The Liability Crisis - A Perspective

Sean F. Mooney
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I. THE LIABILITY CRISIS—A PERSPECTIVE

Problems in society, as in people’s everyday lives, tend to get treated only when they reach crisis proportions. Yet, there is a benefit to this phenomenon. A severe crisis can force the reexamination of fundamental assumptions. Frequently such a review can result in very positive benefits in the future.

In this paper, the experience of the recent tort liability/insurance crisis is reviewed in terms of the fundamental forces believed to have caused and shaped the crisis. First, some groundwork is laid on the fundamental concepts behind the current tort liability and insurance systems. Second, the dimensions of the crisis in terms of reduced availability and the increased price of liability insurance are examined. Third, the causes of the crisis are then reviewed. Finally, some proposed solutions to the crisis are discussed.

The perspective taken in this article is grounded in economic and insurance concepts. Other issues, such as developments in tort law, are mentioned where relevant, but are not discussed in depth.

II. THE TORT LIABILITY AND INSURANCE SYSTEMS: SOME FUNDAMENTAL CONCEPTS

A. The Tort System

In this section, the tort system is briefly reviewed. Two perspectives on the system, the legal and the economic, are described.

A tort may be generally defined as a private wrong, as distinguished from a crime, which is a public wrong. This definition is useful as an anchor or starting point for discussion.1

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1. Although a satisfactory definition of tort is unavailable, “[b]roadly speaking, a tort is a civil wrong, other than breach of contract, for which the court will provide a remedy in the form of an action for damages.” W. Keeton, D. Dobbs, R. Keeton & D. Owen, Prosser and Keeton on the Law of Torts, § 1, at 2 (5th ed. 1984) [hereinafter Prosser].

For a discussion of the difficulty of defining “tort,” see Special Committee (1235)
In the tort system, it is assumed that accidents will happen; drivers will go too fast; workers will be careless at times in producing or repairing products; doctors will make mistakes in diagnosis and treatment. The risk of accidents is inevitable in our society. Society must determine an optimal level of risk. Clearly, by requiring all automobiles to travel at a speed less than 25 mph, risk would be reduced. But this would occur at a large cost to society, in both economic and physical terms.²

The legal framework for the tort system does not directly address this issue. The foundation of that system is the concept of justice.

When acts of omissions offend individual rights, the law prescribes that the offending party pays compensation to the injured party.³ Thus, the system serves the dual roles of compensation and deterrence. In a sense, it could be said that the legal system is attempting to be neutral on the broad issue of how much risk society is prepared to pay for. The basic concern of the legal approach is with individual rights.⁴

The economic perspective, a perspective different from the legal framework, is not neutral on the broad question of the cost/benefit analysis of risk in society. Indeed, this approach is grounded in an analysis of costs and benefits. Under this approach a defendant is guilty of negligence if the loss caused by the accident, multiplied by the probability of the accident occurring, exceeds the burden of the precautions that the defendant might have taken to avert it.⁵ For example, suppose a defendant could prevent an accident of $1000 for a cost of $100. Suppose, also, that the probability of the accident occurring is 20%. In this case the cost of preventing the accident, $100, is less than the loss that

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² See, e.g., SPECIAL COMMITTEE, supra note 1, at 4-13. The policy involved is "not an abstract commitment to reducing accidents but rather that of optimizing accident costs." Id. Such a view reveals that there must be an economically efficient level of accidents. Id.

³ PROSSER, supra note 1, § 1, at 5-6. This recognized need for compensation is the primary factor influencing the development of tort law. Id. § 4, at 20.

⁴ This was not always true in western civilization. Initially, remedies for tortious harms developed to protect group interest. SPECIAL COMMITTEE, supra note 1, at 3-1.

⁵ See United States v. Carroll Towing Co., 159 F.2d 169, 173 (2d Cir. 1947). Judge Learned Hand devised a formula where liability depends upon whether B < PL, where B is the burden of adequate precautions, P is the probability of injury and L is the gravity of the injury. Id.
would be caused by the accident multiplied by the probability of the accident (20% \times $1000 = $200). In this instance, the defendant could be viewed as negligent.\textsuperscript{6}

This economic approach has the advantage of producing, at least on a surface analysis, an optimal amount of risk prevention activity. Individuals will be motivated to invest in risk reducing activities to a point where the expected benefits of risk prevention activities equals or exceeds the costs of such activities.

These two strands of thought, legal and economic, are critical to the debate on tort liability. It is not the function of this article to reconcile these approaches, but rather to use them as a backdrop toward considering the basic topic—the crisis in tort liability insurance.

B. Insurance for Liability Risks

The use of insurance for liability risks raises two distinct issues. One is the overall societal issue of whether such insurance to cover the consequences of wrongful acts is in accord with societal goals of justice and economic welfare.\textsuperscript{7} The second is a technical issue of whether such risks are insurable.

1. Societal Concerns and Liability Insurance

Following the economic approach to tort liability, the imposition of tort liability is desirable because it encourages the choice of the lesser of either loss prevention costs or future liability costs. This forces an internalization to the individual enterprise of the costs of risk. (Economists view internalization as desirable because those who are most able to reduce the risk of injury are given incentive for risk reduction.) However, the insurance mechanism tends to reduce the impact of the internalization process.\textsuperscript{8} Not surprisingly, in the early days of liability insurance an

\textsuperscript{6} For a review of the economic approach to law, see R. Posner, Economic Analysis of Law 15-23 (2d ed. 1977).

\textsuperscript{7} For a general discussion of coordinating insurance coverage to serve society’s needs, see K. Abraham, Distributing Risk 133-72 (1986). Coordination of insurance coverage can promote economic efficiency and help achieve desired distributions of risk. \textit{Id.} at 136-37.

\textsuperscript{8} See P. Danzon, Medical Malpractice 14-15 (1985). Danzon uses the example of the difference between patient-consumers’ perceptions and physicians’ perceptions of risk. \textit{Id.} A poorly informed patient may underestimate risk and underinsure or overestimate risk and overinsure. \textit{Id.} at 14. A better informed physician, who estimates the risk of injury, will include the expected liability cost in his fee for services. \textit{Id.} Therefore, an uninformed consumer who decides to use the physician’s services will be purchasing the optimal amount of insurance, which is implicit in the fee. \textit{Id.} at 14-15. Danzon theorizes that “plac-
argument was made that the use of insurance to transfer liability was against public policy. In many states, this point of view is still reflected in the prohibition against insurance for punitive damages.9

A number of arguments are commonly proposed to defend the use of insurance for liability risks. First, it is argued that liability insurance benefits victims by guaranteeing payment, particularly where the defendant is unable financially to meet the claims of the injured.10 This line of argument is flawed, as it stresses only the goal of compensation, but does not address the deterrence issue. It suggests that society should forego the deterrent effect of liability. But if deterrence is to be dropped, then a simple no-fault compensation system would appear to be a more sensible approach. Put another way, if deterrence is not the goal, then why retain liability?

