

ALASKA LEGISLATURE SPECIAL COMMITTEE/SUBJECT FILES 8672

2431.29 SCOMM 101A: CIVIL JUSTICE/TORT REFORM - HB 58, 1997

TABLE 16: Tort Caseload in State Trial Courts of General Jurisdiction, 1986-1995 (continued)

State/Court name:	Number of filings and qualifying footnotes									
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
MISSOURI Circuit	NA	NA	NA	NA	21,680	21,245	19,999	17,883	16,960	17,506
MONTANA District	1,836	1,792	1,541	1,613	1,651	1,518	NA	NA	NA	NA
NEVADA District	NA	NA	4,329	4,799	5,295	5,871	6,185	6,788	7,486	7,873
NEW JERSEY Superior	NA	NA	NA	71,367 A	72,463 A	73,614 A	67,380 A	63,776 A	63,538 A	60,234 A
NEW MEXICO District	NA	NA	NA	NA	NA	NA	4,578	5,759	4,842	5,159
NEW YORK Supreme and County	NA	NA	53,104	62,189	65,026	65,767	72,189	71,113	75,298	81,265
NORTH CAROLINA Superior	8,897	8,881	7,639	7,879	8,175	8,658	9,361	9,754	9,739	10,256
NORTH DAKOTA District	561	551	552	602	744	531	411	525	536	685
OHIO Court of Common Pleas	28,225	29,375	28,614	29,039	34,488	34,422	33,196	31,229	31,181	33,371
OREGON Circuit	NA	NA	NA	NA	NA	5,999	5,568	5,636	6,176	6,850
PUERTO RICO Court of First Instance	4,558 B	4,811 B	4,077 B	5,579 B	6,095 B	6,569 B	5,610 B	4,910 B	5,645 B	10,236 A
TENNESSEE Circuit, Criminal, and Chancery	13,167	13,597	NA	13,501	13,453	13,223	13,100	12,106	12,221	13,726
TEXAS District	38,238	40,764	36,597	36,710	39,648	44,088	46,762	47,586	48,631	51,544
UTAH District	2,527 B	1,335 B	1,404 B	1,233 B	1,531 B	1,729 B	1,979 B	1,804 B	1,928 B	2,056 B
WASHINGTON Superior	19,515	8,007	8,746	10,146	10,147	11,375	11,142	11,856	11,950	12,850
WISCONSIN Circuit	NA	9,545	9,534	9,152	9,669	8,865	8,835	9,043	9,583	10,559
WYOMING District	NA	NA	NA	NA	NA	NA	504 A	553 A	530 A	505 A

(continued on next page)

TABLE 16: Tort Caseload in State Trial Courts of General Jurisdiction, 1986-1995 (continued)

NOTE: The footnoting scheme has been consolidated. Footnotes for 1986-1987 have been translated into the footnote scheme for 1988 through 1995.

NA = Data were unavailable or not comparable.

QUALIFYING FOOTNOTES:

A: The following courts' data are incomplete:

California—Superior Court—Tort data do not include medical malpractice and product liability cases. Tort data for 1989 also do not include partial data from several courts. Data for 1990 and 1992 also do not include partial data from one court. Data for 1991 also do not include data from one court. Data for 1993 also do not include partial data from fourteen courts. Data for 1994 also do not include partial data from three courts. Data for 1995 do not include medical malpractice, product liability and partial data from two courts.

Hawaii—Circuit Court—Tort data do not include a small number of District Court transfers reported with other civil cases.

Idaho—District Court—Tort data for 1986 through 1992 do not include some cases reported with unclassified civil cases.

Maryland—Circuit Court—Tort data do not include some cases reported with unclassified civil cases.

New Jersey—Superior Court—Tort data do not include some cases reported with unclassified civil cases.

Puerto Rico—Court of First Instance—Tort data for 1995 do not include cases from the Municipal Division.

Wyoming—District Court—Tort data for 1992 do not include cases from two counties. For 1993-1995, one county did not report tort data.

B: The following courts' data are overinclusive:

Alabama—Circuit Court—Tort data include some postconviction remedy proceedings.

Puerto Rico—Court of First Instance—Tort data for 1986-1994 include appeals.

Utah—District Court—Tort data include de novo appeals from the Justice Court.

C: The following courts' data are both incomplete and overinclusive:

Massachusetts—Trial Court of the Commonwealth—Tort data for 1990 through 1992 and 1994-1995 include contract cases from the District Court Department, but do not include cases from the Boston Municipal Court Department. 1993 data include contracts from the District Court Department, but do not include tort cases from Boston Municipal Court Department and Superior Court Department.

Additional court information:

Arizona—Superior Court—Tort reform legislation caused the tort caseload to increase dramatically in 1994.

Colorado—District and Denver Superior Courts—The Denver Superior Court was abolished 11/14/86 and the caseload absorbed by the District Court.

Florida—Circuit Court—The large increase in tort filings for 1991 is due in part to the filing of 1,113 asbestos cases in Miami in July of 1991.

New Jersey—Superior Court—The unit of count changed in 1989, so data from previous years are not comparable.

New York—Supreme and County Court—The unit of count changed in 1988, so data from previous years are not comparable.

Puerto Rico—Court of First Instance—The Judicial Reform Act of 1994 consolidated the Superior, District, and Municipal Courts into one Court of First Instance effective 1995.

ATTACHMENT C

Deborah Hensler, et al., Trends in Tort Litigation: The Story Behind the Statistics
[Santa Monica: Rand, 1987], pp. 2-3 and
Deborah Hensler, "Reading the Tort Litigation Tea Leaves: What's Going on in the
Civil Liability System?" reprinted by the Rand Corporation from *The Justice System*
Journal, Vol. 16, No. 2, (Institute for Court Management, National Center for State
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Trends in Tort Litigation

The Story Behind the Statistics

Deborah R. Hensler, Mary E. Vaiana,
James S. Kakalik, Mark A. Peterson

1987

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FOREWORD

During the last two years, the issue of tort reform has been vigorously debated in virtually every state legislature and in the U.S. Congress. Because the tort system directly affects the interests of the various parties to this debate, it is not surprising that the proponents and opponents of reform have sharply differing ideological positions. The more striking feature of the debate is the sharply differing perceptions of the underlying reality—perceptions buttressed by a bewildering array of seemingly contradictory statistics.

Proponents of reform cite numbers showing an explosion of lawsuits, jury verdicts that are "out of control," and a system where legal fees and expenses rival the amounts paid in compensation. Opponents marshal other data to show that the explosion of suits is a myth, that jury awards have been remarkably stable, and that the transactions costs of the system are reasonable given its objectives.

This report takes on the task of sorting out these conflicting claims and statistics. The task is a natural one for the Institute for Civil Justice—and not simply because both sides have used ICJ research to support their positions. The Institute has played a leading role in shifting the grounds for the debate from an exchange of anecdotes to presentation of empirical data to support assertions.

The central message of the report is that much of the confusion results from the implicit notion of a single, homogeneous tort liability system. This misperception is shared by policymakers and by proponents and opponents of reform who operate under the assumption that indicators of change along one dimension of the system reflect changes in the system as a whole. In fact, the tort liability system appears to consist of three separate systems. The report delineates these systems and suggests why they appear to be evolving in different directions. It proposes an explanation for why diverse statistical data have characterized the policy debate and provides an important framework for understanding the conflicting claims resulting from that debate.



Most ICJ publications present the findings of a single empirical study. However, as our research inventory has grown, we have frequently been asked to synthesize and interpret our findings. Until now, we have responded to these requests in legislative testimony or in professional journal articles—forums designed for relatively specialized audiences. With this report, the ICJ initiates a new series of publications, intended for a wider audience, that will synthesize the results of previous ICJ studies and place them in a broad policy context.

Kevin F. McCarthy
Director, The Institute for Civil Justice

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INTRODUCTION

Over the past two years, insurers, manufacturers, physicians, consumer advocates, and trial attorneys have vigorously debated the costs and benefits of the tort system as a mechanism for compensating and deterring injuries. The debate began with a perceived "insurance crisis." Liability insurance premiums, particularly for medical malpractice and commercial lines, increased sharply, and insurance for some kinds of activities became unavailable at any price.

While there was broad consensus that obtaining and paying for insurance was a pressing problem, there was little agreement about the cause or its solution. On the one hand, insurers linked rising rates and unavailability to trends in tort litigation, thus focusing attention on the legal system. In many states and at the federal level, insurers, manufacturers, health care professionals, and local government officials formed coalitions to support substantive changes in tort law. On the other hand, trial attorneys and consumer groups generally opposed these changes, arguing that what needed reform was not tort law, but poor management practices in the insurance industry.

It is hardly surprising that the proponents and opponents of what became known as "tort reform" held sharply differing positions. However, they also appeared to hold sharply differing views of reality.

Proponents of change argued that there has been an explosion of liability lawsuits in the past five years, that recent verdicts demonstrate that civil juries are "out of control," and that the monetary benefits delivered by the tort system to injured parties are overshadowed by the enormous costs of administering the system. Tort reform was needed to counteract these trends.

The policy debate over tort reform

Opponents of tort reform argued that the litigation explosion is a myth, that jury awards have been basically stable for 25 years, and that the transactions costs of the system are acceptable, given the system's twin objectives of compensation and deterrence. Tort reform was not only unnecessary—it might be harmful to those whom the system is intended to serve.

The statistical debate . . .

Each side presented statistical data that appeared to support its position. But the differences in the data cited were puzzling even to those wise in the ways of lying with statistics. Each side claimed to be accurately describing the tort litigation system, yet the two sides seemed to be talking about different worlds. A sample:

. . . on the litigation explosion

- Between 1977 and 1981, the number of civil lawsuits in state courts grew four times faster than the total U.S. population (Time, March 24, 1986, p. 20).
- The annual number of tort filings in 17 states rose 9 percent between 1978 and 1984; meanwhile, population in those states rose 8 percent ("The Manufactured Crisis," Medical Economics, November 10, 1986, p. 69).
- The average award in product liability and medical malpractice cases is now over a million dollars (Time, March 24, 1986).
- Between 1975 and 1984, the growth in the median medical malpractice award has been less than the rise in inflation. In product liability cases, the growth rate for median awards has exceeded the inflation rate, but not by much ("The Manufactured Crisis," p. 68).

. . . on the growth in amount awarded

The worlds of tort litigation

Where does the truth lie?

Recent research on trends in tort litigation, conducted by The Institute for Civil Justice (ICJ)¹ at The RAND Corporation, suggests an explanation for the apparent discrepancies among the statistics: There is no longer, if there ever was, a single tort system. Instead, there are at least three types of tort litigation, each with its own distinct class of litigants, attorneys, and legal dynamics.

- The first is the world of routine personal injury torts, exemplified by auto suits. They occur frequently and usually involve modest injuries and relatively low

¹The Institute for Civil Justice was founded at RAND in 1979 to conduct independent, objective policy analysis and research on civil justice issues. RAND is a nonprofit institution; the ICJ is supported by pooled grants from corporations, including insurance and noninsurance organizations, private foundations, trade and professional associations, and individuals.

financial stakes. Settled law and routine procedures lend an air of stability to this world.

- The second is the world of high-stakes personal injury suits, such as product liability, malpractice, and business torts. Here the litigation itself is newer, the law is still evolving, and the stakes per case are larger and increasingly uncertain.
- The third is the world of mass latent injury cases, such as asbestos litigation, Dalkon Shield cases, and other suits arising from mass exposure to drugs, chemicals, or toxic substances. The lack of "fit" between traditional tort law and the facts of these cases leads many to view them as problematic.

Each of these worlds is characterized by a different litigation growth rate, jury verdict trend, and cost profile. Treating the three types of litigation together—as is done whenever overall statistics for tort litigation are reported—produces a distorted picture of tort litigation that does not accurately reflect the reality of any of these worlds. Inferences about trends in one area of litigation based on data drawn from another are also likely to be wrong. Just as the blind men who tried to identify an elephant by feeling different parts of it each perceived different realities—none of them an elephant!—statistical views of any one part of the litigation system are necessarily distorted. And the resulting controversy over whose statistics were *right* has diverted attention from the story behind the statistics: the changes taking place in different areas of litigation—changes that may well merit different types of policy responses.

In this report, we will review and explain the statistical evidence as we sketch a comprehensive picture of the three worlds of tort litigation, drawing on seven years of ICJ research. We will use this research to answer three questions that are at the heart of the recent debate on trends in tort litigation:

- How much litigation is there?
- Are jury awards stable or out of control?
- How much does litigation cost, and who gets the money?

Treating three worlds as one invites distortion

Key questions to be answered

We will show how the answers to these questions differ depending on which world of litigation one examines. And we will suggest why litigation trends and outcomes in these worlds are increasingly divergent.

LITIGATION: HOW MUCH IS THERE?

It would be hard to find a wider range of opinions than those held, and strongly asserted, about the amount of litigation nationwide. Some observers claim the United States is witnessing a litigation explosion reflecting litigiousness unmatched anywhere in the world.¹ Others claim that recent statistics on court filings indicate stable, or very slowly increasing, litigation rates.² Yet others argue that many Americans with legitimate grievances do not pursue them in court because they lack the financial and social resources necessary to do so.³

The controversy

Why is there so much uncertainty and controversy about this basic question? Three reasons: (1) not enough good data; (2) confusion between litigiousness and amount of litigation; (3) description of different types of tort litigation. In this section, we will attempt to avoid these sources of confusion by examining the amount of litigation in each of the three worlds.

Three organizations are the source of the most commonly cited data in the debate over litigation rates: (1) the Administrative Office of the U.S. Courts, which yearly collects information about filings in the federal district courts; (2) the National Center for State Courts (NCSC), a private, nonprofit, court-supported organization that has been monitoring the amount of litigation in state courts across the country since the late 1970s; and (3) The Institute for Civil Justice, which does not itself collect or publish caseload statistics, but has reviewed and interpreted the available data in the course of its studies.

Data sources . . .

¹For example, see Elaine S. Knapp, "Who's to Blame? Insurers or Courts?" *State Government News*, Vol. 29, No. 3, March/April 1986; or "There Is a Litigation Explosion," *The National Law Journal*, May 19, 1986.

²David Burrow and John E. Collins, "Insurance Crisis—Texas Style: The Case for Insurance Reform," *St. Mary's Law Journal*, Vol. 18, No. 3, Winter 1987, pp. 760-761.

³"The Manufactured Crisis," *Medical Economics*, November 10, 1986, p. 61.

... and data problems

The growth rate for federal filings is straightforward. The data from the Administrative Office of the Courts are complete and show that tort filings in federal courts grew at an average annual rate of 4 percent between 1981 and 1984. Unfortunately, however, federal filings are a very small part of total tort action. About 95 percent of the tort cases are filed in the state court system,⁴ but these data are incomplete. The NCSC is hampered in its recordkeeping because not all state courts distinguish tort litigation from other civil cases such as commercial and contract suits. Therefore, both the NCSC and all other users must extrapolate from the data available. The NCSC estimates an average annual growth of 2.3 percent in tort filings in state courts between 1981 and 1984; the comparable ICJ estimate is 3.9 percent.⁵

Total amount of tort litigation nationwide is growing slowly

Whatever the slight differences among estimates, it is clear that the amount of tort litigation nationwide is growing relatively slowly. Indeed, when the rate is adjusted for population growth, it sinks (according to estimates by ICJ researchers) to a modest 3 percent. This number is not, by itself, a good measure of litigiousness. Such a measure would have to include other kinds of information—for example, whether the number of claims or grievances that could be litigated was growing. But it is a good measure of overall litigation activity.

But growth differs for different case types

But the total amount of tort litigation nationwide is not the relevant statistic for policymakers. When we examine how much litigation occurs in different types of cases, we see significant differences. Figure 2.1 illustrates this point. It shows changes from 1975 to 1985 in the amount of tort litigation in the federal courts and in California state courts, one of the few state courts that tracks the personal injury caseload. The data for the federal caseload let us show separate results for auto, marine, and air cases, other nonproduct personal injury cases, and product liability. For California, we can distinguish only auto and other personal injury, a category that includes product liability,

⁴For further discussion, see James S. Kakalik and Nicholas M. Pace, *Costs and Compensation Paid in Tort Litigation*, The RAND Corporation, R-3391-ICJ, 1986, Chapter II.

⁵The ICJ estimation method is discussed in detail in Kakalik and Pace, 1986.

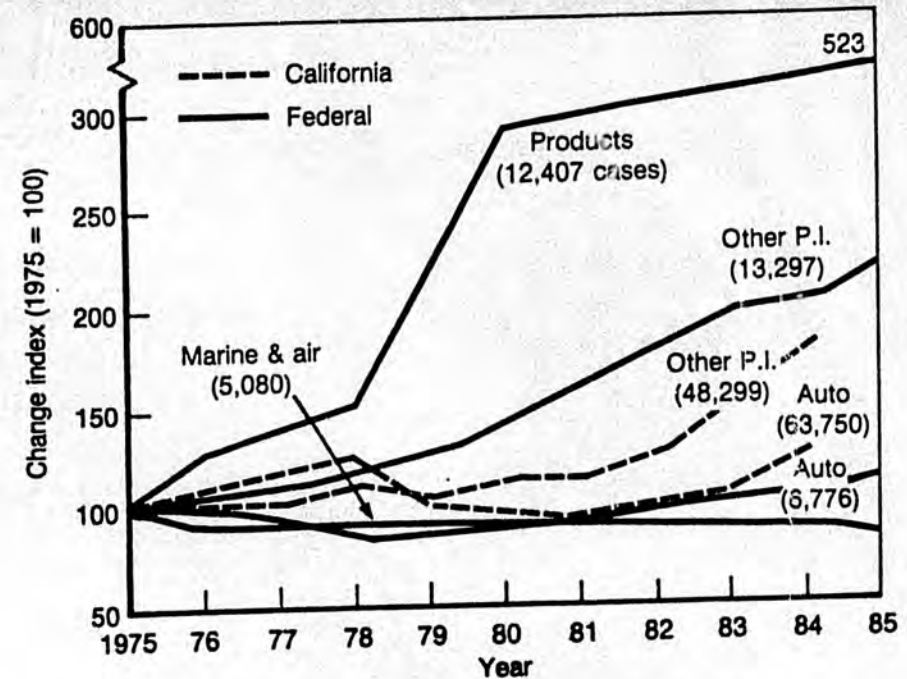


Fig. 2.1—Growth differs for different case types

medical malpractice, and a variety of other personal injury torts. We have used 1975 as the base year and calculated deviation from it.

Because there are only two categories, the California pattern is the simpler. The data for auto cases show a slight increase, which roughly mirrors population growth during this period; in other words, litigation in this area remained basically stable. However, the increase in other personal injury suits is much sharper and far outpaces population increases.⁶

High-stakes personal injury suits are growing faster

⁶See Deborah R. Hensler, *Trends in California Tort Liability Litigation*, The RAND Corporation, P-7287-ICJ, March 1987.

Although the data from the federal courts are more diverse, the basic pattern is the same. The number of auto and marine and air cases was very stable over the entire period. However, other nonproduct personal injury cases grew rapidly and product liability cases have soared. It is the precipitousness of this last increase that has attracted so much media attention. It is unclear whether this quantum jump is because the federal courts are now getting a portion of these cases that used to be filed in state courts, or because asbestos cases and other mass latent injury suits are swelling the caseload. Probably both factors are operating, but we are unable to tease out their separate effects from these data.

A different measure of changing caseload is the composition of the caseload. Table 2.1 shows the shift in caseload for federal courts, California courts, and NCSC data for a group of state courts (California, Hawaii, Maryland, Michigan, and Texas) that report more detailed information about filings.

Table 2.1

**AUTO CASES ARE A DECLINING
FRACTION OF TORT FILINGS**

Percentage of Case Filings		
Federal courts	1975	1985
Auto	25	16
Non-auto	75	84
California	1975-1976	1984-1985
Auto	65	43
Non-auto	35	57
Five state courts ^a	1980	1984
Auto	61	55
Non-auto	39	45

^aCalifornia, Hawaii, Maryland, Michigan, and Texas (NCSC).

