent that new products replace the old. Of course, this has happened (breast implant cases, for example) and will happen again. But even as new mass torts come along, they will still have the same fundamental characteristics—finite life, limited scope, and a relatively small number of companies involved.[62]

What remains in the F2000 tort world after products and FELA cases are individually identified and examined is a set of general torts. These account for about 46% of all F2000 torts, and, as figure 5 illustrates, they

62. That these particular products will leave the litigation scene does not mean that there are no others to take their place. The most current example is breast implants. Litigation concerning the damage allegedly caused by faulty implants is taking place in federal courts now. Its magnitude and impact is by all accounts staggering. There was recently a report of a $27 million award to three plaintiffs by a Houston jury. See Barnaby Feder, "Millions Awarded in Implant Trial," National Report Section, *N.Y. Times*, 14 March 1994, at A7. The proposed settlement for all present and future plaintiffs, involving Dow Corning, Bristol Squibb Myers, and Baxter International, is reported to be $3.75 billion. See Henry Weinstein, "When Law, Tragedy Intersect," *Los Angeles Times*, 26 March 1994, at 1 *et seq.* Early breast implant cases were filed as long as a decade ago, but the product did not move to "mass tort" status until late 1991, when new filings courts surged to a volume estimated at 12,000 cases, split about evenly between federal and state courts. This makes the litigation volume for breast implant claims, at least in federal courts, about the same as the earlier volume for IUD Dalkon Shield cases.

exhibit long-term stability. But these, not products cases and not FELA cases, comprise the tort litigation to which the majority of the F2000 firms have been exposed. We move now to compare these general torts with other types of litigation.

From our earlier analysis of specialty litigation situations we know that insurance and interstate commerce cases are concentrated in relatively narrow segments of the economy—not surprising given the sector-specific nature of these kinds of actions—and that a few mega-litigants claim a very substantial proportion of all litigation in both areas. These kinds of cases, we would argue, are "specialized" and qualitatively different from general, run-of-the-mill cases. As we move to compare general tort litigation with other types of cases, then, we exclude them from the picture. Since we are also excluding products liability and FELA actions, this leaves general contract cases, civil rights and labor cases, real property cases, and all other actions based on statutes. For purposes of illustration, we establish two categories for these different types—contract cases and all else. The results are presented in figure 6.

The general tort line in this figure is the same as previously displayed in figure 5. It has modest undulations, but to all intents and purposes there is not much change over time. Raw filings rose about 8% between 1971 and 1987 and then dropped back again to levels slightly below those at the out-

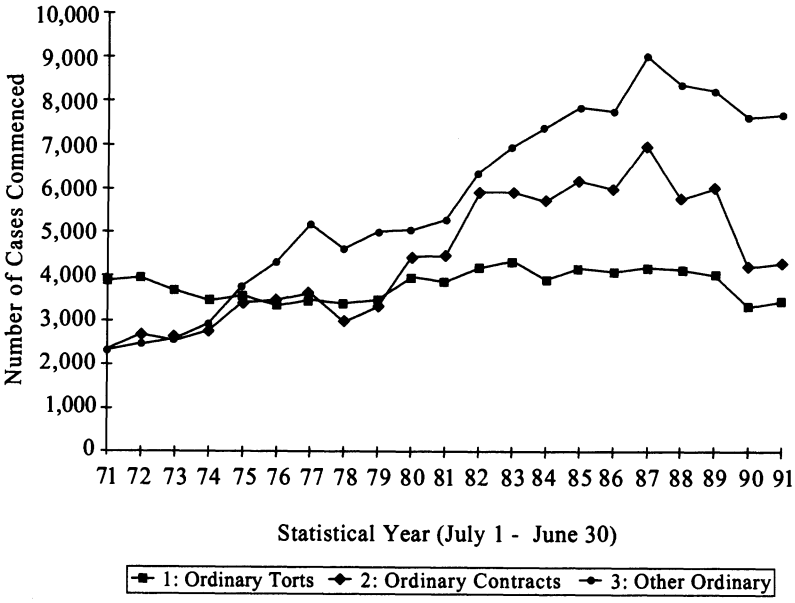

FIGURE 6
Nonspecialty F2000 filings—torts, contracts, and other actions, 1971–1991

set. In other words, general tort filings have not been moving appreciably in any direction for the large firms.

The situation is markedly different, however, for general contract cases and other general actions. General contract litigation rose by more than 200% between 1971 and 1987 and, even after significant declines over the next four years, was still 90% higher in 1991 than in 1971. And growth for all other general actions (real property, civil rights, labor, and other actions based on federal statutes) increased at an even faster pace, nearly quadrupling between 1971 and its 1987 peak, before falling back to a 1991 level still 200% higher than of two decades before. If there is anywhere in the filing patterns where we can find evidence of a real "explosion" of litigation—itself now in decline—it is here.

B. The Party Role: Plaintiff or Defendant?

We now know what sort of cases the F2000 are involved in. What about their party role—as plaintiff and defendant? The answer is essential to understanding the dynamics of litigation, the degree to which business might be sensitive to its costs, and how policymakers might best respond to the alleged litigation "explosion." The conventional view on litigation characterizes large corporations as increasingly "victimized" by other actors—most commonly, individuals and government, but presumably smaller business as well—who bring lawsuits against them. Everything else equal, essential to this view is some increase in the share of the F2000's caseload in which they appear as defendants.

Before considering the possibility of such changes, in table 7 we report summary information about party role, for F2000 litigants, over the whole of the 1971–91 period. The table shows that the overall split in party role for F2000 appearances is 74% defendant, 26% plaintiff, and that the general direction of this split holds for all case categories except general contracts. As is to be expected, however, the differential is much greater for some case types than for others. More than 94% of all torts and more than 90% of the labor and civil rights cases involve the F2000 group in a defensive role. In other actions based on statutes and real property cases, they defend 58.7% of the time. And in insurance contract cases, F2000 companies defend 67% of the time. But in the area of noninsurance contracts the roles reverse. F2000 firms are plaintiffs in 57.5% of the cases. So, although for all contract cases combined the defense/plaintiff proportions are about equal, the aggregate numbers again conceal an important distinction between different types of suits.

When we move to consideration of changes over time, we see from figure 7—which plots the aggregate number of appearances as defendant and plaintiff—that the increase in F2000 lawsuits occurred on both sides of

TABLE 7
Appearances by F2000 Firms by Type of Case and Party Role

	Total Appearances		% of Appearances as Defendant	% of Appearances as Plaintiff
	No.	%		
Torts				
Asbestos product liability	36,533	7.8	99.5	0.5
Nonasbestos product liability	37,364	8.0	95.5	4.5
Other torts	103,034	22.1	92.2	7.8
All torts	176,931	38.0	94.4	5.6
Contracts				
Insurance	43,750	9.4	67.1	32.9
Other contracts	96,091	20.6	42.5	57.5
Other contracts	139,841	30.0	50.2	49.8
Other causes of action				
Civil rights/labor	57,833	12.4	90.3	9.7
All other	91,594	19.6	58.7	41.3
All other causes of action	149,427	32.1	70.9	29.1
Total	466,199	100.0	73.6	26.4

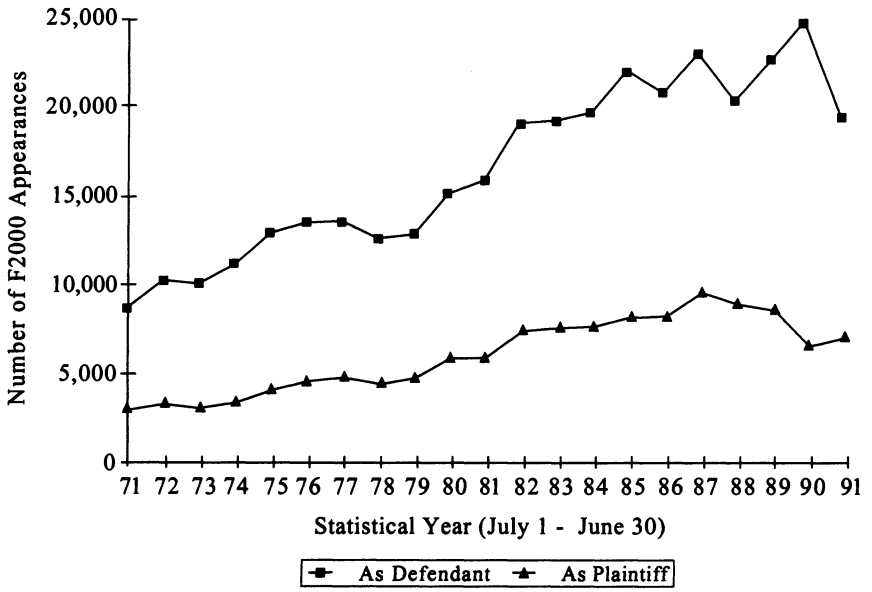

FIGURE 7
Plaintiff or defendant? Party role for F2000 firms, 1971–1991

the aisle and that in gross terms the relationship between the two roles has remained roughly stable over the past 20 years. That is, they have grown at similar rates. In 1971, for instance, the F2000 companies defended 8,800 federal court claims. The annual number had grown to more than 23,000 by 1990, representing a growth of about 161%. Corresponding numbers for cases that the F2000 firms brought are 3,000 and 8,500, which is a growth of about 180%. By picking different years we could get somewhat different growth rates, but the relationship between the two would change little. The general conclusion we draw is that, *for all types of cases combined*, the relationship between defense and plaintiff roles has stayed pretty much constant for the past two decades.

The analysis is carried a step further in figures 8 and 9. The former shows the defense burden for F2000 firms as an annual percentage of all filings in tort, insurance, and general contracts cases. The latter depicts interstate commerce cases, civil rights and labor actions, and other actions based on statutes.

As we already know from table 7, aggregated filings statistics for 1971–91 showed that F2000 companies were defendants in about 94% of all torts and 50% of all contracts. In figure 8 insurance and noninsurance contract cases are shown separately to highlight the party role differences between them. The essentially horizontal trend lines in figure 8 tell us that the defendant/plaintiff mix stayed relatively constant for each of the three types of cases across the 20-year period. This is no more than would be expected for torts, which are dominated by personal injury actions and so can hardly involve corporations in anything but a defensive role. However, there is no self-evident reason why the insurance and noninsurance contract mixture should not change. In fact, in a time when filings for both types of contract cases have been steadily rising (more than doubling for both types of cases), the finding that the defense proportion is stable means that the pace at which F2000 firms are themselves bringing new insurance and contract cases against opponents has matched the pace at which opponents are bringing new suits against them.

A quite different set of patterns are revealed when we turn to actions based on federal statutes. Figure 9 shows that the defendant proportion of civil rights and labor-related cases increased from 72% in 1971 to 93% in 1983 and then leveled off. This movement coincides with a heightened sensitivity to and awareness of civil rights and job-related issues that in all likelihood began in the mid-1960s. Of the 58,000 suits in this category, 26,000 are civil rights actions pertaining to jobs, and these showed a 500% growth over the two decades of the study. Virtually all of the increase took place in litigation brought against the F2000 firms.

The annual defendant proportion of ICC cases took a precipitous drop in the five years before 1981 and then rose again during the next decade.

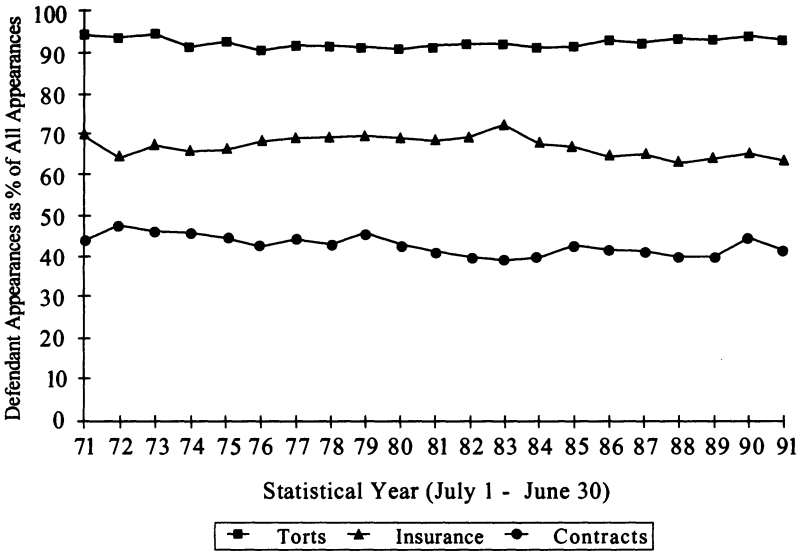

FIGURE 8
F2000 defense role in torts, insurance, and contract cases, 1971–1991

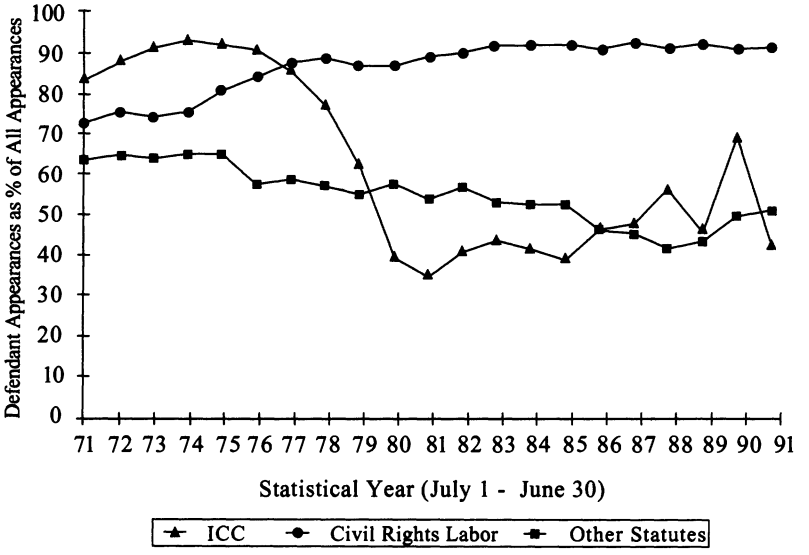

FIGURE 9
F2000 defense role in civil rights/labor, ICC, and other actions based on statutes, 1971–1991

The shape of this plot is a close match to the overall filing trend for this type of suit. A total of 25,000 cases were filed over 20 years, but half occurred before 1977, with a filing peak of 3,000 per year in the mid-1970s, and dropped to slightly more than 300 per year by 1991. The "all other" category of actions—real property cases and suits based on federal statutes—moved in the opposite direction, with a substantial drop in the defendant proportion through 1988.

The net import of this analysis, contrary to the conventional wisdom, is that the overall party role of F2000 firms is essentially unchanged from 20 years ago. The typical role varies across case types, and growth in different case types thus generates shifts in the overall distribution, but the growth in case types where the F2000 firms tend more to be the "aggressor" plaintiff balances growth in areas where they typically appear as defendants. Moreover, and implicit in the claim just made, in a substantial share of cases outside tort, including those showing significant growth in incidence over the past 20 years, business commonly plays that "aggressor" role. Here, if there is a litigation explosion, firms are at least as responsible for it as individuals or the government.

V. F2000 LITIGATION IN CONTEXT

A. Introduction

We turn now to the comparison of the F2000 group of corporations with all other parties: the "general population" of litigants. We framed a context for this discussion in section III when, in figure 3, we noted that aggregate filing trends for both groups rose steadily from 1971 to 1986/87 and then declined to 1991. Across the entire 21-year period, the F2000 litigation we identified in the IFCDB was 19% of the total, and we estimated that we had located about two-thirds of all the litigation in which the F2000 participated. We also noted a good deal of stability in the annual relationship between these two trends. For a few years in the mid-1970s, when the filing rate for the general population of cases was rising faster than the rate for F2000 firms, the latter's share dropped to 16%–17%, but in most other years between 1971 and 1991, the F2000 share ranged between 18% and 20%.

In these general terms, then, the F2000 experience looks quite similar to the general population experience. This might be taken as prima facie evidence that whatever the social and business forces are that lead to the use of litigation as a way of settling disputes, they are broadly based in society and affect most components of society in a similar fashion.

However, we also noted, in table 5, that there were some sizable differences between the two groups in case mixture. Torts were a good deal larger

proportion of the F2000 caseload (38.5%) than of the general population caseload (22.7%). At the other end of the scale, cases based primarily on federal statutes—the "Other" category in the table—have been a greater proportion of the general population of litigation (51.8%) than of the F2000 litigation (31.9%). And this should inspire some doubt about whether the experiences of the F2000 and the general population are in fact similar.

These doubts may have multiplied when we looked more deeply into the nature of the F2000 litigation. In some case-type categories—those accounting for the "specialized litigation" noted above—we found intense concentrations of activity among a very limited number of firms. Across case types, we have seen dramatic differences in the rate and direction of growth over time.

What we want to do now is take a closer look at the general population of cases, to ascertain, as far as we can do so, the extent to which that population has characteristics similar to those of the F2000 firms. Regrettably, limitations in available data make this less complete than we would like.

Ideally, we would approach this issue by identifying the litigation involving businesses other than the F2000 group and then classify the litigation along the lines we took in sections II and III. Comparisons could then be made between large corporations and other businesses, across all years and for all types of cases, by industry, size of company, and so on. In practice, this kind of comparison is impossible because the Federal Courts Data Base does not contain the information that is needed. It contains no substantive information at all about litigants, and we could find no feasible approach to replicating in the general population of cases the name identification procedure that we followed for the F2000 companies. The number of different parties in the 1971–91 data base could easily exceed one million, and is simply too large to deal with. Even the identification of party type—that is, whether a litigant is a corporation, a government agency, an individual, and so forth—was not made at all prior to 1985, and only recorded after that date in cases that are filed under diversity of citizenship jurisdiction (roughly a third of the relevant filings). And even in this area, changes in the data collection methodology followed by the Administrative Office of the U.S. Courts make longitudinal analysis difficult.[63]

Bowing to these constraints, we here review long-term trends for the non-F2000 caseload in its entirety. This can be done by type of case, and it will allow us to examine the full 1971–91 period and compare aggregate general population trends with F2000 trends. But again, it will not offer

63. Though inadequate as a basis for calculating total business litigation volume, or for comparing large and small business litigation patterns, the diversity jurisdiction data below do have some value for estimating litigation outcome patterns for business in general. We therefore return to them in sec. VI, where win rates are reported.

disaggregation of the non-F2000 litigants into business/nonbusiness categories, or an examination of party role distributions and trends in the general population.[64]

B. The General Litigation Context

Aggregate Filings

Table 8 reports the aggregate number of cases of different types that involve F2000 companies or other parties. The subtotals for filings in each general class of case reprise what we showed above in section III. Namely, torts are a bigger percentage of F2000 litigation (38.5%) than of general population litigation (22.7%); contracts are also a bigger percentage but the difference is less pronounced (29.6% vs. 25.4%); and actions based on stat-

TABLE 8
Types of Federal Court Filings from 1971 to 1991 for F2000 and Other Parties

	Cases Commenced				F2000 Share	
	No F2000 Firm Involved		At Least One F2000 Firm Involved		All 1,905 F2000 Firms	The 95 Mega-Litigants
	No.	%	No.	%	%	%
I. Torts						
Asbestos products liability	31,980	1.6	36,438	8.0	53.3	47.6
Other products liability	54,957	2.8	36,886	8.1	40.2	20.3
Federal Employment Liability Act	14,448	0.7	21,976	4.8	60.3	56.0
All other torts	344,448	17.6	80,313	17.6	18.9	10.1
All torts	445,833	22.7	175,613	38.5	28.3	18.4
II. Contracts						
Insurance	55,903	2.8	42,691	9.4	43.3	28.7
Noninsurance Contracts	443,429	22.6	92,346	20.2	17.2	6.2
All contracts	499,332	25.4	135,037	29.6	21.3	9.7
III. Other actions						
Interstate Commerce	17,490	0.9	24,197	5.3	58.0	51.0
Civil rights/Labor	428,545	21.8	57,589	12.6	11.8	4.5
Other	571,146	29.1	63,864	14.0	10.1	3.4
All other actions	1,017,181	51.8	145,650	31.9	12.5	5.6
All Cases	1,962,346	100.0	456,300	100.0	18.9	10.0

64. In subsequent work, we hope to remedy this, at least in some measure, at least in diversity jurisdiction.

utes are more common for the general population (51.8%) than for F2000 firms (31.9%).