A stronger line of argument relies on the risk classification


In McNulty, Judge Wisdom reasoned:

Where a person is able to insure himself against punishment he gains a freedom of misconduct inconsistent with the establishment of sanctions against such misconduct. It is not disputed that insurance against criminal fines or penalties would be void as violative of public policy. The same public policy should invalidate any contract of insurance against the civil punishment that punitive damages represent.

307 F.2d at 440.

10. See generally 1 R. Long, The Law of Liability Insurance § 109, at 1-37 (1987). The standard liability insurance policy contains a provision that requires the insurer to pay claims even when the insured is insolvent or bankrupt. Id.
Insurance pricing is based on individual and class experience. A twenty-three year old male is charged an auto insurance rate which reflects his age category and also his personal driving record. As a result, this driver has the incentive of reduced premiums to avoid accidents. In the commercial area, the use of rating plans greatly adds to a firm's ability to control its premium costs through risk control techniques. The insurance mechanism does retain the deterrent effect of the liability system.

The risk classification system also plays a key role in controlling the adverse selection problem endemic to all non-compulsory insurance mechanisms. If insurance rates are based on a wide variety of high and low risks, then the low risk policyholders will be paying more than their appropriate share, and high risk policyholders will be paying less than their appropriate share. Hence, low risk members may be motivated to drop out of the system. When this problem becomes severe, the insurance mechanism breaks down. The finer the classification system the less likely low risk policyholders will feel that they are paying too much for their coverage. This, in turn, reduces the adverse selection problem. These issues will be revisited later in this article. 11

Another reason for why the insurance mechanism does not totally eliminate deterrence is that insurance payments rarely cover the whole of the financial and other costs associated with a liability claim. For example, a single injury as a result of a defective product can ruin a product line and seriously damage a firm's reputation. In defending claims, companies incur many other costs beyond legal defense and injury compensation (covered by insurance), such as employees' and managers' time both in court and in preparing a defense. In medical malpractice cases, the psychic impact of a lawsuit can be even more devastating than the size of the compensation sought. 12

A further line of reasoning stresses the value to society of increased economic activity as a result of the risk spreading insurance mechanism. Without liability insurance, many entrepreneurs would be deterred from going into business because a single lawsuit could wipe out their invested capital and, in some

11. For a discussion of risk classification and insurance pricing, see K. Abraham, supra note 7, at 64-100.
12. For a further discussion of adverse selection, see infra text following note 61.
cases, their own wealth. However, this line of reasoning, which stresses the value of insurance, does not explain how the insurance mechanism can maintain the risk deterrence features of the liability system.

2. Can All Liability Risks Be Insured?

There are a couple of key characteristics of an insurable risk. The first characteristic of an insurable risk is "calculability," meaning that a statistical estimate can be made of the average size and frequency of loss. In general, this means that there are a large number of similar losses, such as fires, which occur independent of one another. A second characteristic of insurable risks is that they be not excessively catastrophic. Not every large loss can be insured. Traditional examples of catastrophic losses are nuclear and war risks. However, the concept is relative. What is catastrophic to a small insurance company could be commonplace for a large company.

In the liability area, legal liability for auto accidents satisfies the basic criteria for an insurable risk. This risk has been insured since the early days of auto travel. In the broad commercial area, the legal liability of product manufacturers, landlords, contractors and most other businesses traditionally have been regarded as insurable risks. As will be developed further on, a key factor in the liability crisis in terms of the basic characteristics of calculability and not excessively catastrophic, were changes which rendered many of these risks uninsurable.

This review of the major elements of tort liability insurance shows it to be an uneasy mixture of social concerns and goals. When one adds in uncertainty and the lack of precision associated with forecasting the future, the picture gets more muddled.

Given this aspect of a confused philosophical basis, it is not surprising that the current system reflects this mixture of theoretical and practical concerns. In the area of tort liability of an employer towards employees, the tort system has been replaced by a no-fault compensation system. Third-party liability insurance in auto insurance has been reduced or replaced by no-fault insur-

14. See generally R. Epstein, MODERN PRODUCTS LIABILITY LAW 46-48 (1980) (evaluating argument that strict liability is justified because manufacturer can obtain insurance against risk and pass on cost to purchasers of products).
16. For a discussion of those changes which rendered some risks uninsurable, see infra notes 18-50 and accompanying text.
The diversity of the system reflects the diversity of societal concerns and interests in this field.

III. The Liability Insurance Crisis

A. The Dimensions

In mid-1984, insurance companies began to raise premiums significantly for commercial liability insurance policies. At the same time, companies began to cut back coverage on renewal policies and pull back from offering liability insurance in a number of areas. These events constitute what came to be called the "liability insurance crisis." The problems of rising prices and lack of availability of coverage persisted through 1985 and at least the first half of 1986. At the present time (February 1987), most analysts believe that price increases are more moderate and that liability insurance for most exposures is readily available.17

The liability insurance crisis had two dimensions—price and availability. The best measure readily available of price change is the change in total written premiums. This measure is used because there is no such thing as an average or typical price for commercial liability insurance, due to the fact that there is no such thing as an average or typical liability exposure. Each business pays a premium based on a number of factors such as type of industry, location, sales volume, claims record, loss control program and other insurance policies already in place.18

Changes in written premiums reflect changes in price and volume (risks covered). In general, the number of businesses requiring insurance increases at a slow rate, so that the volume of risks covered increases at a rate not much faster than the overall economy. This means that when there are large changes in written premiums, it can be readily assumed that most of the change is due to price.

The following table details the changes in commercial liability insurance premiums in 1983, 1984, 1985 and 1986.


18. The general liability line of insurance alone has about 2,000 separate classifications by type of industry. When one adds in the extra factor of location alone, the number of separate rates possible approaches 100,000.
As the table shows, premiums for general liability increased by over 70% both in 1985 and 1986. In medical malpractice the increase in 1985 was 55.2% and was 29.0% in 1986.

During the critical period, liability coverage was difficult to obtain or unavailable in a number of selected areas. These included liability coverage for day-care, municipalities, liquor liability for taverns and restaurants and pollution exposures.

B. What Factors Were Involved in the Insurance Liability Crisis?

To search for exact causality in the insurance crisis is probably a pointless exercise. Two major factors and a number of minor factors were involved. The major factors were:

1. the expansion of tort law, and
2. the insurance cycle.

The minor factors included the discovery and subsequent media blitz concerning child abuse in day care centers, the growth in litigation and campaign against driving under the influence (DWI),21 the federal superfund law22 and the increasing use of...


20. This category, general liability, covers policies written for businesses to cover only their liability risks. Many businesses purchase package policies, which cover many risks such as fire, wind, theft and also liability. Data on these policies are collected under a category known as commercial multiperil.


the joint and several liability doctrine against municipalities.  