Although the periods covered are not identical because some data are unavailable, we observe similar patterns. In every category, auto cases are a declining percentage of case filings.

For most courts, we are fortunate just to have data on filings. But the ICJ has been able to assemble data on tort trials in San Francisco and in Cook County, Illinois, for 1960-1984. These data allow us to analyze the composition of trial caseloads, as shown in Fig. 2.2.⁷ Throughout the period 1970-1984, Cook County tried a much larger percentage of auto cases than did San Francisco. However, in both jurisdictions, auto accident cases constitute a steadily declining slice of the caseload pie, falling from 48 percent to 35 percent in San Francisco, and from 76 percent to 59 percent in Cook County.

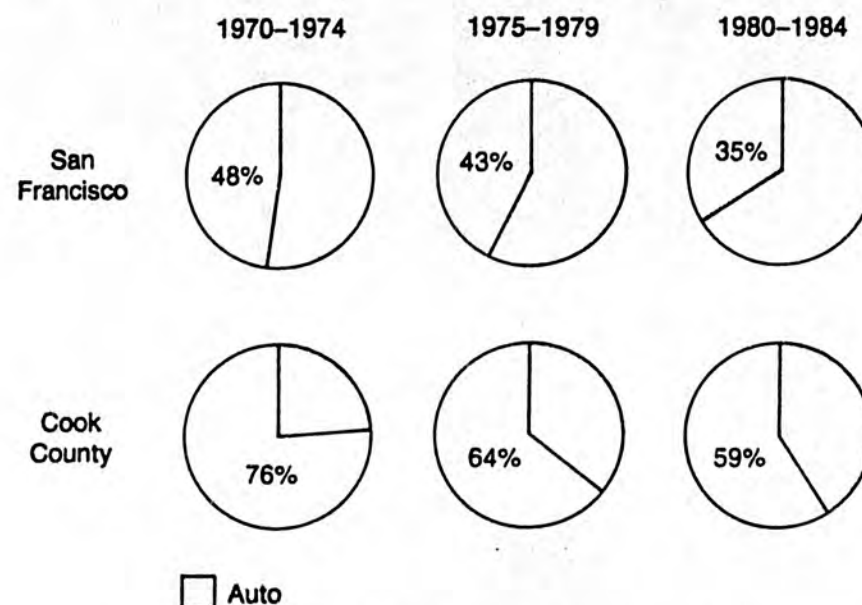


Fig. 2.2—Auto cases are a declining fraction of tort trials

⁷Based on data from Mark A. Peterson, *Civil Juries in the 1980s: Trends in Jury Trials and Verdicts in California and Cook County, Illinois*, The RAND Corporation, R-3466-ICJ, 1987.

*Where the
explosion may
occur*

There is little ambiguity about the trends in the third category of cases—mass latent injuries. Data from asbestos and Dalkon Shield claims demonstrate truly explosive growth for these types of cases. For example, most experts estimate that there were about 16,000 asbestos worker injury claims in 1981; five years later, there were more than 30,000 asbestos cases in state and federal courts. In 1981, there were an estimated 7,500 lawsuits pending over injuries from Dalkon Shields. By 1986, after A. H. Robins, the manufacturer, had sought protection under Chapter 11, more than 325,000 claims had been submitted to the bankruptcy court.

Mass latent injury suits have this explosive quality for two reasons. First, some toxic substance litigation is concentrated in particular areas where that substance may have been used. For example, asbestos was widely used in certain industries—in shipbuilding on the east and west coasts and on the Gulf and in the petrochemical industry on the Gulf. Because of this geographical concentration, asbestos claims may flood the courts in some cities even though they might not constitute a very large percentage of the national caseload.

We have estimated the contribution of asbestos claims to judges' civil caseloads in a number of federal and state courts.⁸ For 1984, the percentages ranged from a low of about 7 percent in Northern California to highs of approximately 25 percent in Massachusetts and New Jersey.

Second, the statute of limitations defines a time window within which claims must be brought. If newly discovered evidence or a new legal ruling provides a new basis for claims, then a large number of people must file expeditiously. The system may well experience the results as an explosion.

As the metaphor suggests, this explosion of tort filings may be temporary—a bulge that the system slowly absorbs. But because these cases appear on the legal scene suddenly and in very large numbers, they contribute to a

⁸For details, see Deborah R. Hensler, William L.F. Felstiner, Molly Selvin, and Patricia A. Ebener, *Asbestos in the Courts: The Challenge of Mass Toxic Torts*, The RAND Corporation, R-3324-ICJ, 1985, p. 27.

general impression of hectic court activity and may well overwhelm courts in certain locations.

The answer to the question of how much tort litigation there really is depends critically on which world of litigation the data describe.

- *Auto accident cases are a steady or declining percentage of court action.*
- *Non-auto personal injury cases such as malpractice and product liability are growing moderately in state courts and more dramatically in federal courts.*
- *Mass latent injury cases have the potential for explosive growth as new evidence of harms is developed.*

So how much tort litigation is there?

JURY AWARDS: STABLE OR OUT OF CONTROL?

More statistical confusion

Some of the most memorable salvos of the insurance crisis war have been aimed at the amounts that juries award injured plaintiffs. And nowhere is the bewildering discrepancy between statistics so dramatic:

The average verdict in both product liability cases and medical malpractice cases is now more than \$1 million, and the number of million-dollar awards has been growing quickly. Between 1980 and 1984, it jumped nearly 200 percent to 401 (*The Wall Street Journal*, May 16, 1986).

The increase in awards is necessary to keep up with climbing health care costs. . . . The cost of inpatient, outpatient, and physician care has risen an average of almost 16 percent between 1978 and 1984. During that same period, verdict amounts rose only about 13 percent (*The Wall Street Journal*, April 8, 1987).

Is there a way to reconcile these viewpoints?

Which yardstick to use

The debate about jury awards has been further complicated by argument over the proper statistics to use in describing trends. The most frequently cited statistics are *medians* and *means*.

Median awards

The *median award* is the midpoint of the distribution of jury awards to the plaintiff. To compute the median, one simply lists all the awards in the jurisdiction under study in order of their dollar value and locates the award at the midpoint of the list. Medians are not affected by either extreme high or low values. Although it is possible for many of the values in a distribution to diverge significantly from the median, in the absence of other information, it is reasonable to guess that most of the values are not too much higher or lower than the median. For this reason, it has become popular to think of the median as indicating the "typical" jury award.¹ Trends in median awards indi-

¹A more accurate statistical indicator of the typical award would be the *mode*, which is the value that occurs most frequently.

cate whether the behavior of juries, in general, has changed.

The *mean award* is the statistical average of all jury awards. To compute it, one sums the dollar value of all awards to the plaintiff in the jurisdiction under study and divides by the number of these awards. A few very high or very low awards will skew the mean award; therefore, it may not be a good measure of what the typical jury is doing. However, it does provide the single most accurate estimate of the amount awarded to successful plaintiffs.

Mean awards

Both medians and means usually describe points in the distribution of dollar amounts in the cases that the plaintiffs have won. However, plaintiffs do not always win. A better estimate of *expected award* includes cases that they lose. We can calculate the expected award by multiplying the *average award* by the *probability of winning*, which is less than one. This expected award is the best available indicator of what plaintiffs can expect to win or defendants expect to lose in the relevant jurisdiction.

Expected awards

Since 1979, the ICJ has conducted a series of studies about the decisions of civil juries. We examined detailed data for more than 14,000 civil cases tried by juries in Cook County, Illinois, and San Francisco, California, between 1960 and 1984. Data were obtained by creating computer records of information published in periodic jury verdict reporters for each jurisdiction.² Each record identifies the court and judge, relevant dates, type of case, liability issues involved, number of plaintiffs and defendants, and offers and demands; it also provides data about a wide variety of characteristics of the trial, including information about each defendant, each plaintiff, the nature of the claim, the plaintiff's possible negligence, and the outcome of the trial. ICJ researchers have used this rich database to study:

ICJ jury verdict studies

²The *Jury Verdict Reporter*, published by Max Sonderby, is a private, weekly subscription newsletter for lawyers and insurance companies in the Chicago area. *Jury Verdicts Weekly*, published by Kenneth Raymond, is a similar newsletter describing civil cases reaching verdict in California.

Key issues studied

- kinds of cases tried and trends in outcomes³
- how juries compensated various types of personal injuries and how compensation changed over time⁴
- how jury verdicts are related to the characteristics of litigants⁵

We draw on these analyses in the following discussion of trends in jury awards. The data are specific to San Francisco and Cook County, and we would not expect to observe the same medians and means in all the jurisdictions in the country. Indeed, San Francisco and Cook County differ on some dimensions, as we discuss below. However, the data are valuable because they are currently the only data available in the United States that allow us to discuss long-term trends in trial outcomes. And the similarity of trends between the two jurisdictions leads us to believe that the trends we are observing may hold nationwide. Moreover, the difference—discussed below—between verdict amounts for automobile accident and other routine tort cases, on the one hand, and product liability and medical malpractice cases, on the other, are repeated in more than three-fourths of the 44 jurisdictions nationally for which *short-term* jury verdict data have been assembled.⁶

Overall, median awards haven't changed much . . .

Figure 3.1 shows that median tort awards, when adjusted for inflation, remained remarkably stable in both jurisdictions during the period 1960–1975. The median was virtually constant in Cook County. In San Francisco, there is

³Mark A. Peterson and George L. Priest, *The Civil Jury: Trends in Trials and Verdicts, Cook County, Illinois, 1960–1979*, The RAND Corporation, R-2881-ICJ, 1982; Michael G. Shanley and Mark A. Peterson, *Comparative Justice: Civil Jury Verdicts in San Francisco and Cook Counties, 1959–1980*, The RAND Corporation, R-3006-ICJ, 1983; Mark A. Peterson, *Civil Juries in the 1980s: Trends in Jury Trials and Verdicts in California and Cook County, Illinois*, The RAND Corporation, R-3466-ICJ, 1987.

⁴Mark A. Peterson, *Compensation of Injuries: Civil Jury Verdicts in Cook County*, The RAND Corporation, R-3011-ICJ, 1984.

⁵Audrey Chin and Mark A. Peterson, *Deep Pockets, Empty Pockets: Who Wins in Cook County Jury Trials?* The RAND Corporation, R-3249-ICJ, 1985.

⁶Stephen Daniels and Joanne Martin, "Jury Verdicts and the 'Crisis' in Civil Justice," *Justice System Journal*, Vol. 11, No. 3, Winter 1986. Daniels and Martin make a practice of reporting medians and interquartile ranges only.

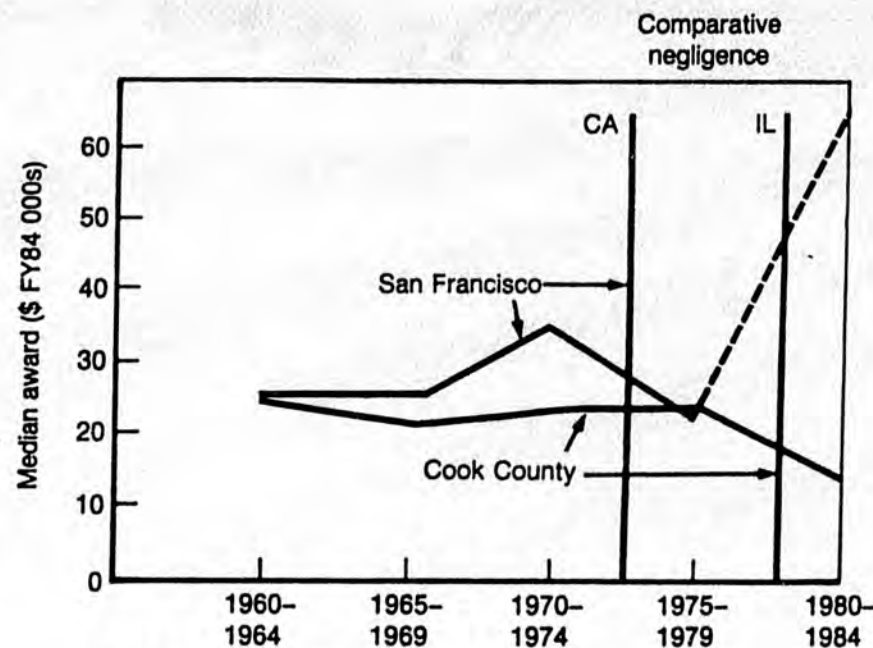


Fig. 3.1—Median tort awards are quite stable over time

more variation; nevertheless, in the period 1975–1979, the median award was slightly lower than it was in 1960.

In the 1980s, the median tort award (in constant dollars) changed in both jurisdictions. In Cook County it actually fell, but in San Francisco it rose dramatically. We believe that a change in the law—the substitution of a comparative negligence standard for contributory negligence—may be responsible for the decline in the median award in Cook County. More plaintiffs were winning awards, but the awards tended to be smaller, perhaps because they were reduced to reflect the plaintiffs' negligence. In San Francisco, changes in the composition of the trial caseload probably account for the change. The establishment of mandatory arbitration for smaller-value cases and an increase in the jurisdictional level of the lower

. . . but some recent changes are evident

court drove smaller-value cases out of the superior courts and caused a higher-value caseload overall.⁷

If our explanation of post-1980 trends in these jurisdictions is correct, then median awards have been strikingly stable over a 25-year period. As with the amount of litigation, however, this aggregate pattern changes when we examine the separate trends for auto vs. product liability cases (Fig. 3.2). The stable trend in medians persists for auto cases. However, the median for product cases has risen very sharply. The trend for medical malpractice suits (not shown in Fig. 3.2) is equally steep.

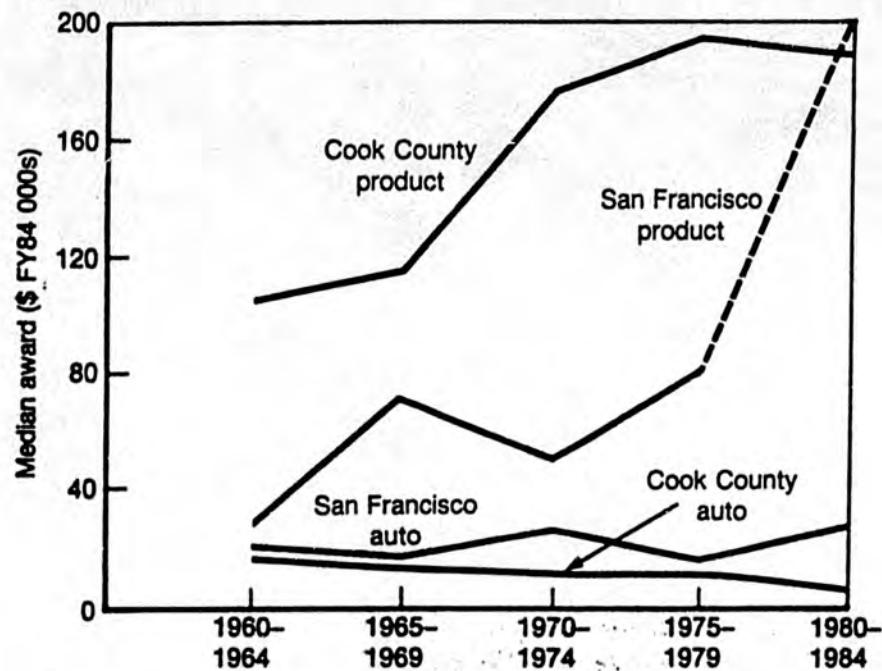


Fig. 3.2—Overall median for tort awards masks sharp differences

⁷These data are discussed in detail in Peterson, *Civil Juries in the 1980s*, 1987.

When we focus on the alternative yardstick—the mean—we find that average tort awards, adjusted for inflation, have increased sharply in both jurisdictions; the mean rose steadily in Cook County from \$59,000 during 1960-1964 to \$187,000 during 1980-1984 and in San Francisco from \$66,000 at the beginning of the period to \$302,000 during 1980-1984.

Average awards have risen sharply

Figures 3.3 and 3.4 illustrate why the overall average award has risen so substantially. The average has increased even for routine, usually low-stakes cases such

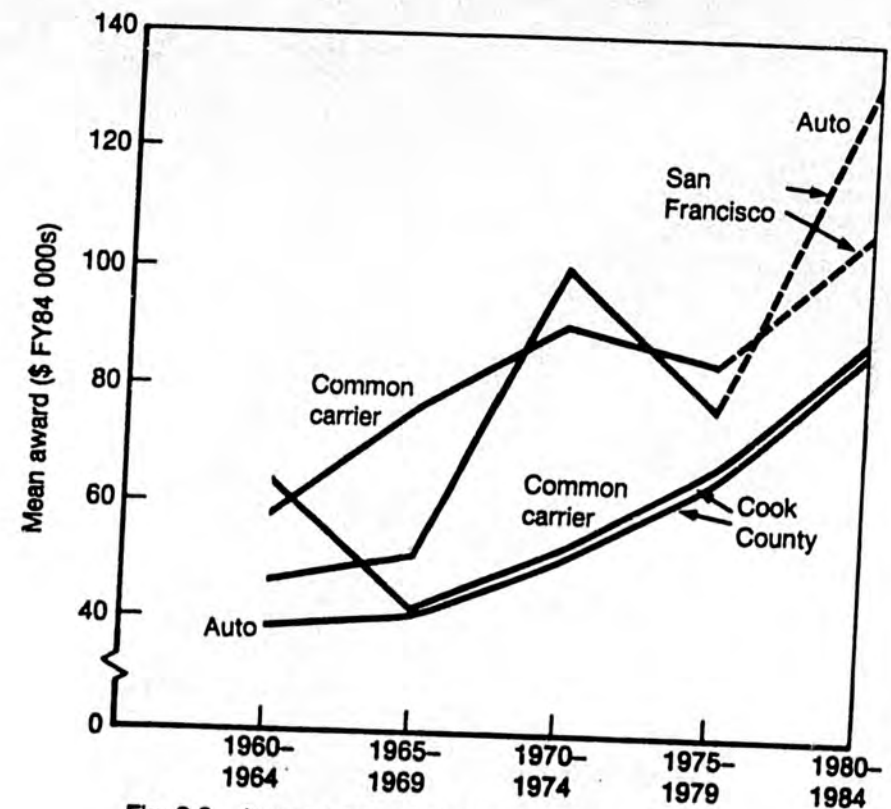


Fig. 3.3—Average auto and common carrier awards have risen for routine cases

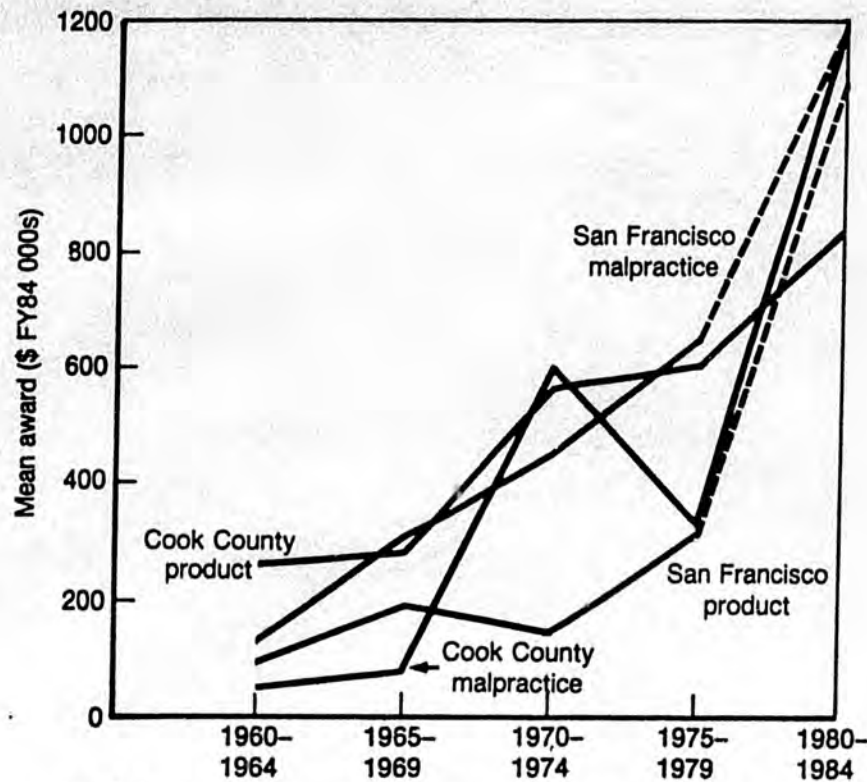


Fig. 3.4—Average award has risen sharply in malpractice and product liability cases

as auto. And in the case of high-stakes suits such as product liability and malpractice, the growth in the average award has been truly explosive, reflecting increases ranging from 200 to more than 1,000 percent.

