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COMPENSATION REFORM, ACCIDENT COSTS, AND TRAFFIC SAFETY: TOWARD A UNIFIED MOTOR TRANSPORT POLICY

PHILIP C. THORPE†

The decade of the 1960's will be regarded by future historians as marking a watershed in the efforts of American society to come to terms with the automobile. During that decade, federal, state and local governments committed themselves to programs of highway improvement, expressway construction, and the substantial completion of the network of interstate highways.¹ In 1966 Congress created the Department of Transportation, with responsibilities for developing national transportation policies.² Largely as a result of the impact of one book, *Unsafe at Any Speed*,³ legislation establishing national safety standards for motor vehicles and vehicular equipment was approved.⁴ Traffic safety research was being conducted on a scale previously unknown.⁵ State governments were also active in the 1960's, regulating vehicle safety through annual inspection laws,⁶ and in a few instances enforcing safety standards for vehicles and equipment.⁷ By the end of the decade, efforts were underway to reduce air pollution resulting from the use of the internal combustion engine.⁸ The automotive and petroleum industries had by 1970 announced programs to combat air pollution and to produce safer cars.⁹ Although the social problems created or compounded by the motor vehicle were not solved by the beginning of 1970, a historian could view the decade as one in which the United States became serious about them and began substantial efforts to find and apply correctives.

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1. Federal-aid Highways, 23 U.S.C. §§ 101-34 (1964).
2. Department of Transportation, 49 U.S.C. §§ 1651-59 (Supp. V, 1970).
3. R. NADER, *UNSAFE AT ANY SPEED* (1965) [hereinafter cited as NADER].
4. Traffic and Motor Vehicle Safety, 15 U.S.C. §§ 1381-1425 (Supp. V, 1970).
5. See, U.S. DEP'T OF TRANSPORTATION, 1969 REPORT ON ACTIVITIES UNDER THE NATIONAL TRAFFIC AND MOTOR VEHICLE SAFETY ACT 46 (1970).
6. See, R. GOODMAN, *AUTOMOBILE DESIGN LIABILITY* (1970) at ch. 9 [hereinafter cited as GOODMAN].
7. See, e.g., N.Y. VEHICLE AND TRAFFIC LAW §§ 382-84 (McKinney 1970).
8. See, e.g., N.Y. Times, July 27, 1969, at 42, col. 3; *id.* Aug. 27, 1969, at 1, col. 4.
9. See, e.g., N.Y. Times, June 4, 1964, at 94, col. 5; *id.* Sept. 7, 1969, at 84, col. 5.

There was one notable exception to this pattern of effective societal response to the problems created by the automobile. Little progress was made toward achieving a reform of the methods used to provide compensation for losses suffered by the victims of motor vehicle accidents. This inaction was not due to a lack of interest in or indifference to reform. By the mid-1960's several studies of the deficiencies of the current compensation system had been published,¹⁰ and a number of alternatives to the law of torts as a compensation system had been proposed.¹¹ One proposal, the Keeton-O'Connell Plan,¹² had generated literature sufficient to fill a good sized book shelf.¹³ By 1970 elements within the insurance industry had recommended a non-fault compensation system¹⁴ and the insurance commissioners of two states, New York¹⁵ and Connecticut,¹⁶ had proposed plans for altering the traditional compensation system. The Department of Transportation was making an extensive study of the problem but by 1970 had made no recommendations.¹⁷ Puerto Rico alone had adopted a non-fault plan by 1970,¹⁸ and the Massachusetts general assembly passed a minimum "no-fault" plan in the same year.¹⁹ Despite the attention given to reform during those years, the situation in 1970 was not much different than it had been a decade before.

Several hypotheses might explain this nation's failure to accept non-fault motor vehicle accident compensation. The first places the blame

10. R. KEETON & J. O'CONNELL, BASIC PROTECTION FOR THE TRAFFIC VICTIM (1965) [hereinafter cited as KEETON & O'CONNELL]; A. CONARD, J. MORGAN, R. PRATT, JR., C. VOLTZ, & BOMBAUGH, AUTOMOBILE ACCIDENT COSTS AND PAYMENTS (1964) [hereinafter cited as CONARD]; W. BLUM & H. KALVEN, JR., PUBLIC LAW PERSPECTIVES ON A PRIVATE LAW PROBLEM (1964) [hereinafter cited as BLUM & KALVEN].

11. A. EHRENZWEIG, NEGLIGENCE WITHOUT FAULT (1951) [hereinafter cited as EHRENZWEIG]; L. GREEN, TRAFFIC VICTIMS: TORT LAW AND INSURANCE (1958) [hereinafter cited as GREEN].

12. See KEETON & O'CONNELL, *supra* note 10.

13. See, e.g., Hold, *Critique of Basic Protection for the Traffic Victim—The Keeton-O'Connell Proposal*, 1968 INS. L.J. 73 (1968); Jung, *The Keeton-O'Connell Plan—How Many People Know What It Is?*, 1968 INS. L.J. 606 (1968); Markhoff, *Compensation Without Fault and the Keeton-O'Connell Plan: A Critique*, 43 ST. JOHN'S L. REV. 175 (1968); Maryott, *Tort System and Auto Claims: Evaluating the Keeton-O'Connell Proposal*, 53 A.B.A.J. 639 (1968).

14. AMERICAN INSURANCE ASS'N, REPORT OF SPECIAL COMMITTEE TO STUDY AND EVALUATE THE KEETON-O'CONNELL BASIC PROTECTION PLAN AND AUTOMOBILE ACCIDENT REPARATIONS (1968) [hereinafter cited as *AIJA*].

15. STATE OF NEW YORK INSURANCE DEP'T, AUTOMOBILE INSURANCE . . . FOR WHOSE BENEFIT? (1970) [hereinafter cited as *New York Plan*].

16. STATE OF CONNECTICUT INSURANCE DEP'T, A PROGRAM FOR AUTOMOBILE INSURANCE AND ACCIDENT BENEFITS REFORM (1969) [hereinafter cited as *Cotter*].

17. U.S. DEP'T OF TRANSPORTATION, AUTOMOBILE INSURANCE AND COMPENSATION STUDY (1970) [hereinafter cited as *D.O.T. Studies*].

18. P.R. ANN. LAWS tit. 9, §§ 2051-65 (Vol. 2A Cum. Pocket Supp., 1969).

19. Wall Street Journal, Aug. 17, 1970, at 6, col. 1.

with attorneys and insurance companies.²⁰ Underwriting liability insurance is too lucrative to be abandoned, and a substantial number of attorneys earn too much money from automobile accident litigation to permit adoption of a non-fault system. This explanation does not take into account the fact that neither the bar nor the insurance industry have been of one accord about non-fault compensation plans. Advocates for reform can be found among practicing attorneys²¹ as well as among legal scholars.²² The American Insurance Association has prepared a non-fault plan,²³ and the industry as a whole has advocated or accepted many state-instituted reforms leading toward non-fault compensation.²⁴ The opposition to reform is not monolithic, nor has it operated in a secretive fashion. It is, therefore, not possible to credit such opposition as the sole explanation for the lack of acceptance of compensation reform, but at best only a partial one.