1. *The Growth in Litigation and Expansion of Tort Law*

From the viewpoint of the insurance industry, there has been an expansion in tort law in recent decades. Incurred losses in general liability insurance over the past twenty years have increased 2,663%, a much faster rate than comparable indicators. For example, between 1965 and 1986 GNP rose 445%, overall prices increased 238%, the cost of medical care rose 366% and population increased 23%.

More specifically relevant to the crisis was the growth in incurred losses in 1984 and 1985. In those two years, losses increased 24% and 54%, respectively, compared with an annual average at 7% in the prior five years.

Data on jury awards and selected studies of other courts also show rapid expansion of the system. Outside the insurance industry, data on paid losses from self-insured entities, e.g., New York City, State of California and medical malpractice mutuals show comparably strong growth.

Related to the rise in claim losses was a change in many legal doctrines, placing more emphasis on the compensation of injured


23. INSURANCE INFORMATION INSTITUTE, DATA BASE REPORTS: MUNICIPAL LIABILITY 2, 6-7 (Oct. 1987).

24. Incurred losses for a given year are defined as losses paid or reserves set up for insured occurrences in that year.


26. *Id.* at 307 (table B-55). The Consumer Price Index rose from 97.2 in 1966 to 328.4 in 1986. *Id.*

27. *Id.*


30. See JURY VERDICT RESEARCH, INC., 1 PERSONAL INJURY VALUATION HANDBOOKS (1986).

31. See, e.g., The Des Moines Register, Sept. 17, 1986, at 1 (National Center for State Courts showed that in Iowa courts average awards increased 163% between 1980 and 1984, while personal injury suits fell only 1%).


33. Letter from James K. Hahn, Assistant City Attorney for the City of Los Angeles, to M.A. Firneo (Sept. 1, 1987).

34. INSTITUTE FOR CIVIL JUSTICE, NEW EVIDENCE ON FREQUENCY AND SEVERITY OF MEDICAL MALPRACTICE CLAIMS (1986).
persons. The doctrinal changes include shifting burdens of proof as to causation, changing apportionment of damages, the market share liability concept and joint and several liability for independent tortfeasors.\textsuperscript{35}

It will be argued in the following section that the spectacular growth in liability claims would have by itself led to a crisis, absent the impacts of record high interest rates and the insurance cycle. However, the changes in legal doctrines reviewed strike at the very heart of the insurance liability process. This is because they tend to destroy the classification and rating structure of insurance. If the potential liability of a company or other entity bears little relationship to its own loss control activities, or its loss experience, then the insurance premium can bear little relationship to these factors. Thus, the policyholder has no incentive within the insurance mechanism to improve safety. As a result of these legal doctrines, some authors state that the insurance mechanism could be viewed as contrary to societal goals as it precludes businesses from facing the most severe financial consequences of wrongful acts and the risk rating defense of insurance, as reviewed earlier, does not hold.\textsuperscript{36}

2. Insurance Cycles

The basic factor behind the large price increases in commercial liability insurance in 1985 and 1986 was a six-year period of intense price competition in this line of insurance. During the period of 1978 to 1984, premiums for commercial general liability insurance showed no increase at all, despite the fact that the inflation rate for this period averaged 8\% per annum and claim losses increased by a total of 72\%. This period was triggered by high interest rates, peaking at over 20\% for the prime rate in 1981.\textsuperscript{37} The incentive of increased investment income from high interest rates led a period of deep price cutting.\textsuperscript{38}

\textsuperscript{35} K. Abraham, supra note 7, at 49.

\textsuperscript{36} For a further discussion of the insurance mechanism, see supra notes 8-14 and accompanying text. For a current presentation of the view that the insurance mechanism is contrary to societal goals, see Priest, Tort-Reform Legislation ... Is Only a Start, Wall St. J., Feb. 11, 1987, at 26, col. 5.

\textsuperscript{37} Economic Report of the President, supra note 25, at 324 (table B-68).

\textsuperscript{38} The interest rate factor alone would have caused wide gyrations in the price of liability insurance, absent other considerations of excessive competition and developments in tort law.

In general liability, only 50\% of claims are paid five years following the year the policy is written. To see the impact of interest rates consider a loss of $100 which is to be paid five years from now.
Would there have been a crisis if interest rates had stayed flat and insurance companies had not entered this period of cutthroat competition? An analysis of the data would indicate yes.

Between 1978 and 1986 claim losses in general liability increased by 277.5%, or, at an annual average rate of 18.1%. If insurance companies had raised prices by 18.1% per year for every one of the last 8 years, at a time when inflation averaged 6.5% and even medical care increases averaged only 8.25% would not this have been regarded as a severe problem, if not a crisis? Over the same period the increase in the costs of medical care was regarded as a crisis, triggering cost control action by the federal government and strong moves toward cost sharing and other cost control mechanisms by private insurers.39

Why were insurance companies myopic about the impact of deep price cutting? The industry is highly competitive. As investment income was observed to increase, individual companies were motivated to cut prices and to try to increase their market shares. This was sensible from the point of view of the individual insurance company. It was also sensible from society's perspective. Here, the "invisible hand" of Adam Smith's market was at work. Each individual company "intends only his own gain and he is in this, . . . led by an invisible hand to promote an end which was no part of his intention."40 The end promoted in this instance was the passing through of increased investment income

To cover such a loss, when interest rates are 5%, an insurance company would break even with a premium of $80.

<table>
<thead>
<tr>
<th>Premium needed to cover a loss of $100 five years in future</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest Rate</td>
</tr>
<tr>
<td>---------------</td>
</tr>
<tr>
<td>5%</td>
</tr>
<tr>
<td>20%</td>
</tr>
</tbody>
</table>

If interest rates increase from 5% to 20%, then the premium would fall to $40, a 50% decline. On the other hand, as interest rates decrease from 20% to 5%, the premium would go up by 100%. So if insurance companies were observed to lower their prices by 50% as interest rates increased, and raise them by 100% as interest rates fell these gyrations would be totally justified. Hence, large gyrations in insurance prices would have occurred in the 1980's based on interest rate movements alone.


40. F.M. SCHERER, INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE 9 (2d ed. 1980) (quoting A. SMITH, AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS 423 (1937)).
from higher interest rates to policyholders in the form of lower insurance rates, a very desirable social objective.

A second factor behind the apparent myopia of underwriters was the unfamiliarity of insurance companies with the use of price as a competitive tool in commercial liability markets. The insurance industry over the past forty years has evolved from a market climate where price and product were tightly regulated to a much looser regulatory environment. Industries have had a tough time adjusting from a system of rigid price controls to the free-for-all of price competition. The airline and trucking industries are examples of industries which moved from a strict price regulatory environment to a competitive market. Both of these industries have had a difficult passage to a new market environment and consumers have seen many rapid oscillations in price and service.