The expected award is the product of the average award and the probability of winning. We have just examined two indicators of the trends in jury awards and seen substantial growth in the median award in all but the most routine cases and an increase in average awards across all types of cases. But plaintiffs do not always win. Has the probability of their doing so changed over time?

The chances of winning have increased

In the two jurisdictions that we studied, the answer is clearly "yes."⁸ For every type of liability case, Cook County plaintiffs were far more successful in the early 1980s than were plaintiffs twenty years earlier. For example, in the 1960s, plaintiffs won about one-fourth of product liability and malpractice cases. In the late 1970s, they won about one-third of such cases. By the 1980s, they were winning almost one-half of them. Plaintiffs in San Francisco also won more often in the 1980s, but the increase in their success rate is not as dramatic across all case types. In the 1970s, they won about one-third of all malpractice trials. Ten years later, they were winning more than one-half of them. For product liability cases, their success rate actually declined slightly over the period, but in the 1980s they were still winning more than one-half of these cases.

The increased probability of winning, coupled with the increase in average awards, results in higher expected awards. Figure 3.5 illustrates this increase as well as the differences among case types. The expected award for auto cases has risen from about \$25,000 to \$60,000-90,000 at the end of the period, but this move is dwarfed by the rocketing awards in product liability cases, which grew 400-900 percent between 1960 and 1984.

Judging from these data, there is little question that average jury awards are increasing in San Francisco and Cook County and that awards have increased more in high-stakes cases than in routine litigation. But are juries, or the jury system more generally, "out of control?" To answer that question we need more information because several other explanations also fit the data. For example:

- Jury awards might be changing because the cases coming before them are changing.
- Jury awards might be changing because juries are doing a better job of calculating the amounts necessary to compensate plaintiffs and deter defendants' negligent behavior.
- The jury trial system might be "correcting" any unreasonable or untoward awards through posttrial processes.

Are juries "out of control?"

⁸See Peterson, *Civil Juries in the 1980s*, 1987.

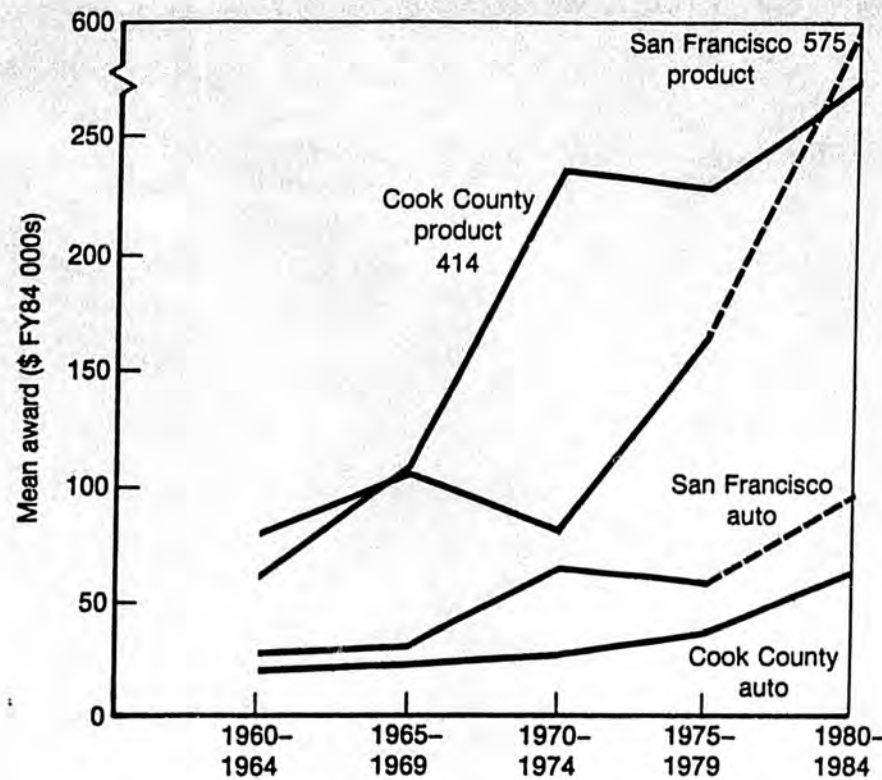


Fig. 3.5—Expected awards have risen

If any or all of these hypotheses hold true, we might conclude that whatever changes we observe in outcomes, juries are not "out of control."

Explaining jury behavior . . .

One way to figure out *why* jury awards are increasing is to perform multivariate statistical analysis that measures how awards vary in relation to characteristics of cases, plaintiffs, and defendants. The database the ICJ has assembled for San Francisco and Cook County is uniquely suited for such analysis. Here's what we have found so far:

Juries are now seeing cases that involve more serious injuries and larger medical expenses than cases tried at the beginning of the period. To the extent that this is true, juries are not necessarily behaving differently—they are being confronted with different circumstances.⁹

After we take into account the increase in both the seriousness of the injuries and the size of medical expenses, juries are still awarding more money for serious injuries than they did 25 years ago.¹⁰

Our analyses show that juries are likely to award substantially more money in a product liability, malpractice, or work injury case than in an auto accident case for an injury of the same degree of severity. And the "premium" awarded to these kinds of cases has been increasing over time. Juries also award more money when the defendants are institutions or organizations rather than individuals—the "deep-pocket" effect. Since many, if not all, product liability cases and malpractice cases involve institutional defendants, the "premium" effect and the "deep-pocket" effect are often confounded. Nevertheless, we can detect a separate, statistically independent effect for deep-pocket defendants, even in cases that do not involve products or malpractice.¹¹

Do juries respond to cases differently because they are "irrational" or "capricious?" The answer is: We don't know. Juries might have "irrational" sympathies for people who are hurt on the job or "irrational" prejudices against corporate defendants. Or it may be that juries presented with product liability, malpractice, or work injury cases feel that the defendant had a special kind of public duty or care that should have been exercised, and that the "premium" awarded is a kind of deterrent signal.

We need to conduct research on *how* and *why* jurors reach their decisions—based on interviewing real jurors or individuals who hear and decide "mock jury" cases—before we can decide which of these explanations (or some other) is

. . . trying different kinds of cases

. . . awarding more dollars for serious injuries

. . . responding differently to cases from different "worlds" of litigation

⁹See Peterson, *Compensation of Injuries*, 1984.

¹⁰See Peterson, *Compensation of Injuries*, 1984.

¹¹See Chin and Peterson, *Deep Pockets, Empty Pockets*, 1985.

*What happens
after trial?*

correct. The ICJ is currently exploring the possibilities for such research.¹²

The civil justice system has a number of mechanisms for reducing jury awards, including trial judge adjustments in awards, retrials, and reversals on appeal. A recent ICJ study compared jury awards and ultimate payments in a sample of recently tried cases to see whether these mechanisms were having their intended effect of "correcting" untoward awards. The study involved 900 cases, tried between 1982 and 1984 in Cook County, in San Francisco, and in a group of smaller California cities, including urban, suburban, and rural communities. The sample included a full range of verdicts, from million-dollar awards to defense verdicts.¹³

About 80 percent of the trial verdicts remain unchanged; however, the verdicts that were reduced involved some of the largest rewards, and the reductions were substantial. As Fig. 3.6 shows, the reduced cases had awards more than three times the size of the sample average, and involved reductions of almost half the original award.

The reductions increased with the size of the award. Table 3.1 shows the average award and the ratio of the amount paid to the award for four different case categories. For cases less than \$100,000, the average reduction was only 7 percent. However, the percentage reduction increases steadily with award size, and, for cases over \$1 million, it amounts to almost 40 percent.

This suggests that awards most likely to be viewed as "excessive" by critics are most likely to be cut substantially. However, trials involving deep-pocket defendants and/or product liability suits had smaller reductions.

¹²Molly Selvin and Larry Picus, *The Debate over Jury Performance: Observations from a Recent Asbestos Case*, The RAND Corporation, R-3479-ICJ, 1987.

¹³Michael G. Shanley and Mark A. Peterson, *Posttrial Adjustments to Jury Awards*, The RAND Corporation, R-3511-ICJ, 1987. See also Peterson, *Civil Juries in the 1980s*, 1987.

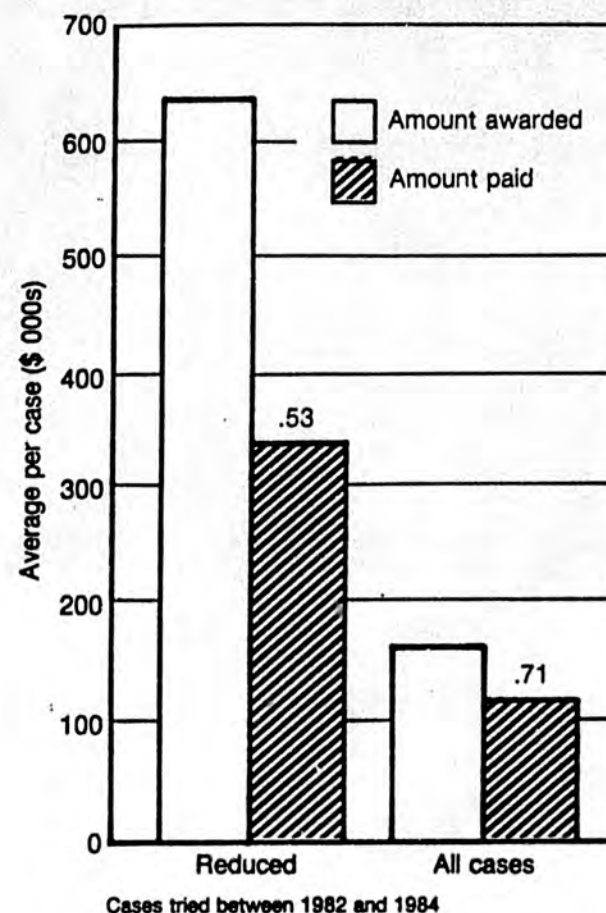


Fig. 3.6—Reduced cases involve large awards and significant reductions

Table 3.1

REDUCTIONS INCREASE WITH AWARD SIZE

Size of Award (\$)	Average Jury Award (\$000s)	Ratio Paid/Award
1-99 thousand	23	.93
100-999 thousand	314	.82
1-10 million	2,673	.68
10+ million	27,220	.57
All trials	161	.71

The bottom line

The answer to our initial question, *Are jury awards stable or out of control?* turns out to be complicated. It depends both on which world of litigation you look at and whether you are focusing on bottom-line results—jury awards—or the behavior behind them—jury decisionmaking processes.

- Plaintiffs in auto cases involving modest injuries and expense continue to obtain modest awards and, at least in recent years, these awards generally hold after trial.
- Plaintiffs in product liability and malpractice cases are winning more frequently and obtaining higher awards.
- And deep-pocket defendants in product liability cases ultimately pay much, if not all of the awards against them, even after posttrial adjustments.
- Jury behavior seems more unpredictable, but this may simply be because we do not have a very good sense of why juries make the decisions they do.

LITIGATION COSTS: HOW MUCH, TO WHOM?

"Litigation," says former Chief Justice Warren Burger, has become "too costly, too destructive and too inefficient."¹ Proponents of tort reform claim that the transactions costs of the system exceed the benefits provided in compensation to plaintiffs.

Perhaps the aspect of tort litigation that draws the most fire is the contingency fee. Critics complain that contingency fees, typically one-third of the award, are too high and encourage lawyers to take frivolous suits to court. Lawyers retort that contingency fees provide access to the courts for plaintiffs who cannot afford to pay hourly fees, and that the contingency arrangement is an appropriate way to cover the risks and expenses of lawyers, who receive nothing for their time when they do not obtain payment for their clients.

Although plaintiff attorneys get the most bad press, defense costs also draw their share of criticism. Defense attorneys charge by the hour, and there are no standards to suggest how many hours are appropriate for a case unless the defendants provide limits.

Unfortunately, there is no ready measure of the inherent reasonableness of the system's transactions costs. Especially when we focus on the tort system's goal of deterrence, we might encounter circumstances in which we find very high transactions costs acceptable. However, when we view the tort system as a compensation system, we would generally argue for costs that are lower, relative to compensation.

In any case, a first order of business is to determine how high the transactions costs really are and who is getting them. As with other basic issues in this area, the data are not readily available. Over the last five years, the ICJ has conducted a number of studies on the costs of litigation

Transactions costs—complaints and rebuttals

Where the dollars go

¹The Wall Street Journal, May 18, 1986.

and the division of the payments.² Here are some aggregate numbers based on these studies.

- In 1985, the total expenditure nationwide for tort litigation terminated in state and federal courts of general jurisdiction was between \$29 and \$36 billion.³ This accounts for approximately 92 percent of all compensation paid in tort litigation.
- Of that total, \$16 to \$19 billion was spent for the various costs of the tort litigation system, not including the net compensation paid to plaintiffs.
- Plaintiffs were paid \$21 to \$25 billion in total compensation. After deducting their legal fees and expenses, which on average amount to about 30 percent of the total compensation, and the value of their time, they netted \$14 to \$16 billion in compensation.
- Defendants' legal fees and expenses totaled about \$4.7 to \$5.7 billion.

Figures 4.1, 4.2, and 4.3 disaggregate litigation costs for the three categories of cases that we have been examining: routine torts such as auto, higher-stakes cases such as product liability and malpractice, and asbestos cases as an example of mass latent injury torts.⁴

²James S. Kakalik and Abby Robyn, *Costs of the Civil Justice System: Court Expenditures for Processing Tort Cases*, The RAND Corporation, R-2888-ICJ, 1982; James S. Kakalik, Patricia A. Ebener, William L.F. Felstiner, and Michael G. Shanley, *Costs of Asbestos Litigation*, The RAND Corporation, R-3042-ICJ, 1983; J. S. Kakalik and R. L. Ross, *Costs of the Civil Justice System: Court Expenditures for Various Types of Civil Cases*, The RAND Corporation, R-2985-ICJ, 1983; James S. Kakalik, Patricia A. Ebener, William L.F. Felstiner, Gus W. Haggstrom, and Michael G. Shanley, *Variation in Asbestos Litigation Compensation and Expenses*, The RAND Corporation, R-3132-ICJ, 1984; Kakalik and Pace, *Costs and Compensation Paid in Tort Litigation*, 1986.

³We give a range of costs because we made two estimates. The first was top down, starting with the insurance industry's aggregate data on direct losses and expenses paid in 1985, adding self-insurance, and then deleting payments for claims that were not lawsuits. The second estimate was bottom up, starting with data from surveys of individual tort lawsuits, projecting the numbers to 1985, and deriving a national estimate by multiplying by the number of tort lawsuits terminated in 1985.

⁴Asbestos cost estimates are drawn from two reports dealing specifically with those cases: Kakalik et al., *Costs of Asbestos Litigation*, 1983, and Kakalik et al., *Variation in Asbestos Litigation Compensation and Expenses*, 1984.

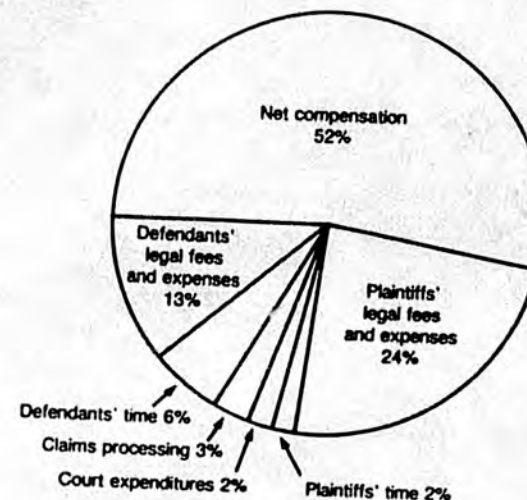


Fig. 4.1—Allocation of total auto tort litigation expenditures, 1985

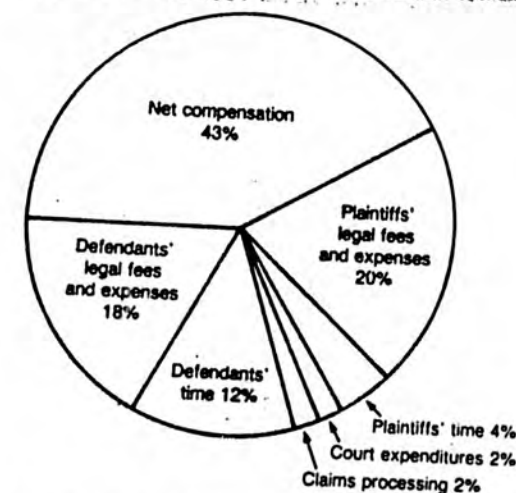


Fig. 4.2—Allocation of total non-auto tort litigation expenditures, 1985

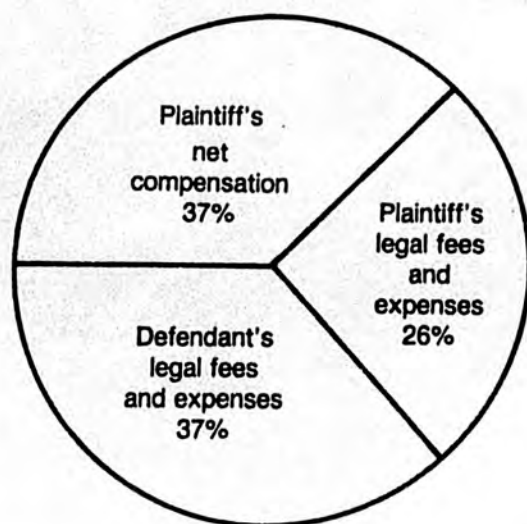


Fig. 4.3—Allocation of per-claim expenditures for asbestos claims closed before 8/82

Effect of case complexity

As we might expect, as the complexity of the case increases, plaintiffs net less and less in compensation. As the summary in Table 4.1 shows, plaintiffs' legal fees and expenses are a relatively stable proportion of expenditures, but defendants' legal fees and expenses increase in more complex cases.

Growth rate for transactions costs

Earlier we noted that the annual growth rate for the amount of tort litigation was approximately 3-4 percent. However, the growth rate in expenditures for the tort system has been higher. Between 1980 and 1985, the average growth rate in insured defendants' average legal fees and expenses paid per claim was about 6 percent for auto (i.e., less than the rate of inflation) and 15 percent for other tort claims.

Table 4.1

ALLOCATION OF LITIGATION EXPENDITURES: SUMMARY
(In percentage of totals)

Type of Case	Defendant Legal Fees	Plaintiff Legal Fees	Net Compensation to Plaintiff
Auto	19	26	52
Non-auto	30	24	43
Asbestos	37	26	37

Our snapshot of litigation in 1985 shows that the costs of litigation consumed about half of the \$29 to \$36 billion dollars that were spent on litigation. When we disaggregate these costs, we see that in more complex cases (non-auto torts) the costs of litigation were higher. In the case of asbestos claims, the only mass latent injury cases for which these data have been assembled, litigation costs constituted almost two-thirds of the total per-claim expenditures.

In sum . . .

THE STORY BEHIND THE STATISTICS

The emerging worlds of tort litigation

We now understand why the statistics bandied about in the insurance crisis debate generate more confusion than enlightenment. The characteristics we want to examine—for example, growth rates or award amounts—trend up in one kind of case, down in another. Aggregate statistics make it impossible to detect sources of change or stability. In many cases, statistic-bandiers on both sides of the crisis are right—they are just describing different parts of the system.