The second explanation is that the time for reform is only now arriving. Political, economic and social factors have at last combined to permit reform in the near future, as evidenced by the success in Puerto Rico,²⁵ the adoption of a limited non-fault plan in Massachusetts,²⁶ the D.O.T. study²⁷ and the research described earlier.²⁸ This does not, however, explain the general lack of acceptance of non-fault compensation. A non-fault compensation plan is not a radical departure for a nation which has accepted workmen's compensation, unemployment compensation, social security and the War on Poverty. The battles for Medicare and Medicaid though long, were begun and won after World War II.²⁹ In contrast, the first non-fault compensation proposal, the Columbia Plan³⁰ was published in 1934. By the mid-1960's several variations³¹ had been designed but not adopted. Non-fault compensation reform is old. Its failure cannot be explained as a lack of interest, since the American public has been concerned about traffic problems for some

20. Buckley, *Syndicated column* Nov. 5, 1970.

21. J. FRANK, *AMERICAN LAW: THE CASE FOR RADICAL REFORM* 70-85 (1969).

22. For many years many of the most eminent scholars in the field of torts have advocated non-fault compensation for motor vehicle accident victims. Among such advocates, one can name Deans Prosser and Green and Profs. Ehrenzweig, Keeton, Franklin, James and Morris.

23. See generally *AIA*, *supra* note 14.

24. See KEETON & O'CONNELL, *supra* note 10, at 109-23.

25. See note 18 *supra*.

26. See note 19 *supra*.

27. See generally *D.O.T. Studies*, *supra* note 17.

28. See notes 21, 22 and 23 *supra*.

29. See, e.g., *Traffic and Motor Vehicle Safety*, *supra* note 4.

30. See note 5 *supra*.

31. See, e.g., KEETON & O'CONNELL, *supra* note 10, at 109-14.

time. It has demanded and obtained vehicular safety regulation³² in a decade.³³ The demand for safer highways and the acceptance of large expenditures of tax funds to achieve them,³⁴ was translated into action during the 1950's.³⁵ Concern over compensating accident victims rose sharply after World War II, and insureds have voluntarily assumed the increased premium costs of expanded insurance coverages and those non-fault coverages offered to them.³⁶ The political, economic and social factors necessary for achieving reform have been present for some time; yet, motor vehicle accident compensation remains unaltered.

The call for reform is an old one. Its age and the absence of its success suggest the desirability of re-evaluating non-fault motor vehicle accident compensation systems. For some reason reform is not adequately responsive to the various social concerns which must be reflected in selecting an appropriate method for compensating the victims of motoring accidents. The general agreement in approach among the various proposals eliminates the possibility that reform has failed for lack of a solution.³⁷ Hence reform, though representing an improvement of some facets of the problem, must also involve certain disadvantages so serious in nature that political judgment rejects reform as it is currently being proposed.

In this regard it is instructive to look at the recent experience in Massachusetts. Massachusetts became the first state to adopt some form of non-fault compensation when the General Assembly enacted a limited plan in August, 1970.³⁸ The plan as adopted provided for a rate reduction of 15% on the various coverages required.³⁹ Several insurers threatened to stop writing insurance coverages within the state because they believed the rate reductions enacted would make it uneconomical to continue to do so.⁴⁰ Insurers obtained judicial review, and the Massachusetts Supreme Court declared the rate reduction for property damage coverages un-

32. See generally 15 U.S.C. §§ 1381-1425 (1970).

33. See generally NADER, *supra* note 3; R. GOODMAN, AUTOMOBILE DESIGN LIABILITY (1970) at ch. 5 and Traffic and Motor Vehicle Safety, *supra* note 4.

34. See note 5 *supra*.

35. See generally 23 U.S.C. §§ 104-36 (1964).

36. Health Insurance for the Aged, 42 U.S.C. §§ 1395-96 (Supp. V, 1970).

37. Cf. the provisions of KEETON & O'CONNELL, *supra* note 10; *New York Plan*, *supra* note 15; *AIA*, *supra* note 14.

38. See note 19 *supra*.

39. *Id.*

40. *Id.*

constitutional in November, 1970.⁴¹ According to newspaper reports several insurers, though applauding this action, were withholding decision about continuing to write policies in Massachusetts until all questions about rates were resolved.⁴² Nevertheless, the state's insurance commissioner announced that rate reductions would be effectuated.⁴³ It was thought that his plan would involve a reduction in coverage, probably by raising the limits of a deductible or self-insurance provision.⁴⁴ These difficulties are particularly noteworthy since Massachusetts has for many years compelled the purchase of liability insurance.⁴⁵ Therefore, insurer opposition cannot be attributed to the long-standing industry opposition to compulsory insurance.⁴⁶

The Massachusetts experience reveals that the unsolved problem facing the non-fault motor vehicle accident plans—the problem which must be solved before major reform in the current compensation system can be achieved—is one of cost. The costs of accidents are too high; hence the cost to the motoring public is too high. The insurance industry has in recent years come under increasing criticism from government and consumer groups⁴⁷ complaining about the high premium cost of liability insurance, the rating practices of the industry, the difficulties many persons have in obtaining liability insurance, and the cancellation practices prevalent in the industry.⁴⁸ Putting aside for the present the legitimacy of these criticisms, it is interesting to note that they are directed at the cost of liability insurance to users and at the manner in which the industry administers the funds provided for victim compensation. Although the industry is the target, insurers in turn complain that high accident costs necessitate either higher premium charges for liability insurance or strict underwriting practices eliminating high risk drivers.⁴⁹ The dilemma is obvious. If victims of motoring accidents are to be compensated, funds must be provided. These funds at present are provided by motor vehicle users who insure. The user group believes that its cost absorbing capacities have been reached. Rising accident rates and the inflationary economic trend of the past decades have increased the demand for bene-

41. *Aetna Cas. & Sur. Co. v. Comm'r of Ins.*, — Mass. —, 263 N.E.2d 698 (1970).

42. See note 19 *supra*.

43. *Id.*

44. *Id.*

45. MASS. ANN. LAWS ch. 90, §§ 34A-K (1967).

46. See KEETON & O'CONNELL, *supra* note 10, at 86-102.

47. Senate Subcomm. on Anti-Trust and Monopoly, 89th Cong., 1st Sess. (1965), and 90th Cong., 2nd Sess. (1968) [hereinafter cited as *Hart Subcomm.*].

48. *Id.*

49. *Id.*

fits. What emerges is a serious question of national policy. Unfortunately, the debate over motor vehicle accident compensation reform proposals have largely ignored this critical question of the cost to motorists of providing victim compensation.