However, this simple conceptualization turns out to be inadequate when finer breakdowns are considered. What we see then is that the F2000 experience with respect to the specialized litigation in each of the three general case categories is quite different from the experience of the general population but that, with respect to the general, underlying type of litigation, the experience of the two groups is quite similar.

For example, asbestos is 8% of the F2000 caseload but only 1.6% of the non-F2000 caseload; and interstate commerce cases are 5.3% for F2000 firms, 0.9% of other cases. Each of the other specialized case types—nonasbestos products liability, FELA, and insurance—are characterized by similar relationships. Each of them makes up a portion of the F2000 litigation that is a multiple of the comparable proportion for the general population. And, as is to be expected perhaps, the pattern is reversed for civil rights and labor actions—these are a far greater proportion of litigation outside the large-firm world.

But when we look at nonspecialized torts and contracts, their significance for F2000 firms is similar or identical to their significance for all other parties. General torts are 17.6% of the caseload for both groups, and contracts are 22.6% for the general population and 20.2% for F2000 firms.

A more dramatic representation of the contrast between the F2000 companies and other parties is provided by the percentages in table 8 that show the F2000 share of the federal court caseload. For the specialized case types, the F2000 litigation is a very substantial portion of the total district court caseload. F2000 firms, for instance, are involved in 53% of *all* asbestos cases filed between 1971 and 1991. And they are a party to 40% of *all* other products cases, 60% of *all* FELA cases, 43% of *all* insurance cases, and 58% of *all* interstate commerce cases.

Taking this one step further, we also see from the table that for certain types of cases, the 95 F2000 firms that we have termed mega-litigants have a substantial proportion of the entire federal court caseload, with almost half of all asbestos litigation, and more than half of the FELA and ICC cases. Even in general products cases and insurance cases these 95 firms have significant proportions of federal court business (20.3% and 28.7%, respectively).

What this illustrates, then, is that although the aggregate distribution of cases among the F2000 firms looks quite different from the distribution of cases in the general population, virtually all of this difference derives from the mega-litigants and the other specialty litigation.

Filing Trends

The aggregate filings picture we have just examined highlights similarities and differences in overall volume of lawsuits for F2000 firms and the general population of litigants. We have seen significant variation between the two groups in specialized areas of litigation and comparability in general classes of litigation. Now we shall consider whether these characteristics hold when filing trends are considered. That is, have changes in filing patterns been different for the two groups, and, if so, in what way?

The answer to these questions has an important bearing on the way we think of large-firm litigation. If big firms are in a world of their own, being subject to forces that have either less or no impact on other business and nonbusiness litigants, then we might expect to see not only variation in the volume of lawsuits they deal with but also in the pace at which those suits are filed. In particular, one might expect to find a difference in specialty litigation. In fact, it turns out that similarities are much more prominent than differences *both* in specialty litigation and in general litigation.

Documentation is provided in figures 10–17. Each figure maps federal court filing trends by type of case, for F2000 firms and non-F2000 firms, across the years 1971–91. In those figures, we see that although the general shapes of the two trend lines presented in each chart are not identical, they are for the most part very similar. In fact, in discussing them, it makes more sense to talk about the two or three exceptions than to talk about the rule. The rule is self-evident from the charts.

What are the main exceptions? Primarily these pertain to variation in volume along a given direction, rather than deviation in pattern. For example, nonasbestos products cases that did not involve an F2000 company outnumbered those that did from the first time such cases were separately identified in federal courts; but the pattern of the two lines is very similar. FELA filings were almost identical until 1976, and then the F2000 cases outpaced general population cases for three years in a row; after that, the two trends are comparable, albeit at different magnitudes. Similar observations can be made about nonproducts tort filings, insurance cases, and all other filings as represented in figure 17. The only two charts with significant irregularities are the ICC chart and the noninsurance contract chart. In the former, about 12,000 cases involving a small number of F2000 megalitigants produce a hump in the early 1970s that is not mirrored in the general population; in the latter, there is a hump in the mid-1980s among the general population of litigants that is not mirrored in activity among F2000 firms.

Concluding, then, though the composition of litigation varies significantly between the F2000 and general populations—again owing largely to the significance in the former of specialized litigation—in both general and

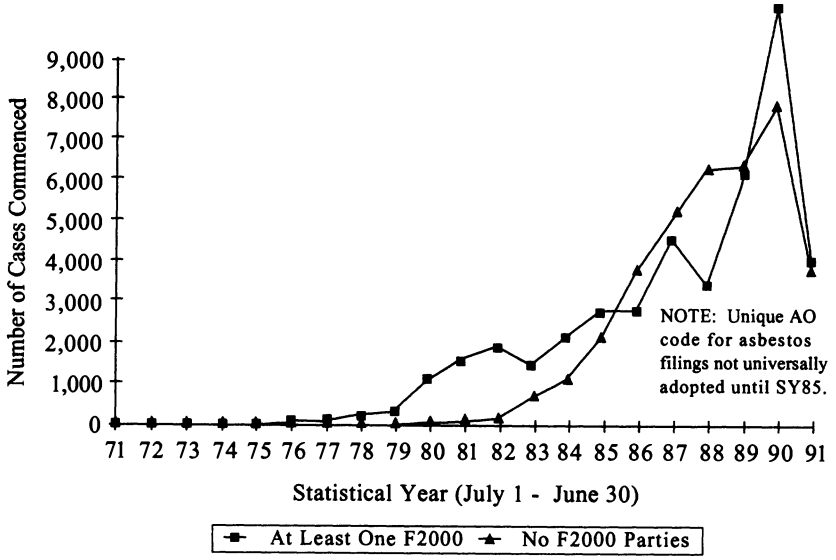

FIGURE 10
Asbestos products liability tort filings, 1971–1991

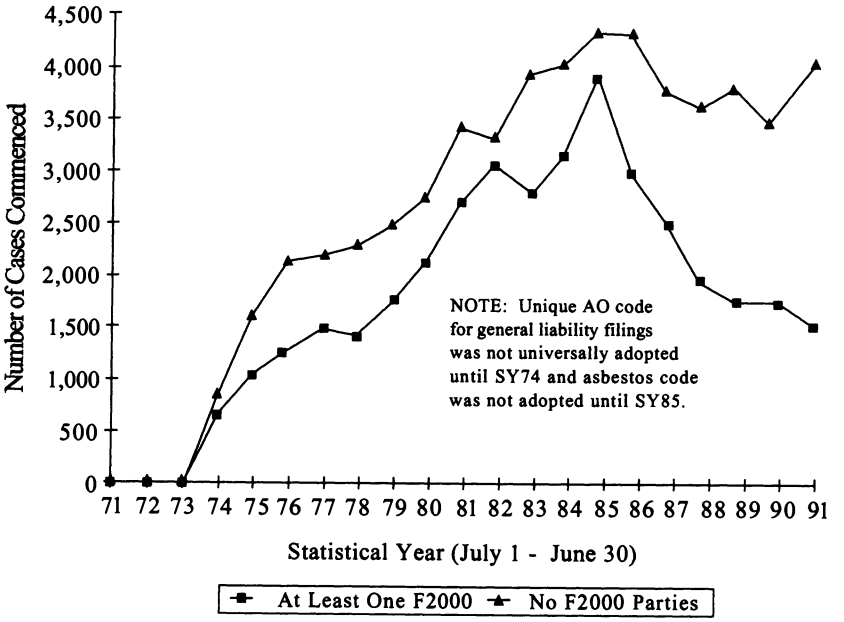

FIGURE 11
Nonasbestos products liability filings, 1971–1991

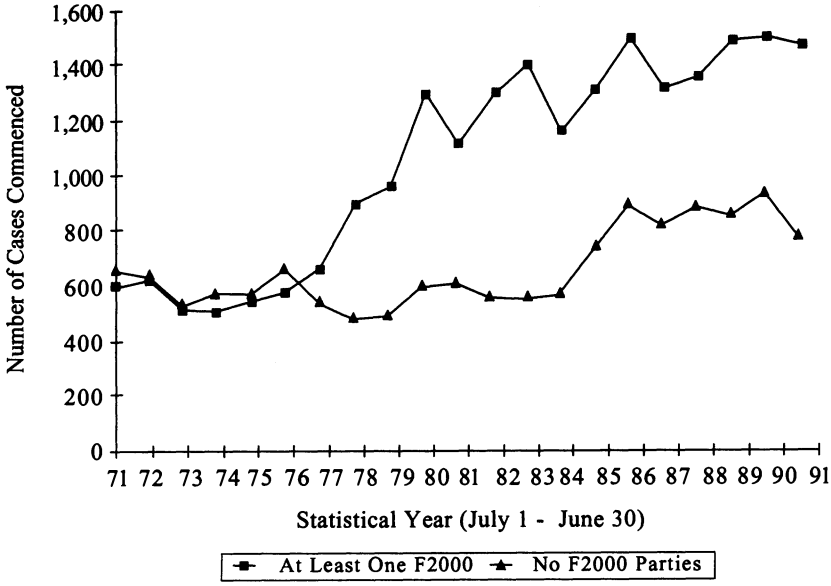

FIGURE 12
FELA filings, 1971–1991

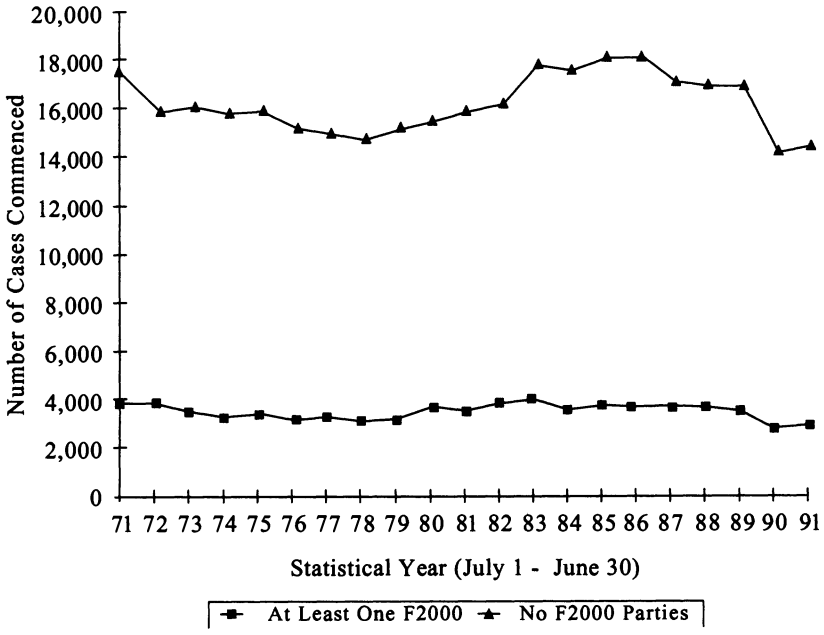

FIGURE 13
Ordinary tort filings, 1971–1991

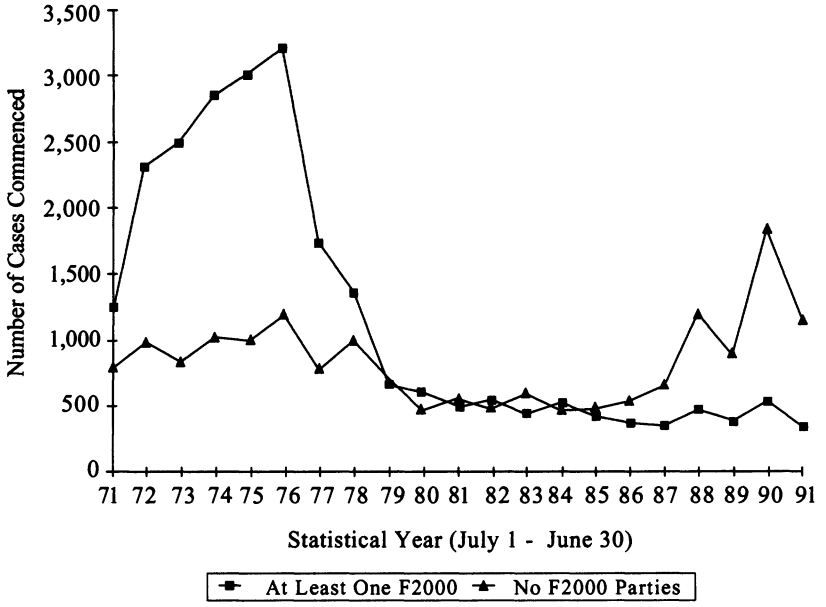

FIGURE 14
ICC filings, 1971–1991

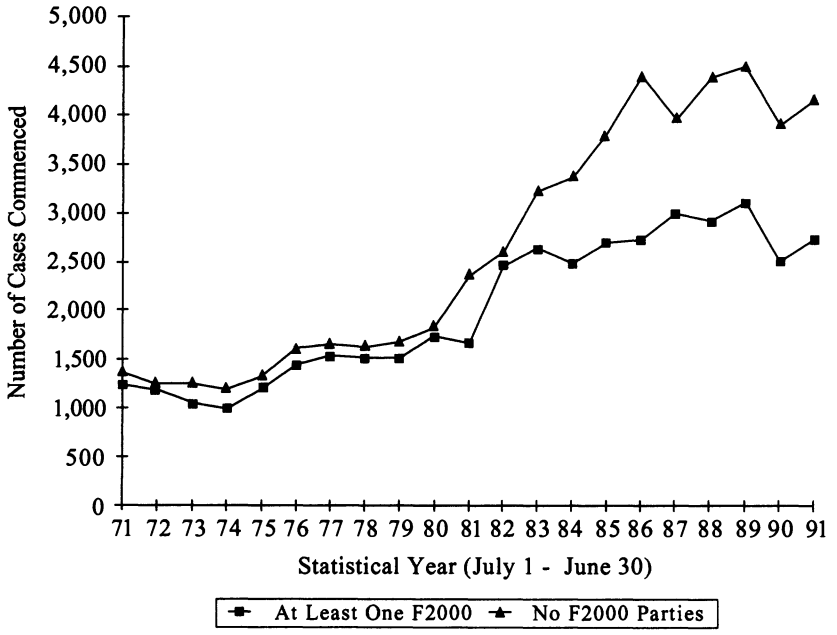

FIGURE 15
Insurance contract filings, 1971–1991

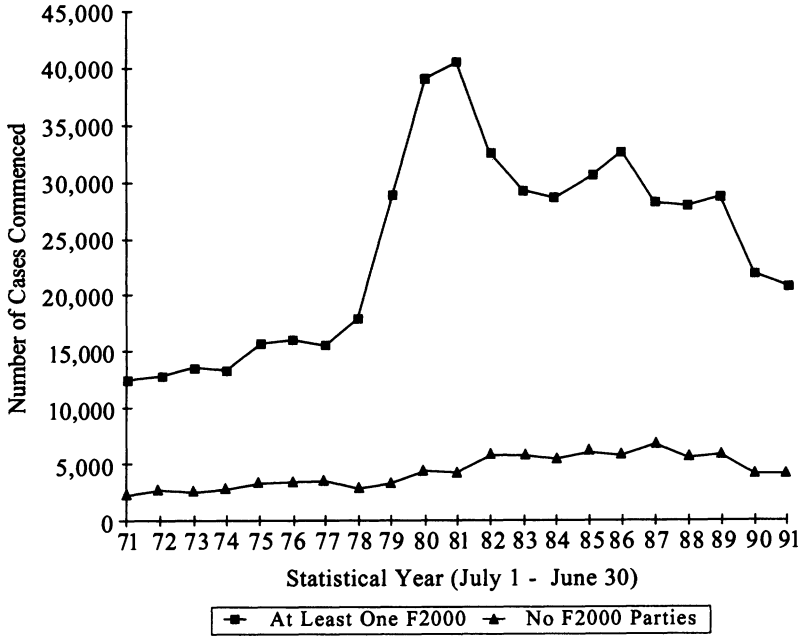

FIGURE 16
Noninsurance contract filings, 1971–1991

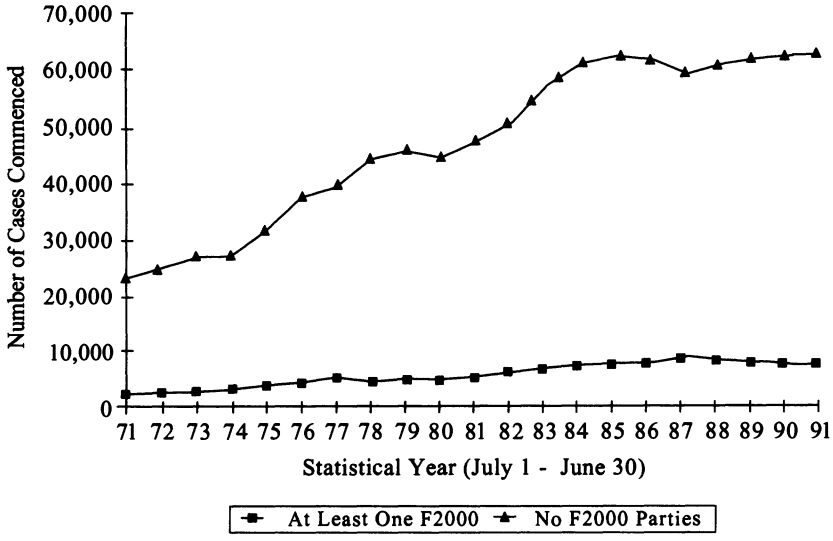

FIGURE 17
All other nonspecialty filings, 1971–1991

specialized litigation the trend lines of F2000 and the general population are generally very close indeed. The F2000 firms are obviously much bigger players than other federal civil litigants, and they are central to bursts of litigation in particular issue areas that leave much of the rest of the litigant population untouched, but insofar as they share case type with the general population they appear subject to the same general forces.