When we disaggregate the numbers, we can detect clear differences:

- Routine personal injury torts such as auto cases are growing slowly in frequency and costs, and their outcomes—inflation adjusted—have not changed much over the last 25 years.
- Higher-stakes torts such as malpractice and product liability are growing faster in frequency and costs, and their outcomes have increased dramatically over the past 25 years in the jurisdictions we have observed intensively, and substantially in the shorter five-year period for which we have national data.
- Mass latent injury torts, once identified, tend to explode in number, carry high transaction costs, and have highly uncertain outcomes.

We believe that these differences point to an important evolutionary process in the tort system that merits close policymaker attention. In Table 5.1, we characterize the three worlds of litigation that constitute important states in this evolution. Below we discuss these characteristics in more detail, drawing on our previous research and recent discussions with participants in the tort litigation process.

Auto accident cases epitomize this category. There is a huge volume of such cases, about half a million filed annually nationwide. Perhaps because they have been with us so long, there has been little recent change in the substantive law related to them since the adoption of *no*

Routine personal injury torts

Table 5.1

THE EVOLVING WORLDS OF TORT LITIGATION: CASE PROFILES

Auto and Other Ordinary Lawsuits	Product Liability, Malpractice, Business Torts	Mass Latent Injury Cases
• High volume • Stable law • Routinized • Increasing ADR • Modest stakes • Little deterrence potential • Slow growth in frequency, outcomes, costs	• Lower volume • Evolving law • Increasingly specialized • Heavy pretrial procedure • Little ADR • Large \$ potential per case • Deterrence is factor • Faster growth in frequency, outcomes, costs	• Concentrated in time and place • Problematic law • Small, highly specialized bar • Discovery critical • Procedural innovation • Enormous \$ stakes for parties • Deterrence is key issue • Highly uncertain in number, outcome, and costs

fault insurance provisions. Because of their high volume and the stability of law, it has been possible to routinize their processing and resolution. As a result, we have seen an increasing reliance on alternative dispute resolution procedures, particularly court arbitration programs, for these cases.¹

Most of these cases involve relatively modest injuries and small amounts of money, and the parties to the dispute are ordinary citizens rather than institutions. Except in cases of very serious injury, there is little basis for large awards,

¹For further discussion, see Deborah R. Hensler, "What We Know and Don't Know about Court-Administered Arbitration," *Judicature*, Vol. 69, No. 5, February-March 1986.

and the attorneys who handle them are not generally high-stakes litigators. Although the application of tort law to these cases is intended in principle to deter bad drivers, concerns about deterrence do not appear to motivate the attorneys who specialize in this area.

Because of these characteristics, auto lawsuits are not growing significantly. Increasingly, it appears, they are being settled elsewhere, in forums that produce stable, predictable outcomes. The use of alternative procedures and settlement mechanisms produces lower transaction costs than we observe in other tort litigation areas.

In sum, this world of tort litigation is the least problematic by most standards. It also remains the world in which the average citizen is mostly likely to become a participant.

Although these kinds of cases have received the lion's share of the attention in the recent tort debate, they are still relatively low volume by comparison with the auto cases.

But these cases differ from routine torts along many dimensions. The law with regard to product liability in particular has changed dramatically since the early 1960s with the adoption of strict liability—a principle that holds that manufacturers may be held liable for any injury that their products might cause. This expansion of the principle of liability has enabled more plaintiffs to bring suits. It has also provided the opportunity for the development of a highly specialized, well-capitalized corps of litigators on both the plaintiff and defense sides.

The stakes in these cases are usually higher than in auto torts, and because the law is perceived as volatile, the outcomes are often uncertain. To many scholars, attorneys, and litigants, deterrence is a central concern: The system has a clearly stated interest in trying to deter manufacturers from making bad products; to deter doctors from practicing bad medicine; to deter businesses from trying inappropriate practices. Plaintiff attorneys may be spurred by these concerns to invest substantial resources in developing cases. And because defendants—particularly manufacturers—may have an incentive to deter further suits over the same product, defending against these cases, rather

*Higher-stakes
personal injury
torts*

than settling them, is particularly attractive. As a result, pretrial discovery—with its associated costs in dollars and time—is a prominent feature of these cases. Alternative dispute resolution is not.

Because the evolution of the law in this area has expanded the grounds for bringing suits, it is not surprising that more suits are being brought. By their nature, these suits involve larger and more uncertain stakes than routine cases such as auto—the injuries are more serious, the defendants have more money, the plaintiff attorneys have invested more and stand to earn more. As a result, we observe higher and less predictable outcomes and higher transaction costs.

Mass latent injury torts are a special case of product liability torts, with special characteristics that justify treating them separately. Both substantive and procedural law in this area is evolving rapidly, and attorneys on both sides view the litigation process as problematic.² Pretrial maneuvering is extensive in these cases because the latency of the injuries produces knotty legal issues; discovery is usually prolonged and costly because attorneys must collect data over extended periods to substantiate charges that the manufacturer's product caused the injury. Because of the large number of claims, the rapid influx of cases into courts after the harm has been identified, and the characteristic geographical concentration of the cases, courts frequently experience overload problems that may lead to further delay and costs.

Deterrence is seen as a critical issue in these torts. Indeed, concerns about deterrence have evoked missionary zeal on the part of some plaintiff attorneys. Defendants have been willing to invest huge amounts of resources because the trials may decide the future of their corporations.

Despite the fact that alternative dispute resolution procedures have not been widely adopted for ordinary product liability and malpractice suits, there has been considerable interest in innovative procedures for dealing with mass latent injury torts. We believe this interest stems

*Mass latent
injury torts*

²See Hensler et al., *Asbestos in the Courts*, 1985.

from general agreement that the cost of processing these cases under the current system is excessive.

Mass latent injury torts are the most volatile world of tort litigation. Costs, dynamic legal environment, and the uncomfortable fit between these cases and the tort system conspire to make the number, outcome, and future costs of these suits highly uncertain.

*What the tort
evolution implies
for policy*

Unlike some of the statistical arguments used in the tort reform debate, the central policy implication of our discussion is clear: We need to know what part of the elephant we are patting. If we want to diagnose the system's ills and prescribe effective remedies, we must disaggregate the system. Researchers must ask sharper questions, target their inquiries, and look for appropriate data so that they do not make assumptions about one part of the system based on trends observed in another. Opinion leaders must be willing to consider the possibility that complex realities generate seemingly inconsistent data and ask what these data mean rather than rejecting them out of hand. And policymakers may need to consider more seriously specialized solutions tailored to special problems that characterize some torts, but not others. Most of all, we need to bring the perspective provided by the "three worlds" framework to bear on the current tort reform debate in the hopes of generating a little more light and a little less heat.

Other ICJ Publications

R-2716-ICJ
The Law and Economics of Workers' Compensation
Policy Issues and Research Needs
L. Darling-Hammond and T. J. Kniesner
1980

R-2717-ICJ
Models of Legal Decisionmaking
Research Design and Methods
D. A. Waterman and M. A. Peterson
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Reading the Tort Litigation Tea Leaves: What's Going on in the Civil Liability System?

Deborah R. Hensler¹

The recent presidential campaign controversy about the state of the civil justice system provides an incentive for revisiting the question of how to properly characterize the tort litigation system. How many tort cases are there? What is the aggregate rate of growth in tort filings? How different or alike are filing patterns, trial outcomes, and costs for different types of torts? A review of the available data suggests that the liability system is continuing to grow, but that the patterns of growth are far more complex and more difficult to explain than was suggested in the recent presidential campaign. New data support the idea that the tort liability system comprises multiple "worlds" of litigation, but raise questions about what is actually going on in each of these worlds. Current data are inadequate for answering these questions. Without a program of sustained research on litigation behavior and outcomes, we will be forced to rely on "reading the tea leaves" to assess trends in the civil justice system.

The recent presidential campaign controversy about the state of the civil justice system rekindled a debate on tort litigation that last erupted during the liability crisis of the mid-1980s. Although the earlier controversy focused on insurance affordability and availability, and the presidential campaign focused on the role of lawyers in society, concerns and

¹ Senior social scientist, Institute for Civil Justice, RAND, and visiting professor of social science in law, University of Southern California Law Center. An earlier version of this paper was presented at the annual conference of the Law and Society Association in May 1992.

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disagreements about the magnitude of civil litigation, the costs of resolving liability claims, and the outcomes of personal injury cases were central to both (see, e.g., Sanders and Joyce, 1990; Schuck, 1991; and Queenan, 1992). During both controversies, the antagonists frequently used statistics to bolster their respective positions, and controversies over statistics threatened to steal the stage from the substantive debates (Chambers, 1992; Galanter, 1992; Hensler, 1992a). These statistical debates stemmed in large part from the lack of a comprehensive series of "civil justice system indicators" akin to the demographic and economic indicators reported by the U.S. Bureau of the Census. Information about the nation's state and federal courts is incomplete and sometimes unreliable. As a result, the analyst interested in advising decision makers about the actual state of affairs in the civil justice system is forced to rely on a combination of analyses of public record data, inferences from academic research on specific aspects of civil litigation, and expert judgment. At times, one feels uncomfortably like the fortune-teller who reads tea leaves to determine the circumstances and future of her clients.

In 1987 I coauthored a research monograph that engaged in a bit of such tea-leaf reading. Reflecting on the mid-1980s tort reform debate, the monograph argued that the divergent statistics in that debate could be explained, at least in part, by real differences among different sectors of the tort liability system (Hensler et al., 1987). Rather than one "liability system," we argued, there were at least three different "worlds" of tort litigation, each characterized by different formal and informal rules of behavior, which produced different litigation patterns and outcomes. Because of these divergent trends, observers' descriptions of what was going on in the civil justice system depended on the part of the system from which their data were drawn.

The universe of tort litigation, we suggested, was quite complex. In one "world," typified by automobile personal injury litigation, both formal and informal rules of behavior were well known to the key actors, and claims processing was highly bureaucratized. Most injuries resulting in such suits were fairly modest; most lawsuits were straightforward; most awards were not very large; and filing rates, median awards, and costs were growing slowly. In short, this world was characterized by routine behavior and stability.

In a second "world," which we characterized as "high stakes" litigation typified by products liability and medical malpractice suits, formal doctrine had undergone significant change and was viewed by many actors as still in a state of flux. Moreover, attorneys—particularly those representing plaintiffs—had developed a new repertoire of skills and strategies that strengthened individual claimants' positions vis-a-vis corporations and other private and public institutions. Most of these cases were more complex than cases in the first world, often involving multiple parties and complicated technical evidence. Typical awards in such litigation were higher than awards in typical automobile accident cases, and filing rates, median awards, and transaction costs appeared to be growing more rapidly. This was a world in change in which many were still grappling with new rules and new interparty dynamics.

The third "world" we posited comprised mass tort cases, particularly claims associated with exposure to toxic substances and use of pharmaceutical products. This litigation involved thousands of claims against a single defendant or set of defendants and difficult issues of fact and law. Courts found it difficult to resolve these cases expeditiously using

traditional individualized disposition procedures. In this area, we saw real evidence of a "litigation explosion," typified by the influx of asbestos worker injury claims into the tort liability system. Aggregate payments were in billions of dollars, and transaction costs for this litigation could outstrip compensation payments. In many respects, this appeared to be a world in crisis.

Our description of filing patterns, trends in jury awards, and costs in these three "worlds" of litigation relied on state court caseload statistics published by the National Center for State Courts (NCSC), federal court statistics published by the Administrative Office of the U.S. Courts, and research on jury verdicts and costs conducted by RAND's Institute for Civil Justice. Our explanation for the differences in trends among these different sectors of the tort liability system derived in part from case studies that my colleagues at RAND and I conducted on routine and mass tort litigation (Hensler et al., 1985; Adler et al., 1983; MacCoun et al., 1988), but it was to some degree speculative.

Our characterization of the three worlds of litigation was not intended to describe every automobile injury suit, products liability suit, or mass tort claim. Court case files and jury verdict reporters demonstrate that some automobile injury cases—for example, those involving very severe injuries—are not routine, some products liability cases are not high stakes and some mass tort claims are resolved using highly routine processes. Rather, we attempted to delineate Weberian "ideal types" to call attention to and explain the trends that characterize different sectors of the liability system. Some practitioners and scholars found the device helpful; others, however, felt it paid insufficient attention to the variety of cases, parties, and outcomes that compose tort litigation (Rottman, 1990).

The recent presidential campaign controversy about the state of the civil justice system provides an incentive for revisiting the question of how to properly characterize the tort litigation system. How many tort cases are there? What is the aggregate rate of growth in tort filings? How different or alike are filing patterns, trial outcomes, and costs for different types of torts? How can we explain any differences that do exist? In short, what is going on in the civil justice system, and how well does the "three worlds" proposition hold up?

In this article, I discuss new evidence on filing trends, verdicts, and costs and consider the implications of these data for our understanding of tort litigation. I conclude that the liability system is continuing to grow, but that the patterns of growth are far more complex and difficult to explain than was suggested in the recent presidential campaign. New data support the idea that the tort liability system encompasses multiple worlds of litigation, but raise questions about what is actually going on in each of these worlds. Without a program of sustained research on litigation behavior and outcomes, we will be forced to rely on reading the tea leaves to assess trends in the civil justice system.

Civil-filing Trends

A good deal of the ongoing policy controversy over the civil justice system concerns the number of cases filed annually and the rate of change in filings in recent years. The magnitude of litigation is of interest in large part because many observers see it as an indicator of Americans' litigiousness. The most recent available court data indicate that, in 1990, about 18.6 million civil cases were filed nationwide, including 18.4 million state

court cases and about 198,000 federal cases. This amounts to about 1 civil case for every 10 adults.²

But many civil suits are filed because civil law requires that particular transactions, such as divorces, probate actions, and so forth, be processed through the courts. Thus, it seems inappropriate to view the total magnitude of civil litigation as an indicator of Americans' litigiousness.

Among civil cases, tort and contract actions may best reflect individuals' propensities to sue, because most of those cases reflect an underlying dispute that parties chose to take to court rather than resolve through some other mechanism. Complete data on tort and contract filings in state courts are not available. However, NCSC does report detailed civil caseload composition data for 24 courts. Although we do not know how representative these jurisdictions' civil caseloads are, these data provide our best basis for estimating state tort and contract filings nationwide. Extrapolating from these data, I estimate that about 920,000 torts and 1.3 million contract cases were filed in state courts of general jurisdiction in 1990.³ Another 38,000 tort suits and 43,000 contract cases were filed in the federal district courts in that year. The combined total (2.3 million) amounts to about 1 case per 77 adults in 1990. Considering tort filings alone (about 1 million) and using data from a recent RAND study of accidental injuries, I estimate that the rate of tort litigation is about 1 per 30 injured Americans.⁴ Both of these figures suggest a far lower rate of litigation than the 1 in 10 figure calculated initially.

While the recent tort litigation debate focused on sheer numbers of cases, the tort litigation critics of the mid-1980s focused on rates of change. As analysts reviewed available data for the early 1980s, we saw:

- Relatively modest annual growth in aggregate civil filings, ranging from 4 to 4-1/2 percent per year (NCSC, 1986).
- Tort cases generally growing at a rate of about 3.9 percent per year or about 3 percent per capita (Kakalik and Pace, 1986:11).

2 For state court filings, see National Center for State Courts (NCSC), *State Court Caseload Statistics: Annual Report 1990*. Unless otherwise noted, all of the federal court statistics cited in this article are derived from computations performed by RAND staff on the Federal Court Statistical Database (FCSD), produced by the Administrative Office of the U.S. Courts. The FCSD is available from the University of Michigan Inter-university Consortium. Court statistics suffer from an array of reporting problems. For a better understanding of these problems, see the NCSC's statistical report. The "1 case per every 10 adults" figure was widely publicized by President Bush's Council on Competitiveness. See "A Report from the President's Council on Competitiveness: Agenda for Civil Justice Reform in America," August 1991.

3 My extrapolation assumes that about 50 percent of all state court civil suits are filed in courts of general jurisdiction and that 10 percent of all such filings are torts, while 14 percent are contract related. The last two percentages are derived from the detailed 1990 civil caseload composition data reported by the NCSC for 24 states. According to the NCSC's annual reports of state court caseload statistics, the civil caseload has been divided about equally between limited and general jurisdictions courts over the past half-dozen years.

4 To calculate the filing rate, including both contract and tort cases, I used the adult population in 1989 (177 million) as the denominator. The RAND study found that approximately 30 million Americans, including adults and children, suffered economic loss as a result of accidental injury in 1989. Based on self-reported litigation behavior, the RAND study estimated the rate of suit as being 3 percent (Hensler et al., 1991).

Reviewing the more detailed data available for the federal district courts, we saw:

- Federal products liability cases growing at a much faster rate than other federal tort cases: 14 percent annually for products suits compared to about 2 percent annually for other torts for the period 1976-86 (Dunworth, 1988: 31).
- Substantial differences *within* the federal products liability caseload, with asbestos and pharmaceutical cases growing dramatically, compared to more modest but steady growth for other product suits (Dunworth, 1988: 36).

Although it was not known whether the federal trends were matched in state court systems, data for California indicated that tort cases not arising out of automobile accidents—which included products cases as well as professional malpractice cases—were growing at a faster rate than automobile accident litigation. Over 1976-86, automobile accident litigation in California increased about 21 percent, while nonautomobile torts increased about 74 percent (Hensler, 1986). These data suggested that, at least in some states, we might observe differences in filings growth between high stakes cases and other torts similar to those we observed in the federal courts.

What has been the rate of change in civil filings since the mid-1980s?

- Aggregate civil filings in the state courts have continued to increase at about the same rate observed at the beginning of the decade, roughly 4 percent per year through 1990 (NCSC, 1992). However, in the federal courts, aggregate civil filings decreased by about 16 percent during the same period, an average of about 3 percent per year (see Table 1).⁵ This finding is not entirely unexpected, because there has been an increase in diversity jurisdiction, from \$10,000 to \$50,000, effective May 1989. But between 1984 and 1988—i.e., *before* the jurisdiction increased—aggregate civil filings decreased by about 10 percent.
- In the 18 states for which NCSC reports detailed caseload data, tort filings rose sharply between 1984 and 1986 and then remained roughly stable through the rest of the decade. On average, tort filings rose at a rate of 4 percent annually during 1984-90 (see Table 2). In the federal courts, the average rate of increase in tort filings was about the same—approximately 3-1/2 percent annually from 1984-90.

But as was the case when we examined civil-filing data for the early 1980s, these aggregate trends mask more complex patterns of change in both state and federal tort-filing trends.

Within state courts, there were sharp differences in tort-filing trends across jurisdictions, between case types, and, within case type, by jurisdiction.

- Among the 18 states for which aggregate tort-filing data are available, some saw decreases in filings, some saw modest increases, some saw dramatic increases, and one was basically unchanged (see Table 2).
- Among the seven states for which NCSC reports a breakdown of the tort caseload (Arizona, California, Connecticut, Hawaii, Maryland, Michigan, and Texas), automobile accident filings rose at a rate of about 6 percent a year from 1985-90, while

⁵ In 1991 total federal civil filings decreased an additional 6 percent. From their peak in 1985, total civil filings have decreased about 21 percent through 1991.