*The Non-Fault Plans and The Funding Sources
of Motor Accident Benefits*

Someone designing a compensation plan would need to consider three matters: the coverages to be provided, the funding of the coverages and the apparatus for administering the plan. The various plans for non-fault motor vehicle accident compensation, although varying in detail, are similar in design. Most would eliminate the liability limitations imposed by the common law action of negligence.⁵⁰ Most would fund the resulting coverage expansion through the purchase of insurance by motor vehicle users.⁵¹ Most would vest administration of compensation in the private insurance industry.⁵² These plans may be characterized as little more than devices to legitimize the motor vehicle accident compensation system which has already evolved.⁵³ The plans would provide compensation to a greater number of victims than are now covered,⁵⁴ thereby eliminating many inequities in coverage resulting from the application of tort law doctrines,⁵⁵ and permitting a more efficient administration of the system.⁵⁶ These benefits or improvements, however, are the only major alterations in current practices anticipated from adopting a non-fault compensation plan. To the extent that such plans retain the motorist as the primary funding source, and the private insurance industry as the agency for claims administration, they will not correct defects in these aspects of the design.

At present, administration of claims arising from motor vehicle accidents rests primarily with liability insurers, with what is essentially a right of appeal to the judicial system if the settlement proposed by the insurer does not satisfy the claimant. Studies of the administration of these claims reveal that judicial intervention into the processing of claims

50. See generally KEETON & O'CONNELL, *supra* note 10; *New York Plan*, *supra* note 15; and *AIA*, *supra* note 14.

51. See generally KEETON & O'CONNELL, *supra* note 10; *New York Plan*, *supra* note 15; and *AIA*, *supra* note 14.

52. See generally KEETON & O'CONNELL, *supra* note 10; *New York Plan*, *supra* note 15; and *AIA*, *supra* note 14.

53. See, e.g., KEETON & O'CONNELL, *supra* note 10, at 71-119.

54. See KEETON & O'CONNELL, *supra* note 10, at 515-18.

55. *Id.*

56. *Id.*

is rare.⁵⁷ But, the impact of the right to a judicial determination of the claim is far greater than this would indicate because legal standards are probably used by insurers in settling with claimants informally. Although it is not certain how carefully insurers apply legal doctrines, it can be stated safely that there is a reasonably close relationship between court applied rules of law and the settlement practices of insurers.⁵⁸ Ultimately, court applied rules will govern the resolution of the claim if the informal adjustment process fails. Under most non-fault plans, the insurance industry is retained to administer claims: either they propose to rely upon the present system of informal insurer-claimant adjustment processing with ultimate judicial intervention when necessary,⁵⁹ or they propose a system whereby the possibility of judicial intervention is greatly reduced.⁶⁰ This latter proposal rests on the reasonable assumption that by decreasing the number of litigable issues, resort to the courts will in turn be diminished. However, basic reliance upon insurers as the primary claims administrative agency is not altered. Slight alteration of the traditional role of the insurer is sensible because insurers as a group are already equipped to process the volume of claims being generated by motor vehicle accidents. It is expedient to continue their role. Furthermore the political difficulties that would be encountered were a plan to propose the elimination of or substantial reduction in the role of the private insurance industry with respect to motor vehicle accident claims are avoided. Thus, it is possible to exclude the retention of insurer administration as a likely source of defects in non-fault plans.

The benefits to be provided under most plans have been criticized since negligent victims would receive compensation. However, the advantages of expanding coverage to this group so far outweigh the disadvantages, the case for this reform becomes almost irresistible. Empirical studies of the present system establish that it is an expensive, inefficient method for providing compensation.⁶¹ Administrative costs are very high⁶² in comparison to the administrative costs under non-fault compensation systems.⁶³ Although the savings to be realized from a non-fault benefits plan can only be estimated, there is every reason to believe that they would be substantial.⁶⁴ The costs of investigating and

57. See CONARD, *supra* note 10, at 3.

58. See CONARD, *supra* note 10, at 209-21.

59. See EHRENZWEIG, *supra* note 11 and Cotter, *supra* note 16.

60. See *New York Plan*, *supra* note 15; *AIA*, *supra* note 14; and KEETON & O'CONNELL, *supra* note 10.

61. See CONARD, *supra* note 10.

62. *Id.*

63. *Id.*

64. See KEETON & O'CONNELL, *supra* note 10, at 515-18.

processing claims should decline by reducing the number of decisions necessary to determine coverage.⁶⁵ Litigation expenses should be reduced for the same reason.⁶⁶ Undoubtedly a non-fault benefit plan would increase the number of victims compensated.⁶⁷ So long as this coverage expansion is funded from administrative savings and an expanded funding base rather than from victims currently being compensated, the expansion of coverage to additional victims is a rational allocation of resources.⁶⁸ Certainly greater efficiencies and savings become strong arguments in favor of such plans if neither the level of benefits nor the funding groups are adversely affected. Another efficiency must be counted here: court time. The demand on court time for motor vehicle accident litigation reduces the time available for other litigation.⁶⁹ As most accident litigation involves factual disputes only, and legal principles have long since been developed and explored, accident litigation involves only the application of rule to fact. The full panoply of judge, jury and adversaries, which may have high creative or protective value in other contexts,⁷⁰ seems wasted effort in the context of a purely factual dispute: removal of most accident litigation from the courts would permit a better allocation of judicial resources.⁷¹

Another reason for adopting some form of non-fault benefit plan is that it would be more equitable and just than is the current system. Put simply, most people believe that they should be paid promptly for losses suffered.⁷² They view insurance as a savings fund against the eventuality of an accident. When an accident occurs, compensation is expected⁷³ and when funds are not forthcoming, or when litigation is required, disrespect for the legal system results.⁷⁴ The present system is not meeting people's expectations for prompt payment of claims. Another aspect of this problem involves the present delay in payment with a consequent delay in victim rehabilitation.⁷⁵ Rehabilitation is successful if begun

65. *Id.*

66. *Id.*

67. *Id.*

68. *Id.*

69. Rosenberg and Sovern, *Delay and Dynamics of Personal Injury Litigation*, 59 COLUM. L. REV. 1115 (1959); J. FRANK, *AMERICAN LAW: THE CASE FOR RADICAL REFORM* (1969).

70. See generally H. KALVEN, JR., & H. ZEISEL, *THE AMERICAN JURY* (1966).

71. R. HUNTING & G. NEUWIRTH, *WHO SUES IN NEW YORK CITY* 8 (1962); R. KEETON & J. O'CONNELL, *AFTER CARS CRASH: THE NEED FOR LEGAL AND INSURANCE REFORM* 27-32 (1967).