VI. WINNING AND LOSING

As emphasized at the outset, this report focuses on the "front door" of the courthouse—the report on filings just provided. We defer a complete analysis of the "back door" of the courthouse—how cases are disposed of, how much progress they make before termination, what the nature of judgment is, and which party wins—to future reports. Still, in preliminary form only, we report here some basic data on such "back door" results, highlighting important differences between the experience of the F2000 firms and other litigants. Emphasis is placed on the observable success rates of F2000 firms—to begin to get some sense of the degree to which large firms either do or do not encounter less favorable outcomes in federal courts than other litigants.

In reporting these results, we stress at the outset the fact that the data are limited in two ways. First, the IFCDB contains useful "termination" data only since 1979 and therefore cases that terminated before that time are excluded. This is less of a handicap than it might at first appear to be, since roughly 75% of the litigation we examined concluded between 1979 and 1991. More important, however, is the fact that, even among this group, there are many cases for which no useful outcome data are available. This is because cases that settle or otherwise terminate outside the court system often do so without leaving any documentation behind. Consequently, though it is usually possible to determine the stage of court proceedings that had been reached when a case went off the docket, it is only possible to figure out who won and who lost in about 25% of all terminations. The numbers, of course, are still substantial—more than 50,000 cases with an F2000 firm as defendant, more than 31,000 with an F2000 firm as plaintiff, and nearly 485,000 GenPop cases.

A. Procedure

We begin with summary data on procedural progress at termination and means of disposition for those cases both filed over the 1971–91 period and terminated between 1979 and 1991. Figures 18 and 19 report these data

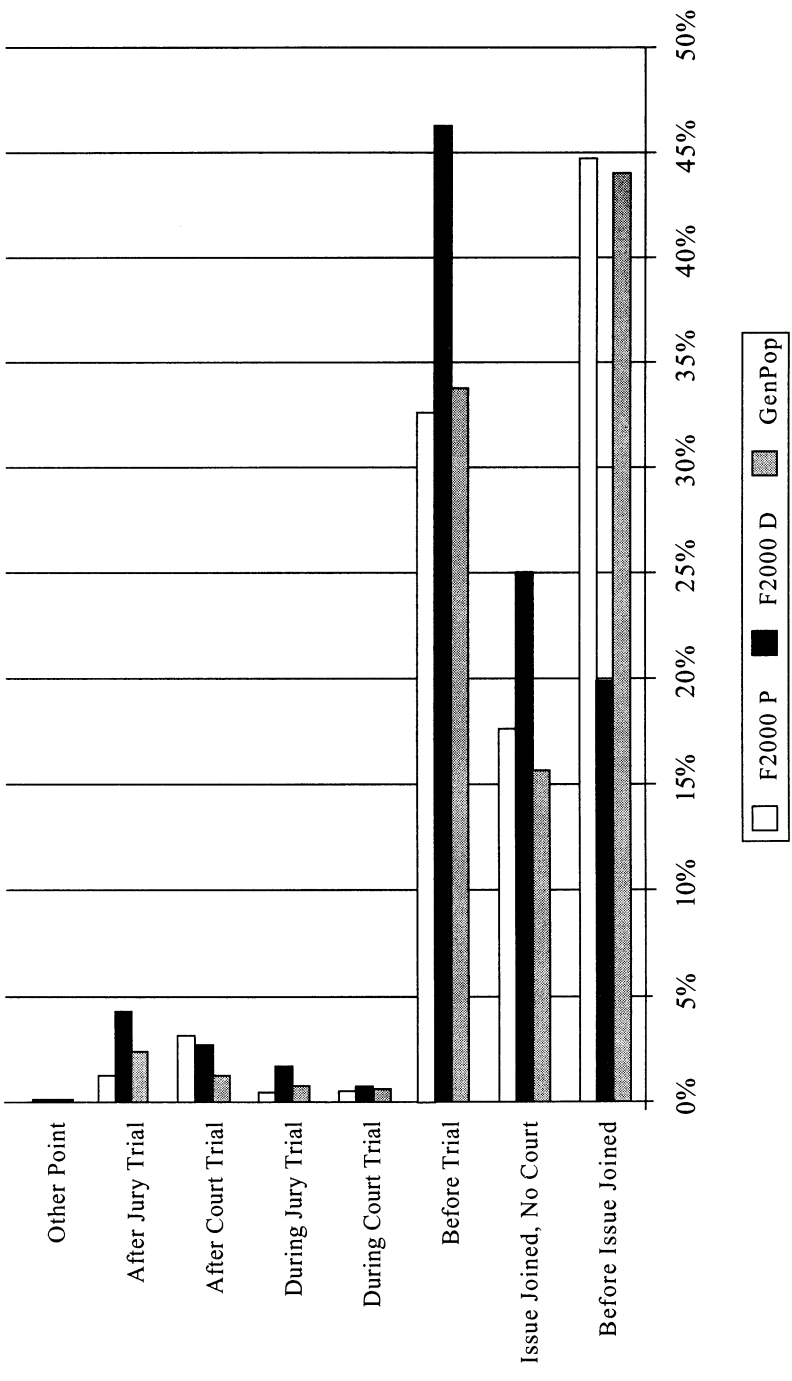

FIGURE 18
Procedural progress at termination: Aggregate 1979–1991, general population, F2000 plaintiff and defendant

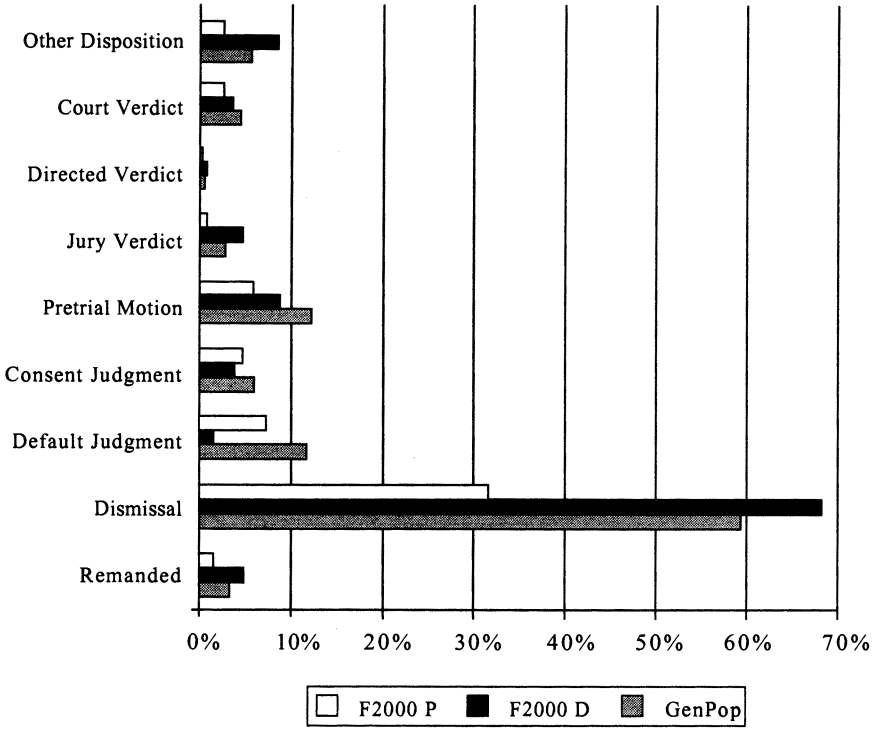

FIGURE 19
Disposition aggregated 1979–1991, general population, F2000 plaintiff and defendant

for the general population of cases and those involving an F2000 party as plaintiff or defendant.

These data hold few surprises. The overwhelming majority of cases—in excess of 90%—are terminated early in the litigation process, and most of those are disposed of through dismissal or the entry of a default judgment. These generalizations hold for cases involving F2000 firms no less than for the general population of cases, although there are potentially important differences in the means of disposition between F2000 as against GenPop cases, resulting in differences in the precise pretrial stage at which they are terminated. Relatively few cases in which F2000 parties appear as defendants, in particular, are terminated before the issues are joined; reciprocally, F2000 defendants appear to rely more heavily, or at least with greater effect, on subsequent dismissal motions.

Finally, figure 20 reports the "nature of judgment" made in F2000 and GenPop cases. We see that cases in which F2000 firms figure as defendants are characterized by unusually low rates of monetary award and that those in which they figure as plaintiffs are characterized by somewhat higher than normal rates of monetary award, orders of money and other remedial action, and injunctive relief. This certainly suggests a better than "average" rate of

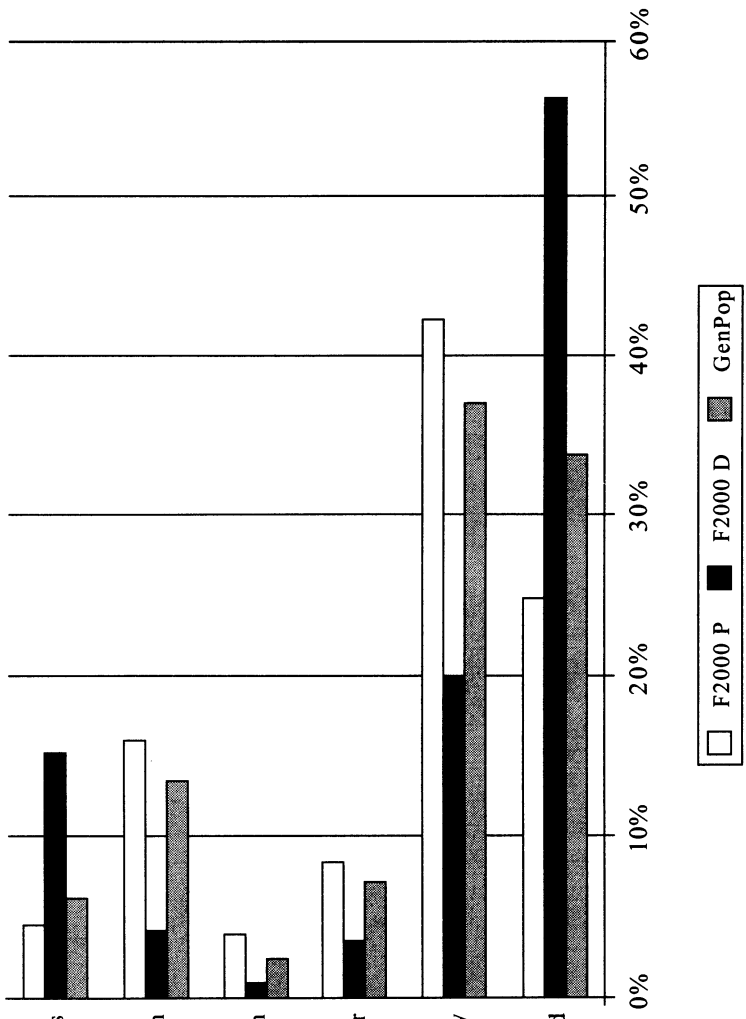

FIGURE 20
Nature of judgment, aggregated 1979–1991, general population, F2000 plaintiff and defendant

success in navigating the courts. To get a more precise sense of that issue, however, requires looking directly at the win/loss data themselves.

B. Winning and Losing

Contrary to the "victimization" view, F2000 success rates in litigation—again measured by the "judgment for plaintiff/defendant" variable in the IFCDB—substantially exceed litigation success rates for other players in the federal courts.[65]

Table 9 displays aggregate appearance and win rates from 1979 to 1991 for F2000 plaintiffs and defendants as compared with the general population of federal court litigants. As is evident, they are much more successful than

TABLE 9
Win Rates for F2000 Firms and the General Population, 1979–1991

Category of Litigant	No. of Cases	Cases Decided	No. of Wins	Win Rate
F2000 Plaintiff	113,521	31,037	24,546	79%
F2000 Defendant	333,957	50,531	31,148	62%
Non-F2000 Plaintiff	1,481,216	484,844	301,149	62%
Total	1,928,694	566,412	356,843	

the general population. Overall, F2000 plaintiffs win at a 79% rate, as compared with a 62% rate among GenPop plaintiffs; and F2000 defendants win at a 62% rate, as compared with a 33% rate among the general defendant population. Furthermore, when win rates are examined over time, the aggregate patterns are found to have occurred pretty much at the same levels from year to year. In this sense, a high level of confidence can be placed in the notion that on the average, each year, F2000 plaintiffs will win about 80% of the cases they file; they will win about 60% of the cases they defend. And in both categories, they will do a lot better than other litigants.

65. While we do not pursue the matter here, there are two basic reasons why this might be the case: the greater stakes they have in cases in dispute, or the greater resources they can bring to bear to those disputes. Unfortunately, available theory and evidence do not permit easy separation and empirical testing of the strength of these competing explanations. The reason is that what is typically taken to signal high "stakes" in business disputing (e.g., firm size, scope, assets, even reputation) heavily overlaps with those things that also signal high resources (deep pockets, full-service law firms, lots of experience in their area, etc.). The cost of litigation may also reasonably be expected to increase at the margin of legal uncertainty on which Priest and Klein and others think all litigation centers (though the fact that costs increase there is a good reason why they might be wrong); if so, there is no reason particular reason to expect litigation to center on that margin, and where it does conventional resource constraints become more operative.

We can make one more extension of these preliminary findings by looking at cases brought under diversity jurisdiction—roughly 30% of all federal court litigation. Since 1985, the federal courts have identified, in general terms, whether parties in diversity jurisdiction cases are businesses, individuals, or governments. Though we have not yet verified the accuracy of these designations, preliminary examination of them produces some interesting results.

Table 10 compares the performance of the F2000, noted above, with other businesses and the remaining population of litigants in diversity cases concluding between 1985 and 1991. It suggests that F2000 businesses are

TABLE 10
Win Rates in Diversity Cases, 1985–1991

Category of Litigant	As Plaintiff	As Defendant
F2000 business	71%	61%
Non-F2000 business	80%	36%
Nonbusiness party	64%	28%

somewhat less successful than other businesses in the diversity arena—the former win 71% of the cases they bring, the latter more than 80%. Both do better than nonbusiness litigants, which win less than two-thirds of their cases. But, as defendants, the F2000 firms far outstrip all other types of parties, winning 61% of their cases, compared with 36% and 28%, respectively.

VII. CONCLUSION

What do we learn from this review of big business litigation? To return to where we started, perhaps the most important learning is that a certain picture of civil litigation—widely promoted by business and increasingly influential in national policy discussion—appears generally to be wrong. Call this common picture—promoted more or less completely by organizations like the American Tort Reform Association, signed off on in whole or in part by most large business associations active in present debates—the "conventional business wisdom" (CBW). CBW may be characterized as a series of related claims about the growth, distribution, burden, focus, and outcome of U.S. civil litigation involving business. Our central findings may be conveniently summarized by reference to these claims.

CBW 1: "Litigation is growing in the United States and business litigation is increasing at particularly high rates."

Within the limitations of our data, we have found little evidence to support this proposition. It may have had some credibility ten years ago, near the peak of the post-1971 rise in litigation levels, but it has much less now. Certainly overall, and in most major categories of litigation, filings have actually declined in recent years. If there ever was a "litigation explosion" affecting business in the federal courts, it has generally subsided.

Even if the trend in litigation is not comforting to the conventional view, the absolute level might be thought to be. After all, GenPop findings and filings involving F2000 parties are still twice their level of 20 years ago, and this itself might be thought of as an issue of concern. If it is, however, we think the terms of that concern need to be better clarified, for there are many good reasons why this increase should not be particularly alarming.

Some of these have to do with the sheer size and growth of an economy that is partly regulated through civil litigation. Everything else being equal, we should expect more litigation as we get more economic activity. While aggregate filings increased about 100% over the 1971–91 period, real GDP increased 65%. If litigation levels would normally be expected to track real levels of economic activity, only about a third of the increase over the last two decades needs further explanation.

As we have shown in earlier sections of this article, a substantial proportion of the explanation comes from the general increase in litigation brought about by specialized situations—asbestos, Dalkon Shield, the Federal Employment Liability Act, and others—that affect only a small number of companies. Take these away, and the growth of litigation is, in fact, less than the growth in the economy.

In addition, however, holding the level of economic activity constant, changes in technology might well increase the number of transactions—the real baseline for determining "litigiousness" in a society; and the American economy has experienced just such change over the past two decades. Revolutions in telecommunications and micro-electronics have made it possible to shop deals more widely, structure them in more complicated ways, tailor them to specific needs with greater precision than before, and engage in more trades in the same period of time. All these changes have the effect of increasing what might be called the "transactional base" of the economy. Economic turbulence and changes in the structures of competition—in part occasioned by new technologies, in part by the entry of new competitors—might also naturally be thought to disrupt existing informal "governance" structures within the economy, leading economic actors naturally toward those more formal means of enforcing deals that are provided by the law.

Changes within firms themselves in human resource policies and practices, levels of formal worker representation, and on other dimensions might plausibly have the same effect in the invocation of statutory workplace rights. And on and on. As the term has been used with regard to litigation affecting business, "litigation explosion" suggests not just rapid growth in the level of litigation activity, but growth that is essentially out of control and untutored by the realities of economic practice. Taking seriously any of the above alternative explanations, however, suggests that is not the case.[66]

And all this, of course, takes the basis of "litigation" to be simple filings, the overwhelming majority of which are disposed of very early in the litigation process, often before the issues at stake are even joined—a far cry from the world of misguided juries and interminable discovery proceedings commonly invoked in popular discussion. All this takes no notice of the new opportunities for litigation occasioned by greater regulation of the workplace and certain production activities—something to be considered in any assessment of the "natural litigiousness" of the population. And all this, finally, assigns no social value, other than an interest in orderly economic governance, to litigation in enforcing those and other rights to fair treatment and equal dealing.

Is there a "litigation explosion" in the United States—an essentially out-of-control and damaging-to-business increase in the number of lawsuits brought by an increasingly litigious public? No, not on the basis of this evidence.

CBW 2: "Antibusiness litigation is a general phenomenon, more or less equally affecting all business sectors or, within specific sectors, all firms."