Some critics of the industry have asserted that the problems were caused by mistakes of insurance companies. They assert that insurance companies failed to foresee—as did most analysts—the deflation and consequent decline in interest rates in the first half of the 1980's. As a result, critics asserted that insurance companies grossly underpriced their product and are now required to raise prices to recover from this mistake. This makes some sense, but does not square with the basic data, which shows an increase, not only in investment income over the whole period, but also in the rate of return on investments.

42. See, e.g., Coalition for Consumer Justice, Medical Malpractice (1986).
3. Return on Investments


<table>
<thead>
<tr>
<th>Year</th>
<th>New Investment Income as Percent of Assets</th>
<th>Interest Rate on High Grade Municipal Bonds</th>
<th>Prime Interest Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td>5.27</td>
<td>5.90</td>
<td>9.06</td>
</tr>
<tr>
<td>1979</td>
<td>5.97</td>
<td>6.39</td>
<td>12.67</td>
</tr>
<tr>
<td>1980</td>
<td>6.02</td>
<td>8.51</td>
<td>15.27</td>
</tr>
<tr>
<td>1981</td>
<td>6.37</td>
<td>11.23</td>
<td>18.87</td>
</tr>
<tr>
<td>1982</td>
<td>6.79</td>
<td>11.57</td>
<td>14.86</td>
</tr>
<tr>
<td>1983</td>
<td>6.58</td>
<td>9.47</td>
<td>10.79</td>
</tr>
<tr>
<td>1984</td>
<td>6.91</td>
<td>10.15</td>
<td>12.04</td>
</tr>
</tbody>
</table>

As this table shows, the investment income return steadily increased from 1978 through 1982. It declined slightly in 1983 and increased again in 1984, just as interest rates declined in 1983 and rose in 1984. Basically the rate of return tracked the interest yield on municipal bonds—the preferred asset of property/casualty insurance companies.

Thus, the notion that insurance companies bet on high interest rates continuing into the future, and, are now faced with an overall declining investment income, is not borne out by the data. Therefore, assertions that insurance companies are raising prices to make up for reduced investment income due to mistaken forecasts on interest rates are invalid.

4. Changes in Incurred Losses

It does appear likely, however, that insurance companies misjudged the accelerated growth in liability claims in the 1980's. This can be seen by examining the breakdown of incurred losses. Arithmetically, incurred losses for a given year can be broken down into paid losses plus changes in reserves. The yearly in-

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43. A.M. Best & Co., Aggregates and Averages (data in first column); Economic Report of President, supra note 25, at 324 (table B-68) (data in last two columns).

44. Incurred losses are losses allocated to pay claims for occurrences in a given year. Some of these losses will be paid in the year and the remainder will be added to reserves. To see how incurred losses equal paid losses plus changes in reserves requires some algebra.

Let: \( L_t \) be incurred losses in period \( t \),
\( R_t \) be reserves at the start of period \( t \), and \( R_{t+1} \) be reserves at the end of period \( t \).
Increases in these categories and in total incurred losses are shown in the following table.

<table>
<thead>
<tr>
<th>Year</th>
<th>General Liability (including medical malpractice)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td>12.4% 3.5% 7.6%</td>
</tr>
<tr>
<td>1979</td>
<td>20.4 12.8 16.5</td>
</tr>
<tr>
<td>1980</td>
<td>22.4 1.8 12.0</td>
</tr>
<tr>
<td>1981</td>
<td>20.8 (1.6) 10.6</td>
</tr>
<tr>
<td>1982</td>
<td>19.8 9.5 15.6</td>
</tr>
<tr>
<td>1983</td>
<td>21.4 (9.6) 9.5</td>
</tr>
<tr>
<td>1984</td>
<td>24.2 45.8 31.1</td>
</tr>
</tbody>
</table>

What is immediately evident from these data is that paid losses which represent dollars actually paid out in claims had been growing at a steady rate of approximately 20% since 1978. However, additions to reserves shows no such parallel increase. What might have occurred is that actuaries believed that the large increases in paid losses were unusual. As a result, they underestimated additions to reserves and, in fact, in certain years decreased the amount added to reserves from the prior year.

Why did actuaries apparently believe the paid loss data were reflecting a transitory phenomenon? No definitive answer can be

Let: PL, be paid losses in period t.

\[ PL_t = PL'_t + \sum_{i=1}^{\infty} PL_{t-i} \] (equation 1),

where \( PL'_{t-i} \) refers to paid losses in period t for claims arising in a prior period \( t-i \).

\[ L_t = \Delta R'_t + PL'_t \] (equation 2), where \( \Delta R'_t \) in period t is the increased reserves due to losses for events occurring in period t.

Let \( \Delta R_t = R_{t+1} - R_t \) (equation 3)

\[ R_{t+1} = R_t + \Delta R'_t - \sum_{i=1}^{\infty} PL_{t-i} \] (equation 4),

meaning that reserves at the end of period t are made up of reserves at the start of period t, plus the additions to reserves in period t less losses paid against reserves set up in prior years. Substituting equation 1 in equation 4 yields:

\[ R_{t+1} = R_t + \Delta R'_t - PL_t + PL'_t \]

But \( PL'_t = L_t - \Delta R'_t \) (from equation 2)

Therefore: \( R_{t+1} = R_t + \Delta R'_t - PL_t + L_t - \Delta R'_t = R_t - PL_t + L_t \)

Hence: \( L_t = R_{t+1} - R_t + PL_t = \Delta R_t + PL_t \)

given. It should be borne in mind that the liability insurance industry had come through a tough period in the mid-1970's. Following this period, loss growth slowed, and perhaps, actuaries were inclined to believe that this period of slow growth in claims losses would persist.

5. Other Factors

The growth in litigation and the insurance cycle go a long way toward explaining the rapid swings in the price of liability insurance. However, they do not fully explain why insurance became unavailable in some lines and readily available in others.

A number of special factors entered into the picture to shape the availability aspects of the crisis. These factors can be grouped into three broad categories:

1. factors external to the liability and insurance systems;
2. factors peculiar to the liability system; and
3. factors specific to the insurance industry.

a. External Factors

In the area of day-care, a number of child abuse scandals in day-care facilities were reported. The publicity surrounding these cases affected politicians, parents, law enforcement officials and, not surprisingly, underwriters. The day-care line had been losing money for a number of years, and thus was an obvious area to eliminate coverage for companies who were attempting to limit their liability exposure. In this line, premiums were low. In some cases coverage was added to other policies, with no rate change whatsoever. Additionally, a major national insurer of day-care centers, Mission Insurance, had severe financial difficulties and finally was declared insolvent.

It could clearly be argued that there would have been a crisis in day care, absent the other factors in the tort and insurance cycle. But such a conclusion would be impossible to prove.