72. *Id.*

73. *Id.*

74. See CONARD, *supra* note 10, at 81.

75. Rusk, *Trauma, Accidents and Rehabilitation*, in *TRAUMA AND THE AUTOMOBILE* 296 (W. Curran & N. Chayet eds. 1966) [hereinafter cited as Curran & Chayet].

early. By permitting prompt payment of claims, a non-fault plan would greatly assist rehabilitative efforts and reduce the level of benefits required for victim care.⁷⁶ Finally, benefits paid on a non-fault basis reduce the necessity for bargaining over payments to be used to alleviate human misfortune. Human dignity and respect suffer whenever compromises must be struck.⁷⁷

Despite the advantages in adopting some form of non-fault compensation plan, the costs to motorists remain high. Unfortunately, the various proposals have not altered substantially the funding of benefits. Each has allocated the obligation to fund in a somewhat different manner. All, however, follow similar funding patterns. The first allocative choice is between user-funding and taxpayer funding. In most plans vehicle users are the primary funding class, although in one proposal taxpayer funding is recommended,⁷⁸ and that choice has been advocated by others.⁷⁹ If user-funding is selected, alternative means for allocating and distributing this obligation are available. Some plans are voluntary,⁸⁰ while others compel the purchase of insurance;⁸¹ a choice between allocating the obligation to all members of the user class, or allocating responsibility only to those members willing to provide such benefits plus those ultimately compelled to do so through the operation of financial responsibility law.⁸² There is yet another allocation choice to make in those plans utilizing user-funding. All costs may be allocated to the user class,⁸³ or some of the costs may be shifted to other funding groups. In general, if some costs are allocated elsewhere, this has been accomplished by providing that the plan's coverages be excess to all other benefits to which the victim is entitled.⁸⁴ Finally, a distributive choice must be made among first person or loss insurance; third person liability insurance; or some combined form of coverage, if user funding is selected.⁸⁵ The choice is in essence one of dictating the actuarial basis for deciding the contribution level demanded from each member

76. See J. FRANK, *AMERICAN LAW: THE CASE FOR RADICAL REFORM* (1969).

77. See generally KEETON & O'CONNELL, *supra* note 10, at 37-38.

78. Franklin, *Replacing the Negligence Lottery: Compensation and Selective Reimbursement*, 53 VA. L. REV. 774 (1967) [hereinafter cited as Franklin].

79. See BLUM & KALVEN, *supra* note 10.

80. See generally EHRENZWEIG, *supra* note 10.

81. The Keeton-O'Connell, New York and AIA plans are examples. Most of the plans have compelled the purchase of insurance coverage.

82. It is fair to assume that the financial responsibility laws would be retained.

83. See, e.g., GREEN, *supra* note 11.

84. See generally KEETON & O'CONNELL, *supra* note 10 and *New York Plan*, *supra* note 15.

85. The Keeton-O'Connell and New York plans, for example, utilize a combination coverage.

of the obliged class. The distributive differences produced may be small in fact, since most liability insurance premiums are already calculated on the basis of exposure rather than liability.⁸⁶

For the most part, the concept of compensation funding provided by the users of motor vehicles has been retained in the non-fault plans. User funding has been retained primarily because motorists are the traditional funding source and retention is politically the most expedient. Occasionally, the suggestion has been made that the best method for funding compensation payments is through some form of tax-supported system similar to social security.⁸⁷ Such suggestions have been rejected on the ground that the private insurance industry would not countenance such a step.⁸⁸ Assuming that a case for a non-fault benefits plan can be established, the role of private insurance remains unanswered. Theoretically, that role is defined by the type of funding scheme adopted. As a political matter, a non-fault plan must provide a role for the insurance industry. This restricts the choice of plans, ruling out any move to a totally tax-supported plan, for example.⁸⁹ The role for the industry in the future need not be its present role, however. Federal regulatory activity has become likely,⁹⁰ and one may anticipate that consumer complaints about insurance will sooner or later produce greater regulation at either the federal or state level.⁹¹ It is fair to assume that the industry will be forced to "accept" greater regulation than at present so long as it retains a sufficiently lucrative role in any compensation system adopted.

Political considerations have thus dictated retention of user funding for non-fault accident compensation plans, since user funding is compatible with retaining a role for private insurance companies. The unfortunate consequence is that the costs of benefits will continue to be borne by a group—vehicle users—already complaining about the present cost burden. This group has become a sufficiently powerful political force that any reform not providing a substantial premium cost reduction is probably doomed.⁹² In several non-fault plans the premium cost problem has been recognized and various devices have been utilized in an attempt

86. *See Auto Rates: The Big Picture*, 45 J. AM. INS. 64 (1969).

87. *See* BLUM & KALVEN, *supra* note 10, at 42-43 and 73-74; Franklin, *supra* note 79, at 812-14.

88. *See*, BLUM & KALVEN, *supra* note 10, at 79-80.

89. *Id.*

90. *See*, Hart *Subcomm.*, *supra* note 47.

91. *See*, BLUM & KALVEN, *supra* note 10, at 79-80.

92. The recent enactment of a limited non-fault plan in Massachusetts, coupled with a rate reduction legislatively imposed, is evidence of the increasing pressure for rating reform.

to reduce costs to vehicle users. However each device creates problems about the legitimacy of reallocating accident costs to other benefits systems, or the efficacy of the device to achieve real savings.

The devices which the non-fault plans have proposed as cost reducers are: (1) decreases in benefits coverage; (2) savings resulting from more efficient and economical claims administration and; (3) obtaining some funding from other sources. Most plans use a combination of these devices.⁹³ The first, reduction of coverage, might be accomplished in two ways: by providing maximum coverage limits and by making the coverage excess to other available benefits such as health and accident insurance or workmen's compensation benefits.⁹⁴ This approach to cost reduction, undoubtedly an effective one, raises serious questions as to the justification therefor. Some costs of traffic accidents would be absorbed by activities not causally responsible for such accidents. This is a misallocation of costs,⁹⁵ rationalized because other benefits plans are more efficient loss spreading devices than is liability insurance.⁹⁶ Furthermore coverage reductions or the maintenance of current maximum coverage limits in a period of inflation effectively forces victims to absorb an increasing amount of real accident costs. This choice may also be rationalized as economically more efficient. However, the real social cost of motoring becomes hidden.

Studies have established that the second cost reducing alternative, increasing the internal efficiency of the compensation system to provide more money for paying benefits, is likely to result if a non-fault plan is adopted.⁹⁷ The current system is very inefficient, consuming approximately half of every premium dollar in overhead, administrative and litigation expense.⁹⁸ Proponents argue that their plans would effectuate substantial administrative savings,⁹⁹ thus reducing premium rates.¹⁰⁰ The studies of the economics of motor vehicle accident compensation have compared the administrative costs of similar systems such as health and accident insurance, workmen's compensation, and social

93. The Keeton-O'Connell and New York plans utilize all these devices. Other proposals utilize combinations thereof.

94. See, e.g., KEETON & O'CONNELL, *supra* note 10, at 7-8, and *New York Plan*, *supra* note 15, at 83-90.

95. See G. CALABRESI, *THE COSTS OF ACCIDENTS: A LEGAL AND ECONOMIC ANALYSIS* (1970), esp. ch. 5.

96. See *New York Plan*, *supra* note 15, and KEETON & O'CONNELL, *supra* note 10.

97. See KEETON & O'CONNELL, *supra* note 10, at 6, and *New York Plan*, *supra* note 15, at 106.

98. See CONARD, *supra* note 10, at 52-66.

99. See KEETON & O'CONNELL, *supra* note 10.

100. *Id.*

security. These comparisons indicate that substantial savings could be achieved through adopting a non-fault plan.¹⁰¹ The question which cannot be answered is, conceding the likelihood of effecting substantial savings by reducing administrative costs, whether such savings will permit reducing premium costs to limits acceptable to motorists.¹⁰² Variables such as the inclusion of property damage and physical damage compensation, including deductible provisions, retaining the tort remedy for large losses by providing a maximum coverage limit, and the claims adjusting costs created, make it difficult to predict the savings. Because non-fault plans involve an expansion of coverage to claims not now covered, at least a part of the savings would provide funds for expansion. The claims of the industry, self-serving though they may be, that a substantial rate increase is required to fund non-fault compensation suggest that administrative savings would not result in a substantial rate reduction. This estimate by insurers is inferentially corroborated by the design of several plans in which deductible features or excess coverage provisions are adopted.¹⁰³