Here again, our study finds no support for this contention. We find instead an astonishing concentration of litigation. A mere 95 corporations, parties to a limited number of categories of cases, themselves account for more than half the business-related litigation that we found, and 765 firms account for more than 90% of it. We found, within sectors, very wide variation in litigation activity. And across case types, we found dense concentration in just a few areas, each heavily dominated by our mega-litigants.

This is, perhaps, the most striking single finding of this study, and it has great consequences for how policy should be assessed and formulated. Litigation is about disputes. Clusters of disputes arise regarding the behavior of particular firms. Most business litigation is driven by those clusters, not

66. In future work, we intend to test the robustness of these and other explanations for changes in the level of litigation. The point here is not to endorse them but to suggest their obviousness as potential explanations of the modest third of the increase not accounted for by a simple increase in economic activity.

by more general phenomena. To the extent that litigation has increased, its distribution is decidedly "lumpy." Policymakers may well wish to focus attention on one or another "lump," and there are problems for which this approach is appropriate. But they would be ill advised to change general features of the system on the basis of essentially *sui generis* problems.

CBW 3: "The general burden on business is particularly evident in product liability and other tort litigation."

Again, there is no support for this contention. The world of tort is really two worlds: the world of discrete mass torts (asbestos, Dalkon Shield, etc.) and everything else. The mass torts have a life of their own, largely unaffected by developments elsewhere; they have a beginning, a middle, and an end. They are huge, ugly, and expensive, but again not an appropriate basis for general policy reform. In general, products liability filings are trending down, not up. And on removal of the mass tort actions, the residual tort line is literally flat over the period under view. Given the increase in economic activity during this period, this should be read as a real decline in litigation, however measured.

CBW 4: "Litigation is overwhelmingly and increasingly initiated by individual and government plaintiffs."

In the area of torts and enforcement of federal statutes, this is indeed the case, but of course it would also be expected to be the case. Most individuals do not have the wherewithal to commit mass torts or violate employee workplace rights; and government has never made much habit of enforcing statutes against itself. More striking, in more "neutral" or "party-indifferent" areas of law, business often gives as good as it takes. In the major areas of contracts, for example, businesses participate at least as often as plaintiffs as they participate as defendants. In these areas, any "explosion" is at least as much a creation of large business firms as of anyone else.

Also, there is no evidence whatsoever of an increase among the F2000 caseload in the share of cases in which these firms appear as defendants. This share has jumped around at times over the period, but the long-term trend is almost perfectly flat.

CBW 5: "The results of litigation are generally unfavorable to business defendants."

The "nature of judgment" and "judgment for" data that we reported above speak for themselves. Though not perfect, these are the only system-

atic and large-scale data available on winning and losing, and they tell us, without doubt, that businesses win overwhelmingly, both as plaintiffs and defendants, against other parties. On the basis of these data, they are certainly not "victims." It may be, of course, that business uncertainty about legal outcomes leads to premature settlement of disputes that should never have been raised by others in the first place. We would need better data than are currently available to assess that possibility, and nothing in existing data even points in the direction of its truth. To the contrary, it appears that large business firms are spirited defenders of what they take to be their legal rights; they are highly successful in simply removing challenges to them very early in legal proceedings; they show no greater reluctance than other parties to proceed to trial if need be. And again, somewhere along the line, they generally win.

If the facts are so at odds with popular conceptions, we might ask, where did that conception come from in the first place? Without attempting anything like a complete analysis, the data here immediately suggest one answer. A relatively limited number of firms are getting hit hard by litigation. With high per capita stakes and limited numbers to coordinate, they are an almost natural subject for collective action—promoting the message that in fact antibusiness litigation is a major crisis. Very few other business firms have any incentive to resist this message; even if they themselves have never been subject to costly litigation, they believe their "number" might one day come up and, if it does, would prefer being in a more favorable position to deal with it. And relevant facts have been in short supply. Again, we hope this report will compensate somewhat for that shortcoming.

As regards further research, the findings here suggest several potentially promising lines of advance. Along with more detailed mapping of the landscape of big business litigation, regular updating of the data base, and regular descriptive reports of this kind, these fall into four basic categories:

Sectoral studies: If legal disputing represents "informal business governance by other means," understanding its dynamics requires more in-depth understanding of sectoral business governance itself. One direction for such sectoral studies is suggested by the recent Kenworthy, Macaulay, and Rogers study on the auto industry.[67] In ways more advanced than available to those researchers at the time of their work, we can combine the relatively impoverished data available in our data set with more qualitative studies of business governance. Another direction is suggested by the vast literature on industrial organization and the ways in which different sorts of industrial structure promote or undermine informal governance development. With

67. Lane Kenworthy, Stewart Macaulay, & Joel Rogers, "'The More Things Change . . .': Business Litigation and Governance in the American Automobile Industry," 21 *Law & Soc. Inquiry* 000 (1996).

disaggregated litigation "rates" or incidence by sector, we should be able to test some of these propositions.

Case-type studies: Clearly some sorts of cases are more important than others in the overall volume of business-related civil litigation; clearly too, litigation in different case types exhibits very different distributions of plaintiffs and defendants. It would be useful to pursue several major case types in more detail, in each profiling the major players, changes in the level or focus of litigation, and (feasible, we think, given high enough concentration among major players) pursuing through industry interviews or secondary research the real causes of that litigation.

More inclusive maps: While the costs of doing this on a regular basis would be prohibitive, we think it would be useful, for some given year, to attempt to map all business litigation in federal courts (using the same search techniques we have developed for large firms, now simply applied to a much larger set). Compared with what we know about underlying industrial structure and substantive flows in the economy, this would give a glimpse of the overall relation between the transactions composing the "real" economy and those dominating litigation.

Policy change/disruption studies: Included in the sectoral and case-type studies, but perhaps worth of mention on their own, would be investigations of how changes in background legal or regulatory rules affect litigation. With good longitudinal data available on a sector and case-type basis, and with some sense in general of the relation between the "real" and "litigation" economy, we should be able to evaluate the effectiveness or consequences of such changes. And while our chief interest here is in the substance of business governance regimes, moreover, we should certainly be able to do the same for changes in the administration of the civil justice system itself.

APPENDIX A
CASES RETAINED AND DROPPED IN THIS STUDY

In each of the federal district courts across the country (and in the various territories), the clerk of court files a set of monthly reports with the Administrative Office of the U.S. Courts (AOUSC) that set forth detailed information regarding each civil case filed or terminated in that district. The data from the JS-5 Filing Report and the JS-6 Termination Report taken together include the date of filing, the date of termination, the docket number, case caption, the broad category of case type the action represents, the basis of jurisdiction on which the case is brought, whether the case ended after trial, and many other items regarding each civil matter that are of paramount interest to those managing our nation's federal courts. The AOUSC creates a machine-readable version of the forms and in turn supplies the data to the Research Division of the Federal Judicial Center (FJC). The FJC then standardizes the information into a common format and produces magnetic tapes, for use by the public at large, known as the Integrated Data Base (IDB). The information found in these tapes is the basis for the present study.

Traditionally, the data have been organized by a case's "statistical" year (SY) of termination. The period covered by an SY runs from 1 July through 30 June (this period, both in this report and in the literature at large, is sometimes referred to as a "fiscal" year, even though it does not correspond to the traditional 1 September federal fiscal year). Thus, a case that terminated in December 1985 would be found in the data file covering SY 1986 terminations. All data about that case, whether about filing or disposition, would be found in the single record in the appropriate SY termination. For those cases still open at the time of the creation of the latest version of the IDB, a file of pending actions is created that contains filing information only.

To conduct this study, we extracted records from the IDB corresponding only to those cases that were filed at any time between SY 1971 and SY 1991, inclusive. The version of the IDB at RAND covering those years contains 3,784,124 civil case filings. However, not all of these filings involve new disputes. For example, a case may be filed, be litigated for a number of years, and thereafter terminate by trial or summary judgment. If it goes to appeal and the appellant is successful in getting the case remanded, the district courts submit another JS-5 for the case. This means that the same underlying dispute would have two records in the IDB and would be counted twice. Similar situations occur with multidistrict litigation (MDL), transfers from other districts, and case reopenings. Since our primary goal is the measure of conflicts filed in the courts and not one of assessing the workload of the federal system, we opted to include only those cases that are "new" filings in federal district court. We therefore decided to restrict our sample to those cases that are initiated in the IDB to be either original proceedings or removals from state court. Of the records in the IDB for the years of interest to us, some 199,546 involved matters that had been litigated elsewhere or at some other time in the federal courts and were dropped from the study.

We further reduced the remaining 3,584,578 cases by excluding case types with little or no likelihood of business involvement. As mentioned above, the data include information about the case type and the jurisdictional basis of each filing. The party filing each civil action must check off one of the over 100 case-type classifications (known as Nature of Suit or NOS codes) the AOUSC has used over the years. For example, NOS 368 indicates that the primary case type is an asbestos-related products liability personal injury tort claim; NOS 840 cases involve trademark disputes, and matters with NOS 410 are antitrust actions. The filing party must also indicate the jurisdictional basis for the claim. There are five broad categories for federal jurisdiction in a civil case: the U.S. is a plaintiff, the U.S. is a defendant, the matter involves some aspect of federal legislation, the matter is within the jurisdiction of a U.S. territory (such as Guam; also known as local jurisdiction), or the matter is permitted to be litigated in federal court because it meets statutorily defined diversity standards (opposing parties are from different states or countries and the amount in controversy exceeds the minimum floor amount). By using combinations of the NOS and jurisdiction codes, we attempted to reduce, in a justifiable manner, the search for our target companies.

Initially, we excluded all Medicare, student loan, and veteran's benefit cases since these matters routinely involve only individuals and the U.S. government (NOS codes 151, 152, & 153). For similar reasons, we also dropped all deportation and deportation-review actions (NOS 460 & 461) as well as all prisoner petitions (NOS 510 to 550). By using jurisdictional basis as well as NOS, we could also identify those actions that were unlikely to yield corporate plaintiffs or defendants. If the case was brought in federal court because the U.S. was a defendant, and the matter involved either a personal injury tort (NOS 310 to 368) or was a social security matter (NOS 860 to 865), the case was excluded.

With any of the exclusions used above, there is always a chance that we may have ignored a number of cases with corporate parties. The NOS and jurisdiction codes are self-reported by the filing party and are subject to error. Other problems in the exclusion parameters are certainly possible. For example, there may well some prisoner petitions naming a corporation as a respondent or the student loan NOS could have been applied to a case brought against the lending institution rather than its far more common use in

an action for delinquent payments. Similarly, a matter in which the U.S. is a defendant may well include other named defendants that are pertinent to our study. However, we feel that the exclusions are justifiable.

Finally, we excluded all cases brought under "local" or territorial jurisdiction as being less like a typical federal case and more like an action filed in state court.

Using these exclusions, we dropped another 1,100,147 cases from our group of original filings in SY 71-91 for a total of 2,484,431 cases to be searched for major corporations. Of the number dropped, about 75% consist of veteran's benefit matters (NOS 153), prisoner petitions involving habeas corpus (NOS 530) or civil rights (NOS 550), and social security cases under 42 U.S.C. 405(g) (NOS 863). Appendix table A1 lists the counts of cases retained or excluded by nature of suit.

TABLE A1
Number of Cases Retained and Dropped by Nature of Suit

Nature of Suit	Dropped	Retained	Total
Contracts			
100: Indemnity of Admiralty Cases	0	119	119
110: Insurancek	397	98,594	98,991
120: Marine	133	82,616	82,749
122: Contracts, Misc.	0	1	1
125: Contracts, Misc.	0	3	3
130: Miller Act	0	22,224	22,224
140: Negotiable Instrument	371	67,855	68,226
141: Contracts, Misc.	0	1	1
150: Recovery of Overpayment & Enforcement of Judgment	65,830	0	65,830
151: Medicare Act	1,136	0	1,136
152: Recovery of Defaulted Student Loans (Excl. Vets.)	46,961	0	46,961
153: Recovery of Overpayment of Veteran's Benefits	225,922	0	225,922
160: Stockholders' Suits	30	2,319	2,349
190: Other Contracts	3,042	359,201	362,243
191: Employee Relations 59	1,063	1,122	
192: State Fair Trade Act	0	9	0
193: Hospital Care Act	0	364	364
195: Contract Product Liability 25	7,510	7,535	
Real property			
210: Land Condemnation	132	35,546	35,678
220: Foreclosure	1,269	110,311	111,580
230: Rent, Lease, and Ejectment	171	6,979	7,150
240: Torts to Land	103	8,751	8,854
241: Real Property, Misc.	0	1	1
245: Real Property, Tort Product Liability	2	1,088	1,090
290: Other Real Property	650	17,217	17,867
Personal injury torts			
310: Airplane	2,164	9,636	11,800
315: Airplane Product Liability	93	3,343	3,436
320: Assault, Libel, and Slander	1,745	13,492	15,237
330: Federal Employers Liability	624	36,424	37,048
340: Marine	2,550	90,326	92,876

TABLE A1—*Continued*

Nature of Suit	Dropped	Retained	Total
341: Hot Oil Act	0	2	2
345: Marine Product Liability	38	1,742	1,780
350: Motor Vehicle	15,074	117,005	132,079
355: Motor Vehicle Product Liability	186	8,756	8,942
360: Other Personal Injury	21,539	102,754	124,293
361: Workers' Compensation	1	442	443
362: Medical Malpractice	6,453	11,831	18,284
365: Product Liability	1,627	65,793	67,420
368: Asbestos Product Liability	127	66,037	66,164
370: Other Fraud	159	37,615	37,774
371: Truth in Lending	0	2,245	2,245
380: Other Personal Property Damage	266	30,661	30,927
385: Property Damage Product Liability	6	5,992	5,998
390: Misc. Personal Property Torts	0	1	1
Bankruptcy			
420: Trustee	0	4,472	4,472
421: Transfer Rule 915(b)	0	929	929
422: Appeal (28 USC 158)	0	42,934	42,934
423: Withdrawal (28 USC 157)	0	6,190	6,190
Civil rights			
440: General	1	156,176	156,177
441: Voting	0	3,537	3,537
442: Employment	0	122,271	122,271
443: Housing	0	7,387	7,387
444: Welfare	0	3,486	3,486
Prisoner petitions			
510: Motions to Vacate Sentence	36,486	0	36,486
520: Parole Board	2,690	0	2,690
530: Habeas Corpus	200,248	0	200,248
535: Habeas Corpus-Death Penalty Cases	160	0	160
540: Mandamus and Other	15,491	0	15,491
550: Civil Rights	293,605	0	293,605
551: Miscellaneous	1	0	1
Forfeiture/Penalty			
610: Agriculture	0	1,758	1,758
620: Food and Drug	0	12,975	12,975
625: Illegal Drugs	0	3,864	3,864
630: Liquor Laws	0	462	472
640: Railroad and Truck	0	324	324
650: Airline Regs	0	1,647	1,647
660: Occupational Safety and Health	0	2,697	2,697
690: Other	0	46,395	46,395
Labor			
710: Fair Labor Standards Act	1	33,744	33,745
720: Labor/Management Relations	0	68,561	68,561
730: Labor/Management Reporting & Disclosure	0	4,131	4,131
740: Railway Labor Act	0	3,801	3,801
750: Welfare Pension Plan Disclosure	0	49	49
771: Labor Laws, Misc	0	3	3
790: Other Labor Litigation	0	21,602	21,602
791: ERISA	0	61,386	61,386

TABLE A1—*Continued*

Nature of Suit	Dropped	Retained	Total
Property rights			
820: Copyright	0	30,397	30,397
830: Patent	0	18,347	18,347
840: Trademark	0	32,297	32,297
Social Security			
860: Before 7/1/78	41,461	0	41,461
861: HIAk	3,507	0	3,507
862: Black Lung	10,677	12	10,689
863: DIWC or DIWW	113,145	501	113,646
864: SSID	28,477	0	28,477
865: RSI	3,545	0	3,545
Federal Tax Suits			
870: Taxes	518	47,922	48,440
871: IRS-Third Party	0	5,137	5,137
Other Statutes			
400: lState Reapportionment	0	286	286
410: Antitrust	0	20,551	20,551
430: Banks and Banking	0	6,717	6,717
450: Commerce/ICC Rates/Etc.	k0	41,687	41,687
460: Deportation	3,315	0	3,315
461: Deportation Review	419	0	419
470: Racketeer Influenced & Corrupt Organ.	0	5,334	5,334
810: Selective Service	0	1,098	1,098
850: Securities/Commodities/Exchange	0	44,374	44,374
875: Customer Challenge (12 USC 3410)	0	343	343
880: Review of Enforcement	0	579	5a79
890: Other Statutory Actions	0	87,138	87,138
610: Agricultural Acts	0	4,814	4,814
892: Economic Stabilization Act	0	1,279	1,279
893: Environmental Matters	0	10,815	10,815
894: Energy Allocation Act	0	981	981
895: Freedom of Information Acat	k0	6,332	6,332
900: Appeal of Fee Determination under Equal Access to Justice	0	60	60
910: Domestic Relations	7,359	0	7,359
920: Insanity	1,434	0	1,434
930: Probate	1,095	0	1,095
940: Substitute Trustee	77	0	77
950: Constitutionality of State Statutes	154	6,348	6,502
970: Narcotics Addict Rehab. Act Title III	0	7,970	7,970
971: Miscellaneous Statutes	0	2	2
990: Other	3,091	664	3,755
991: Miscellaneous Statutes	17	0	17
992: Local Appeal	73	0	73
999: Miscellaneous Filing	0	1	1
Total	1,165,932	2,418,646	3,584,578

APPENDIX B
UNDERCOUNT OF CASES

The Undercount Problem

The Integrated Federal Courts Data Base (IFCDB) used in this study consists of a machine-readable set of case records deriving from case opening and closing reports sent to the AOUSC by the 94 district courts in which cases commence and terminate. All cases commenced in federal district courts from 1971 to the present—several million in number—are individually represented in the data base. The names of the lead plaintiff and defendant—those listed first on the initial pleading—are included in these reports and, along with other information about the case, are entered into an AOUSC master file, which, after subsequent standardization, becomes the IFCDB. Although the lead plaintiff and defendant in each case is named, other parties are not. Since F2000 companies have inevitably been named in pleadings in nonlead positions, use of the IFCDB to assess the amount of litigation that has involved F2000 companies runs into an undercounting problem of indeterminate magnitude. In this appendix, we construct an estimate of the size of that undercount. What the results show is that, for the period of time covered by the data used in the estimation procedure, the IFCDB approach resulted in identification of about two-thirds of the actual number of F2000 cases and about half of the actual number of F2000 appearances.