Table 1
Civil Filings in Federal District Courts (in Thousands) by Case Type and Year

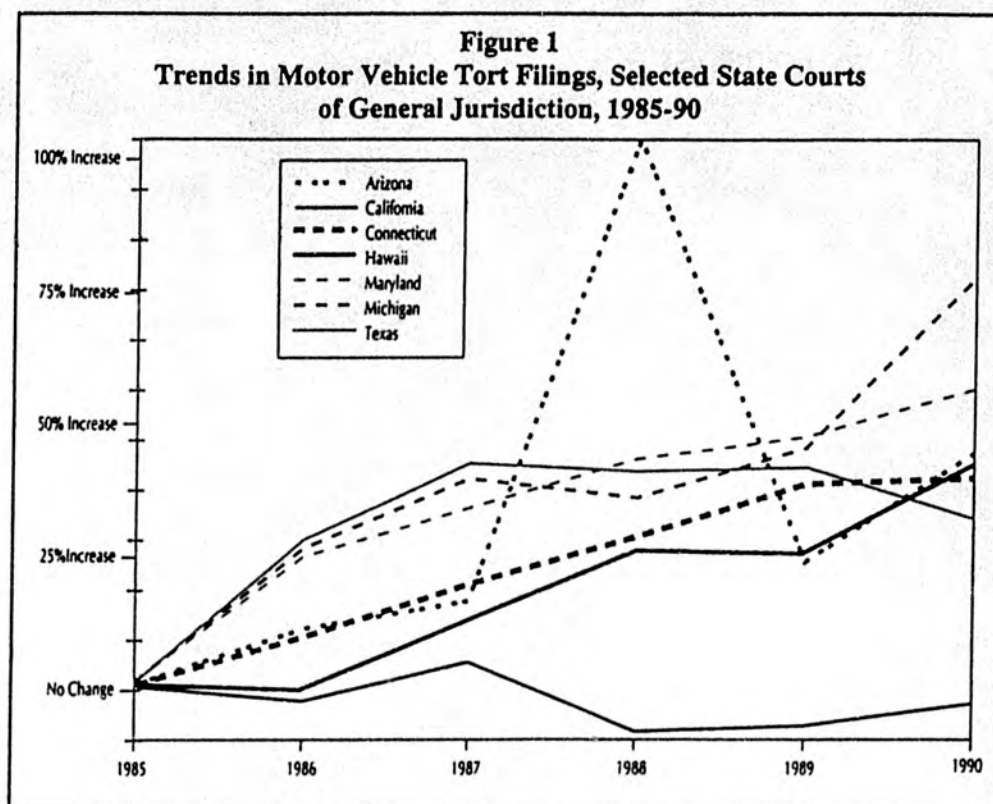
	1984	1985	1986	1987	1988	1989	1990	1991
All Civil Filings	261.7	273.5	254.5	235.2	235.4	233.9	220.2	208.0
Contracts	88.2	102.6	88.3	68.0	61.7	61.4	45.9	42.3
Property	8.7	9.6	10.2	11.0	11.6	10.7	9.1	9.3
Civil Rights	21.2	19.5	20.0	19.5	18.9	19.2	18.8	19.4
Other Statutes	105.5	99.7	93.1	93.3	98.4	97.9	99.6	99.2
Torts	38.1	42.1	42.8	43.0	44.7	44.7	46.9	37.8
Personal Injury Torts	35.4	39.4	40.1	40.5	42.2	42.3	44.8	35.6
Products Liability	9.8	12.5	12.6	14.2	16.0	15.9	21.5	12.4
Asbestos	2.9	4.3	5.6	8.2	10.8	10.8	16.6	7.1
Nonasbestos	6.9	8.2	7.0	6.0	5.2	5.1	4.9	5.3
All Other Personal Injury	25.6	26.9	27.5	26.4	26.2	26.4	23.3	23.2

Source: Federal Court Statistical Database

Table 2
Average Annual Change in Tort Filings, Selected State Courts of General Jurisdiction, 1984-90

State	Percent
Arizona	13
California	4
Colorado	14
Florida	6
Hawaii	5
Idaho	-2
Kansas	0
Maine	-2
Maryland	6
Montana	1
New Jersey	6
New York	-3
North Dakota	6
Ohio	8
Puerto Rico	12
Texas	3
Utah	12
Washington	12

Source: Calculated from data reported in Table 16, National Center for State Courts, *State Court Caseload Statistics: Annual Report 1990*. Some data are incomplete. See footnotes to Table 16.

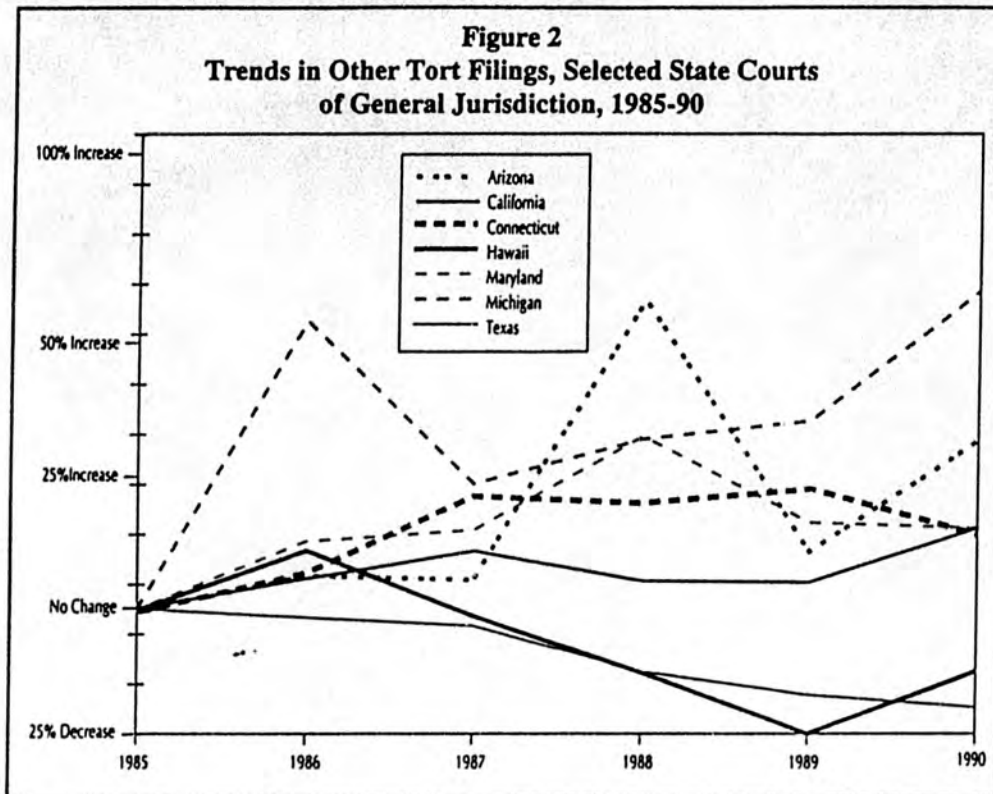


nonautomobile torts, which include medical malpractice and products liability cases, increased at a rate of only about 1 percent per year (aggregate tort filings in these states increased at a rate of about 3 percent annually).

Both trends in automobile accident filings and trends in nonautomobile torts differed by state. The former headed upward in six out of seven states, but at different rates (see Figure 1). The latter showed almost as many different patterns as there were states for analysis (see Figure 2).⁶

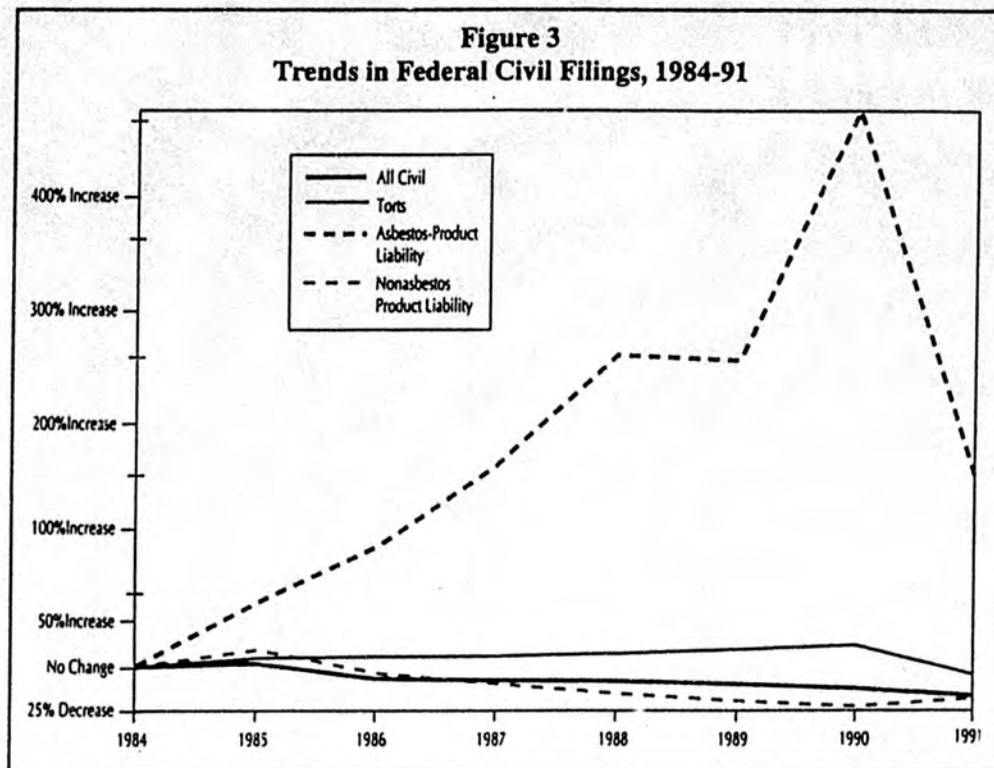
It is difficult to interpret these disparate trends—if indeed we can even characterize them as trends. Clearly, many state courts experienced tort-filings growth from the mid-

6 Calculated from a special tabulation of the tort caseload in selected states, provided by the NCSC's Court Statistics Project. I am grateful for the assistance of Brian Ostrom and Karen Way in interpreting these data. However, I am solely responsible for the calculations reported here.



1980s to the end of the decade. But which components of the system grew and by how much seemed to depend on the jurisdiction.

To some degree these differences may be explained by tort reform itself. For example, "spikes" in filings in some jurisdictions (e.g., Arizona) appear to reflect an acceleration in filing claims in anticipation of statutory changes that were expected to disadvantage plaintiffs. If tort reforms had a differential effect on different components of the tort caseload, they might also explain the differences we observe in growth rates by case type. For example, some tort reforms were directed only at medical malpractice cases, which might help to explain different growth rates for automobile accident cases and nonautomobile torts, which include medical malpractice. Other tort reforms, which as a matter of law apply to all torts, might in practice have affected only some types of cases. For example, California's limitation on joint and several liability, which applies to all torts, may have decreased lawyers' incentives to file products liability suits but had little effect on automobile accident cases, which generally do not include corporate defendants or public agencies. This could help to explain the different growth rates we observe for automobile accident cases and nonautomobile torts in that state. However, in the absence of case studies of the effects of tort reforms, these and other explanations for the changes observed will remain speculative.



When we turn to the federal district courts, we find a similarly complex set of filing trends. Here, at least, we can observe the entire universe of filings (see Table 1).

To understand the general course of federal tort filings from 1984-91 and discern the pattern of products liability filings, we need to disentangle asbestos cases from the remainder of the caseload. When we do this, we find:

- "Ordinary" tort filings (i.e., personal injury cases not involving products liability) declined slowly over the period; there were 9 percent fewer annual filings in 1991 than in 1984 (see Figure 3).
- Products liability filings not involving asbestos "spiked" in 1985; but excepting that year, they also declined, at a steeper rate than nonproduct torts. This sharp decline preceded the increase in federal diversity jurisdiction. There were 25 percent fewer nonasbestos products liability filings in 1988, the last full reporting year before the change, than in 1984.
- Asbestos products liability filings continued to explode. By 1988, asbestos litigation accounted for two-thirds of all new federal products liability filings. In 1990, this single litigation accounted for three-quarters of all new federal products liability suits. By the following year, however, new asbestos filings had sunk to about 7,000 and accounted for a mere 57 percent of the new products liability caseload (Hensler, 1992b).

What can we conclude from this review of filing trends in state and federal courts? More specifically, do the trends we observe in civil litigation from the mid-1980s to the present support the proposition that the tort liability system encompasses three separate worlds of litigation? My answer is mixed.

On the one hand, the data demonstrate quite clearly the dangers of inferring anything about litigation behavior from aggregate statistics. During the mid- to late 1980s, different types of tort cases moved to different rhythms. Aggregate statistics obscured these differences. In the federal courts, surging asbestos personal injury filings masked a remarkable decline in nonasbestos products liability filings, and both trends obscured the essentially stable (before the change in diversity jurisdiction) filing patterns for all other torts. In the state courts for which NCSC reports detailed caseload composition, aggregate filings also masked sometimes remarkable differences between automobile accident litigation and other torts.

On the other hand, the pattern of differences we observed in the late 1980s was in two respects significantly at odds with RAND's earlier characterization of the three worlds of litigation. First, federal products cases (other than asbestos), rather than continuing to increase, generally declined. State nonautomobile personal injury torts, which we thought might mimic changes in federal products liability filings, followed no discernible trend, rising and falling from year to year with no consistent pattern among the states for which we have data. Second, the world of automobile litigation, which we depicted as a tranquil backwater of the tort liability system, appeared to be in a remarkable state of flux.

With regard to the third world, our predictions were closer to the mark: asbestos litigation continued to "explode" through the late 1980s. Although some mass tort litigation reached closure as a result of collective dispositions (e.g., Bendectin and Dalkon Shield), by the beginning of the new decade, there were signs of new and potentially explosive mass tort litigation on the horizon (Frankel, 1992).

In the concluding section of this article, I consider the implications of these patterns for drawing generalizations about tort litigation from filings and outcome data. Below, I turn to the question of jury verdict trends.

Jury Verdicts

Since RAND's Institute for Civil Justice (ICJ) published its first descriptive analyses of jury verdict trends in San Francisco and Cook County, Ill.,⁷ other analysts have extended these analyses to more jurisdictions. Daniels, singly and in collaboration with Martin, has documented jury outcomes in more than 40 jurisdictions (Daniels, 1990; Daniels and Martin, 1986, 1987). Bovbjerg et al., have conducted analyses on five jurisdictions (1991).⁸

7 Perhaps no area of ICJ research has been the subject of as much controversy as its analyses of civil jury verdict outcomes. ICJ's work has been criticized for its geographical limitations, as well as for its reporting of multiple measures of central tendency, including mean jury awards. I have reviewed this controversy elsewhere (Hensler, 1988).

8 The analyses of Bovbjerg et al. relied in part on the ICJ database for San Francisco and Cook County.

Rottman has reported awards for 24 jurisdictions that make up NCSC's state court trial network (1990). Clermont and Eisenberg have analyzed judge and jury verdicts in the federal district courts (1992). Other researchers have reported on verdicts for select groups of cases (e.g., medical malpractice) in one or more jurisdictions (Vidmar, 1991; GAO, 1989).

Although some analysts have been struck by the differences between various jurisdictions for which data are available, what I find most compelling is the consistent pattern of differences between verdicts in automobile accident cases and other garden-variety torts (e.g., "slip and falls") and verdicts in malpractice and products liability cases. Although the absolute rates of plaintiff verdicts and average amounts of awards differ dramatically from jurisdiction to jurisdiction, in almost every jurisdiction for which we have data, plaintiffs are more likely to succeed in automobile accident cases than in products liability or medical malpractice cases. Average jury awards, whether reported in the form of medians or means, are significantly higher than average awards in auto cases. Bench trial verdicts in the federal district courts follow the same pattern (Clermont and Eisenberg, 1992). The variance of awards in all categories is striking.

What explains these differences? Previous ICJ analyses have suggested that juries (at least from 1960 through the 1970s) might be awarding a premium for injuries incurred in certain circumstances, and that this premium might be explained wholly or partially by a so-called deep pocket effect (Chin and Peterson, 1985). More recent analyses suggest that the explanation for differences in outcomes may be more complex. For example, using data from five jurisdictions (Florida; Kansas City, Kans.; Kansas City, Mo.; San Francisco, Calif.; and Cook County, Ill.) for 1980-85, Bovbjerg et al. (1991) found that awards for medical malpractice cases in 1980 were more than 6 times the average award for automobile accident cases, and awards for products liability cases were more than 2-1/2 times automobile verdicts. By 1985, the gap had increased, with medical malpractice awards more than 10 times the average award for automobile cases and products liability awards almost 6 times the average award for automobile cases. But multivariate analyses indicated that much of the difference between awards in malpractice and products cases was due to differences in case mix. Controlling for injury severity, economic loss (i.e., "special damages"), and various plaintiff characteristics, the ratio between medical malpractice and product cases on one hand and automobile accident cases on the other was reduced to three to one. Moreover, once the lower success rate in high stakes cases was taken into account, the ratio between the two groups was reduced even further. After these adjustments, the expected value of medical malpractice awards (i.e., the probability of a plaintiff verdict multiplied by the mean plaintiff award) was only one- and-one-half times the expected value of automobile accident awards.

Bovbjerg et al. (1991) speculate that the substantial differences we observe in absolute values of awards in different categories of cases are largely a result of "selection effects," which are themselves a consequence of plaintiffs' and plaintiff attorneys' decisions regarding whether or not to file cases and whether or not to take them to trial. Stated most simply, attorneys are less willing to take on medical malpractice and products liability cases and less willing to carry them through trial because they know that these cases are, on average, difficult to win and expensive to litigate.

Clermont and Eisenberg (1992), focusing on differences between bench and jury trial verdicts in federal cases, also find strong grounds for selection effects. Contrary to the conventional wisdom, they find that plaintiffs in products liability and medical malpractice cases are more successful when their cases are tried before judges than when they are tried before juries. (Success rates in automobile accident cases do not differ significantly between the two trial modalities.) They argue that misperceptions of jury and judge biases may lead plaintiff attorneys to try only their strongest malpractice and product cases to judges (e.g., cases where liability is clear). According to this scenario, plaintiff attorneys lose many malpractice and products cases not because juries are biased against physicians or because corporate defense lawyers outspend plaintiff attorneys but rather because the juries are seeing the weaker of the plaintiffs' cases (in terms of liability).

The likelihood of selection effects obviously makes interpretation of jury verdict patterns enormously difficult. But these recent investigations of selectivity bias also have interesting implications for our understanding of different types of tort litigation, which I return to in a later section of this paper.

As with the controversy over filings, much of the policy controversy about jury awards has focused on rates of change (Hensler, 1988). But most of the recent studies rely on cross-sectional data. Clermont and Eisenberg present data indicating that mean jury awards in federal products liability cases increased substantially from the late 1970s through 1985, only to decrease significantly in 1986 and 1987. Mean bench trial awards in federal products cases showed the same pattern, lagging by about a year (1992: Figure 3). But because the numbers of cases actually reaching a verdict is quite small and the variance in award amounts is quite large, I hesitate to infer any sort of underlying trend from these year-to-year changes. Jacobson (1989: 3322) presents data on mean payments for medical malpractice claims (including settled and litigated claims) for a longer period, 1975 through 1988. These data show average claim payments continuing to rise through the period, despite a decrease or leveling out of claim frequency. But Jacobson's data do not distinguish cases tried to verdict, which account for only a small percentage of all paid claims. In sum, there are currently insufficient data to support an analysis of trends in jury awards by case type for the mid- through late 1980s.⁹

Costs

Early ICJ analyses found that transaction costs of plaintiffs and defendants (i.e., legal fees and expenses and claims-processing costs) account for about half of all dollars paid to resolve tort litigation. Transaction cost ratios were higher for high stakes cases, such as medical malpractice suits, than for routine automobile accident litigation. They were highest of all for mass toxic litigation, amounting to about 60 percent of all money paid in asbestos litigation through the early 1980s (Hensler, 1987). More recent analyses appear

⁹ ICJ is extending its time-series data for California counties and for Cook County, Ill., through 1990. The updated database will also include outcomes for more courts in more geographical regions. The first results of this effort should be available by mid-1993.

to confirm these earlier studies. Bovbjerg et al. present data on trends in "loss adjustment expenses" from 1980-85. They found sharp differences in these expenses, expressed as a percentage of total insurer expenses, for malpractice and automobile accident cases, with expenses for malpractice cases ranging from 23 to 26 percent of total expense and expenses for automobile passenger liability ranging from 13 to 15 percent through the period (Bovbjerg et al., 1991: 28). Carroll and Kakalik found that transaction costs for automobile injury claims for plaintiffs and defendants accounted for about 33 percent of the total dollars paid out in the mid-1980s to resolve claims (including claims filed and settled before suits) (1992: 10). Recent commentary on asbestos litigation suggests that transaction costs have continued to account for substantially more than half the total amount paid out to resolve asbestos cases (*In re Joint E. & S. Dist. Asbestos Litig., Findley v. Blinken*, 129 B.R. 710, 749). In sum, available data continue to indicate that there are sharp differences in the costs of resolving injury claims in different areas of litigation.