The last alternative for reducing costs to insureds is to alter the funding base. At present funding is provided by users who purchase liability insurance policies. Several plans have been designed to alter this funding base. The coverages provided are made excess to other benefits to which the victim is entitled.¹⁰⁴ Thus, the costs of motor vehicle accidents would be in part shifted to other compensation systems. This has been justified because other benefits systems are internally more efficient, thereby maximizing benefits to the victim.¹⁰⁵ In the main, however, the non-fault plans have continued traditional reliance upon the user for funding compensation benefits,¹⁰⁶ and several plans would increase such reliance by compelling users to purchase coverage.¹⁰⁷ The implications of this decision have not been thoroughly explored, nor has it been explained on other than pragmatic grounds.¹⁰⁸ Allocating these costs to

101. R. KEETON & J. O'CONNELL, *AFTER CARS CRASH* 81-84 (1967).

102. The criticisms by insurers of the Massachusetts rate reductions, and their estimates of the costs involved would suggest that the estimates of possible savings made by Messrs. Keeton and O'Connell are no error.

103. See, e.g., KEETON & O'CONNELL, *supra* note 10, and *New York Plan*, *supra* note 15.

104. See, e.g., KEETON & O'CONNELL, *supra* note 10, at 7-8, and *New York Plan*, *supra* note 15, at 89.

105. *Id.*

106. The only plans advocating non-user fundings are BLUM & KALVEN, *supra* note 10, and Franklin, *supra* note 79.

107. See KEETON & O'CONNELL, *supra* note 10, and *New York Plan*, *supra* note 15.

108. See KEETON & O'CONNELL, *supra* note 10, at 341-43.

motorists is compatible with the retention of private insurance,¹⁰⁹ and it continues the allocation of accident costs to a group used to absorbing them. What is strange is that, although allocating costs to other compensation systems, the possibility of allocating costs to other activities which are known to cause motor vehicle accidents has not been explored.

The failure to achieve any reform in present methods for compensating accident victims is thus probably attributable to the failure of the proposals to achieve a satisfactory allocation of accident costs and funding responsibility.

The Allocation of Funding Responsibility to Motorists.

At present the allocation of responsibility to fund compensation benefits to accident victims is supposedly achieved by the application of tort law doctrines. In theory, victims are entitled to benefits only from actors causally responsible for the harms suffered, provided the actor was "negligent" in some manner. Victims who establish entitlement to benefits within these limitations are compensated for all losses suffered, and all losses suffered or incurred by them are allocated to the responsible actor. Contributorily negligent victims are barred from receiving benefits, and must absorb all of their losses. Further limitations upon the victim's recovery, such as duty, proximate cause, assumption of the risk and various immunities, are utilized to prevent allocation of loss to the actor under various circumstances in which it is felt that the victim should not be compensated.¹¹¹ The theoretical basis of these limitations is the tort assumption that remedy is a sanction.¹¹² Victims may shift their losses only if the imposition of a sanction is appropriate. Accordingly, loss shifting is proper only when the actor's conduct is adjudged morally reprehensible.¹¹³ Unlike the antecedent criminal law, tort sanctions are applied to unintended results of intentional acts.¹¹⁴ Nonetheless, the victim could reallocate his losses only to actors who in fact caused

109. See BLUM & KALVEN, *supra* note 10, at 78-79.

110. To the extent the victim's private health and accident insurance, sick leave, savings, etc., are made his primary source of compensation, victims, as a class, would absorb costs. See CONARD, *supra* note 10. Providing maximum coverage limits allocates all costs in excess thereof to victims, except insofar as shifting is possible through the retained tort remedy.

111. See generally W. PROSSER, *HANDBOOK OF THE LAW OF TORTS* (3d ed. 1964) [hereinafter cited as PROSSER].

112. See PROSSER, *supra* note 111, § 2 at 7-14.

113. O. HOLMES, *THE COMMON LAW* (Howe ed. 1963), Lecture I at 1. *But see* PROSSER, *supra* note 111, § 4 at 16-17.

114. See PROSSER, *supra* note 111, at 7-9. Hall, *Interrelations of Criminal Law and Torts* (pts. 1-2), 43 COLUM. L. REV. 753, 967 (1943) [hereinafter cited as Hall].

them.¹¹⁵ Tort law is not designed to be charitable.

When motor vehicles first came into use in this country, the common law negligence action was applied by analogy to provide compensation for the victims of accidents.¹¹⁶ As the ownership and use of motor vehicles became prevalent, and the accident rate increased, a different compensation system evolved; largely because motorists feared potential financial responsibility the practice of purchasing liability insurance was instituted.¹¹⁷ As insurance funding became common, the older system was modified in two ways. First, the initial administration of claims was remitted to the insurer.¹¹⁸ Second, the availability of financial resources and the need of victims combined to generate an expansion of coverage beyond the limitations formerly imposed by tort law doctrines.¹¹⁹ By the late 1960's, these modifications had combined to create a compensation system in which most victims were receiving some compensation.¹²⁰ However, various studies¹²¹ of the operation of the new system had uncovered inequities and malfunctions of sufficient seriousness to prompt one commentator to term the result a "lottery."¹²²

Our use of and reliance upon the motor vehicle for transportation had created a gap between the theoretical base for allocating the obligation to fund and the actual basis for allocation. In fact the obligation was imposed primarily as an incidence of the ownership and use of motor vehicles,¹²³ although the sanction theory was retained with respect to contributory fault, thereby affecting settlements and trial verdicts. With this one exception, the system-in-fact moved away from the sanction basis for allocating costs and imposing the funding responsibility, although lip service was paid to user "fault" as the basis for imposing this obligation.¹²⁴ A variety of factors combined to effectuate the shift. Codifying the rules of the road and adopting the negligence per se doctrine made it possible to establish driver error and "fault"

115. See H. HART AND A. HONORÉ, *CAUSATION IN THE LAW* (1959) ch. 5 and PROSSER, *supra* note 111, § 341 at 240.

116. KEETON & O'CONNELL, *supra* note 10, at 15-28.

117. See KEETON & O'CONNELL, *supra* note 10, at 71-75.

118. See CONARD, *supra* note 10, at 3.

119. See KEETON & O'CONNELL, *supra* note 10, at 71-75.

120. See CONARD, *supra* note 10, at 62-74, 137-58.

121. See generally CONARD, *supra* note 10; HUNTING & NEUWIRTH, *supra* note 71; Morris & Paul, *The Financial Impact of Automobile Accidents*, 110 U. PA. L. REV. 913 (1962).