The drive against drunk driving began in full swing in 1982. Over the ensuing years, the liability of servers of alcohol in the case of restaurants and for accidents caused by patrons or guests in case of social hosts was increasingly asserted in the courts.46

46. See, e.g., Kelly v. Gwinnell, 96 N.J. 538, 559-60, 476 A.2d 1219, 1230 (1984) (guest host liable for foreseeable consequences to third parties that result from guest's drunken driving); Wiener v. Gamma Phi Chapter of Alpha Tau
Again this line of insurance had not exactly been a sterling profit performer over the years. For many restaurants the coverage was added as a low cost endorsement to a more comprehensive policy. It could be argued also in this case that the availability problems would have occurred absent the impact of the tort law developments and cyclical forces.

Similarly, unrelated social factors impacted on availability in other categories.

1. The farm crisis appears to have led to an increase in rural arson, which, in turn, led to a cutback in rural homeowners coverage; 47
2. The federal superfund law of 1980 has had a continuing chilling effect on the market for pollution coverages; 48 and
3. The deregulation of the trucking industry is believed to be responsible for a significant increase in accidents involving trucks. 49

b. Special Liability Problems

The availability problems of municipalities arose from changes within the tort system itself, particularly the erosion of sovereign immunity and the expanded use of the joint and several liability doctrine for independent tortfeasors against municipalities. 50 Again, while these factors were not external to the tort system, they had a special impact on municipalities, distinct from other sectors of society.

c. Special Insurance Industry Problems

A number of exogenous events impacted on the United States insurance industry in the crisis period. Although in and of

Omego Fraternity, 258 Or. 632, 639, 485 P.2d 18, 21 (1971) (circumstances may exist where host has duty to deny guest further access to alcohol).


48. INSURANCE INFORMATION INSTITUTE, DATA BASE REPORTS: ENVIRONMENTAL POLLUTION 7-9 (Oct. 1987) [hereinafter ENVIRONMENTAL POLLUTION].

49. INSURANCE INFORMATION INSTITUTE, DATA BASE REPORTS: AUTO SAFETY 6-8 (Oct. 1987).

50. INSURANCE INFORMATION INSTITUTE, DATA BASE REPORTS: MUNICIPAL LIABILITY 1-8 (Oct. 1987) [hereinafter MUNICIPAL LIABILITY].
themselves these factors could not have caused the crisis, they did shape the nature of the crisis.

The insolvency of Mission Insurance—a major writer of day-care insurance—caused a major problem in this field. Losses in the day-care area were only a minor factor in the financial collapse of Mission. Financial troubles and scandals at Lloyds of London led to reduced availability of coverages in such selected areas as municipalities and recreation facilities. The events at Lloyds and Mission did not cause the crisis. In a normal market competitors would have moved immediately to fill the void caused by the withdrawal of coverage in each case. Indeed, as financial conditions in the industry improved, other companies did move to fill the gaps caused by these special circumstances.

IV. SOLUTIONS TO THE LIABILITY INSURANCE CRISIS

A. Temporary Measures

The problems caused by the tort liability insurance crisis were dealt with in a number of ways in 1985 and 1986. The key problem of availability was addressed in many states by Market Assistance Plans (MAPs), where insurance companies agreed on a voluntary basis to provide coverage in areas where availability was perceived as a key problem.

However, looking at the longer term, what options are available to avoid a repeat of the 1984/85 experience? Two areas need to be reviewed—insurance regulation and the changes in the civil justice system.

1. Controlling the Insurance Cycle

Looking first at the insurance industry, there is no question that the insurance cycle was a major factor causing the gyrations in pricing and availability that occurred in commercial liability insurance. How can the regulatory system be changed to prevent such gyrations in the future? A number of points need to be emphasized before an answer can be found.

Throughout its recorded history the property/casualty insurance industry has been cyclical. Basic economic forces have driven the cycles and so any attempt to control or smooth the cycle should take account of these forces.

Fundamentally, society has decided that in most cases property/casualty insurance should be provided by the private sector. There are benefits to society from utilizing the private sector—the
profit motive provides for flexibility, innovation and development of new products. In addition, the competitive system usually means that the product or service is produced at a lower cost to the consumer than would occur under a government monopoly. However, for many products or services the competitive system produces cycles, e.g., housing, autos and steel.  

In the insurance industry the cycles reflect the basic economics of the demand/supply balance. Demand for insurance is relatively fixed as people normally buy only one auto policy or one homeowners’ policy per year. On the other hand, supply is variable. In particular, entrance into the industry is relatively easy. So the basic economic landscape of supply and demand of the industry leads to cycles. When returns in the industry look good, new capital enters, prices fall, but demand does not expand proportionally. As a result, an imbalance between supply and demand occurs, profits fall and insolvencies develop. Eventually there is a shakeout and a return to a “hard” market, where prices stabilize and coverage in certain areas may be difficult to find. In technical economic terms, demand for insurance is relatively inelastic—unresponsive to price, while supply is elastic—responsive to price.

The agricultural industry has similar characteristics. Demand for food is relatively fixed, while supply varies with the weather and other factors. This leads to cycles. Since 1913, the federal government has attempted to stabilize agricultural markets. Currently over $12,000 per farmer is spent on federal subsidies and the industry still displays extreme cyclicality. Consequently, proposals for increased regulation as “solutions to the cycle” should be reviewed with caution.

The varying nature of the insurance cycle also needs to be considered in framing a regulatory response in the insurance field. Each cycle has different characteristics.

For example, in the 1970's, the most volatile line of insurance was auto insurance. In the period from 1968 to 1978, of the eighteen major property/casualty insurance companies, the two companies which showed most cyclicality were State Farm and GEICO, both prominent auto insurers. The companies with the least cyclicality were Crum & Forster and Travelers, both major commercial lines underwriters.

A study by Conning & Co. published in 1979 concluded that

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52. See id.
strict regulation of price in private passenger automobiles was a major cause of cyclicality.\textsuperscript{53} This contrasts with the latest cycle, where many have suggested that tighter regulation of price would have prevented the cycle from developing.

A number of unique factors combined to create and shape the 1984/85 liability crisis. These included record high interest rates, the relative inexperience of companies in the use of price as a competitive tool and the rapid growth in litigation. A regulatory response designed to deal with the symptoms caused by these factors, namely volatile prices and shortages, would be inappropriate. To begin with, there is a low probability that interest rates will be in the 20\% to 30\% range in the near future. Companies are now more experienced and comfortable with the use of price as a competitive tool. Insurance companies are also better equipped to handle the current unpredictable and explosive liability environment than they were previously. The use of the claims-made policies, increased use of aggregate limits and more experienced underwriters—all help to decrease volatility in the market.

Given these considerations of the inevitability of cycles and the futility of attempting to solve yesterday’s symptoms without addressing root causes, are there any clear lessons for regulators from the liability crisis?