The Changing Worlds of Tort Litigation

The available data on tort-litigation-filing trends, jury verdicts, and costs over the past half-dozen years or so appear to support the basic proposition that the tort liability system comprises multiple worlds of litigation. The converse notion—that tort liability cases might be all of a piece—strikes me as a distinctly legal concept at odds with most of what we know about human behavior. It is also at odds with what we are beginning to learn about injuries and individual behavior in making legal claims.

The types of injuries that individuals suffer, and the kinds of individuals who are particularly subject to these injuries, differ significantly across circumstances. For example, automobile accidents are more likely to produce serious injuries, and more likely to involve lower-income individuals, than product-associated accidents and slips and falls. Product-associated injuries are more likely than auto accidents or slips and falls to involve middle-aged males in the prime of their income-producing years (Hensler et al., 1991). Moreover, in the United States, the types and amounts of financial compensation and support available to individuals differ significantly depending on the circumstances of the injury. For example, on-the-job-injuries—which account for about 20 percent of injury incidents—usually confer eligibility for workers' compensation and create an obstacle to securing tort compensation. Individuals' reactions to accidental injury—in particular, attributions of causation and blame—also differ with the circumstances of injury. For example, most Americans blame their automobile accident injuries on other individuals (usually some other driver), while a majority of those injured in nonautomobile accidents and nonwork circumstances blame themselves or chance. Consistent with this pattern of "naming and blaming," those injured in automobile accidents are far more likely to seek tort liability compensation and legal representation than those injured in other accidents (Hensler et al., 1991: 127).¹⁰ Only in legal dockets and civil procedure are all torts created equally, and even here the fiction has begun to wear very thin.

¹⁰ This pattern holds even when we control for injury severity.

How many worlds of tort litigation there are is to my mind a more problematic issue. In part, this is simply an issue of how finely to slice the loaf of bread. There are, as other analysts have pointed out and injury data demonstrate, minor automobile accidents and those that cause very serious—even fatal—injuries. Asbestos lawsuits differ in many ways from other mass tort lawsuits such as those involving IUDs and breast implants; they also differ among each other. Formal legal rules that have important implications for access to the courts and availability of damages differ across jurisdictions; differences in local legal culture influence informal legal practices, which may, in turn, affect disposition patterns; and juries in different parts of the country apparently view defendants and plaintiffs differently. And, of course, no two cases are ever exactly alike.

As social scientists, however, one of our objectives is to try to discern the systematic patterns that underlie the vast diversity of social behavior. The important question, then, is whether the three worlds proposition helps discern these underlying patterns. In the main, I think that it does. Although the three categories of litigation—routine, high stakes, and mass torts—have evolved somewhat differently than I would have predicted five years ago, they still seem to me to be following different trajectories. I would now give more credit to certain differences within each area of litigation—for example, the differences in doctrinal development between medical malpractice and products liability noted by Gary Schwartz (1991)—but I find the similarities in claiming behavior between individuals injured during medical treatment or while using a product quite striking. In both groups, less than 10 percent attempt to assert legal claims, compared to 50 percent of those injured in motor vehicle accidents (Harvard, 1990; Hensler et al., 1991: 121). These findings indicate important differences in the way individuals view these events. Moreover, new analyses of selection effects on the distribution of jury awards for different categories of torts seem to support the notion that lawyers who specialize in each of the three worlds of litigation adopt quite different litigation strategies.

There are, however, three areas in which I think the characterization of the three worlds was deficient. First, we failed to note the important effects that changes in the legal and political environment may have on litigation behavior and outcomes. Legislated tort reforms, changes in case law, and the widespread belief in a litigation explosion may all have affected filing rates and jury verdicts in the mid- to late 1980s (Blackmon and Zeckhauser, 1991; Henderson and Eisenberg, 1990). At the very least, these exogenous shocks to the litigation system can obscure more systematic underlying trends in legal behavior; they may even fulfill their proponents' hopes of significantly changing that underlying behavior.

Second, we gave insufficient attention to the powerful effect lawyer and claimant behavior has on the distribution of jury awards. Although I am not ready to reject the hypothesis that juries respond differently to different types of injury circumstances, plaintiffs, and defendants, inferring jury attitudes from patterns of jury awards that have not been adjusted for selection effects is clearly problematic.¹¹

11 Imagine, for example, the following scenario: As a result of the increase in federal diversity jurisdiction, product liability suits with probable damages of less than \$50,000 are diverted from the federal courts. Moreover, as a result of lawyers' perceiving that it has become more difficult to obtain plaintiff verdicts and to win substantial

Third, we were distracted by the surge in products liability filings in the late 1970s and early 1980s from considering the import of the more modest but steady increase in automobile accident litigation. With an annual growth rate of 4 percent (the rate we observed with available data in the early 1980s) automobile litigation will increase by 50 percent within 10 years; at an annual growth rate of 6 percent (the rate we observed with available data in the mid- to late 1980s) it will increase by that much within 7 years and double within 12 years.¹²

This growth in automobile litigation (assuming that there is, indeed, growth nationwide) does not constitute an "explosion." I would prefer to reserve that term for a sudden surge of cases in the courts, as we have observed with asbestos litigation and may yet observe with silicone breast implant or lead exposure litigation. But it does deserve our attention as sociolegal scholars. RAND's study of injury compensation and claiming suggests that levels of blaming in automobile accident cases are already quite high. However, about half of those injured actually initiate a legal claim and only a quarter contact an attorney to discuss seeking compensation (Hensler, et al., 1991).¹³ Increasing automobile accident litigation may indicate that knowledge about and willingness to file legal claims to obtain compensation is indeed growing within the pool of potential claimants.

Afterword

It is sobering to realize that despite all of the attention that tort liability trends have received in recent years (whenever before has the presidential state-of-the-union address included a call for tort reform?!) we have so little data to tell us what is really going on in the tort litigation system. Despite the continued good efforts of NCSC and state court administrators around the country, we cannot even determine with a good degree of assurance how many tort cases are filed each year nationwide, much less how they are disposed. We do not know how many products liability cases there are in the nation's courts, nor whether such cases

damages (e.g., as a result of changes in composition of the federal judiciary, tort reform, etc.), plaintiff lawyers take fewer—but stronger—products liability cases and file only cases with very large losses in the federal courts. In addition, with the stakes higher, lawyers become more accurate in their estimates of expected values. As a result, analysts observe decreases in federal products liability filings—along with increases in average jury awards. In addition, perhaps, the variance in award amounts decreases. Ignorant of the underlying behavioral shifts, observers conclude that federal civil juries have become even more generous to plaintiffs and more rigid in their damage assessment.

12 In a recent article, Michael Saks has quite appropriately reminded us that we need to consider the denominator, the number of automobile accidents, in assessing changes in automobile personal injury litigation. From 1980 through 1990, the number of traffic fatalities decreased by about 10 percent nationwide (reflecting improvements in automotive and highway safety) while the number of nonfatal automobile-related injuries increased by about 35 percent (reflecting increases in the numbers of licensed drivers and registered motor vehicles). But in each of the seven states for which I have calculated changes in automobile accident suits, the rate of increase in litigation from 1985-1990 substantially outpaced the rate of increase in nonfatal injuries. Blincoc and Faigin (1992: III-15) report data from the Federal Highway Administration State Injury Reports.

13 Among the more seriously injured, and where injuries occurred in circumstances directly involving another person (e.g., multi-vehicle accidents), rates of claiming are much higher. Perhaps as many as 70 percent consult lawyers (Hensler and Marquis, 1991).

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are growing or decreasing in number. We do not know how many asbestos cases are pending nationwide.

But when, if ever, we are able to compile such statistics, we will still be a long way from understanding the tort liability system, for that system includes the behaviors of myriad claimants, defendants, attorneys, judges, and juries. Until we understand more about their behavior, we will continue to be reduced to reading the litigation tea leaves—a frustrating intellectual endeavor and an inadequate basis for setting legal policy. jsj

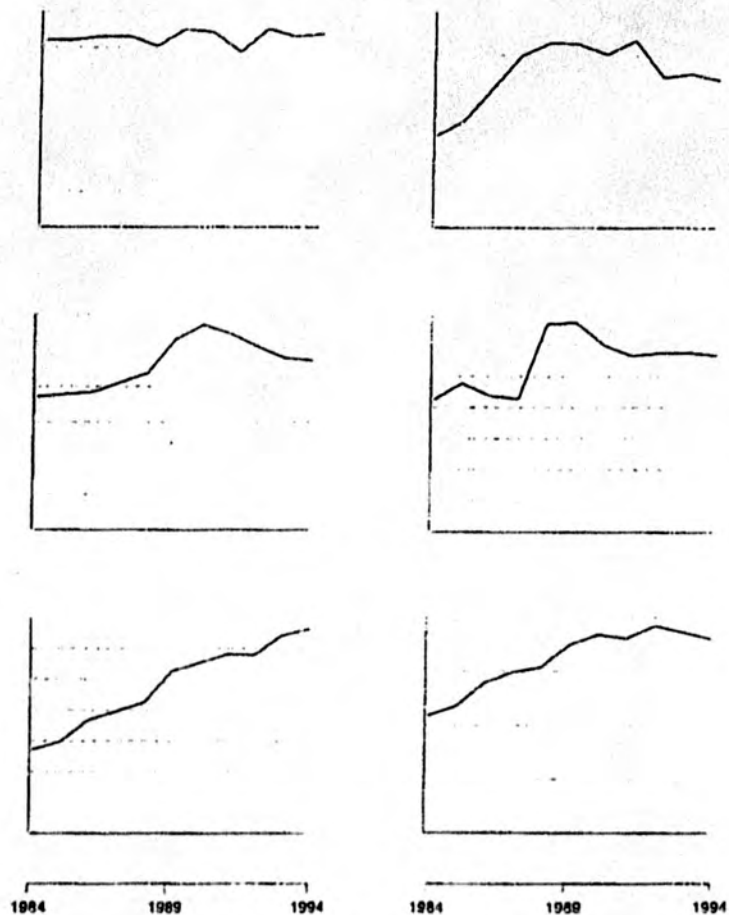
ATTACHMENT D

***Examining the Work of State Courts, 1994: A National Perspective from the Court
Statistics Project (NCSC, 1995), pp 7-9 and 30-31.***

Examining the Work of State Courts, 1994

A National Perspective from the Court Statistics Project

Merging State Court Data with Other Justice System Measures



Executive Summary

The state courts are the primary institution for adjudicating disputes in the United States. Understanding the business of the state courts requires compiling data and information from over 16,000 state trial courts operating in the 50 states, the District of Columbia, and Puerto Rico. A central role of the Court Statistics Project (CSP) is to translate diverse state court caseload statistics into a common framework in order to identify and analyze national trends in court activities. This year, we have incorporated data from a variety of other sources to help place the work of state courts within the context of the entire justice system. Unless otherwise noted on the data displays, all information comes from the CSP national databases. Some of the principal findings to emerge include:

- ◆ 87 million new cases were filed in state courts in 1994. The total includes 19 million civil and domestic relations cases, nearly 14 million criminal cases, and close to 2 million juvenile cases. The remaining caseload consists of approximately 52 million traffic and ordinance violations.
- ◆ State courts of general jurisdiction handled 90 times as many criminal and 26 times as many civil cases as the U.S. District Courts with only 14 times as many judges.
- ◆ Growth continued to characterize the more serious segments of state court caseloads. Between 1984 and 1994, civil caseloads rose 24 percent, criminal caseloads rose 35 percent, juvenile caseloads rose 59 percent, and domestic relations caseloads rose 65 percent. In contrast, the U.S. population increased roughly 10 percent over the same time period.
- ◆ Traffic caseloads were the one area of decline—dropping 23 percent between 1990 and 1994. Increasingly, less serious traffic cases are being decriminalized or transferred to an executive branch agency.
- ◆ Many general jurisdiction courts failed to keep pace with the flow of civil and criminal cases over the past three years. Courts must, by state statutes, give criminal caseloads priority. To meet this requirement, courts sometimes shift resources from the civil side to the criminal side; therefore, maintaining high criminal clearance rates is necessary to ensure timely civil case dispositions as well.
- ◆ With tort reform brewing in the U.S. Congress and many state legislatures, civil justice issues remain front-page news. Although torts are currently center stage in the civil litigation debate, there is no evidence that the number of tort cases is increasing. In fact, the volume of tort litigation has declined steadily since 1990.

- ◆ About 815,000 tort cases were filed in state courts of general jurisdiction in 1994. Most are automobile accident torts (60 percent) and premises liability (17 percent); high-profile cases such as medical malpractice and products liability account for only 10 percent of all tort claims. The typical tort case is resolved within 14 months of filing.
- ◆ Of the less than 3 percent of tort cases that are resolved by jury trial, plaintiffs won 49 percent of the time and received a median award of \$51,000. Million dollar awards occurred in 8 percent of jury trials won by plaintiffs.
- ◆ Juries awarded punitive damages in 4 percent of tort cases in which the defendant was found liable. The median punitive damage award was \$38,000; the mean award, \$590,000.
- ◆ The most rapid growth in domestic relations cases occurred in the area of domestic violence, with filings increasing over 83 percent since 1989. For the period 1992 to 1994, domestic violence filings increased in all but one of the 32 states reporting such information.
- ◆ The majority (64 percent) of juvenile filings involved an allegation of delinquent behavior. While the majority of delinquency cases involved property offenses, the fastest growth is occurring in crimes against the person.
- ◆ 11,700 juveniles were transferred to adult court in 1992, representing less than 1 percent of the juvenile court dispositions. The rate of transfers has, however, been increasing slowly but steadily since 1986.
- ◆ There is a close parallel between the trend in arrests and criminal filings in the state courts. Growth in total criminal caseloads has slowed in recent years, as total arrests declined between 1989 and 1993. With arrests back up in 1994, state courts will likely experience an upsurge in criminal filings in the coming year.
- ◆ The number of DWI filings in state courts has dropped 11 percent since 1985, and dropped to its lowest level in 1994. Decreases have also been observed in the number of people arrested for DWI offenses and in the number of alcohol-related traffic fatalities.

- ◆ Changes in felony filing rates are closely watched because serious crime is never far from the public's number one concern. The number of felony filings has increased 70 percent since 1984. At the same time, arrests for serious crimes (offenses involving violent, property, or drug crime) are also up. Most notable is the doubling in the number of persons arrested for drug offenses since 1982.
- ◆ State courts reported close to 900,000 convictions for felonies in 1992 (the latest year for which this information is available). There were more convictions for drug trafficking than for any other single offense category.
- ◆ From 1983 to 1992, state court prison commitments increased 27 percent for property offenders, 56 percent for violent offenders, and 560 percent for drug offenders. Roughly 300,000 persons received prison sentences in 1992. On average, offenders served 38 percent of their court-imposed sentence.
- ◆ A record 263,000 appeals were filed in the state appellate courts in 1994. Ten states (California, Florida, New York, Texas, Pennsylvania, Michigan, Ohio, Louisiana, Illinois, and New Jersey) account for a sizable majority (61 percent) of the nation's appellate filings.
- ◆ Many appellate courts continued to have difficulties in keeping up with the steady inflow of cases. Half of the intermediate appellate courts were unable to clear their dockets completely by resolving as many cases as were filed each year.

These numbers illustrate the magnitude of state trial and appellate court activity and reinforce that it is at the state and local level that notions of law and justice are given meaning to most people. State courts are where most individuals have their first, and perhaps only, interaction with the judicial system.

Tort Caseloads in State Trial Courts

The Volume of Tort Litigation in the State Courts

With tort reform legislation pending in the U.S. Congress and in many state legislatures, civil justice is very much in the news. Issues that involve civil justice can be more contentious and conspicuous than those associated with criminal justice. Proposed legislation at the federal and individual state levels would change the ground rules for filing and pursuing tort claims in the courts. Related proposals would revamp the role of the civil jury and expand the use of alternative dispute resolution in deciding tort, contract, and real property disputes. Combined, these endeavors offer the prospect for a greatly altered system of civil justice by the century's close.

Arriving at a policy consensus in civil justice may, in fact, prove more difficult than in criminal justice. While few would argue over the goal of reducing crime, the objective of reducing the volume of civil litigation or redirecting civil disputes away from the courts may not garner consensus from judges, plaintiffs' attorneys, the civil defense bar, or citizens' groups.

Although torts currently are at center stage in the civil litigation debate, national totals on the number and type of tort filings are not compiled in a comprehensive fashion. Accurate national estimates, however, can be made by extrapolating the data gathered in the Civil Trial Court Network (CTCN).

Estimates of Total Tort Cases Filed and Total Jury Trials Held in State Courts of General Jurisdiction, 1992

Case Type	Tort Filings	Percent of Caseload	Jury Trials	Jury Trial Rate
All Torts	815,225	100%	20,046	2.5%
Automobile	490,508	60	8,339	1.7
Premises Liability	141,204	17	4,942	3.5
* Medical Malpractice	39,735	5	2,702	6.8
Intentional	23,499	3	634	2.7
Product Liability	27,568	3	717	2.6
Toxic Substance	13,057	2	522	4.0
Professional Malpractice	14,746	2	472	3.2
Slander/Libel	6,823	1	150	2.2
Other Torts	58,085	7	1,568	2.7

*Jury trials include cases settled after a jury trial verdict and cases concluded by a directed verdict.
Source: Civil Trial Court Network (CTCN), National Center for State Courts, sponsored by the U.S. Department of Justice, Bureau of Justice Statistics.

The CTCN, maintained by the NCSC and representing litigation in the largest 75 counties, is the most ambitious investigation to date of civil justice in America. Taking into account differences in litigation rates across the country, the adjacent table shows estimates of total tort filings and total cases disposed by jury trial in state courts in 1992. Thus, while there were close to 20 million total civil cases (including domestic relations cases) filed in the state courts in 1992, less than 5 percent were tort cases filed in general jurisdiction courts. Examining the tip of the litigation pyramid shows that approximately 20,000 tort jury trials were held in 1992.

Naturally, tort cases vary in their complexity and seriousness. Tort case categories offer a broad indication of the potential economic stakes and legal complexity involved. In medical malpractice and product liability cases, for example, the stakes are often high regarding potential damages and harm to the reputation of a physician, hospital, or business if a jury finds negligence by the defendant. These tort cases also are likely to involve the most difficult legal issues (e.g., proof of negligence, causation of harm) and the presentation of scientific evidence. High-profile medical malpractice cases and product liability cases (including toxic substance cases like asbestos) account for 10 percent of all tort claims. Auto accident cases dominate tort filings (60 percent of all torts), and claims for injuries sustained due to the alleged dangerous condition of residential or commercial property (premises liability cases, often referred to as "slip-and-fall" cases) comprise the second most common tort (17 percent). These two categories (auto and premises liability cases) account for more than three-quarters of all torts in urban state courts.

ATTACHMENT E

Public Law 103-298, the General Aviation Revitalization Act of 1994 (GARA).

S. 1458

PUBLIC LAW 103-298**One Hundred Third Congress
of the
United States of America****AT THE SECOND SESSION**

*Begun and held at the City of Washington on Tuesday,
the twenty-fifth day of January, one thousand nine hundred and ninety-four*

An Act

To amend the Federal Aviation Act of 1958 to establish time limitations on certain civil actions against aircraft manufacturers, and for other purposes.

*Be it enacted by the Senate and House of Representatives of
the United States of America in Congress assembled,*

SECTION 1. SHORT TITLE.

This Act may be cited as the "General Aviation Revitalization Act of 1994".

SEC. 2. TIME LIMITATIONS ON CIVIL ACTIONS AGAINST AIRCRAFT MANUFACTURERS.

(a) **IN GENERAL.**—Except as provided in subsection (b), no civil action for damages for death or injury to persons or damage to property arising out of an accident involving a general aviation aircraft may be brought against the manufacturer of the aircraft or the manufacturer of any new component, system, subassembly, or other part of the aircraft, in its capacity as a manufacturer if the accident occurred—

(1) after the applicable limitation period beginning on—

(A) the date of delivery of the aircraft to its first purchaser or lessee, if delivered directly from the manufacturer; or

(B) the date of first delivery of the aircraft to a person engaged in the business of selling or leasing such aircraft; or

(2) with respect to any new component, system, subassembly, or other part which replaced another component, system, subassembly, or other part originally in, or which was added to, the aircraft, and which is alleged to have caused such death, injury, or damage, after the applicable limitation period beginning on the date of completion of the replacement or addition.