Approach to Estimating the Size of the Undercount

One way of making an estimate of the undercount would be to obtain a random sample of case files, code company names from actual pleadings, and then compare what was found with the results obtained through IFCDB analysis. However, files for open cases and some recently closed cases are all that are kept in district court houses. Although these are generally accessible by the public, older case files—sometimes just a few months older—are archived in federal records centers. Thus, getting to a nationally representative sample of such files and working with them would be a gargantuan undertaking that is impractical from both a financial and a logistical point of view.

The alternative we take in this appendix is to work with a set of records taken from the automated case docketing system known as CIVIL (generically named ICMS). This system is a computerized replacement of the traditional paper dockets that have existed from the time the federal district courts were established. Each case that is in ICMS is also in the IFCDB. However, ICMS contains much more information than the IFCDB. In particular, ICMS records contain a complete listing of all plaintiffs and defendants in each case. The IFCDB, as noted, contains only the lead plaintiff and defendant. Apart from pleadings themselves, in fact, ICMS is the only place in which that information can be found. In principle, therefore, the ICMS data base can be used to produce a more dependable estimate of the total number of cases and appearances that involve the F2000 companies. In practice, however, even this approach is not without its limitations.

First, because ICMS is a relatively recent innovation, having been implemented for the first time in some districts in 1993, it is not suitable for longitudinal analysis of two decades of litigation. Second, even though the docket information in ICMS is (*a*) open to the public through automated inquiry systems that are operational in many district courts and (*b*) is being increasingly used by districts to supply the AOUSC with the kind of information previously reported on paper, much of the data that ICMS records contain have not been centrally assembled in a single data base that is comparable to the IFCDB. Included in this category is the information that is of particular relevance to our inquiry—the names of all parties to cases. And though ICMS is a centrally developed system, it is often customized to fit individual district needs, and this complicates secondary analysis of it.

Despite these difficulties, ICMS, as we noted, is the only practical source of *all* party names in federal court cases, and thus offers the best available opportunity for assessment of the undercount problem, provided a reasonably representative set of ICMS cases can be utilized. Such a set was available through ICMS records provided by 20 federal districts for other work on the federal courts currently being done by the Institute of Civil Justice at RAND. In that work, 20 federal districts were selected for participation in a pilot program of civil justice reform mandated by the Civil Justice Reform Act of 1990. The design of the evaluation of that program called for a sample of about 250 cases to be drawn from the 1991 caseloads of each of the 20 participating districts. ICMS records on this sample were extracted from each district's data base, and these were utilized for the undercount estimations performed in this appendix. Substantiation of the representativeness of these 20 districts with respect to size, resources, case mix, and processing characteristics has been demonstrated in earlier work.[68] Details of the sampling procedure used to select the 250 cases from each district's caseload can also be found in that earlier work. The most salient characteristics of the procedure for the purposes of this appendix are that selection of each district's sample was independent of the selection of any other, and that the sample in every district was stratified by case type. The former means that the set of cases is really 20 separate samples and can be analyzed district by district. The latter means that the number of cases within each case type in a district must be weighted in order to estimate the population pattern for any characteristic (e.g., party names) of that case type.

In summary, our procedures were as follows:

1. Cases with natures of suit corresponding to those in our study of corporate litigation were selected from the ICMS sample. These totaled 4,020.
2. The 4,020 cases were then subjected to the same party identification procedures used in our identification of F2000 corporations in the IFCDB. The difference was that all party names, not just lead party names, were subject to the procedures. The result was a count of the total number of cases and appearances involving F2000 corporations in this set of cases. Counts were produced for each case type within each district.
3. The 4,020 cases in the ICMS sample were then selected from the IFCDB data base, using district and docket number, and those that had been flagged by our corporate identification procedure were identified. Counts of F2000 cases and appearances in the IFCDB, by case type and district, were then produced for these 4,020 cases. Had the party information present in ICMS also been present in the IFCDB, the same count would have been produced (since the cases in both sets were the same). Since the IFCDB contains only lead party information, however, the counts from that data base were obviously lower.
4. To adjust for the fact that the 1991 ICMS sample of 4,020 cases was selected from more than 42,000 total cases of similar types terminated in the 20 districts in 1991, and was stratified by case type, the number of cases in the sample was weighted. The weights were calculated by dividing the number of ICMS sample cases of each type within each district into the number of cases in the 1991 population for the same case type and district. If, for instance, there were 100 cases in the population and ten in the sample, the weight would be 10.0.
5. The weights calculated under step 4 were then applied to the counts generated in steps 2 and 3. This produced estimates of the number of F2000 cases and appearances by case type and district within the ICMS data base for 1991, and of the number of F2000 cases and appearances by case type and district within the IFCDB, for the same year.
6. The ICMS and IFCDB results from step 5 were then compared to estimate the extent of the IFCDB undercount of F2000 litigation activity. A straightforward approach was taken. If, for instance, 100 F2000 cases were found in the ICMS

68. T. Dunworth & J. Kakalik, "Preliminary Observations on Implementation of the Pilot Program of the Civil Justice Reform Act of 1990," 46 *Stan. L. Rev.* 6 (1994).

cases, but only 50 were found in the same cases in the IFCDB, then the IFCDB procedure was considered to have found 50% of the actual number.

The population distribution of cases for 1991 is presented in appendix table B1, part II. The distribution for the 4,020 cases in the ICMS sample are given in part III of that table. The weights produced by dividing each cell of part III into the corresponding cell for part II are reported in part III. Asbestos cases are excluded from this process because the ICMS sample itself purposely excluded such cases. In all likelihood, the undercount of F2000 participation in asbestos litigation is significantly underestimated, due to the fact that many asbestos filings name multiple defendants, many of whom were, at the time of filing, F2000 companies.[69]

The Nature and Magnitude of the Undercount

Using the weights presented in appendix table B1, undercount estimates were made along several dimensions of the data. Appendix tables B2 (cases) and B3 (appearances) contain estimates by district and case type. They each have three parts. Part I shows the weighted ICMS numbers and part II shows the weighted IFCDB numbers. Part III depicts the percentage that part II is of part I. In other words, it expresses the IFCDB findings as a percentage of the ICMS findings. This is a measure of the undercount.

For example, in part III of appendix table B2 the bottom right-hand cell contains the number 65.9. This means that for all case types and districts combined, 65.9% of the ICMS cases that involved F2000 corporations (the best available estimate of the true number of F2000 cases) were also located in the IFCDB. Other cells in part III can be interpreted in a similar way.

Appendix table B3 repeats this process for appearances. Overall, we estimate that 50% of the true number of F2000 appearances were located in the IFCDB. That this is smaller than the percentage of cases found is no doubt due to the fact that when one or more F2000 companies are involved on the same side of a case, one of them tends to be the lead party.

Appendix table B4 aggregates district and case type and presents the undercount results by party role. Summary data for both cases and appearances are presented. The data show that the probability that an F2000 company will be detected by the IFCDB approach is about the same whether the F2000 company is plaintiff or defendant. When at least one F2000 company was defendant, 66.5% of the cases were found; when plaintiff, 67.2%. There is a party role difference for appearances, however—52.3% of the defense appearances being located compared to 46.0% of the plaintiff appearances. This suggests that F2000 companies are more likely to be the lead party when in the defense role than when in the plaintiff role. No doubt this is due to the fact that big corporations are attractive targets.

Finally, appendix table B5 presents the undercount by economic sector, again giving data for both cases and appearances. Here consideration of the issue is complicated by the fact that multiparty cases may involve F2000 *firms* from different economic sectors, and there is no satisfactory way to select a single sector for each case in which that occurs. In addition, there is somewhat greater variation across sectors than across the other dimensions examined so far. This reflects varying probabilities of multiparty participation by sector. In the Personal and Business Services category, for instance, the undercount is very substantial (the IFCDB approach produces only 11.9% of the expected appearance matches for instance).

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69. Asbestos cases were excluded from the CJRA evaluation and were consequently unavailable in the case records provided by the 20 districts in response to the CJRA evaluation design. Earlier estimates of the multiparty character of asbestos cases were performed in Dunworth, "Product Liability" (cited in note 20).

Conclusion

It is clear that this procedure does not produce completely satisfactory estimates of the undercount. The ICMS sample is not drawn from all districts, and it does not span two decades of litigation. In addition, there is considerable interdistrict and intercase type variation in the estimated size of the undercount. And there was no reasonable way, from the available ICMS data, to estimate the undercount at all for individual companies or even for mega litigants, moderate litigants, and minor litigants. In combination, these considerations deterred us from trying to adjust the findings presented in the body of the report to reflect the undercount calculations made in this appendix.

Nevertheless, the issue of undercounting is sufficiently important that *some* method of estimating it was required. What has been presented in this appendix is the best available method given the unavoidable constraints that existed with respect to project resources and data availability. The reader should view the undercount estimates in that light. It may well be that with better data, the estimated magnitude of the undercount might turn out to be different but, to us, it seems unlikely that, in gross terms at least, it would be significantly different.

TABLE B1

Calculation of Weights to Be Applied to the ICMS Sample

I. All Calendar Year 1991 Terminations in 20 CJRA Districts: No. of Cases by District and Case Type

	Nature of Suit Category							Total	
	Asbestos	Nonasbes.	Other Torts	Insurance	Other Contracts	Civil Rights/ Labor	All Others	With Asbestos	Without Asbestos
NY, E	66	125	415	46	478	695	724	2,549	2,483
NY, S	186	115	444	115	1,349	867	935	4,011	3,825
DE	0	6	66	10	59	51	180	372	372
PA, E	509	318	1,231	328	809	1,033	910	5,138	4,629
PA, M	254	72	196	38	124	181	174	1,039	785
MD	91	74	327	48	490	455	406	1,891	1,800
FL, N	1	17	57	20	60	95	254	504	503
GA, N	182	87	384	140	363	505	475	2,136	1,954
TX, S	650	115	596	217	1,239	780	1,011	4,608	3,958
KY, E	54	38	194	48	97	161	292	884	830
KY, W	60	48	171	51	96	125	226	779	719
TN, W	30	23	127	41	150	190	131	692	662
IL, N	444	129	424	134	821	1,865	2,100	5,917	5,473
IN, N	6	38	152	37	92	271	245	841	835
WI, E	23	46	51	24	146	244	280	814	791
AZ	108	41	86	68	310	223	438	1,274	1,166
CA, C	0	201	450	376	964	1,340	2,000	5,331	5,331
CA, S	0	48	105	101	288	256	623	1,421	1,421
OK, W	10	64	125	74	162	176	583	1,194	1,184
UT	29	54	106	32	188	172	396	977	948
Total	2,703	1,659	5,707	1,948	8,287	9,685	12,383	42,372	39,669

TABLE B1—*Continued*

II. Sample of Calendar Year 1991 Terminations in 20 CJRA Districts: No. of Cases by District and Case Type

	Nature of Suit Category							
	Asbestos	Nonasbes. P.L.	Other Torts	Insurance	Other Contracts	Civil Rights/ Labor	All Others	Total
NY, E	0	6	35	6	51	57	61	216
NY, S	0	4	24	5	73	47	71	224
DE	0	4	43	4	36	28	69	184
PA, E	0	17	51	12	31	48	36	195
PA, M	0	15	51	13	30	54	35	198
MD	0	13	34	3	42	77	44	213
FL, N	0	13	20	12	37	56	56	194
GA, N	0	10	41	16	36	57	46	206
TX, S	0	10	33	8	65	57	42	215
KY, E	0	13	45	11	32	46	42	189
KY, W	0	18	42	18	25	54	51	208
TN, W	0	4	29	15	43	65	31	187
IL, N	0	4	21	4	47	84	50	210
IN, N	0	5	45	11	22	61	42	186
WI, E	0	12	17	9	34	83	50	205
AZ	0	8	13	8	51	52	60	192
CA, C	0	9	21	14	20	56	77	197
CA, S	0	5	16	17	44	54	61	197
OK, W	0	16	25	11	41	42	71	206
UT	0	16	18	8	40	49	67	198
Total	0	202	624	205	800	1,127	1,062	

TABLE B1—*Continued*

III. Welights to Be Applied to Cases and Litigants in the Sample of Calendar Year 1991 Terminations

	Nature of Suit Category							
	Asbestos	Nonasbes. P.L.	Other Torts	Insurance	Other Contracts	Civil Rights/ Labor	All Others	Total
NY, E	N/A	20.83	11.86	7.87	9.37	12.19	11.87	11.50
NY, S	N/A	28.75	18.50	23.00	18.48	18.45	13.17	17.08
DE	N/A	1.50	1.53	2.50	1.64	1.82	2.61	2.02
PA, E	N/A	18.71	24.14	27.33	26.10	21.52	25.28	23.74
PA, M	N/A	4.80	3.84	2.92	4.13	3.35	4.97	3.96
MD	N/A	5.69	9.62	16.00	11.67	5.91	9.23	8.45
FL, N	N/A	1.31	2.85	1.67	1.62	1.70	4.54	2.59
GA, N	N/A	8.70	9.37	8.75	10.08	8.86	10.33	9.49
TX, S	N/A	11.50	18.06	27.13	19.06	13.68	24.07	18.41
KY, E	N/A	2.92	4.31	4.36	3.03	3.50	6.95	4.39
KY, W	N/A	2.67	4.07	2.83	3.92	2.31	4.43	3.46
TN, W	N/A	5.75	4.38	2.73	3.49	2.92	4.23	3.54
IL, N	N/A	32.25	20.19	33.50	17.47	22.20	42.00	26.06
IN, N	N/A	7.60	3.38	3.36	4.18	4.44	5.83	4.49
WI, E	N/A	3.83	3.00	2.67	4.29	2.94	5.60	3.86
AZ	N/A	5.13	6.62	8.50	6.08	4.29	7.30	6.07
CA, C	N/A	22.33	21.43	26.86	48.20	23.93	25.97	27.06
CA, S	N/A	9.60	6.56	5.94	6.55	4.74	10.21	7.21
OK, W	N/A	4.00	5.00	6.73	3.95	4.19	8.21	5.75
UT	N/A	3.38	5.89	4.00	4.70	3.51	5.91	4.79
Total	N/A	8.21	9.15	9.50	10.36	8.59	11.66	

NOTE: In single district states, the district is given by the two letter postal code. In multiple district states, the district is given by the postal code followed by E(ast), W(est), N(orth), S(outh), M(iddle, or C(entral).

TABLE B2
Estimated Undercount of F2000 Cases
I. Weighted Number of F2000 Cases Found in the ICMS Sample

	Nature of Suit Category						
	Nonasbes. P.L.	Other Torts	Insurance	Other Contracts	Civil Rights/ Labor	All Others	Total
NY, E	21	12	23	112	85	83	337
NY, S	86	111	69	351	129	224	970
DE	0	6	10	21	16	73	127
PA, E	168	314	219	261	151	202	1,315
PA, M	29	50	26	29	27	45	206
MD	28	48	16	152	59	37	340
FL, N	10	20	12	16	10	50	118
GA, N	44	140	96	101	80	93	554
TX, S	81	253	54	362	233	241	1,223
KY, E	9	73	35	24	18	49	207
KY, W	35	61	23	27	21	31	198
TN, W	17	39	22	24	35	30	168
IL, N	32	141	67	192	155	756	1,344
IN, N	0	51	13	25	62	47	198
WI, E	23	18	13	34	26	67	182
AZ	21	20	34	91	56	88	309
CA, C	112	193	242	241	239	364	1,390
CA, S	38	13	59	59	28	51	249
OK, W	36	45	47	43	13	49	233
UT	37	24	16	56	28	83	244
Total	827	1,632	1,097	2,224	1,472	2,661	9,912

TABLE B2—*Continued*

II. Weighted Number of F2000 Cases Found in the FCIDB Sample

	Nature of Suit Category						
	Nonasbes. P.L.	Other Torts	Insurance	Other Contracts	Civil Rights/ Labor	All Others	Total
NY, E	0	12	23	94	73	83	285
NY, S	58	74	46	203	111	145	636
DE	0	5	10	11	13	57	96
PA, E	94	217	164	183	129	101	888
PA, M	17	29	0	105	35	9	196
MD	19	38	15	21	20	35	148
FL, N	8	17	7	10	5	41	87
GA, N	26	131	61	81	53	41	394
TX, S	69	199	0	229	151	96	743
KY, E	6	39	26	9	11	28	118
KY, W	24	57	14	27	9	4	136
TN, W	17	26	22	24	32	17	139
IL, N	0	121	34	157	133	378	823
IN, N	0	41	10	21	62	35	169
WI, E	19	9	8	21	21	34	112
AZ	21	13	17	79	43	51	224
CA, C	112	193	161	96	144	130	836
CA, S	29	7	59	52	24	10	181
OK, W	32	35	27	32	8	16	150
UT	30	18	0	47	21	53	169
Total	580	1,280	704	1,503	1,098	1,365	6,529

TABLE B2—*Continued*

III. Percentage of F2000 Cases in ICMS Also Located in the FCIDB

	Nature of Suit Category						
	Nonasbes. P.L.	Other Torts	Insurance	Other Contracts	Civil Rights/ Labor	All Others	Total
NY, E	0.0	100.0	100.0	83.3	85.7	100.0	84.6
NY, S	66.7	66.7	66.7	57.9	85.7	64.7	65.6
DE	N/A	75.0	100.0	53.8	77.8	78.6	75.8
PA, E	55.6	69.2	75.0	70.0	85.7	50.0	67.5
PA, M	66.7	76.9	55.6	71.4	75.0	77.8	71.9
MD	60.0	60.0	0.0	69.2	60.0	25.0	57.5
FL, N	75.0	85.7	57.1	60.0	50.0	81.8	73.7
GA, N	60.0	93.9	63.6	80.0	66.7	44.4	71.1
TX, S	85.7	78.6	0.0	63.2	64.7	40.0	60.8
KY, E	66.7	52.9	75.0	37.5	60.0	57.1	57.0
KY, W	69.2	93.3	62.5	100.0	44.4	14.3	68.9
TN, W	100.0	66.7	100.0	100.0	91.7	57.1	82.9
IL, N	0.0	85.7	50.0	81.8	85.7	50.0	61.2
IN, N	N/A	80.0	75.0	83.3	100.0	75.0	85.2
WI, E	83.3	50.0	60.0	62.5	77.8	50.0	61.3
AZ	100.0	66.7	50.0	86.7	76.9	58.3	72.4
CA, C	100.0	100.0	66.7	40.0	60.0	35.7	60.1
CA, S	75.0	50.0	100.0	88.9	83.3	20.0	72.6
OK, W	88.9	77.8	57.1	72.7	66.7	33.3	64.4
UT	81.8	75.0	0.0	83.3	75.0	64.3	69.4
Total	70.1	78.4	64.2	67.6	74.6	51.3	65.9

TABLE B3
Estimated Undercount of F2000 Appearances
I. Weighted Number of F2000 Cases Found in the ICMS Sample