One clear area in which improvements could be made is in information. During the intense period of competition, regulators and market participants had no clear information on how far prices had actually fallen. The price for liability insurance is not easily defined. Therefore, regulators rely mainly on annual data on premiums and rate filings to determine financial security. Without clear information on how low prices had gone, it was difficult for regulators to “jaw-bone” or talk the market into adequate pricing. This suggests the need for the development of price indices for liability insurance or, perhaps, some special types of market conduct studies to provide measures of price cutting.

In the latest cycle, it was obvious that manual rates as filed were too high, given the record high interest rates. Price cutting was needed and desirable from a regulatory and societal perspective. But how deep had prices fallen? The degree of decline can be calculated actuarially with suitable conservative forecasts on

\textsuperscript{53} CONNING \& CO., \textit{A STUDY OF WHY UNDERWRITING CYCLES OCCUR} (1979).
interest rates. However, even if regulators knew what the decline should be, for example, 20% in a given line of business, the data they gathered provided no simple indication as to whether companies had cut prices by more or less than this figure. Thus, there is a need for more useful price information. This could be satisfied by the development of a price index (along the lines of the consumer price index for auto insurance) or through a review of a company's books. A random sample of the prices charged to the same policyholders from one year to the next would indicate movements in overall prices. Collecting data along those lines would be much cheaper and much more directed toward problem solving than many other proposals for massive data collection that have been floated at the state and federal levels.

Despite the absence of the velvet or iron glove of the regulator, the provision of data on overall price trends probably would smooth the operations of the market. Perfect information is regarded by economists as a condition for the smooth operation of markets.\(^{54}\) During the price cutting period in the first half of the 1980's, individual companies faced with price cutting by competitors had a basic choice—fight or flee. However, while each individual company had good information on price cutting as it affected its own policyholders, it could not be sure that the price competition it faced represented the temporary raiding actions of its own competitors or a broad market trend toward below cost pricing.

If overall price indices had been available then individual companies would have known that the industry as a whole was moving to an unprofitable pricing level and could have chosen flight rather than fight. Such early defection from the price cutting whirlpool could have slowed and perhaps ameliorated the downturn.

B. *Improvements in the Civil Justice System*

Turning now to the measures proposed to improve the civil justice system, changes have been suggested in two major areas. The first involves more use of alternative dispute resolution mechanisms (ADR) such as arbitration, mediation, mini-trials, etc. The fundamental assumption here is that litigants are currently using the tort system for resolving disputes. Proponents of ADR

\(^{54}\) See F.M. Scherer, *supra* note 40, at 11. Perfect knowledge of both present and future market conditions is one of several characteristics necessary for perfect competition. *Id.*
argue that the tort system was not designed to resolve disputes.\textsuperscript{55} It was not designed to split differences. It was designed to bring tort feasors to justice—to make them pay for what they had done wrong. This would mean that injured parties would receive compensation and that wrongdoing in society would be deterred. The old doctrine of contributory negligence perhaps conveys best the orientation of the tort system.\textsuperscript{56} By requiring that a plaintiff have zero fault in order to recover, the tort system was clearly signalling that it was not a dispute settling—split the difference—system. So proponents of ADR suggest that disputes be taken out of the courtroom context, with its emphasis on contention and argumentation.

The insurance industry has utilized ADR for many years. Indeed, within the insurance industry, ADR is the basic method of resolving disputes, rather than litigation.

The second measure to improve the civil justice system is the area of tort reform. The following set of criteria is suggested for evaluating the various tort reform measures that have in recent years been proposed and indeed passed in many states. These four criteria are justice, predictability, cost and efficiency. Following a review of these criteria, the four tort reform measures proposed by the insurance industry in 1987 will be analyzed in the context of these criteria.

Looking first at justice, it is necessary to start with at least a working definition of the term. The dictionary gives one definition of justice as “the moral principle determining just conduct.”\textsuperscript{57} This definition allows much latitude in interpretation. More precise definitions are available but all have certain drawbacks. For example, a fairly precise definition was available under Roman law. Justice, in the time of the Roman Empire, was de-

\textsuperscript{55.} \textbf{Insurance Information Institute, Data Base Reports: Civil Justice System 7-13 (Oct. 1987) [hereinafter Civil Justice System].}

\textsuperscript{56.} Contributory negligence is “conduct on the part of the plaintiff, contributing as a legal cause to the harm he has suffered, which falls below the standard to which he is required to conform for his own protection.” \textbf{Prosser, supra} note 1, § 65, at 451. The defense of contributory negligence is viewed as the plaintiff’s disability rather than the defendant’s innocence. \emph{Id.} at 452.

The defense of contributory negligence has been limited. Where the defendant’s conduct was intentional or reckless, where the defendant violated a statute intended to protect the plaintiff and others similarly situated and where the defendant had the last clear chance to avoid the accident, the plaintiff’s contributory negligence does not bar his recovery. \textbf{V. Schwartz, Comparative Negligence} § 1.2(A) (2d ed. 1986).

\textsuperscript{57.} \textbf{The Random House Dictionary of the English Language} 776 (1966).
fined as the set and constant purpose of respecting the rights of others, where these rights had in turn been assigned by the social order. However, this is a very "status quo" oriented definition, and would leave no room for the development of case-based common law.

To avoid a continuing and tautologous discussion, perhaps the easiest way out of a possible legal, philosophical and semantic morass is to simply review tort reform measures in terms of whether they severely restrict people's rights. If a given legal rule is viewed as severely restricting an injured person's rights (however loosely defined) then it can be regarded as unjust. For example, a cap of $80,000 on all liability awards would be viewed by most people as unjust under this standard.

The criterion of predictability goes to the heart of the workings of the insurance process. Priest has argued that the developments in tort law toward an enterprise liability concept have been the basic cause of the insurance crisis. This is not the viewpoint adopted here, but it is not necessarily inconsistent. The actual crisis was characterized by a number of special causes such as high interest rates, child abuse scandals, as well as developments in tort law. However, one could argue that absent all these special factors a crisis would have occurred because of the trend toward enterprise liability, as Priest theorized.

The insurance mechanism is based on predictability. In the area of fire insurance, in a given year, a number of home fires occur, resulting in a quantifiable dollar loss. If this figure is $100,000 per 1,000 homes, then an insurance premium (assuming no expenses) of $100 can be set for each home. This process will work as long as the loss of $100,000 is predictable, meaning that it can be estimated by standard statistical techniques.

Priest argues that the courts have explicitly moved to a compensation orientation of liability. Under this view, accidents that occur need to be compensated. Businesses purchase insurance to cover these liabilities. Essentially, the system is viewed as first party insurance—like health insurance—where the coverage is purchased by another party. Priest calls this orientation of the courts enterprise liability. He argues that this approach is destined to collapse as it forces a breakdown in the risk classification.