122. See Franklin, *supra* note 79.

123. The purchase of insurance by owners of vehicles altered the allocation of the funding, particularly as omnibus coverages became prevalent.

124. See James, *Accident Liability Reconsidered: The Impact of Liability Insurance*, 57 YALE L.J. 549 (1948); BLUM & KALVEN, *supra* note 10, at 8-15; KEETON & O'CONNELL, *supra* note 10, at 16-22.

with relative ease. The objective negligence theory obscured the distinctions among faulty attention, inexperience, lack of capacity to perform tasks at required levels of competence, and lack of sensitivity to the risks involved in driving.¹²⁵ By shifting the basis for allocating the funding obligation, motorists were obligated under circumstances in which they not only were not guilty of morally reprehensible conduct, but also were not even causally responsible for accidents or injuries in any meaningful sense if a sanction were being imposed.

Litigation processes have influenced the legal system's approach to accident causation and explain the *de facto* shift in the rationale for allocating funding. The tort remedy is one instituted by the victim, who must establish the actor's conduct and its connection with his harm. So long as funding responsibility requires victim initiation of litigation and victim proof of causality, it is essential to define causation in a limited way that permits victims to establish its existence within available evidentiary resources. The legal system does not require victims to seek funding from all sources which may have combined to harm them. It is enough for the victim to establish that the actor's conduct was a substantial and producing cause of his harm.¹²⁶ Victims also are not compelled to seek relief from all causally relevant agencies in proportion to their contribution to the harm. Once any actor's causal responsibility is established, he must provide the victim with total compensation benefits. If apportionment of responsibility can be established actors may apportion,¹²⁷ but victims need not do so. They may seek funding from only the actor or actors they believe can readily be held responsible.¹²⁸

What has resulted is a narrowly proscribed study of the causes of accidents. The vehicle user has become the primary "cause" of motor vehicle accidents, because he is the most highly visible actor, and also a financially responsible one. The user's conduct is an easily established causal activity, making proof of driver error the simplest and most financially rewarding investigation of accident causes. The legal system has aided and abetted this concentration of attention by adopting financial responsibility laws and traffic codes, and by easing the victim's evidentiary

125. See Hall, *supra* note 114, at 981: "Nor have we begun to distinguish the various types of negligence, such as those occasioned by faulty attention, lack of moral sensitivity, inexperience, overwork, and other environmental factors." For a study of driving behavioral patterns, see M. PARRY, *AGGRESSION ON THE ROAD: A PILOT STUDY OF BEHAVIOR IN THE DRIVING SITUATION* (1968). In general, see M. AUSTIN, *ACCIDENT BLACK SPOT* (1966).

126. See PROSSER, *supra* note 111, §§ 42 and 47.

127. See PROSSER, *supra* note 111, § 42, and Peaslee, *Multiple Causation and Damage*, 47 HARV. L. REV. 1127 (1934).

128. See PROSSER, *supra* note 111, § 42.

responsibilities. The result has been to obscure a realistic appraisal of motor vehicle accident causation by the legal system.

This can be demonstrated by examining the studies of accident causes which have been made by investigators from other disciplines.¹²⁹ World War II provided the impetus for investigating the causes of accidental injuries of many kinds. Psychologists have studied the attitudes, motivations, aggressions and mental condition of people involved in accidents.¹³⁰ Engineers have studied control systems and the problem of designing systems which can be operated within the physical and mental limitations of the human being.¹³¹ Medical researchers have investigated the causes of traumatic insult to the body and have suggested a number of ways of reducing their effects.¹³² Similar investigations into the effect of alcohol and drugs upon motor mechanisms and sensory capabilities have been made.¹³³ Transportation engineers and systems analysts have studied traffic patterns, road environment and many other aspects of motoring.¹³⁴ The result of all these investigations has been the discovery of quite a different etiology of motor vehicle accidents than that achieved by the legal system. A summary statement of the conclusions reached by these investigations has become almost a truism: motor vehicle accidents and injuries are caused by the operator, the vehicle, and the motoring environment. These factors may operate singly but more often interact to cause accidents and resultant harms. Such investigations conclude that driver error, the major cause of accidents located by the legal system, plays a less significant role in causing accidents than the legal system assumes.

The Vehicle as Accident Cause. Since the publication in 1965 of Mr. Ralph Nader's book, *UNSAFE AT ANY SPEED*,¹³⁵ the public has become increasingly aware of the motor vehicle's contribution to accidents. The extensive regulatory efforts of the Department of Transportation are proof not only of the recognition that vehicles cause accidents, but of

129. It is obviously not possible to provide a complete bibliography of the relevant literature. Perhaps the most widely available general sources are: ARTHUR D. LITTLE, INC., *THE STATE OF THE ART OF TRAFFIC SAFETY* (1966); *ACCIDENT RESEARCH: METHODS AND APPROACHES* (W. Haddon, Jr., E. Suchman, & D. Klein eds. 1964) [hereinafter cited as Haddon]; and Curran & Chayet, *supra* note 74.

130. See, e.g., Haddon, *supra* note 129, at 385-437, and Curran & Chayet, *supra* note 74, at 145.

131. See Michaels, *Systems Research in Safety*, in Haddon, *supra* note 129, at 366.

132. See Curran & Chayet, *supra* note 74, at 196-305, and Haddon, *supra* note 129, at 680-720.

133. See Haddon, *supra* note 129, at 101, 208, 351, 358.

134. See Haddon, *supra* note 129, at 217, 674.

135. See NADER, *supra* note 3.

the societal demand for improved vehicle safety.¹³⁶ The legal profession has known the accident potential of vehicular defects at least since Mr. McPherson sued the Buick Motor Company.¹³⁷ Success of the assault upon the citadel of privity has greatly increased the volume of litigation, seeking recovery for injuries caused by automotive product defects. An examination of any standard treatise on the subject discloses the extent to which almost all the of parts and systems of automobiles have proved capable of being defective and of causing motor vehicle accidents.¹³⁸

One aspect of current research illustrates difficulties in applying tort causation principles to accidents. The most serious injuries in motor vehicle accidents occur as the result of the so-called "second collision" between passenger and car rather than from the initial impact.¹³⁹ Efforts have been made to require seat belts, in hopes of reducing the severity of the second collision.¹⁴⁰ Regulations requiring padding, recessing of knobs and the reduction of protrusions are also attempts to reduce the severity of the injuries produced in accidents.¹⁴¹ Despite recognition that design features cause injuries, it has not been feasible to reflect this in allocating the responsibility to fund compensation benefits. This illustrates the legal inability to distinguish between the causation of an accident and the causation of an injury that results from the accident. The accident may have one or more causes producing injuries. These injuries may, in fact, have been increased in severity by vehicular design features. Within the confines of traditional tort theory, however, so long as one cause of injury can be identified, full compensation is obtained from that cause. The "thin skull" rule requiring the defendant to take the victim as he finds him is the paradigm. Thus under current law, by analogy, the defendant must accept vehicle design as he finds it.¹⁴² The effect of these

136. See, e.g., GOODMAN, *supra* note 6, and O'Connell, *Taming the Automobile*, 58 NW. U.L. REV. 299 (1963).

137. *McPherson v. Buick Motor Car Co.*, 217 N.Y. 382, 111 N.E. 1050 (1916).