(b) **EXCEPTIONS.**—Subsection (a) does not apply—

(1) if the claimant pleads with specificity the facts necessary to prove, and proves, that the manufacturer with respect to a type certificate or airworthiness certificate for, or obligations with respect to continuing airworthiness of, an aircraft or a component, system, subassembly, or other part of an aircraft knowingly misrepresented to the Federal Aviation Admin-

S. 1458-2

istration, or concealed or withheld from the Federal Aviation Administration, required information that is material and relevant to the performance or the maintenance or operation of such aircraft, or the component, system, subassembly, or other part, that is causally related to the harm which the claimant allegedly suffered;

(2) if the person for whose injury or death the claim is being made is a passenger for purposes of receiving treatment for a medical or other emergency;

(3) if the person for whose injury or death the claim is being made was not aboard the aircraft at the time of the accident; or

(4) to an action brought under a written warranty enforceable under law but for the operation of this Act.

(c) **GENERAL AVIATION AIRCRAFT DEFINED.**—For the purposes of this Act, the term "general aviation aircraft" means any aircraft for which a type certificate or an airworthiness certificate has been issued by the Administrator of the Federal Aviation Administration, which, at the time such certificate was originally issued, had a maximum seating capacity of fewer than 20 passengers, and which was not, at the time of the accident, engaged in scheduled passenger-carrying operations as defined under regulations in effect under the Federal Aviation Act of 1958 (49 U.S.C. App. 1301 et seq.) at the time of the accident.

(d) **RELATIONSHIP TO OTHER LAWS.**—This section supersedes any State law to the extent that such law permits a civil action described in subsection (a) to be brought after the applicable limitation period for such civil action established by subsection (a).

SEC. 2. OTHER DEFINITIONS.

For purposes of this Act—

(1) the term "aircraft" has the meaning given such term in section 101(5) of the Federal Aviation Act of 1958 (49 U.S.C. 1301(5));

(2) the term "airworthiness certificate" means an airworthiness certificate issued under section 603(c) of the Federal Aviation Act of 1958 (49 U.S.C. 1423(c)) or under any predecessor Federal statute;

(3) the term "limitation period" means 18 years with respect to general aviation aircraft and the components, systems, subassemblies, and other parts of such aircraft; and

(4) the term "type certificate" means a type certificate issued under section 603(a) of the Federal Aviation Act of 1958 (49 U.S.C. 1423(a)) or under any predecessor Federal statute.

S. 1458-3

SEC. 4. EFFECTIVE DATE; APPLICATION OF ACT.

(a) **EFFECTIVE DATE.**—Except as provided in subsection (b), this Act shall take effect on the date of the enactment of this Act.

(b) **APPLICATION OF ACT.**—This Act shall not apply with respect to civil actions commenced before the date of the enactment of this Act.

Thomas S. Foley
Speaker of the House of Representatives.

Robert L. Byrd
Vice President of the United States and
President of the Senate *pro tempore*.

APPROVED

AUG 17 1994

William Jefferson Clinton

ATTACHMENT F

***General Aviation Statistical Databook, 1996* (Washington, D. C.: General Aviation Manufacturers Association, 1997).**



1996

GENERAL AVIATION

**Statistical
Databook**



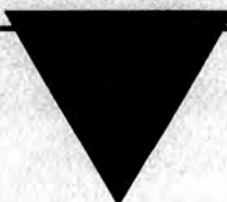
General Aviation Manufacturers Association

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FOREWORD

The **GENERAL AVIATION STATISTICAL DATABOOK** has become a useful tool to those examining our industry. In order to provide the most current statistics on General Aviation, the General Aviation Manufacturers Association (GAMA) publishes the **DATABOOK**, as soon as possible, after data from the FAA's annual General Aviation and Air Taxi Activity and Avionics Survey and Forecasts Book are available.

A new addition to the **DATABOOK** includes a new chart in the shipment section containing imported aircraft & billings data.

GENERAL AVIATION MANUFACTURERS ASSOCIATION

GAMA is a national trade association proudly representing 52 American manufacturers of fixed wing general aviation aircraft, engines, avionics, and components. GAMA member companies also operate aircraft fleets, airport fixed-based operation, pilot schools and training facilities across the nation.

Headquartered in Washington, DC, GAMA represents the interests of its members before the United States Congress, the Department of Transportation, the Federal Aviation Administration, and other federal and state government agencies directly concerned with the air transportation system. It also maintains close working relationships with other associations representing various facets of the aviation community. Through its public information and education programs, GAMA promotes better understanding of the air transportation environment and the important role General Aviation plays in the national economy and serving America's transportation needs.

We hope you will keep your **DATABOOK** handy as a quick reference for all your questions on General Aviation.

For more information on General Aviation, chartering or buying an aircraft, learning to fly, or joining one of the many aviation organizations serving the community, call or write the GAMA communications office. We are happy to assist you.



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General Aviation Aircraft Shipment Statistics



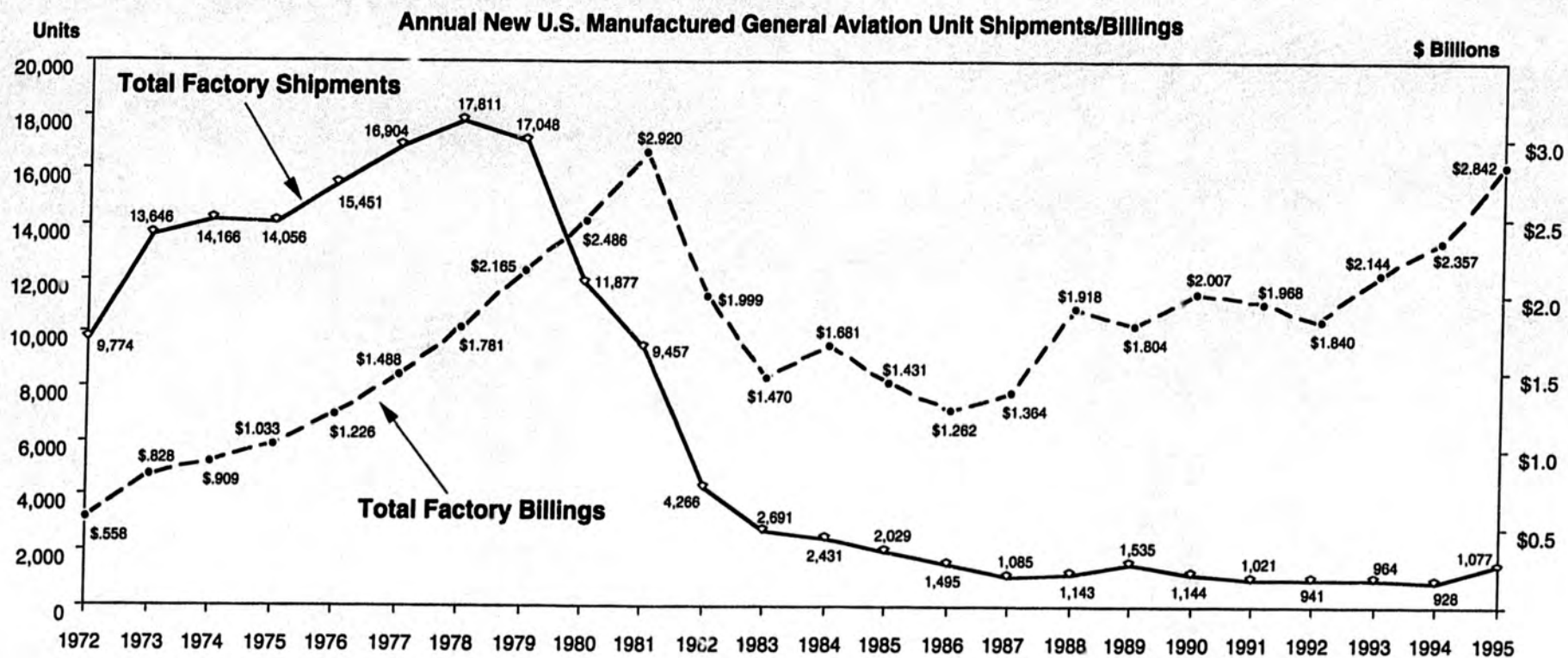


SHIPMENTS

Annual Shipments of New U.S. Manufactured General Aviation Aircraft By Units Shipped,
Number of Companies Reporting, and Factory Net Billings

Year	Units Shipped	Companies Reporting	Factory Net Billings (Millions)
1946	35,000	—	\$ 110.0
1947	15,594	15	57.9
1948	7,037	12	32.4
1949	3,405	11	17.7
1950	3,386	13	19.1
1951	2,302	12	16.8
1952	3,058	8	26.8
1953	3,788	7	34.4
1954	3,071	7	43.4
1955	4,434	7	68.2
1956	6,738	8	103.7
1957	6,118	9	99.6
1958	6,414	10	101.9
1959	7,689	9	129.8
1960	7,588	8	151.2
1961	6,778	8	124.3
1962	6,697	7	136.8
1963	7,569	7	153.4
1964	9,336	8	198.8
1965	11,852	8	318.2
1966	15,768	10	444.9
1967	13,577	14	359.6
1968	13,698	14	425.7
1969	12,457	14	584.5
1970	7,292	13	337.0
1971	7,466	11	321.5
1972	9,774	12	557.6
1973	13,646	12	828.1
1974	14,166	12	909.4
1975	14,056	12	1,032.9
1976	15,451	12	1,225.5
1977	16,904	12	1,488.1
1978	17,811	12	1,781.2
1979	17,048	12	2,165.0
1980	11,877	12	2,486.2
1981	9,457	12	2,919.9
1982	4,266	11	1,999.5
1983	2,691	10	1,469.5
1984	2,431	9	1,680.7
1985	2,029	9	1,430.6
1986	1,495	9	1,261.9
1987	1,085	9	1,363.5
1988	1,143	9	1,918.4
1989	1,535	11	1,803.9
1990	1,144	14	2,007.5
1991	1,021	14	1,968.3
1992	941	16	1,839.6
1993	964	16	2,143.8
1994	928	13	2,357.1
1995	1,077	13	2,841.9

Source: GAMA



Source: GAMA

...AND BILLINGS



SHIPMENTS BY TYPE

Annual New U.S. Manufactured General Aviation Aircraft Shipments By Type of Aircraft

Year	Total	Single-Engine	Multi-Engine	Total Piston	Turboprop	Jet	Total Turbine
1962	6,697	5,690	1,007	6,697	0	0	0
1963	7,569	6,248	1,321	7,569	0	0	0
1964	9,336	7,718	1,606	9,324	9	3	12
1965	11,852	9,873	1,780	11,653	87	112	199
1966	15,768	13,250	2,192	15,442	165	161	326
1967	13,577	11,557	1,773	13,330	149	98	247
1968	13,698	11,398	1,959	13,357	248	93	341
1969	12,457	10,054	2,078	12,132	214	111	325
1970	7,292	5,942	1,159	7,101	135	56	191
1971	7,466	6,287	1,043	7,330	89	47	136
1972	9,774	7,913	1,548	9,446	179	134	313
1973	13,646	10,788	2,413	13,193	247	198	445
1974	14,166	11,579	2,135	13,697	250	202	452
1975	14,056	11,441	2,116	13,555	305	194	499
1976	15,451	12,785	2,120	14,905	359	187	546
1977	16,904	14,054	2,195	16,249	428	227	655
1978	17,811	14,398	2,634	17,032	548	231	779
1979	17,048	13,286	2,843	16,129	639	282	921
1980	11,877	9,640	2,116	10,756	778	326	1,104
1981	9,457	6,608	1,542	8,150	918	389	1,307
1982	4,266	2,871	678	3,549	458	259	717
1983	2,691	1,811	417	2,228	321	142	463
1984	2,431	1,620	371	1,991	271	169	440
1985	2,029	1,370	193	1,563	321	145	466
1986	1,495	985	138	1,123	250	122	372
1987	1,085	613	87	700	263	122	385
1988	1,143	628	67	695	291	157	448
1989	1,535	1,023	87	1,110	268	157	425
1990	1,144	608	87	695	281	168	449
1991	1,021	564	49	613	222	186	408
1992	941	552	41	593	177	171	348
1993	964	516	39	555	211	198	409
1994	928	444	55	499	207	222	429
1995	1,077	515	61	576	255	246	501

Source: GAMA

Estimated Value of Annual New U.S. Manufactured General Aviation Aircraft Shipments
By Type of Aircraft (In Millions)

Year	Single-Engine	Multi-Engine	Total Piston	Turboprop	Jet	Total Turbine
1975	\$ 290	\$ 280	\$ 570	\$ 180	\$ 231	\$ 461
1976	376	320	696	238	293	531
1977	473	390	863	296	329	625
1978	516	493	1,009	394	378	772
1979	523	555	1,078	548	540	1,088
1980	391	403	794	875	816	1,691
1981	327	348	675	1,120	1,125	2,245
1982	200	220	420	590	990	1,580
1983	145	115	260	460	750	1,210
1984	147	133	280	436	966	1,402
1985	126	68	194	524	713	1,237
1986	80	43	123	430	709	1,139
1987	80	18	98	477	789	1,266
1988	66	12	78	596	1,242	1,838
1989	104	24	128	524	1,149	1,673
1990	68	24	92	644	1,272	1,916
1991	*	*	93	527	1,348	1,875
1992	*	*	96	460	1,284	1,744
1993	*	*	76	595	1,473	2,068
1994	*	*	94	595	1,681	2,276
1995	*	*	123	653	2,066	2,719

*Multi-Engine combined with Single-Engine Piston

Source: GAMA

SHIPMENTS BY YEAR AND BY QUARTER



U.S. Manufactured General Aviation Aircraft Shipments By Year and Quarter

YEAR	QUARTER I	QUARTER II	QUARTER III	QUARTER IV
1962	1,782	1,744	1,329	1,842
1963	1,806	2,000	1,625	2,138
1964	2,156	2,503	1,934	2,743
1965	2,642	3,008	2,859	3,343
1966*	3,855	4,266	3,881	3,585
1967*	3,392	3,480	2,801	3,811
1968*	3,661	3,545	3,282	3,068
1969*	3,297	3,592	2,825	2,693
1970*	1,929	2,099	1,749	1,500
1971*	1,771	1,902	1,903	1,770
1972	2,157	2,564	2,417	2,636
1973	3,246	3,555	3,442	3,403
1974	3,493	3,576	3,488	3,609
1975	3,777	3,562	3,291	3,426
1976	3,949	4,159	3,479	3,864
1977	4,124	4,513	3,985	4,282
1978	4,176	4,621	4,672	4,342
1979	4,259	4,602	4,426	3,761
1980	3,512	2,756	2,796	2,813
1981	2,389	2,631	2,529	1,908
1982	1,390	1,126	890	860
1983	659	709	717	606
1984	523	563	681	664
1985	455	519	581	474
1986	285	364	393	453
1987	227	330	239	289
1988	260	291	252	340
1989	304	361	425	445
1990	269	294	274	297
1991	250	262	237	272
1992	193	200	238	225
1993*	170	194	246	260
1994*	181	225	209	266
1995*	208	248	257	315

*Quarterly figures do not sum to annual because some manufacturers reported annual shipments only.

Source: GAMA

U.S. Civil Aircraft Imports from the World—1991-1995 Units and Dollar Value (\$Millions)

	1991		1992		1993		1994		1995	
	Units	Dollars	Units	Dollars	Units	Dollars	Units	Dollars	Units	Dollars
Single-Engine	72	\$23.4	67	\$24.6	96	\$28.6	105	\$65.9	117	\$48.5
Multi-Engine—under 4,400 lbs	1	\$0.0	7	\$3.1	N/A	N/A	8	\$2.8	5	\$0.3
Multi-Engine—4,400-10,000 lbs	41	\$176.3	18	\$75.7	6	\$14.8	2	\$2.4	2	\$3.0
Multi-Engine—Turbojet/Turbofan 10,000-33,000 lbs.	45	\$526.9	52	\$612.0	66	\$792.3	82	\$1,030.4	72	\$902.4
Multi-Engine—Other —Including Turboshaft 10,000-33,000 lbs	95	\$840.3	72	\$659.5	44	\$402.1	64	\$609.4	63	\$494.6
TOTAL	254	\$1,566.9	216	\$1,374.9	212	\$1,237.8	261	\$1,710.9	259	\$1,448.8

Source: Aerospace Industries Association



EXPORTS

Annual New U.S. Manufactured General Aviation Aircraft Exports

Year	Units Exported	% of Total Production	Factory Net Billings (Millions)	% of Total Dollars
1965	2,325	19.6%	\$ 61.2	19.2%
1966	2,903	18.4%	75.4	16.9%
1967	3,035	22.4%	76.5	21.3%
1968	2,803	20.5%	91.5	21.5%
1969	2,623	21.1%	107.1	18.3%
1970	2,170	29.8%	98.9	29.3%
1971	1,854	24.8%	95.6	29.7%
1972	2,254	23.1%	137.9	24.7%
1973	3,530	25.9%	230.2	27.8%
1974	4,248	30.0%	287.5	31.6%
1975	3,512	25.0%	308.1	29.8%
1976	3,539	22.9%	331.2	27.0%
1977	3,611	21.4%	354.5	23.8%
1978	3,612	20.3%	486.7	27.3%
1979	3,995	23.4%	600.9	27.8%
1980	3,555	29.9%	756.4	30.4%
1981	2,270	24.0%	749.0	25.7%
1982	1,162	27.2%	650.2	32.5%
1983	513	19.1%	316.5	21.5%
1984	334	13.7%	260.7	15.5%
1985	354	17.4%	230.0	16.1%
1986	441	29.5%	343.6	27.2%
1987	439	40.5%	469.3	34.4%
1988	425	37.2%	626.8	32.7%
1989	566	36.9%	587.0	32.5%
1990	458	40.0%	872.2	43.4%
1991	382	37.4%	807.0	41.0%
1992	353	39.0%	608.7	33.0%
1993	349	36.2%	856.8	40.0%
1994	277	29.8%	684.2	29.0%
1995	315	29.3%	815.9	28.7%

Source: GAMA

Annual New U.S. Manufactured General Aviation Aircraft Exports by Type

Year	Single-Engine Piston	Multi-Engine Piston	Turboprop	Turbojet
1972	1,715	455	55	29
1973	2,674	732	58	66
1974	3,371	732	75	70
1975	2,680	644	122	66
1976	2,704	669	114	52
1977	2,835	594	126	56
1978	2,712	652	166	82
1979	2,942	774	181	98
1980	2,565	635	245	110
1981	1,546	363	259	102
1982	718	227	135	82
1983	298	119	66	30
1984	199	79	25	31
1985	208	69	49	28
1986	272	69	68	32
1987	252	60	78	49
1988	220	52	91	62
1989	385	46	78	57
1990	224	57	86	91
1991	204	25	74	79
1992	196	16	90	51
1993	149	23	109	68
1994	84	42	84	67
1995	130	30	85	70

Source: GAMA



General Aviation Fleet and Flight Activity



GAMA



U.S. FLEET AND FLIGHT HOURS BY TYPE AND USE

Number of Active General Aviation Aircraft By Type and Primary Use—1994 (Excluding Commuters)

Aircraft Type	Active GA Aircraft	Corporate	Business	Personal	Instruc- tional	Aerial Applica- tion	Aerial Observa- tion	Sight- Seeing	External Load	Other Work	Air Taxi	Other
ALL AIRCRAFT—TOTAL	170,500	9,552	25,554	100,639	14,568	4,215	4,963	1,439	133	1,214	3,927	4,226
PISTON—Total	138,909	3,747	23,608	85,093	13,216	3,418	3,906	498	0	1,049	2,414	1,959
One-Engine	123,332	1,587	18,727	80,018	12,248	3,316	3,596	472	0	997	740	1,631
Two-Engines	15,509	2,160	6,881	5,075	965	41	310	26	0	53	1,675	323
Other Piston	68	0	0	0	2	62	0	0	0	0	0	4
TURBOPROP—Total	4,207	2,132	579	341	179	237	12	16	0	39	563	111
One-Engine	563	50	65	83	76	235	6	0	0	0	33	16
Two-Engines	3,637	2,082	514	258	103	2	6	16	0	39	530	88
Other Turboprop	7	0	0	0	0	0	0	0	0	0	0	7
TURBOJET—Total	4,073	3,231	136	125	31	4	0	0	0	1	274	271
Two-Engines	3,876	3,050	135	123	31	4	0	0	0	0	272	262
Other Turbojet	197	181	2	2	0	0	0	0	0	1	2	9
ROTORCRAFT—Total	4,390	427	386	356	472	516	971	163	126	21	676	275
Piston	1,381	2	173	265	378	178	247	79	26	11	1	21
Turbine	3,009	425	21	91	94	338	724	84	100	10	675	254
One-Engine	2,299	225	161	62	89	322	688	80	38	0	402	212
Two-Engines	710	200	31	29	6	16	36	4	62	10	274	42
GLIDERS—Total	2,679	0	11	2,142	278	0	2	119	0	10	0	117
LIGHTER-THAN-AIR—Total	3,491	49	127	2,402	160	0	3	505	0	92	0	154
EXPERIMENTAL—Total	12,852	67	707	10,380	232	41	41	37	7	2	0	1,139
Homebuilt	9,523	0	206	8,396	91	30	25	35	0	0	0	739
Exhibition	562	0	44	299	15	2	0	0	0	2	0	200
Other	2,767	67	457	1,685	126	9	16	1	7	1	0	399

Note: Row and column summation may differ from printed totals due to estimation procedures, or because some active aircraft did not report use.