	Nature of Suit Category						
	Nonasbes. P.L.	Other Torts	Insurance	Other Contracts	Civil Rights/ Labor	All Others	Total
NY, E	21	12	23	112	134	107	409
NY, S	86	111	69	425	129	263	1,084
DE	0	6	10	25	18	177	236
PA, E	262	386	219	287	172	253	1,579
PA, M	34	154	35	54	27	149	452
MD	28	58	16	163	71	37	373
FL, N	16	20	13	21	10	100	180
GA, N	44	169	105	101	80	114	611
TX, S	81	343	54	438	369	433	1,719
KY, E	9	73	39	24	28	49	222
KY, W	37	61	23	27	23	35	207
TN, W	23	44	22	24	35	30	178
IL, N	32	141	67	227	222	1,470	2,160
IN, N	0	64	13	33	62	53	226
WI, E	27	21	13	43	29	90	223
AZ	26	26	94	97	69	102	414
CA, C	156	193	242	337	311	587	2,097
CA, S	38	13	65	85	47	82	331
OK, W	40	55	47	51	13	49	255
UT	37	29	24	71	49	124	334
Total	996	1,980	1,194	2,648	1,899	4,573	13,290

TABLE B3—*Continued*

II. Weighted Number of F2000 Appearances Found in the FCIDB Sample

	Nature of Suit Category						
	Nonasbes. P.L.	Other Torts	Insurance	Other Contracts	Civil Rights/ Labor	All Others	Total
NY, E	0	12	23	94	73	83	295
NY, S	58	74	46	203	111	171	663
DE	0	5	10	11	13	70	109
PA, E	94	217	164	183	129	101	888
PA, M	19	38	15	21	20	35	148
MD	17	29	0	105	35	9	196
FL, N	8	17	7	10	5	41	87
GA, N	26	140	61	81	53	41	403
TX, S	69	199	0	248	151	96	762
KY, E	6	39	26	9	11	28	118
KY, W	24	57	14	27	9	4	136
TN, W	17	26	22	24	32	17	139
IL, N	0	121	34	157	155	378	845
IN, N	0	41	10	21	62	35	169
WI, E	19	9	8	21	21	34	112
AZ	21	13	17	79	43	58	231
CA, C	112	193	161	96	144	130	836
CA, S	29	7	59	52	24	20	191
OK, W	32	35	27	36	8	16	154
UT	30	18	0	47	21	53	169
Total	580	1,289	704	1,526	1,120	1,422	6,641

TABLE B3—*Continued*

III. Percentage of F2000 Appearances in ICMS Also Located in the FCIDB

	Nature of Suit Category						
	Nonasbes. P.L.	Other Torts	Insurance	Other Contracts	Civil Rights/ Labor	All Others	Total
NY, E	0.0	100.0	100.0	83.3	54.5	77.8	69.6
NY, S	66.7	66.7	66.7	47.8	85.7	65.0	61.1
DE	N/A	75.0	100.0	46.7	70.0	39.7	46.2
PA, E	35.7	56.3	75.0	63.6	75.0	40.0	56.2
PA, M	57.1	25.0	41.7	38.5	75.0	23.3	32.7
MD	60.0	50.0	0.0	64.3	50.0	25.0	52.4
FL, N	50.0	85.7	50.0	46.2	50.0	40.9	48.5
GA, N	60.0	83.3	58.3	80.0	66.7	36.4	65.9
TX, S	85.7	57.9	0.0	56.5	40.7	22.2	44.3
KY, E	66.7	52.9	66.7	37.5	37.5	57.1	53.2
KY, W	64.3	93.3	62.5	100.0	40.0	12.5	65.8
TN, W	75.0	60.0	100.0	100.0	91.7	57.1	78.1
IL, N	0.0	85.7	50.0	69.2	70.0	25.7	39.1
IN, N	N/A	63.2	75.0	62.5	100.0	66.7	74.7
WI, E	71.4	42.9	60.0	50.0	70.0	37.5	50.1
AZ	80.0	50.0	18.2	81.3	62.5	57.1	55.9
CA, C	71.4	100.0	66.7	28.6	46.2	15.2	39.9
CA, S	75.0	50.0	90.9	61.5	50.0	25.0	57.8
OK, W	80.0	63.6	57.1	69.2	66.7	33.3	60.4
UT	81.8	60.0	0.0	66.7	42.9	42.9	50.6
Total	58.2	65.1	59.0	57.6	59.0	31.1	50.0

TABLE B4
ICMS and IDB Results for Party Role of F2000 Corporations

Party Role	Weighted Distribution of F2000 Identifications		
	From ICMS	From IDB Sample	% Found
I. Cases			
Both plaintiff and defendant	293	111	38.1
Defendant only	6,415	4,265	66.5
Plaintiff only	3,204	2,153	67.2
Total	9,912	6,529	65.9
II. Appearances			
Defendant only	8,372	4,376	52.3
Plaintiff only	4,919	2,265	46.0
Total	13,290	6,641	50.0

TABLE B5
ICMS and IDB Results for Economic Sector of F2000 Corporations

Economic Sector	Weighted Distribution of F2000 Identifications		
	From ICMS	From IDB Sample	% Found
I. Cases			
Mining, Oil and Gas	193	166	86.2
Mfgs. of Basic Goods	718	614	85.5
Mfgs. of Finished Products	1,960	1,490	76.0
Transportation/Communication	1,391	1,184	85.1
Wholesale/Retail	535	384	71.7
Finance/Banks/Insurance	3,646	2,181	59.8
Personal & Business Services	333	186	56.0
Professional Services	227	225	99.3
Missing, Multiple, or Unknown SIC	910	99	10.9
Total	9,912	6,529	65.9
II. Appearances			
Mining, Oil and Gas	472	200	42.3
Mfgs. of Basic Goods	1,016	647	63.7
Mfgs. of Finished Products	2,623	1,501	57.2
Transportation/Communication	1,873	1,217	65.0
Wholesale/Retail	829	397	47.8
Finance/Banks/Insurance	4,500	2,230	49.5
Personal & Business Services	1,562	186	11.9
Professional Services	258	225	87.4
Missing, Multiple, or Unknown SIC	157	38	23.8
Total	13,290	6,641	50.0

APPENDIX C
FIRMS INCLUDED IN THE F2000

The following list identifies the 2,367 firm names that appeared in *Fortune* magazine's Industrial 500 and Service 500 lists from 1971 to 1987 inclusive and that provided the initial basis for the F2000. The final F2000 contains only 1,905 firms. The difference reflects 473 name changes, mergers, or consolidations into successor entities. Where such occurred, we consolidated data forward. So, if "Zylo Corp." merged into or changed its name to "ABC Corp.," all cases pertaining to the old "Zylo" appear in our data set as part of the caseload of "ABC."

A-T-O Inc
Abbott Laboratories
Acacia Mutual Life Ins Co
ACCO Industries
Ace Hardware Corp
ACF Industries Inc
ACI Holdings Inc
Acme Markets Inc
Addressograph Multigraph Corp
Admiral Corp
Advanced Micro Devices Inc
Aetna Life & Casualty Co
Aetna Life Ins & Annuity Co
Aetna Life Ins Co
Affiliated Publications Inc
AFG Industries Inc
AG Processing Inc
AGRI Industries
Agway Inc
Ahmanson (H. F.) & Co
Air Express International Co
Air Products & Chemicals Inc
Air Reduction Co Inc
Airborne Freight Corp
AirCo Inc
Akzona Inc
Alaska Air Group Inc
Alberto-Culver Co
Albertsons Inc
Alco Health Svcs Corp Inc
Alco Pipe Line
Alco Standard Corp
Alexander & Alex. Svcs Inc
Alexander & Baldwin Inc
Alleghany Corp
Allegheny Airlines Inc
Allegheny Beverage Corp
Allegheny International Inc
Allegheny Ludlum Corp
Allegheny Ludlum Ind
Allegheny Power System Inc
Allegis Corp
Allen Group Inc
Allied Bancshares Inc
Allied Chemical Corp
Allied Corp
Allied Mills Inc
Allied Products Corp
Allied Stores Corp
Allied Supermarkets Inc
Allied Van Lines Inc
Allied-Signal Inc
Allis-Chalmers Corp
Allis-Chalmers Manuf Co
Allstate Life Ins Co
Alumax Inc
Aluminum Co. of America
AM International Inc
Amalgamated Sugar Co
AMAX Inc
Amdahl Corp
Amerada Hess Corp
Amercantile BanCorporation
America West Airlines Inc
American Airlines Inc
American Bakeries CO
American Beef Packers Inc
American Brands Inc
American Broadcasting Cos Inc
American Can Co
American Capital Corp
American Carriers Inc
American Chain & Cable Co Inc
American Continental Corp
American Cyanamid Co
American Electric Power Co
American Export Industries
American Express Co
American Family Corp
American Family Life Assur Co
American Finance System Inc
American Financial Corp
American General Corp
American General Insurance Co
American General Life&Acc Inc
American Greetings Corp
American Hardware Supply Co
American Hoechst
American Hoist & Derrick Co
American Home Products Corp
American Hospital Supply Corp
American Information Tech Co
American Int'l Group Inc
American Investment Co
American Maize-Products Co
American Medical Int'l Inc
American Metal Climax Inc
American Motors Corp
American National Corp
American Natural Gas
American Natural Resources C
American Petrofina Inc
American President Cos Ltd
American President Lines Ltd
American S&L Assn
American S&L Assn of Florida
American Savings
American Savings Bank FSB
American Security Corp
American Smelting & Refining
American Standard Inc
American Stores Co
American Tele. & Telegraph Co
American United Life Ins Co
Amerifirst Federal S&L Assn
Ameritech
Ameritrust Corp
Ameriwest Financial Corp
Ames Department Stores Inc
Ametek Inc
AMF Inc
AMFAC Inc
Amoco Corp
AMP Inc
Ampco-Pittsburgh Corp
Ampex Corp
AMR Corp
Amsouth Bancorporation
Amstar Corp
Amsted Industries Inc
Amtel Corp
Anaconda Co
Anchor Glass Container Corp
Anchor Hocking Corp
Anchor National Life Ins Co
Anchor Savings Bank
Anderson, Clayton & Co
Anheuser-Busch Inc
Anixter Bros. Inc

AON Corp
APL Corp
Apollo Computer Inc
Apple Bank for Savings Inc
Apple Computer Inc
ARA Holding Co
ARA Services Inc
Arcata Corp
Arcata National Corp
Archer Daniels Midland Co
Arco Pipe Line Co
Arden-Mayfair Inc
Argonaut Group Inc
Aristech Chemical Corp
Arizona Public Service Co
Arkansas Best Corp
Arlen Realty & Development
Armco Steel Corp
Armour-Dial Inc
Armstrong Cork Co
Armstrong Rubber Co
Armstrong World Industries
Armtek Corp
Arrow Electronics Inc
ARVIN Industries Inc
Asarco Inc
Ashland Oil Inc
Associated Dry Goods Corp
Associated Milk Producers
Associated Transport Inc
AT&T Technologies Inc
Atari Corp
Atcor Inc
Athlone Industries Inc
Atkinson (Guy F.) Co of Ca
Atlantic Federal S&L Assn
Atlantic Financial Federal
Atlantic Richfield Co
Automatic Data Processing In
Automation Industries Inc
Avco Corp
Avery Inc
Avery International Corp
Avery Products
Avnet Inc
Avon Products Inc
Avondale Industries Inc
AZP Group
Babcock & Wilcox Co
Bache & Co
Bache Group Inc
Badische
Bairnco Corp
Baker Hughes Inc
Baker International Corp
Baldwin (D. H.) Co
Baldwin-United Corp
Balfour MacLaine Int'l Ltd
Ball Corp
Bally Manufacturing Corp
Baltimore Gas & Electric Co
Banc One Corp
Bancal Tri-State Corp
Banco Popular de Puerto Rico
BancOhio National Bank
BanCorp Hawaii Inc
Bangor Punta Corp
Bank of Boston Corp
Bank of California
Bank of New England Corp
Bank of New York Co Inc
Bank of the Commonwealth
Bank of Tokyo Trust Co
Bank of Virginia
Bank South Corp
BankAmerica Corp
Bankers Life & Casualty Co
Bankers Life Co
Bankers Trust N.Y. Corp
Banner Industries Inc
Banta (Geo.)
Barclays American Corp
Bard (C. R.) Inc
Barnes Group Inc
Barnett Banks of Florida Inc
Barwick (E. T.) Industries
BASF Corp
BASF Wyandotte
Bassett Furniture Industries
Bath Industries Inc
Batus Inc
Bausch & Lomb Inc
Baxter International Inc
Baxter Laboratories Inc
Baxter Travenol Labs Inc
BayBanks Inc
Bayer USA Inc
Bear Stearns Cos Inc
Beatrice Co
Beatrice Foods Co
Beckman Instruments Inc
Becton, Dickinson & Co
Beech Aircraft Corp
Bekins Co
Belco Petroleum Corp
Bell & Howell Co
Bell Atlantic Corp
Bell National Corp
BellSouth Corp
Bemis Co Inc
Bendix Field Engineering Corp
Beneficial Corp
Beneficial Standard Corp
Benj Franklin Fed S&L Assn
Bergen Brunswig Corp
Berkshire Hathaway Inc
Best Products Co Inc
Bethlehem Steel Corp
Beverly Enterprises Inc
Beverly Hills S&L Assn
Big Three Industries Inc
Bindley Western Indus Corp
Biscayne Fed S&L Assn
Black & Decker Corp
Black & Decker Manuf Co
Blount Inc
Blue Bell Inc
Bluebird Inc
BMA Corp
Boatmen's Bancshares Inc
BOC Inc
Boeing Co
Boise Cascade Corp
Borden Chemicals & Plastics
Borden Inc
Borg-Warner Holdings Corp
Bormans Inc
Boston Five Cents Sav. Bk FSB
Bowater Inc
BP America Inc
BP Pipelines Inc
Bradford National Life Ins
Braniff Airways Inc
Braniff Inc
Braniff International Corp
Brewer (C.) & Co Ltd
Briggs & Stratton Corp
Bristol-Myers Co
Broadview Financial Corp
Broadway Hale Stores Inc
Brockway Glass Co Inc
Brockway Inc
Brown Group Inc
Brown Show Co Inc
Brown-Forman Corp
Brown-Forman Distillers Corp
Browning Ferris Industries
Bruno's Inc
Brunswick Corp
Buckeye Financial Corp
Bucyrus-Erie
Budd Co
Bunker Ramo Corp
Burlington Industries Inc
Burlington Northern Inc
Burlington Resources Inc
Burroughs (J. P.) & Son Inc
Business Men's Assurance Co
Butler Manufacturing Co
C.I.T. Financial Corp
Cabot Corp
Caesars World Inc
Cairymaen
CalFed Inc
California & Hawaiian SUGAR
California Financial Corp
California First Bank
Calmat Co
Cameron Iron Works Inc
Campbell Soup Co
Campbell Taggart Inc
Cannon Mills Co
Capital Cities Comm. Inc
Capital Cities Comm./ABC Inc
Capital Holding Corp
Capitol Industries Inc

Capitol Life Ins Co
Carborundum Co
Carlisle Companies Inc
Carnation Co
Carolina Freight Corp
Carolina Power & LIGHT Co
Carpenter Technology Corp
Carrier Corp
Carter Hawley Hale Stores Inc
Carteret S&L Assn
Castle & Cooke Inc
Caterpillar Inc
Caterpillar Tractor Co
Cavenham (USA) Inc
Cayton Hudson
CBI Industries Inc
CBS Inc
CBT Corp
Ceco Corp
Ceco Industries Inc
Celanese Chemical Co Inc
Cenco Inc
Cenco Instruments Corp
Centerior Energy Corp
Centerre BankCorp
Centex Corp
Central & South West Corp
Central Bancshares of the So
Central Fidelity Banks Inc
Central Soya Co Inc
Centrust Savings Bank
Cerro Corp
Cerro-Marmon Corp
Certainteed Corp
Cessna Aircraft Co
CF Industries Inc
CFS Continental Inc
Champion Home Builders
Champion International Corp
Champion Spark Plug Co
Charter Co
Charter Medical Corp
Charter New York Corp
Charter Security Life
Chase Manhattan Corp
Chemed Corp
Chemetron Corp
Chemical Banking Corp
Chemical Leaman Corp
Chemical NY Corp
Chesapeake & Ohio Railway Co
Chesapeake Corp
Chesebrough-Pond's Inc
Chessie System Inc
Chevron Corp
Chic. Mil. St. Paul & Pac RR
Chicago & Northwestern Trans
Chicago Bridge & Iron Co
Chicago Milwaukee Corp
Chicago Pacific Corp
Chicago Pneumatic Tool Co
Chicago Rock Isl & Pacific R
Chromalloy American Corp
Chrysler Corp
Chubb Corp
Cigna Corp
Cincinnati Financial Corp
Cincinnati Milacron Inc
Circle K Corp
Citadel Holding Corp
Citicorp
Cities Service Co
Citizens & Southern Georgia
Citizens & Southern Nat Bank
Citizens Fidelity Corp
Citizens Savings Financial
City Fed S&L Assn
City Investing Co
City Products Corp
CityFed Financial Corp
Claiborne (Liz) Inc
Clark Equipment Co
Clark Oil & Refining Corp
Cleveland Electric Illum Co
Cleveland Trust Co
Cleveland-Cliffs Inc
CleveTrust Corp
Clevite Industries
Clorox CO
Cluett, Peabody & Co Inc
CMS Energy Corp
CNA Financial Corp
CNW Corp
Coachmen Industries Inc
Coast Federal S&L Assn
Coast Savings & Loan Assn
Coastal Corp
Coastal States Gas
Coastal States GasCorp
Coca-Cola Bottling Co of NY
Coca-Cola Co
Coca-Cola Enterprises Inc
ColeCo Industries Inc
Coleman Co Inc
Colgate-Palmolive Co
Collins & Aikman Corp
Collins Radio Co
Colonial Penn Group Inc
Colonial Stores Inc
Colt Industries Inc
Columbia Gas System Inc
Columbia Pictures Entrtnmnt
Columbia S&L Assn
Combined International Corp
Combustion Engineering Inc
Comdisco Inc
Comerica Inc
Commerce Bancshares Inc
Commerce Clearing House Inc
Commercial Credit Co
Commercial Federal Corp
Commercial Metals Co
Commonwealth Edison Co
Commonwealth Life Ins Co
Commonwealth Oil Refining Co
Compaq Computer Corp
Computer Sciences Corp
Computervision Corp
Conagra Inc
Cone Mills Corp
Congoleum Corp
Conill Corp
Connecticut General Ins Corp
Connecticut General Life Ins
Connecticut Mutual Life Ins
Conoco Inc
Consolidated Aluminum
Consolidated Edison of NY
Consolidated Foods Corp
Consolidated Freightways Inc
Consolidated Natural Gas Co
Consolidated Papers Inc
Consolidated Rail Corp
Constar International Inc
Consumers Power Co
Container Corp. of America
Contel Corp
Continental Air Lines Inc
Continental Assurance Co
Continental BanCorp Inc
Continental Can Co Inc
Continental Corp
Continental Group Inc
Continental Illinois Corp
Continental Oil Co
Continental Telecom Inc
Continental Telephone Corp
Control Data Corp
Cook Industries Inc
Cook United Inc
Cooper Companies Inc
Cooper Industries Inc
Cooper Labs Inc
Cooper Tire & Rubber CO
Coopervision Inc
Coors (Adolph) Co
Copperweld Corp
Corestates Financial Corp
Corning Glass Works
CostCo Wholesale Corp
Country Life Ins Co
Countrymark Inc
Cox Communications Inc
CPC International Inc
Crane Co
Cray Research Inc
CreditThrift Financial Corp
Crestar Financial Corp
Crocker National Corp
Crossland Savings FSB
Crouse-Hinds Co
Crowell Coliier & Macmillan