138. See GOODMAN, *supra* note 6, at ch. 6.

139. See NADER, *supra* note 3, at ch. 3; Campbell, *Twelve Years of Automobile Crash Research*, in Curran & Chayet, *supra* note 74, at 1; Kulkowski, *The Anatomy of Driver Injuries in a Group of 125 Road Accidents*, in Curran & Chayet, *supra* note 74, at 196; and Swearingen, *Tolerance of the Human Face to Crash Impact*, in Curran & Chayet, *supra* note 74, at 223.

140. See NADER, *supra* note 3, at 85-98, Michelson, Aldman, Tourin & Mitchell, *Dynamic Tests of Automobile Passenger Restraining Devices*, in Haddon, *supra* note 129, at 688.

141. See GOODMAN, *supra* note 6, at 307-11.

142. *But see* *Badorek v. General Motors Corp.*, 11 Cal. App. 3d 902, 90 Cal. Rptr. 305 (1970), imposing manufacturer liabilities for a design defect enhancing an injury to a passenger and for death of the driver. See also Comment, *Manufacturer's Duty, Reasonably to Protect Occupants Against the Effects of Collision*, 1969 U. ILL. L.F. 396; and

rules is to place causal responsibility for injuries enhanced by poor vehicle design upon the motorist, despite the existence of an equally culpable cause, the vehicle. A failure to apportion funding responsibility in such cases has substantially increased the costs of accidents to one group while benefiting another. Insofar as this occurs in a consistent pattern, it has the effect of misallocating costs to the detriment of the primary funding source.

*The Environment as Accident Cause.*¹⁴³ It is not novel to assert that operators and motor vehicles cause motor vehicle accidents. It is perhaps more surprising to learn that the environment within which driving occurs is also a substantial cause of accidents. A moment's reflection identifies certain accident-producing environmental hazards such a chuck holes in the road, unmarked road hazards, ditches, and the like.¹⁴⁴ However, recent analysis of motor vehicle accidents has identified many more environmental features which contribute to high accident rates. The visibility of traffic signals is often obscured by neon signs.¹⁴⁵ Road side advertising signs distract drivers.¹⁴⁶ The frequency of occurrence of accidents is significantly higher with certain adjacent land uses than with others.¹⁴⁷ As any safety engineer or traffic control officer knows, certain locations "breed" accidents while others do not.¹⁴⁸ This may be partially explained by differences in traffic volume. Often, however, locations having almost identical traffic volumes have varying accident frequencies. Insurance companies have recognized environmental differences in their rating formulas and districts are classified according to risk. However the contribution of environmental factors to motoring accidents has not been recognized when allocating the responsibility to fund victim compensation.

Tort law has never purported to allocate accident costs to all causally responsible actors with much precision. The extreme imprecision of allocatng costs upon a causality basis is the result of the investigative limitations of the adversary system and the difficulties in establishing factually the complicated causal interrelationships between the elements

Comment, *Torts: Automobile Manufacturer's Liability for Secondary Impact Injuries*, 23 OKLA. L. REV. 296 (1970).

143. See generally Koskoff, *Automobile Insurance: Some Environmental Observations*, 1 CONN. L. REV. 125 (1968).

144. See Stonex, *Roadside Design for Safety*, in Haddon, *supra* note 129, at 707.

145. See McMonagle, *The Effect of Roadside Features in Traffic Accidents*, in Haddon, *supra* note 129, at 217-24.

146. OUTDOOR ADVERTISING: HISTORY AND REGULATION 223 (J. Houck ed. 1969); McMonagle, *supra* note 145, at 223-24.

147. See note 145 *supra* at 217-24.

148. *Id.*

of the motor transportation system. As Felix S. Cohen has pointed out:¹⁴⁹ “. . . judgments of causality vary with the stand point of the observer. . . .”¹⁵⁰ With motor vehicle accidents, the legal system has transformed its judgment of causation into a search for highly visible, financially responsible actors having some connection with the victim's harm. The sanctioning rationale, with its limitation upon allocating the funding obligation only to activities causing harm in a substantial way, has been considerably modified. Costs are now allocated in part as sanction and in part because motorists are financially responsible and victims are needy. Because of these developments abandonment of the sanctioning rationale as a means of allocating the responsibility to fund benefits has been advocated.¹⁵¹ In effect, benefits would be funded by imposing an activity tax on vehicle ownership or use.¹⁵² As most non-fault plans utilize user-funding, the implications of allocating funding responsibility on a non-causal basis deserve exploration.

In many ways allocating the responsibility of funding benefits to motorists in part as a sanction and in part as an activity tax has attractions despite the resultant mis-allocation of accident costs. It accords with the methods now used to provide such funds, thus permitting reasonably accurate predictions about the impact of the tax upon the economy, upon the taxed group, and as to the revenues generated. It also retains compatibility with private insurance. It is, however, an allocation with disadvantages. To the extent that motor vehicle users are being taxed for non-caused accidents, other causally responsible activities are not being forced to provide funding. Users must subsidize these activities without a rational decision that such subsidies are appropriate.¹⁵³ Failing to allocate the funding responsibility to all causally responsible activities in proportion to their contribution to accidents eliminates the possibility of using such allocation to assist in reducing the number or severity of accidents.¹⁵⁴ Any deterrent force, retributive or educative, from

149. Cohen, *Field Theory and Judicial Logic*, 59 YALE L.J. 238 (1950).

150. *Id.* at 254.

151. Franklin, *supra* note 79; R. KEETON, *VENTURING TO DO JUSTICE* (1969), ch. 8. See generally Kalven, *A Scheme of Alternatives to the Present Auto Accident Tort System*, 1 CONN. L. REV. 33 (1968).

152. Professor Robert Keeton, in particular, has advocated the allocation of finding responsibility to motorists upon a tax basis. Keeton, *supra* note 151. Professor Keeton argues for a motorist tax as a “cost-benefit” form of tort. See generally, R. MUSGRAVE, *THE THEORY OF PUBLIC FINANCE* (1959), ch. 4, for a discussion of benefits taxation. The difficulty with benefits taxation as applied to motorists is that many non-motorists also benefit from motoring. The tax falls upon some but not all beneficiaries.