Source: FAA

General Aviation Hours Flown By Aircraft Type and Primary Use—1994 (In Thousands of Hours)

Aircraft Type	Active GA Aircraft	Corporate	Business	Personal	Instruc- tional	Aerial Applica- tion	Aerial Observa- tion	Sight- Seeing	External Load	Other Work	Air Taxi	Other
ALL AIRCRAFT—TOTAL	23,866	2,548	3,055	8,116	4,156	1,210	1,750	323	172	226	1,670	640
PISTON—Total	18,370	727	2,811	7,299	3,772	936	1,284	142	0	207	948	243
One-Engine	15,765	300	2,233	6,811	3,460	920	1,197	139	0	198	303	203
Two-Engines	2,597	428	578	488	312	8	87	3	0	9	645	40
Other Piston	8	0	0	0	0	8	0	0	0	0	0	0
TURBOPROP—Total	1,106	561	81	51	74	119	1	6	0	9	195	9
One-Engine	207	10	10	17	32	119	0	0	0	0	17	2
Two-Engines	899	550	72	34	42	0	1	6	0	9	178	7
Other Turboprop	0	0	0	0	0	0	0	0	0	0	0	0
TURBOJET—Total	1,241	1,000	30	23	11	2	0	0	0	0	98	78
Two-Engines	1,197	958	29	23	11	2	0	0	0	0	97	77
Other Turbojet	44	41	1	0	0	0	0	0	0	0	0	1
ROTORCRAFT—Total	2,006	242	57	30	196	150	459	86	172	6	430	178
Piston	340	0	20	17	166	38	72	14	5	5	0	1
Turbine	1,666	242	37	13	30	112	387	72	167	1	429	177
One-Engine	1,197	115	34	11	28	103	373	71	18	0	293	151
Two-Engines	469	128	2	2	2	9	14	0	148	1	137	25
GLIDERS—Total	298	0	2	149	70	0	0	57	0	1	0	18
LIGHTER-THAN-AIR—Total	126	4	6	72	5	0	0	30	0	2	0	7
EXPERIMENTAL—Total	718	14	69	492	28	3	5	1	0	0	0	106
Homebuilt	413	0	14	365	8	1	1	1	0	0	0	23
Exhibition	24	0	3	13	0	0	0	0	0	0	0	9
Other	281	14	53	115	20	2	5	0	0	0	0	74

Note: Row and column summation may differ from printed totals due to estimation procedures, or because some active aircraft did not report use.

Source: FAA

FLEET BY AGE

Average Age of the U.S. General Aviation Fleet—1995

Aircraft Type	Engine Type	Seats	Average Age in Years
Single-Engine	Piston	1-3	29
		4	27
		5-7	22
		8+	36
		All	27
	Turboprop Jet	All	8
		All	31
Multi-Engine	Piston	1-3	32
		4	26
		5-7	25
		8+	25
		All	25
	Turboprop Jet	All	16
		All	16
All Aircraft			26

FLEET BY GEOGRAPHIC AREA

U.S. Active General Aviation Aircraft by Region and State

FAA Region and State	1990	1991	1992	1993	1994	FAA Region and State	1990	1991	1992	1993	1994
ALASKAN	7,013	6,616	6,083	5,410	5,479	N.W. MOUNTAIN	21,803	19,390	19,153	16,259	17,415
Alaska	7,013	6,616	6,083	5,410	5,479	Colorado	4,452	4,064	3,676	3,855	3,604
CENTRAL	11,795	11,404	10,251	10,517	9,374	Idaho	1,827	1,820	1,804	1,797	1,580
Iowa	2,683	2,597	2,489	2,328	2,028	Montana	1,834	1,851	1,923	1,808	1,770
Kansas	3,363	3,421	2,973	2,953	2,738	Oregon	5,011	4,559	3,935	3,789	4,057
Missouri	3,891	3,781	3,068	3,494	2,822	Utah	1,348	1,031	1,264	1,041	959
Nebraska	1,858	1,605	1,721	1,743	1,787	Washington	6,534	5,376	5,874	5,326	4,729
EASTERN	24,700	22,506	21,683	21,222	20,419	Wyoming	797	698	677	645	717
Delaware	1,328	891	1,047	1,332	1,324	SOUTHERN	35,096	32,380	30,731	28,544	28,731
D.C.	12	46	12	24	37	Alabama	3,364	3,010	2,873	2,736	2,362
Maryland	2,952	2,717	2,489	2,299	2,210	Florida	13,290	12,336	11,753	10,498	10,574
New Jersey	3,860	3,512	3,547	3,434	2,929	Georgia	4,476	4,540	4,326	3,796	3,983
New York	6,273	5,419	5,615	5,371	5,237	Kentucky	1,554	1,446	1,472	1,476	1,411
Pennsylvania	6,070	5,688	5,398	5,145	5,067	Mississippi	1,842	1,770	1,776	1,469	1,661
Virginia	3,190	3,288	2,609	2,764	2,795	North Carolina	4,803	4,493	3,729	3,782	4,014
West Virginia	1,015	945	966	852	824	Puerto Rico	412	394	370	305	217
GREAT LAKES	37,312	34,792	32,943	32,424	30,884	South Carolina	2,092	1,878	1,669	1,641	1,566
Illinois	6,769	6,543	6,373	6,160	6,002	Tennessee	3,263	2,513	2,763	2,766	2,862
Indiana	3,897	3,460	3,411	3,753	3,560	SOUTHWEST	28,336	26,517	24,884	22,868	23,529
Michigan	7,461	6,823	6,248	6,150	5,737	Arkansas	2,507	2,206	2,469	2,415	2,078
Minnesota	4,893	4,097	4,517	4,583	3,904	Louisiana	3,391	2,843	2,823	2,255	2,437
North Dakota	1,645	1,489	1,323	1,322	1,143	New Mexico	1,963	1,891	2,043	2,120	2,180
Ohio	7,501	6,919	6,101	5,620	5,583	Oklahoma	3,819	3,371	2,762	3,135	2,858
South Dakota	1,056	1,072	1,005	1,001	919	Texas	16,656	16,206	14,787	12,944	13,976
Wisconsin	4,090	4,389	3,965	3,836	4,037	WESTERN-PACIFIC	37,352	36,522	31,320	29,598	28,185
NEW ENGLAND	8,717	8,223	7,248	7,160	6,581	Arizona	5,486	4,789	4,355	4,111	4,332
Connecticut	1,919	1,872	1,589	1,477	1,339	California	29,316	29,261	24,909	23,279	21,728
Maine	1,721	1,251	982	1,029	835	Hawaii	561	484	372	312	391
Massachusetts	3,025	2,776	2,483	2,691	2,605	Nevada	1,989	1,988	1,684	1,838	1,729
New Hampshire	1,173	1,393	1,385	1,216	1,026	OTHER U.S. TERRITORIES	98	72	136	N/A	N/A
Rhode Island	342	415	322	284	324	GRAND TOTAL	198,010	196,422	184,434	176,006	170,600
Vermont	537	561	487	464	452						

Note: Column total may differ from printed totals due to estimation procedures.

Source: FAA

U.S. Registered Certificated Experimental Aircraft By Type—1984-1994

Aircraft Type	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
ALL AIRCRAFT—TOTAL	16,477	16,204	16,984	17,668	18,192	18,757	21,027	21,615	22,700	24,322	26,152
FIXED-WING—Total	13,767	13,344	14,046	14,619	15,123	16,449	17,564	18,175	19,137	22,363	23,581
Piston	13,682	13,210	13,957	14,488	14,982	16,045	16,998	17,619	18,678	21,505	22,749
Turbine	85	134	89	131	141	404	566	556	459	858	832
ROTORCRAFT—Total	1,548	1,612	1,655	1,723	1,801	1,891	1,982	1,951	2,010	2,299	2,283
GLIDERS—Total	865	930	954	951	919	966	985	993	1,027	1,759	1,792
BALLOONS & DIRIGIBLES—Total	297	318	339	365	349	451	496	496	526	501	496

Note: Prior to 1994, Experimental aircraft included those built without a production certificate. Beginning in 1994 Experimental includes aircraft with an experimental airworthiness certificate. These include research and development, amateur built, exhibition, racing, crew training, and market survey aircraft and aircraft used to show compliance with the Federal Aviation Regulations.

Source: FAA

CORRECTION

**THE FOLLOWING DOCUMENT(S)
HAVE BEEN REFILMED TO
ASSURE LEGIBILITY OR PAGINATION**



Central Microfilm Services
Department of Education & Early Development
State of Alaska

U.S. Registered Certificated Experimental Aircraft By Type—1984-1994

Aircraft Type	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
ALL AIRCRAFT—TOTAL	16,477	16,204	16,994	17,658	18,192	19,757	21,027	21,615	22,700	23,922	25,152
FIXED-WING—Total	13,767	13,344	14,046	14,619	15,123	16,449	17,564	18,175	19,137	22,363	23,581
Piston	13,682	13,210	13,957	14,488	14,982	16,045	16,998	17,619	18,678	21,505	22,749
Turbine	85	134	89	131	141	404	566	556	459	858	832
ROTORCRAFT—Total	1,548	1,612	1,655	1,723	1,801	1,891	1,982	1,951	2,010	2,299	2,283
GLIDERS—Total	865	930	954	951	919	966	985	993	1,027	1,759	1,792
BALLOONS & DIRIGIBLES—Total	297	318	339	365	349	451	496	496	526	501	496

Note: Prior to 1994, Experimental aircraft included those built without a production certificate. Beginning in 1994 Experimental includes aircraft with an experimental airworthiness certificate. These include research and development, amateur built, exhibition, racing, crew training, and market survey aircraft and aircraft used to show compliance with the Federal Aviation Regulations.

Source: FAA

FLIGHT HOURS BY TYPE

Estimated Hours Flown in General Aviation by Type of Aircraft (In Thousands of Hours)



As of December 31	Total	Fixed Wing			Rotorcraft		Balloons Dirigibles Gliders	Experimental
		Piston	Turboprop	Turbojet	Piston	Turbine		
1977	35,791	30,965	1,549	1,165	609	1,259	245	N/A
1978	39,409	34,043	1,606	1,194	806	1,421	338	N/A
1979	43,340	37,303	1,871	1,259	892	1,664	353	N/A
1980	41,016	34,747	2,240	1,332	736	1,603	359	N/A
1981	40,704	34,086	2,155	1,387	930	1,754	391	N/A
1982	36,457	29,950	2,168	1,611	579	1,771	379	N/A
1983	35,249	28,911	2,173	1,473	572	1,700	420	N/A
1984	36,119	29,194	2,506	1,566	592	1,903	358	N/A
1985R	31,456	25,666	1,921	1,498	521	1,468	382	N/A
1986R	31,782	24,805	2,661	1,527	742	1,682	364	N/A
1987R	30,883	24,969	2,010	1,411	602	1,506	384	N/A
1988R	31,114	24,291	2,195	1,554	533	1,974	568	N/A
1989R	32,332	24,907	2,892	1,527	692	1,918	396	N/A
1990R	32,096	25,832	2,319	1,396	716	1,493	341	N/A
1991	30,067	24,102	1,513	1,236	585	2,172	459	N/A
1992	26,493	21,251	1,478	1,072	416	1,866	410	N/A
1993	24,340	19,029	1,227	1,165	370	1,462	376	711
1994	23,866	18,370	1,106	1,241	340	1,666	424	718

Note: Columns may not add due to rounding and estimation procedures.

Source: FAA

Beginning in 1993, commuters were excluded.

N/A=Not available.

R=Revised to correct for nonresponse bias.

... AND PER AIRCRAFT

Active U.S. General Aviation Aircraft and Average Hours Annually Flown Per Aircraft, by Type

Aircraft Type	ESTIMATED ACTIVE AIRCRAFT					ESTIMATED AVERAGE HOURS / AIRCRAFT / YR.				
	1990	1991	1992	1993	1994	1990R	1991	1992	1993	1994
ALL AIRCRAFT—TOTAL	198,010	198,475	184,434	178,006	170,660	162	149	144	138	136
PISTON—Total	187,773	175,347	162,117	147,094	138,909	147	138	131	129	132
One-Engine	165,073	154,102	143,580	130,687	123,332	142	134	126	126	129
1-3 seats	60,507	55,652	52,534	41,251	38,987	N/A	123	108	115	116
4 + seats	104,566	98,450	91,046	89,437	84,344	N/A	141	136	131	134
Two-Engines	22,606	21,119	18,451	16,388	15,508	185	167	172	153	165
1-6 seats	15,186	13,561	11,807	10,922	10,137	N/A	160	157	148	164
7 + seats	7,421	7,557	6,644	5,466	5,371	N/A	182	198	164	170
Other Piston	94	127	86	18	68	526	41	52	51	113
TURBOPROP—Total	5,652	4,920	4,704	4,359	4,206	438	308	314	281	264
One-Engine	N/A	N/A	N/A	703	563	N/A	N/A	N/A	347	384
Two-Engines	5,257	4,398	4,094	3,632	3,636	441	312	302	270	247
1-12 seats	4,320	3,820	3,512	3,266	3,274	N/A	283	265	258	246
13 + seats	937	577	582	366	362	N/A	589	528	369	247
Other Turboprop	395	522	610	24	6	393	279	394	137	21
TURBOJET—Total	4,374	4,353	4,022	3,859	4,072	341	290	267	302	309
Two-Engines	3,950	4,066	3,790	3,673	3,876	346	297	272	307	314
Other Turbojet	425	286	232	186	196	293	193	181	211	226
ROTORCRAFT—Total	7,397	5,753	6,292	4,510	4,389	320	452	397	406	459
Piston—Total	3,459	2,470	2,211	1,646	1,380	224	234	188	225	253
Turbine—Total	3,938	3,822	3,542	2,864	3,009	404	592	527	502	571
One-Engine	N/A	N/A	N/A	2,144	2,298	N/A	N/A	N/A	500	526
Two-Engines	N/A	N/A	N/A	720	710	N/A	N/A	N/A	541	762
GLIDERS—Total	N/A	N/A	N/A	1,645	2,678	N/A	N/A	N/A	97	106
LIGHTER-THAN-AIR—Total	N/A	N/A	N/A	3,602	3,490	N/A	N/A	N/A	60	35
EXPERIMENTAL—Total	N/A	N/A	N/A	10,938	12,852	N/A	N/A	N/A	65	53
Homebuilt/Amateur	N/A	N/A	N/A	6,854	9,523	N/A	N/A	N/A	44	43
Exhibition	N/A	N/A	N/A	1,622	562	N/A	N/A	N/A	54	43
Other	N/A	N/A	N/A	2,462	2,766	N/A	N/A	N/A	N/A	99
OTHER—Total	7,032	7,563	7,837	N/A	N/A	52	61	52	N/A	N/A

Note: Columns may not add due to rounding and estimation procedures.

Source: FAA

Beginning in 1993, commuters were excluded.

N/A=Not available.

R=Revised to correct for nonresponse bias.



GENERAL AVIATION OPERATIONS & ACTIVITY

DOMESTIC

Summary of U.S. General Aviation Operation Statistics—1985-1994

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
IFR Aircraft Handled at ARTCCs	8,329,512	8,054,741	8,102,631	8,053,133	8,197,964	7,931,305	7,389,654	7,393,276	7,433,281	7,685,430
Total Instrument Operations at FAA Facilities**	16,428,676	16,877,404*	18,040,059*	18,377,439*	19,924,116*	19,233,821*	18,250,688*	18,334,640*	17,893,667	18,049,094
Total Aircraft Contacts at FSSs	5,826,387	5,382,619	5,208,721	5,008,210	4,873,102	4,795,332	4,376,481	4,129,578	3,702,865	3,509,395
Total Airport Operations at FAA Control Towers	37,191,215	37,693,575*	38,521,783*	38,252,313*	38,832,133*	40,449,432*	38,910,962*	38,354,750*	36,600,990*	34,691,111
Itinerant Operations at FAA Control Towers	22,373,031	21,942,188	22,078,782	22,096,026	22,078,592	22,479,791	21,538,486	21,280,913	20,376,766	20,208,653
Local Operations at FAA Control Towers	14,818,184	15,158,469	14,751,742	15,407,223	15,674,413	16,690,014	16,039,817	15,664,447	14,851,004	14,484,055

*Includes Federal and Contract Operated Towers and Facilities

Source: FAA

**Facilities=Control Towers, T.R.A.C.O.N.s, C.E.R.A.P.s, and R.A.P.C.O.N.s

INTERNATIONAL

Number of General Aviation Aircraft

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Europe	30,500	30,700	30,200	30,800	31,200	31,500	32,000	33,100	33,200	31,300	31,100	36,200
Africa	4,000	3,700	4,750	4,600	4,650	4,600	4,500	4,970	4,950	6,200	5,500	6,200
Middle East	500	550	550	520	540	550	600	690	670	610	580	590
Asia & Pacific	9,500	8,600	8,700	8,400	8,500	9,200	9,800	10,300	10,200	10,240	10,250	11,100
N. America	229,000	231,400	233,000	236,000	224,300	224,150	229,320	223,030	232,080	224,750	219,000	188,300
Latin America & Caribbean	19,500	12,000	14,000	13,700	13,900	13,800	13,500	15,200	15,200	18,900	18,600	18,800
TOTAL-ICAO States	293,000	286,950	291,200	294,020	282,990	283,800	289,720	287,290	296,300	292,000	285,030	261,190

Source: ICAO

General Aviation Hours Flown (In Thousands)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Europe	5,850	6,000	5,950	6,080	6,400	6,500	6,600	6,720	6,870	6,730	6,700	7,260
Africa	780	750	820	790	820	800	800	820	820	700	700	800
Middle East	270	270	280	260	240	260	260	270	310	300	180	300
Asia & Pacific	2,400	2,400	2,380	2,420	2,740	3,060	3,250	3,380	3,470	3,500	3,770	4,180
N. America	39,700	34,650	33,100	33,920	32,100	31,070	31,110	31,610	31,950	32,100	26,200	24,220
Latin America & Caribbean	3,890	3,940	3,800	3,850	3,380	3,550	3,570	3,400	3,300	3,150	3,150	3,340
TOTAL-ICAO States	52,940	47,880	46,380	46,830	45,870	45,280	45,430	46,140	46,710	46,380	40,700	40,100

Source: ICAO



U.S. Pilots



GAMA