Crown Central Petroleum Corp
Crown Cork & Seal Co Inc
Crown Zellerbach Corp
Crum & Forster Inc
CSX Corp
Cudahy Co
Culbro Corp
Cimmins Engine Co Inc
Curtiss-Wright Corp
Cutler-Hammer Inc
Cyclops Corp
Cyclops Industries Inc
Cuprus Minerals Co
Cyprus Mines Corp
Dairylea Co-op Inc
Dairymen Inc
Dallas Federal Fin Group
Dan River Inc
Dana Corp
Danaher Corp
Dart & Kraft Inc
Dart Industries Inc
Data General Corp
Datapoint Corp
DataProducts Corp
Dayco Corp
Daylin Inc
Dayton Hudson Corp
DCNY Corp
Dean Foods Co
Dean Witter Reynolds Inc
Deere & Co
DeKalb Agresearch
Dek Monte Corp
Delta Air Lines Inc
Deluxe Check Printers Inc
Deluxe Corp
Dennison Manufacturing Co
DeSoto Inc
Detroit Bank & Trust
Detroit Edison Co
DetroitBank Corp
Dexter Corp
Di Giorgio Corp
Diamond Bathurst Inc
Diamond International Corp
Diamond Shamrock Corp
Diamond Shamrock R & M Inc
Dibrell Brothers Inc
Diebold Inc
Digital Equipment Corp
Dillard Department Stores IN
Dillingham Corp
Dillon Companies
Dime Savings Bank of NY
Discount Corp of New York
Diversified Industries Inc
Dixie Yarns Inc
Dominion BankShares Corp
Dominion Resources Inc (Va)
Dolandson Lufkin & Jenrette
Donnelley (R. R.) & Son Co
Dorchester Gas Corp
Dorsey Corp
Dover Corp
Dow Chemical Co
Dow Corning Corp
Dow Jones & Co Inc
Downey S&L Assn
DPF Inc
Dr. Pepper Co
Dr. Pepper/Seven-Up Co
Dravo Corp
Dresser Industries Inc
Du Pont (E. I.) de Nemours &
Duke Power Co
Dun & Bradstreet Corp
Duquesne Light Co
DWG Corp
Dynalectron Corp
E-Systems Inc
Ealge-Picher Industries Inc
Early & Daniel Industries
Easco Corp
Eastern Air Lines Inc
Eastern Gas & Fuel Associate
Eastman Kodak Co
Eaton Corp
Eaton Yale & Towne Inc
Echlin Inc
Eckerd (Jack) Corp
Eckrich (Peter) & Sons
Ecolab Inc
Economics Laboratory Inc
EG&G Inc
El Paso Co
El Paso Natural Gas Co
Electronic Data Systems Corp
Eltra Corp
Emerson Electric Co
Emerson RADIO Corp
Emery Air Freight Corp
Emhart Corp
Empire of America Fed Sav Bk
Engelhard Corp
Enron Inc
Enserch Corp
Envirodyne Industries Inc
Envirotech Corp
Equimark Corp
Equitable Bancorporation
Equitable Life Assurance Soc
Equitable Life Ins Co of Iowa
Equitable S&L Assn
Equitable Variable Life Ins
Equity Funding Corp of Ameri
ERC
ERC Corp
ESB Inc
Esmark Inc
Esselte Business Systems Inc
Essex International Inc
Ethyl Corp
European American BanCorp
Evans Products Co
Ex-Cell-O Corp
Executive Life Ins Co
Exxon Corp
Exxon Pipeline Co
Faberge Inc
Fairchild Camera & Instr. CO
Fairchild Hiller Corp
Fairchild Industries Inc
Fairmont Foods of MN
Far West Financial Corp
Farley/Northwest Ind Inc
Farm & Home Savings Assn
Farm House Foods Corp
Farmers Group Inc
Farmers Union Cent. Exchange
Farmland Industries Inc
Farwest Financial Corp
Fed National Mortgage Assn
Fed-Mart Corp
Fedders Corp DE
Federal Co
Federal Express Corp
Federal Paper Board Co Inc
Federal-Mogul Corp
Federated Department Stores
Ferro Corp
Fiat-Allis
Fibreboard Corp
Fidelcor Inc
Fidelity Corp of Pennsylvania
Fidelity Federal S&L Assoc
Fidelity Mutual Life Ins Co
Fidelity Union BanCorp
Fieldcrest Cannon Inc
Fieldcrest Mills Inc
Fifth Third BanCorp
Figgie International Inc
Financial Corp of America
Financial Corp of Santa Barb
Financial Federation Inc
Finevest Foods Inc
Fireman's Fund Corp
Firestone Tire & Rubber Co
First Alabama Bancshares Inc
First American BankShares
First American Corp
First American Financial of
First Atlanta Corp
First Bank System Inc
First Boston
First Charter Financial
First Chicago Corp
First City BanCorp of Texas
First City Industries Inc
First Columbia Financial Cor
First Commerce Corp
First Empire State Corp
First Fed S&L Assn of Arizona
First Fed S&L of S. Carolina

First Fed Sav Bank of AZ
First Federal of Michigan
First Fidelity BanCorp
First Florida Banks Inc
First International BancShar
First Interstate BanCorp
First Kentucky National Corp
First Lincoln Financial Corp
First Maryland BanCorp
First National BanCorp
First National Bank of Dallas
First National Boston Corp
First National Cincinnati Co
First National City Corp
First National State BanCorp
First National Stores Inc
First National Supermarkets
First Nationwide Financial
First of America Bank Corp
First Oklahoma BanCorp
First Pennsylvania Corp
First RepublicBank Corp
First Savings Assoc of WI
First Security Corp
First Southern Fed S&L Assn
First Tennessee National Corp
First Texas Financial Corp
First Union Corp
First Virginia Banks Inc
First Wachovia Corp
First Western Financial Corp
First Wisconsin Bankshares
First Wisconsin Corp
Firstar Corp
FirstSouth Fa
Fischbach Corp
Fisher Foods Marketing Inc
Fisher Scientific Group Inc
Flavorland Industries Inc
Fleet Financial Group Inc
Fleet Norstar Financial Group
Fleetwood Enterprises Inc
Fleming Companies Inc
Flickinger (S. M.) Co Inc
Flintkote Co
Florida Federal S&L Assn
Florida National Banks of FL
Florida Power & Light Co
Florida Power Corp
Florida Progress Corp
Flowers Industries Inc
Fluor Corp
Flying Tiger Corp
FMC Corp
FN Financial
Food Fair Inc
Food Lion Inc
Ford Motor Co
Foremost-McKesson Inc
Fort Howard Paper
Fortune Fed S & L Assn
Fortune Financial Group Inc
Foster (L. B.) Co
Foster Wheeler Corp
Foxboro Co
Foxmeyer Corp
FPL Group Inc
Franklin Life Ins Co
Franklin New York Corp
Franklin Savings Assn
Frederick & Herrud
Freedom S&L Assn
Freeport Minerals Co
Freeport-McMoran Inc
Fremont General Corp
Frontier Airlines Inc
Frontier Holdings Inc
Fruehauf Corp
Fruit of the Loom Inc
Fuji Bank & Trust Co
Fuller (H. B.) Co
Fuqua Industries Inc
GAF Corp
Gamble Skogmo
Gannett Co Inc DE
Gardner-Denver Co
Gates Learjet Corp
GATX Corp
Gaylord Container Ltd
GDV Financial Corp
Geico Corp
Gelco Corp
Gencorp Inc
General American Life Ins Co
General American Transport Co
General Cable Co
General Cinema Corp
General Dynamics Corp
General Electric Co
General Foods Corp
General Host Corp
General Instrument Corp DE
General Mills Inc
General Motors Corp
General Public Utilities Cor
General RE Corp
General Refractories Co
General Reinsurance Corp
General Signal Corp
General Tel. & Electronics C
General Tire & Rubber Co
Genesco Inc
Genuine Parts Co
Georgia Federal Bank FSB
Georgia Gulf Corp
Georgia Kraft Co
Georgia-Pacific Corp
Geosource Inc
Gerber Products Co
Getty Oil Co
Giant Food Inc
Gibraltar Financial Corp
Gibraltar Financial Corp of
Gibralter Savings Assoc
Gifford-Hill & Co
Gillette Co
Gimbel Bros Ind
Girard
Gorard Co
GK Technologies Inc
Glatfelter (P. H.) Co
Glendale Fed S&L Assn
Glenfed Inc
Globe-Union Inc
Gold Kist Inc
Golden West Financial Corp
Goldome
Goodrich (B. F.) Co
Goodyear Tire & Rubber Co
Gould Inc
Government Employees Ins Co
Grace (W. R.) & Co
Grain Terminal Assoc
Grainger (W. W.) Inc
Grand Trunk Corp
Grand Union Co
Granite City Steel Co
Grant (W. T.) Co
Great Amer First Sav Bank
Great Atlantic & Pacific Tea
Great Lakes BanCorp
Great Lakes Chemical Corp
Great Lakes Fed S&L Assoc
Great Northern Nekoosa Corp
Great Southern
Great Western Financial Corp
Great Western United Corp
Green Giant Co
Greyhound Corp
Grolier Inc
Grow Group Inc
Grumman Corp
GTE Corp
Guarantee Fin Corp of AM
Guarantee Fin Corp of CA
Guardian Life Ins Co of AME
Guardian Industries Corp
Guilford Mills Inc
Gulf & Western Inc
Gulf Mobile & Ohio RR Co
Gulf Oil Corp
Gulf Resources & Chemical CO
Gulf States Utilities Co
Gulf United Corp
Gulfstream Aerospace Corp DE
HAL Co
Hall (Frank B.) & Co Inc
Halliburton Co
Hammermill Paper Co
Handy & Harman
Hanes Corp
Hanna (M. A.) Co

Hanna Mining Co
Hanover Insurance Cos
Hanson Industries
Hanson Industries N. Amer.
Harcourt Brace Jovanovich In
Hardware Wholesalers Inc
Harley-Davidson Inc
Harnischfeger Industries Inc
Harper Group
Harris BankCorp Inc
Harris Corp
Harris Graphics Corp
Harris Trust & Savings Bank
Harris-Intertype Corp
Harsco Corp
Hart Schaffner & Marx
Harte-Hanks Communications I
Hartford Life Ins Co
Hartford National Corp
Hartmarx Corp
Harvard Industries Inc
Harvest States Coops
Harvey Hubbell Inc
Hasbro Bradley Inc
Hasbro Inc
Heileman (G.) Brewing Co Inc
Heinz (H. J.) Co
Heller (Walter E.) Int'l Cor
Henley Group Inc
Henley Manufacturing
Hercules Inc
Hershey Foods Co
Hertz Corp
Heublein Inc
Hewlett-Packard Co
Hibernia Corp
Hillenbrand Industries Inc
Hills Department Stores Inc
Hillsborough Holdings Corp
Hilton Hotels Corp
Himont Inc
Hobart Corp
Hobart Manufacturing Co
Hoechst Celanese Corp
Hoerner Waldorf Corp
Holiday Corp
Holiday Inns Inc
Holly Corp
Holly Farms Corp
Home Depot Inc
Home Federal Bank of Florida
Home Federal S&L (Tucson)
Home Federal S&L Assn
Home Federal S&L Assn (San D
Home Group Inc
Home Life Ins Co
Home Owners Fed S&L Assn
HomeFed Corp
Homestake Mining Co
Homestead Financial Corp
Hon Industries Inc
Honeywell Inc
Hood (H. P.) Inc
Hoover Ball & Bearing Co
Hoover Co
Hoover Universal Inc
Hormel (Geo. A.) & Co
Hospital Corp of America
Houdaille Industries Inc
Household Finance Corp
Household International Inc
Household Manufacturing Inc
Household Merchandising
Houston Industries Inc
Houston Lighting & Power Co
Howard Savings Bank
Howmet Corp
Hubbell Inc
Hughes Tool Co
Humana Inc
Hunt (J. B.) Transport Inc
Hunt Int'l Resources Corp
Huntington Bancshares Inc
Hutton (E. F.) Inc
Hygrade Food Products Corp
Hyster CO
I-T-E Imperial Corp
IBC Holdings
IC Industries Inc
Ideal Basic Industries Inc
Idle Wild Foods Inc
IDS Life Ins Co
Illinois Central Gulf RR Co
Illinois Central Ind Inc
Illinois Central RR Co
Illinois Power Co
Illinois Tool Works Inc
IMO Industries
Imperial Corp of America
INA Corp
Ind. Bank of Japan Trust Co.
Indian HEAD Inc
Indiana Farm Bureau Coop
Indiana National Corp
Ingersoll-Rand Co
Inland Container Corp
Inland Steel Co
Inmont Corp
Insilco Corp
Inspiration Resources Corp
Instrument Systems Corp
Integrated Resources Inc
Intel Corp
Inter Regional Financial Gro
Interco Inc
InterFirst Corp
Intergraph Corp
Interlake Corp
International Bus. Machines
International Controls Corp
International Flavors & Frag
International Foodservice Co
International Harvester Co
International Mineral & Chem
International Multifoods Corp
International Paper Co
International Sys. & Cont Co
International Utilities
Internorth
Interpace Corp
Interpublic Group of Cos Inc
Interstate Bakeries Corp
Interstate Brands Corp
Interstate Motor Freight Sys
Interstate Stores Inc
Investors Diversified Serv
Iowa Beef Processors Inc
Irving Bank Corp
ITEL Corp
ITT Corp
IU International Corp
J.P. Industries Inc
Jackson National Life Ins Co
James River Corp. of VA
Jefferson Pilot Corp
Jefferson Smurfit Corp
Jefferson Standard Life Ins
Jepson Corp
Jewel Cos Inc
John Blair
John Hancock Mutual Life Ins
Johns-Manville Corp
Johnson & Johnson
Johnson Controls Inc
Johnson Service Co
Jonathan Logan Inc
Jostens Inc
Joy Manufacturing Co
K Mart Corp
Kaiser Aluminum & Chemical C
Kaiser Industries Corp
Kaiser Steel Corp
Kaisertech Ltd
Kaman Corp
Kane-Miller Corp
Kaneb Services Inc
Kansas City Life Ins Co
Kansas City Southern Indus
Katy Industries Inc
Kaufman & Braod Inc
Kay Corp
Kayser-Roth Corp
Keebler Co
Kellogg Co
Kellwood Co
Kelly Services Inc
Kelsey Hayes Co
Kemper Corp
Kemper Investors Life Ins Co
Kendall Co

Kennecott Copper Corp
Kennecott Corp
Kenner Parker Toys Inc
Kerr Glass Manufacturing Corp
Kerr-McGee Corp
Kewanee Industries Inc
Key Banks Inc
KeyCorp
Keystone Consolidated Ind Inc
Keystone Provident Life Ins
Kidde Inc
Kimball International Inc
Kimberly-Clark Corp
Knight Newspapers Inc
Knight-Ridder Inc
Knight-Ridder Newspapers Inc
Knoll Int'l Holdings Inc
Knudsen Corp
Koehring Co
Kohler Co
Koppers Co Inc
Kraft Inc
KraftCo Corp
Kresge (S. S.) Co
Kroger Co
LaFarge Corp
Lancaster Colony Corp
Land O'Lakes Inc
Landmark BankING Corp of FL
Landmark Corp
Landmark Land Co Inc
Lear Siegler Divrsfd Hldngs
LeasCo Corp
Leaseway Transportation Corp
Leggett & Platt Inc
Leslie Fay Companies Inc
Lever Brothers Co
Levi Strauss & Co
Libbey-Owens-Ford Co
Libby, McNeill & Libby
Liberty Corp
Liberty Loan Corp
Liberty National BanCorp Inc
Life & Casualty Ins Co of TN
Life Insurance Co of VA
Liggett & Myers Tobacco Co
Liggett Group Inc
Lilly (Eli) & Co
Limited (The) Inc
Lincoln First Banks Inc
Lincoln National Corp
Lincoln National Life Ins Co
Lincoln National Pension Ins
Ling-Temco-Vought Inc
Lipton (Thomas J.) Inc
Liquid Air Corp
Litton Industries Inc
Lockheed Aircraft Corp
Loew's Theatres Inc
Loews Corp
Lomas & Nettleton Financial
Lone Star Cement Corp
Lone Star Industries Inc
Lone Star Technologies Inc
Long Island Lighting Co
Longs Drug Stores Corp
Longview Fibre Co
Loral Corp
Lorillard Inc
Lorimar-Telepictures Corp
Louisiana BankShares Inc
Louisiana Land & Exploration
Louisiana-Pacific Corp
Lowe's Cos Inc
Lowenstein (M.) Corp
LPL Investment Group Inc
LTV Corp
Lubrizol Corp
Lucky Stores Inc
Lukens Inc
Lykes Corp
Lykes-Youngstown Corp
M.D.C. Holdings Inc
M/A-Com Inc
Mack Trucks Inc
Macmillan Inc
Macy (R. H.) & Co Inc
Magic Chef Inc
Magma Copper Co
Magnavox Co
Magnetek Inc
Mallinckrodt Inc
Mallory (P. R.) & Co Inc
Malone & Hyde Inc
Management Assistance Inc
Manhattan Industries Inc
ManPower Inc
Manuf Nat Bank of Detroit
Manufacturers Hanover Corp
Manufacturers National Corp
Manville Corp
MapCo Inc
Marathon Mnfg Companies Inc
Marathon Oil Co
Marcor Inc
Maremont Corp
Marine Bancorporation
Marine Corp
Marine Midland Banks Inc
Marion Corp
Marion Laboratories Inc
Marley Co
Marmon Group Inc
Marriott Corp
Marsh & McLennan Cos Inc
Marshall & Ilsley Corp
Marshall Field & Co
Martin Marietta Corp
Maryland CUP Corp
Maryland National Corp
Masco Corp
Masco Industries Inc
Masonite Corp
Massachusetts Mutual Life Ins
Mattel Inc
Max Factor & Co
Maxicare Health Plans Inc
Maxus Energy Corp
Maxxam Group Inc
May Department Stores Co
Mayflower Group Inc
Maytag Co
MBPXL
MCA Inc
McCormick & Co Inc
McCrory Corp
McDermott (J. Ray) & Co
McDonalds Corp
McDonnell Douglas Corp
McDonough Co
McGraw-Edison Co
McGraw-Hill Inc
MCI Communications Corp
McKesson Corp
McLean Industries
McLean Trucking Co
McLouth Steel Products Corp
MCorp
Mead Corp
Media General Inc
Medtronic Inc
Mei Corp
Mellon Bank Corp
Mellon National Bank & Trust
Melville Corp
Melville Shoe Corp
Memorex Corp
Memorex Telex Corp
Mercantile Bancorp Inc
Mercantile Stores Co Inc
Mercantile Texas Corp
Merchants National Corp
Merck & Co Inc
Mercury S&L Assn
Mercury Savings
Meredith Corp
Meridian BanCorp Inc
Meritor Financial Group
Merrill Lynch & Co Inc
Metromedia Inc
Metropolitan Corp
Metropolitan Fed S&L Assn
Metropolitan Life Ins Co
Meyer (Fred) Inc
MGIC Investment Corp
MGM UA Comms Co
Michigan Milk Producers Assn
Michigan National Corp
Microdot Inc
Mid-America Dairymen Inc