59. Priest, supra note 36.
60. Id.
system.\textsuperscript{61} The predictability of a risk depends on a number of items, but the key factor is the number of exposures covered. In the example of fires, the number of exposures is 1,000 homes. Consider, then, the situation where 500 of these homes are within a mile of the local fire station and 500 are at a distance of over five miles away from the station. The homeowners who are close to the fire station will feel that they are overcharged, while the homeowners who are farther away from the station will have a major incentive to stay in the insurance pool, as their higher risk is being subsidized by the rest of the pool. The attraction to an insurance pool of high risk exposures is known as adverse selection. If the 500 homeowners close to the fire station drop out, the premiums for the remaining homeowners will rise and the predictability of the system will decline as the population size is smaller. One can build a scenario where more defections occur, based on other factors such as the type of construction and value of the home. Ultimately such a system can break down.

Insurance companies counter the problem of adverse selection through the risk classification system. In the example, the 500 homeowners close to the fire house would be charged a lower rate, based on their more favorable loss experience. The developments in tort law away from a fault based system hinder the insurance mechanism by reducing the ability of the system to classify risks. For example, under the superfund law’s rules on liability, a dry cleaner can be exposed to the same pollution risks as a disposer of hazardous wastes.\textsuperscript{62}

But developments in tort law have also affected the fundamental function of underwriting, that is the selection of risks to be insured by an insurance company. The key to an understanding of the underwriting mechanism is familiarity with the industry’s overall approach toward risk. A maxim frequently quoted by insurance executives is that you cannot choose good risks, but you can avoid bad ones.

What insurance companies try to do is impose a predictable distribution on any given set of risks. They do this by eliminating outsiders, per the “avoid bad risks” maxim. They also do it by

\textsuperscript{61} Id. According to Priest, the risk classification system breaks down because the development of enterprise liability accentuates the adverse selection problem. For a discussion of this breakdown, consider the earlier example of fires, see supra text following note 60. For a discussion of risk classification, see supra notes 11-12 and accompanying text.

\textsuperscript{62} See Environmental Pollution, supra note 48, at 8-9.
using limits and by the use of reinsurance. What frustrates liability insurers is that in today's legal system they find it increasingly difficult to identify "bad risks." The normal way to identify a bad risk is through an analysis of the company's claims record, loss control program, external developments and management. But doctrines like joint and several liability for independent tortfeasors and absolute liability make a sad joke out of even the most careful underwriting.

Tort reforms which improve the predictability of the system include restrictions on the use of the joint and several liability doctrine and elimination of punitive damages. However, it should be noted that a predictable system is not necessarily a less costly system. If every court awarded punitive damages at a fixed ratio, say two times the compensatory award, the system, while more costly, would be more predictable.

A third criterion for reviewing tort reform measures is cost, meaning whether a given tort reform will reduce liability insurance premiums.

A study performed for the American Medical Association suggests the following savings in premiums from tort reform measures:

1. a 12% savings from a $250,000 cap on non-economic damages;
2. a 9% savings from a change in contingency fee system to a sliding scale system (33.33% up to $150,000, 25% of the next $150,000 and 10% of the balance);
3. an 8% savings from a collateral source offset; and
4. a 6% savings from a structured settlements ap-

63. See A.B.A., Report of the American Bar Association Action Commission to Improve the Tort Liability System 15-25 (Feb. 1987) [hereinafter Action Commission Report]. The American Bar Association (A.B.A.) appointed the Action Commission to examine the tort liability system and the A.B.A. published the commission's recommendations, including those aimed at punitive damages and the doctrine of joint and several liability. The Action Commission recommended narrowing the scope of punitive damages rather than completely eliminating them. Id. at 18. The commission set forth several measures to serve that purpose, including the encouragement of use of remittitur and additur by the judge. Id. at 20. Regarding joint and several liability, the commission recommended that each defendant be jointly and severally liable for a plaintiff's economic loss. Id. at 24. However, the commission recommended that a defendant whose responsibility is substantially disproportionate to the liability for the entire loss of the plaintiff should be held liable only for his equitable share of the plaintiff's non-economic loss. Id.
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A study by the Rand Institute for Civil Justice on tort reforms implemented in the 1970's in the medical malpractice area concludes:

1. collateral source offset reduces the number of claims by 14% and the average size of claims by between 11% and 18%; and
2. caps on awards reduce the average size of awards by 23%.65

Businesses in countries which have a different tort system from the United States pay a much lower rate for commercial liability insurance. For example, in Canada where there are caps on non-economic awards,66 penalties for frivolous suits and other measures,67 the average premium is one-third the size of the average premium in the United States.68 Thus, overall there is clear evidence that tort reform can reduce premium costs.

The fourth criterion for evaluating tort reform measures is efficiency. Efficiency means whether a given tort reform measure will result in the injured party receiving a higher percentage of the dollars involved than the current 45% with the remainder going to cover legal and other transactional costs.

Reforms in the areas of contingency fees, frivolous lawsuits and discovery abuse would definitely impact on the basic efficiency of the system. If the transactions costs are reduced, then a higher percentage of the dollars awarded will go to injured persons.

The insurance industry has proposed a four part program for 1987, namely:

1. restrictions on punitive damages;
2. abolition of the use of the joint and several liability doctrine;
3. modification in the collateral source rule; and
4. restoration of the state of the art defense.69

64. MILLIMAN & ROBERTSON, ACTUARIAL ANALYSIS OF AMERICAN MEDICAL ASSOCIATION TORT REFORM PROPOSALS (1985).
65. INSTITUTE FOR CIVIL JUSTICE, supra note 34.
66. Press Release from Insurance Information Institute, Nader's Charge on Ontario, Canada Termed Misleading (Feb. 13, 1986).
67. Id.
68. Id.
69. CIVIL JUSTICE SYSTEM, supra note 55, at 1.
These four proposals compare relatively favorably under the criteria of justice, predictability, cost and efficiency.

1. **Punitive Damages**

   Restricting the use of punitive damages does not at all severely restrict an injured person’s right to full compensation. Punitive damages are directed toward deterrence\(^\text{70}\) and it is difficult to argue that justice is offended if those funds are not transferred to the plaintiff.

   Eliminating punitive damages would increase the predictability of the system. Today, the courts award punitive damages both in terms of size and occurrence in a very unpredictable fashion.\(^\text{71}\) The curtailing of punitive damages would reduce the cost of the system.

   On the surface, it would appear that eliminating punitive damages would decrease the efficiency of the system by decreasing the size of the award relative to the transaction costs. It is likely that without the incentive of a large punitive damage award, litigation expenses would decline.\(^\text{72}\)

2. **Joint and Several Liability Doctrine**

   Changes in the joint and several liability doctrine would improve the predictability and reduce the cost of the system. It is also likely that a great deal of litigation would be reduced, thus increasing the efficiency of the system. Under joint and several liability, plaintiffs’ attorneys attempt to seek compensation from many sources, even when the source is only remotely connected with the incident.\(^\text{73}\) This involves high litigation costs for defendants.