Midcon Corp
Middle South Utilities Inc
Midland Cooperatives
Midland Enterprises Inc
Midland-Ross Corp
Midlantic Banks Inc
Midway Airlines Inc
Miles Laboratories Inc
Miller (Herman) Inc
Millipore Corp
Miniscribe Corp
Minnesota Mining & Manuf. Co
Minnesota Mutual
Minnesota Mutual Life Ins Co
Minstar Inc
Mission Insurance Group Inc
Missouri Beef Packers Inc
Missouri Pacific Corp
Missouri Pacific RR System
Missouri-Kansas-Texas RR Co
Mitchell Energy & Developmen
MNC Financial Inc
Mobay Chemical
Mobay Corp
Mobil Corp
Mobil Oil Corp
Mohasco Corp
Mohasco Industries Inc
Molex Inc
Monarch Capital Corp
Monfort of Colorado Inc
Monsanto Co
Montgomery Ward & Co Inc
Monumental Corp
Moore McCormack Resources In
Morgan (J. P.) & Co Inc
Morgan Stanley Group Inc
Morrison Knudsen Corp
Morton Thiokol Inc
Morton-Norwich Products Inc
Moseley Securities Corp
Motorola Inc
Murphy (G. C.) Co
Murphy Oil Corp
Mutual Benefit Fund
Mutual Benefit Life Ins Co
Mutual of America Life Ins C
Mutual of New York
Nabisco Brands Inc
Nabisco Inc
Nacco Industries Inc
Nafco Financial Group Inc
Nalco Chemical Co
Naples Federal S&L Assoc
Nash-Finch Co
Nashua Corp
National Airlines Inc
National Bank of Commerce
National Bank of Detroit
National Bank of North Amer
National Beef Packing
National Biscuit Co
National Can Corp
National Cash Register Co
National City Bank of Clevel
National City Corp
National City Lines Inc
National Co-op Refinery Assn
National Detroit Corp
National Distillers & Chem C
National General Ins Co
National Gypsum Co
National Health & Welfare
National Homes Corp
National Industries Inc
National Intergroup Inc
National Investors Life Ins
National Investors Pension
National Lead Co
National Life & Accident Ins
National Life Ins Co
National Medical Enterprises
National Semiconductor Corp
National Service Industries
National Starch & Chemical C
National Steel Corp
National Tea Co
National Westminster Bank US
Nationwide Life Ins Co
Natomas Co
Navistar Int'l Transport Corp
NBD BanCorp Inc
NCH Corp
NCNB Corp
NCR Corp
Nebraska Consolidated Mills C
Needham Packing
Nerco Inc
Nevada S&L Assoc
New England Electric System
New England Mutual Life Ins
New York Life & Annuity
New York Life Ins Co
New York State Elec. & Gas
New York Times Co
Newberry (J. J.) Co
Newell Co
Newmont Mining Corp
NI Industries Inc
Niagra Mohawk Power Corp
Nielson (A. C.) Co
Nike Inc
NL Industries Inc
NLT Corp
Nordstrom Inc
Norfolk & Western Railway Co
Norfolk Southern Corp
Norin Corp
Norris Industries Inc
Norstar Bancorp Inc
Nortek Inc
North American Coal Corp
North American Philips Corp
North American Rockwell Corp
North Central Airlines Inc
Nprtheast Savings FA
Northeast Utilities
Northern California S&L Assn
Northern Indiana Public Svs
Northern Natural Gas
Northern States Power Inc
Northern Trust Co
Northern Trust Corp
Northrop Corp
Northwest Air Lines Inc
Northwest BanCorp
Northwest Industries Inc
Northwestern Mutual
Northwestern Mutual Life Ins
Northwestern National Bank
Northwestern National Life Ins
Northwestern Steel & Wire Co
Norton Co
Norton Simon Inc
Nortrust Corp
Norwest Corp
Noxell Corp
Nucor Corp
NVF Co
NVR MTG L.P.
NWA Inc
Nynex Corp
Oak Industries Inc
Occidental Life Ins Co of CA
Occidental Petroleum Corp
Ocean Drilling & Exploration
Ocean Spray Cranberries Inc
Ogden Corp
Ohio Casualty Corp
Ohio Edison Co
Ohio Mattress Co DE
Oil Shale Corp
Old Kent Financial Corp
Old Republic Int'l Corp
Old Stone Corp
Olin Corp
Olinkraft Inc
Omega Alpha
Orbanco Financial Services
Orion Capital Corp
Oscar Mayer & Co Inc
Otis Elevator Co
Outboard Marine Corp
Overnite Transportation Co
Overseas Shipholding Group
Owens-Corning Fiberglass Corp
Owens-Illinois Inc

Oxford Industries Inc
Ozark Air Lines Inc
Ozark Holdings Inc
Pabst Brewing Co
PacaR Inc
Pacific Car & Foundry Co
Pacific Enterprises
Pacific First Fed Sav Bk
Pacific First Financial Corp
Pacific Gamble Robinson Co
Pacific Gas & Electric Co
Pacific Intermountain Express
Pacific Lighting Corp
Pacific Mutual
Pacific Mutual Life Ins Co
Pacific Power & Light
Pacific Resources Inc
Pacific Southwest Airlines
Pacific Telesis Group
Pacificorp
Paine Webber Group Inc
Palm Beach Inc
Pan AM Corp
Pan American World Airways
Panhandle Eastern Corp
Panhandle Eastern Pipe Line
Pantry Pride Inc
Parker Drilling Co
Parker Hannifin Corp
Parker Pen Co
Parsons Corp
Payless Cashways Inc
Peabody Coal Co
Peabody Galion Corp
Peabody Holding Co Inc
Peabody International Corp
Peavey CO
Penn Central Corp
Penn Central TransportATION
Penn Mutual Life Ins CO
Penn-Dixie Cement Corp
Penn-Dixie Industries Inc
PennCorp Financial Inc
Penney (J.C.) Co Inc
Pennsylvania Life Ins Co
Pennsylvania Power & Light
Pennwalt Corp
Pennzoil Co
Pennzoil United Inc
Pentair Inc
People Express Inc
People's Bank
Peoples Energy Corp
Peoples Gas Light & Coke Co
PepsiCo Inc
Perini Corp
Perkin-Elmer Corp
Permian Partners
Perpetual Financial Corp.
Perpetual Savings Bank FSB
Pet Inc
Pfizer Inc
Phelps Dodge Corp
PHH Group Inc
Phibro Corp
Phibro-Saloman
Phila Savings Fund Society
Philadelphia Electric Co
Philadelphia National Corp
Philip Morris Companies Inc
Philips Industries Inc
Phillips Petroleum Co
Phillips-Van Heusen Corp
Phoenix Mutual
Phoenix Mutual Life Ins Co
Poedmont Aviation Inc
Pierce (S. S.)
Pilgrim's Pride Corp
Pillsbury Co
Pilot Life Insurance CO
Pinnacle West Capital Corp
Pioneer Hi Bred Int'l Inc
Pitney Bowes Inc
Pittsburgh National Corp
Pittston Co
Pittway Corp
PNB Corp
PNC Financial Corp
Pneumo
Pneumo Dynamics
Polaroid Corp
Pope & Talbot Inc
Porter (H. K.) Co Inc
Potlatch Corp
Potlatch Forests Inc
Potomac Electric Power Co
PPG Industries Inc
Prairie Farms Dairy Inc
Premark International Inc
Premier BanCorp Inc
Prentice-Hall Inc
Preston Corp
Price Co
Prime Computer Inc
Primerica Corp
Principal Mutual Life Ins Co
Procter & Gamble Co
Progressive Corp (Ohio)
Provident Life & Accident In
Provident Mutual Life Ins Co
Provident National Assurance
Provident National Corp
Provident of America
Prudential Ins Co Amer
PS Group Inc
PSA Inc
Public Service Co. of IND.
Public Service Elec. & Gas Co
Public Service Enterprise Gr
Publix Super Markets Inc
Pueblo International Inc
Pullman CO
Pullman-Peabody
Pulte Home Corp
Purex Corp
Purex Industries Inc
Purolator Courier Corp
Purolator Inc
Quaker Oats Co
Quaker State Corp
Quantum Chemical Corp
Questar Corp
Rainier BanCorporation
Ralston Purina Co
Ramada Inns Inc
Rapid American Corp
Rath Packing Co
Raychem Corp
Raymond International Inc
Raytheon Co
RCA Corp
Reading & Bates Corp
Reading Co
Redman Industries Inc
Reebok Int'l Corp
Reichhold Chemicals Inc
Reliance Electric Co
Reliance Group Holdings Inc
Reliance Group Inc
Republic Airlines Inc
Republic Corp
Republic Nat Bank-Dallas
Republic New York Corp
Republic of Texas Corp
Republic Steel Corp
RepublicBank Corp
Research-Cottrell Inc
Revco D.S. Inc
Revere Copper & Brass Inc
Revlon Inc
Rexene Corp
Rexnord Inc
Reynolds & Reynolds Co
Reynolds (R.J.) Industries I
Reynolds (R.J.) Tobacco Co
Reynolds Metals Co
Rheingold Corp
Riceland Foods Inc
Richardson-Merrell Inc
Richardson-Vicks Inc
Richmond Corp
Riegel Paper Corp
Riegel Textile Corp
Riggs National Corp
Rio Grande Industries Inc
Rite Aid Corp
Riviana Foods Inc
RJR Nabisco Inc
RLC Corp
Roadway Express Inc
Roadway Services Inc
Robertshaw Controls Co
Robertson (H. H.) Co
Robertson (J. J.)
Robins (A. H.) Co Inc

Rochester Community Savings
Rochester Pittsburgh Coal Co
Rockwell International Corp
Rockwell Manufacturing Co
Rohm & Haas Co
Rohr Industries Inc
Rollins Inc
Rolm Corp
Roper Corp
Rorer Group Inc
Roundy's Inc
Royal Crown Companies Inc
Rubbermaid Inc
Russel Corp
Ryan Homes Inc
Rycoff Sexton Inc
Ryder System Inc
Ryland Group
Safeco Corp
Safeway Stores Inc
Salomon Inc
Sanders Associates Inc
Santa Fe Industries Inc
Santa Fe Southern Pacific Co
Sanwa Bank California
Sara Lee Corp
Savannah Foods & Industries
Saxon Industries Inc
SCECorp
Schaefer (F. & M.) Corp
Schering-Plough Corp
Schlitz (Jos.) Brewing Co
Schulman (A.) Inc
Schwab (Charles) Corp
SCI Systems Inc
Scientific-Atlanta Inc
SCM Corp
SCOA Industries Inc
Scott & Fetzer Co
Scott Paper Co
Scovill Inc
Scovill Manufacturing Co
Scripps (E. W.) Co Inc
Sea-Land Corp
Seaboard Allied Milling Corp
Seaboard Coast Line Indust
SeaFirst Corp
Seagate Technology
Seagram (Joseph E.) & Sons
Sealed Power Corp
Seamen's Corp
Searle (G. D.) & Co
Sears Roebuck & Co
Seatrain Lines Inc
Seattle First Nat'l Bank
Security Capital Corp DE
Security National Bank
Security Pacific Corp
Security Pacific Nat'l Bank
SedCo Inc
Sequa Corp
Service Merchandise Co Inc
ServiceMaster Co LP
Servistar
SFFED Corp
Shaklee Corp
Shaw Industries Inc
Shawmut Association Inc
Shawmut Nat'l Corp
Shearson Loeb Rhoades Inc
Shell Oil Co
Sheller-Globe Corp
Sherwin-Williams Co
Sigmor
Signal Companies
Signet Banking Corp
Signode Corp
Simmons Co
Singer Co
SipCo Inc
Skaggs Companies
Skyline Corp
Smith (A. O) Corp
Smith International Inc
Smith Kline & French Labs
Smith'S Transfer Corp
Smithfield Foods Inc
SmithKline
SmithKline Beckman Corp
Snap-On Tools Corp
Society Corp
Society for Savings BanCorp
Sohio Pipe Line Co
Sonat Inc
Sonoco Products Co
Soo Line RR Co
Sooner Fed S&L Assn
South Carolina National Corp
Southdown Inc
Southeast Banking Corp
Southern California Edison
Southern Co
Southern Industries Corp
Southern Pacific Co
Southern Railway Co
Southern States Coop Inc
Southland Corp
Southland Financial Corp
Southland Life Insurance Co
Southmark Corp
SouthTrust Corp
Southwest Airlines Co
Southwest Bancshares Inc
Southwest Forest Ind Inc
Southwestern Bell Corp
Southwestern Group Financial
Southwestern Life Ins Co
Sovran Financial Corp
Spector Industries Inc
Spencer Foods Inc
Sperry & Hutchinson Co Inc
Sperry Corp
Sperry Rand Corp
Sprague Technologies Inc
Springs Industries Inc
Springs Mills Inc
SPX Corp
Square D Co
Squibb Beech-Nut
Squibb Corp
SSMC Inc
St. Joe Minerals Corp
St. Louis-San Francisco RY
St. Paul Cos Ins
St. Regis Corp
Staley (A. E.) Manuf Co
Staley Continental Inc
Stanadyne Inc
Standard Brands Inc
Standard Commercial Corp
Standard Federal Bank
Standard Oil (IND.)
Standard Oil (N.J.)
Standard Oil (Ohio)
Standard Oil of CAL
Standard Products Co
Standard Register Co
Stanley Works
State Farm Life Ins Co
State Mutual Life Assur Co A
State Street Boston Co
Statesman Group Inc
Stauffer Chemical Co
Sterling Chemicals Inc
Sterling Drug Inc
Stevens (J. P.) & Co Inc
Stewart-Warner Corp
Stokely-Van CAMP Inc
Stone Container Corp
Stop & Shop Cos Inc
Storage Technology Corp
Studebaker-Worthington Inc
Student Loan Mar Assoc
Subaru of America Inc
Suburban Propane Gas Inc
Sucrest
Sudbury Inc
Sun Banks Inc
Sun Banks of Florida
Sun Carriers Inc
Sun Chemical Corp
Sun Co Inc
Sun Life Group of Amer Inc
Sun Microsystems Inc
Sun Oil Co
Sun-Diamond Growers of Cal
Sunbeam Corp
Sundstrand Corp
Sunkist Growers Inc
Suntrust Banks Inc
Super Food Services Inc
Super Valu Stores Inc
Superior Oil Co
Supermarkets General Corp
Swift Independent Corp
Sybron Corp
SysCo Corp

Talcott National Corp
Talley Industries Inc
Talman Home Fed S&L Assn (IL)
Tambrands Inc
Tandem Computers Inc
Tandy Corp
Tappan CO
TCF Banking & Savings FA
Teachers Ins & Annuity Assn
Tecumseh Products Co
Tektronic Inc
Tele Communications Inc
Telecom Corp
Teledyne Inc
Telex Corp
Temple-Inland Inc
Tenneco Inc
Tesoro Petroleum Corp
Texaco Inc
Texas Air Corp
Texas American Bancshares In
Texas Commerce Bancshares In
Texas Eastern Corp
Texas Eastern Transmission Co
Texas Fed Financial
Texas Federal S&L Assn
Texas Gulf Inc
Texas Gulf Sulfur Co
Texas Industries Inc
Texas Instruments Inc
Texas Oil & Gas Corp
Texas Utilities Co
Textron Inc
Thiokol Chemical Corp
Thiokol Corp
Third National Corp
Thomas & Betts Corp
Thorn Apple Valley Inc
Thrifty Corp
Tidewater Inc
Tiger International Inc
Time Inc
Times Mirror Co
Timken Co
Titanium Metals Corp of Amer
Todd Shipyards Corp
Tonka Corp
Torchmark Corp
Toro Co
Tosco Corp
Toys R Us Inc
Tracor Inc
Trailer Train Co
Trane Co
Trans Union Corp
Trans World
Trans World Airlines Inc
Trans World Financial Co
TransAm Occidental Life Ins
TransAmerica Corp
TransAmerica Life & Annuity
TransCo Companies
TransCo Energy Co
TransCon Inc
TransCon Lines
Transcont'l Gas Pipe Line Co
TransOhio Financial Corp
Transway International Corp
TransWorld Corp
Travelers Corp
Travelers Life Ins Co
Triangle Industries Inc
Tribune Co
Trinity Industries Inc
Trinova Corp
Trust Co of Georgia
TrustCorp Inc
TRW Inc
Turner Construction Co
Turner Corp
TW Services Inc
Twentieth Century-Fox Film
Tyco Laboratories Inc
Tyler Corp
Tyson Foods Inc
U S WEST Inc
U.S. BanCorp
U.S. Home Corp
U.S. Industries Inc
U.S. Plywood-Champion Papers
UAL Inc
UIS Inc
Unicoa Corp
UniGroup
Unilever United States Inc
Union Bancorp
Union Bank
Union Camp Corp
Union Carbide Corp
Union Central Life Ins Co
Union Electric Co
Union Equity Coop Exchange
Union Mutual Life Ins Co
Union Oil Co of California
Union Pacific Corp
Union Texas Petroleum Holding
UnionAmerica Inc
Uniroyal Inc
Unisys Corp
United Aircraft Corp
United Banks of Colorado Inc