   Under most proposals for change in the joint and several liability standard, it does not appear that justice is offended. Given


\(^{72}\) See Ellis, Fairness and Efficiency in the Law of Punitive Damages, 56 S. Cal., L. Rev. 1, 45-46 (1982). Professor Ellis asserts that the uncertainty of the legal standard for assessing punitive damages increases the likelihood that cases will not be settled without litigation and appeal which increases litigation costs. Id.

\(^{73}\) See generally Civil Justice System, supra note 55, at 11, 13; Municipal Liability, supra note 50, at 6-7.
the overwhelming majority vote for the change in California law under Proposition 5174 passed in June, 1986, a change in the joint and several liability doctrine did not appear to offend Californians’ sense of fairness. Thus in terms of the criterion for justice, a change of the joint and several liability doctrine cannot be viewed as severely restricting an injured person’s rights. The chief concern with moving away from the joint and several liability doctrine as applied to independent tortfeasors is that injured persons will receive no compensation in cases in which the principal tortfeasor cannot be identified or is judgment proof. But, proponents of the change argue that this is a societal concern, best handled by first party insurance for medical care and disability or by government programs. Using the tort system for providing coverage is unfair—the deep pocket ends up paying for the sins of the empty pockets. Further, as reviewed above, it leads to a breakdown in the tort and insurance mechanisms.75

3. Collateral Source Rule

Because many injured parties are covered by first-party insurance or by government insurance programs, the compensation from a tort case may result in more compensation than the injury merits. In states where the so-called collateral source rule is applied, the courts may not take these “collateral sources” into account, either as evidence or in deciding compensation.76 The insurance industry is advocating a change in this rule to allow for consideration of collateral source payments.77

The proposed change in the collateral source rule would not restrict any injured person’s rights to full compensation. Thus, the change satisfies the justice criterion.

The change would not be expected to have a major impact on predictability, except perhaps through slowing the growth in the size of awards. The change would reduce costs because double payment for the same injury would be reduced. As a rule of evidence, the collateral source rule could serve to improve in an overall way the operations of the tort system by moving the system back towards a standard where liability is based on fault.

In the universe of accidents there are two clear extremes. On one side are accidents where nobody or only the injured party is

75. For further discussion, see supra notes 1-16 and accompanying text.
76. See Action Commission Report, supra note 63.
77. See CIVIL JUSTICE SYSTEM, supra note 55, at 1, 14.
at fault; on the other end of the spectrum are accidents where somebody other than the injured party is clearly and obviously at fault. If driver A runs a red light and hits a pedestrian, then driver A is clearly at fault. If driver A runs a red light and runs into a truck, then, under normal circumstances, driver A is the only one at fault. However, what if the driver of the truck was going 70 mph in a 35 mph speed limit area? What if the lights on the corner had been known to stay red on two previous occasions? What if the truck driver was drunk, after being served liquor at the local bar?

This is a grey area between the two extremes and the courts must establish who is liable. Now consider the situation in which driver A is paralyzed for the rest of his life. Driver A sues the local municipality for negligent operation of the light. In the courtroom, the jury sees driver A in a wheelchair and hears the medical testimony on the amount of medical care dollars driver A will need for the rest of his life. The jury hears no evidence on collateral sources. The jury's human instincts will push them in the direction of trying to find fault in order to get compensation for the injured person. The members of the jury will be inclined to find the municipality liable so that driver A is compensated. On the other hand, if the jury knew that collateral sources were adequate, the jury would be less inclined to find the municipality at fault. In other words, the question of collateral sources goes to the root of the trend away from a fault based system, rather than just the issue of overcompensation.

On an arithmetic basis, the recognition of collateral sources would reduce the efficiency of the system since fewer dollars would be going to the plaintiff, while litigation expense probably would not be changed significantly. But this would only occur in cases in which there would have been unjust overcompensation.

4. State-of-the-Art Defense

There are three major variations of the state-of-the-art defense. The state-of-the-art defense can mean that a defendant should not be liable, if he or she was unaware of the defect, because the defect was not discovered or discoverable, given the state of technology at the time. A second variation emphasizes the general practice and knowledge in the industry at the time of

79. Id.
manufacture. Under this interpretation the defendant could claim that the industry was generally unaware of the problem. 80
A third interpretation would absolve a manufacturer from liability if it had conformed with industry practice at the time. 81

Related to the state-of-the-art defense is the defense of compliance with government standards. Drug manufacturers, in particular, state that, where a drug has been exhaustively tested by the United States Food and Drug Administration and given its approval, the drug manufacturer should not be liable. 82

The state-of-the-art defense would not appear to severely restrict people's rights. There will be cases where people claim injury by products which have been certified as safe by the federal government. 83 As technology develops, particularly in the medical field, products first considered harmless or even beneficial are later viewed as dangerous. 84 Such events can be covered by private or government first-party insurance.

The state-of-the-art defense plays a critical role in insurance because it provides a motivation for the insured to improve safety and thus aids in the underwriting process, through improving predictability. An underwriter can check to see whether a firm is employing state-of-the-art safety measures and thus has a basis for the selection of risks.

If the state-of-the-art defense is available, businesses will be motivated to develop products and services which comply with this standard. As a result, their exposure to suit will be reduced and this will be reflected in the cost of insurance. The state-of-the-art defense would tend to bring down the costs of liability insurance, since with this defense available fewer claims would be paid or litigated.

The efficiency of the system could deteriorate, again in an arithmetic sense. Doctrines of strict or absolute liability tend to reduce litigation, because liability is easier to prove under these doctrines. However, if the standard of liability was clearer there could be a significant decline in the litigation expense of defendants. Much effort is spent on defense litigation, when the defend-

80. Id.
81. Id.
82. Id.
83. Id.
84. Cigarette smoking is the best example of a product first considered harmless and now viewed as dangerous. At one time, advertisements referred to cigarette smoking as "just what the doctor ordered." See Fein, Capital's Smoking Court Stirs Groans and Cheers, N.Y. Times, Feb. 7, 1987, at 30, col. 1.
The proposals for tort reform discussed so far have a common theme—namely, they return the tort system closer to a fault-based orientation. In addition, as legislative proposals, they fulfill a further function of codifying the common law. In other words, the legislative proposals by their very nature suggest a weakness in the case law system. Judges and juries in today's society have no special background or training to decide fundamental societal issues on risk, fault and compensation. These are issues for the whole of society and should be debated and legislated in a fully informed democratic procedure. While a full codification cannot be realistically expected, such steps along the way should improve the efficiency and justice of the liability system.