153. Coase, *The Problem of Social Cost*, 3 J. LAW & ECON. 1 (1960).

154. Professor Guido Calabresi has explored this problem in several articles and a recent book. In particular, See Calabresi, *Does the Fault System Optimally Control Pri-*

imposing a sanction is lost. Activity tax funding reduces individual choice-making as a factor in rational allocations of economic resources.¹⁵⁵ Finally, activity tax funding operates regressively.¹⁵⁶ These disadvantages combine to make user-tax funding of compensation benefits a questionable policy, largely because they represent a series of decisions, all of which operate to reduce the likelihood of achieving a safer motoring system.¹⁵⁷

In order to evaluate these disadvantages and to understand the adverse effect of activity tax funding upon motoring safety, it is essential to understand something of the economics of resource allocations. Guido Calabresi has devoted considerable thought to this question.¹⁵⁸ Calabresi's initial efforts involved so-called differential costs and what he labeled "general deterrence."¹⁵⁹ In his most recent book¹⁶⁰ he has made an extensive analysis of the issues posed by any allocation selected for

mary Accident Costs?, 33 LAW AND CONTEMP. PROB. 429 (1968); G. CALABRESI, *THE COSTS OF ACCIDENTS: A LEGAL AND ECONOMIC ANALYSIS* (1970), chs. 5 and 10. *See also*, McKean, *Products Liability: Trends and Implications*, 38 U. CHI. L. REV. 3, 31-34 (1970).

155. *See* R. MUSGRAVE, *THEORY OF PUBLIC FINANCE* (1959) at ch. 3.

156. An economist who reviewed the manuscript suggested that the author's prejudices were showing by labeling regressivity as a disadvantage. In part this is true. However, the disadvantages of a regressive tax upon some motorists are real. The economically disadvantaged, whether rural or urban, must rely upon the automobile for transport, for public transportation is not often available. The movement of businesses and industry from the core city, the restrictions placed upon location of low cost housing, urban renewal, and similar aspects of modern life have conspired to make the use of automobiles essential for all people. The investment cost is very high. Adding to that the usually higher premium costs of insurance, based as it usually is on geographic location, age of vehicle, and so forth, creates a serious question about the fairness of a regressive tax. This insight is not new. *See* BLUM & KALVEN, *supra* note 10, at 37-38. *See also* Koskoff, *Automobile Insurance: Some Environmental Observations*, 1 CONN. L. REV. 125 (1968).

157. Although the remainder of this article will develop this point, mention here need be made of the way regressivity would reduce safety. High insurance premium costs reduce money available for purchase of safer vehicles or for car maintenance. A strict vehicle inspection program could "force" investment for a safer vehicle. This would seem a socially more desirable use of limited personal reserves than does payment of high insurance premium costs.

158. Calabresi, *Fault, Accidents and the Wonderful World of Blum and Kalven*, 75 YALE L.J. 216 (1965); Calabresi, *Views and Overviews*, 1967 U. ILL. L.F. 600; Calabresi, *Does the Fault System Optimally Control Primary Accident Costs?*, 33 LAW AND CONTEMP. PROB. 429 (1968); Calabresi, *Transaction Costs, Resource Allocation and Liability Rules—A Comment*, 11 J. LAW & ECON. 67 (1968); Calabresi, *The Decision for Accidents: An Approach to Nonfault Allocation of Costs*, 78 HARV. L. REV. 713 (1965); Calabresi, *Reflections on Medical Experimentation in Humans*, DAEDALUS 387 (1969); Calabresi, *Some Thoughts on Risk Distribution and the Law of Torts*, 70 YALE L.J. 499 (1961); G. CALABRESI & K. BASS III, *RIGHT APPROACH, WRONG IMPLICATION: A CRITIQUE OF MCKEAN ON PRODUCTS LIABILITY* (on file, Yale University Law Library).

159. Calabresi, *Some Thoughts on Risk Distribution and the Law of Torts* (pts. 1-2), 70 YALE L.J. 499 (1961).

160. G. CALABRESI, *THE COSTS OF ACCIDENTS: A LEGAL AND ECONOMIC ANALYSIS* (1970) [hereinafter cited as *COSTS OF ACCIDENTS*].

compensation funding.¹⁶¹ Initially, he constructs a model economy. In a model economy, all real costs of activities, including the costs of accidents attributable to that activity and the costs of administering the claims so generated, must be ultimately borne by the activity as a result of economic laws, despite any tentative allocation of those costs.¹⁶² In a real economy, all costs are not necessarily borne by causally responsible activities, nor are costs necessarily distributed differentially.¹⁶³ There are many reasons why the perfect allocations occurring in the model cannot be achieved in an actual economy. First, the transfer cost resulting from re-allocating losses initially allocated improperly must be subtracted each time a re-allocation occurs.¹⁶⁴ Re-allocations also produce administrative costs.¹⁶⁵ Also, in order to implement various social policies, it may not be desirable for an activity to bear its full share of generated costs. Some activities may require a subsidy.¹⁶⁶ If so, other activities must pay more than their proportional share of such costs. This may be accomplished by the economy's public sector through taxation, or through mis-allocations to other causally responsible activities. Furthermore, unlike a model economy, a real one is not always immediately responsive to pressures forcing a proper allocation of costs. As a result it is not possible or desirable to achieve the perfect allocation of the real social costs of an activity such as motoring.

Calabresi devotes a substantial portion of his book to the proper bases for allocating accident costs in a real economy. Recognizing that an activity can be prohibited completely or regulated so as to limit the manner in which it is conducted,¹⁶⁷ he states that it is theoretically possible to so regulate activities that they will be perfectly safe. Realistically this is not feasible to do; hence most activities will be injury producing to some degree.¹⁶⁸ Because regulation and enforcement is expensive and not always effective, it is often cheaper and more efficient to accept less than totally safe activities and provide compensation to

161. The summary which follows cannot possibly do justice to Professor Calabresi's work. It may, indeed, distort his views to some extent.

162. See COSTS OF ACCIDENTS, *supra* note 160, at ch. 5.

163. See Calabresi's description of what he labels "the world of perfect general deterrence," in COSTS OF ACCIDENTS, *supra* note 160, at 88-94.

164. See Calabresi, *Transaction Costs*, 11 J. LAW & ECON. 67 (1968); McKean, *Products Liability: Trends and Implications*, 38 U. CHI. L. REV. 34-36 (1970).

165. See COSTS OF ACCIDENTS, *supra* note 160, at 143-50, 225-26.

166. *Id.* at 18-21. An interesting argument in this regard is made by Buchanan, *In Defense of Caveat Emptor*, 38 U. CHI. L. REV. 64, 72-73 (1970). Buchanan suggests that cheaper, less-safe products are desirable inasmuch as they permit consumers a wider product choice than would result from any system of perfect accident cost allocation.

167. See COSTS OF ACCIDENTS, *supra* note 160, at 113-29; see also *id.*, ch. 16.

168. *Id.* at 17-18. Fried, *The Value of Life*, 82 HARV. L. REV. 1415 (1969).

those injured or harmed by the activity. Calabresi labels this a "decision for accidents."¹⁶⁹ Once such a decision has been made, funding must be found for the accident benefits for persons inevitably injured. If perfect cost allocation were desirable, the problem would be solely one of calculating the accident costs generated by an activity and charging the activity with them. As this is neither possible nor desirable,¹⁷⁰ and since the allocation must reflect not only causation of accidents but also matters of economic and social policy, the difficulties are really ones in deciding the proper mixture among regulation and enforcement costs, allocation of costs to achieve deterrence, desired subsidies, and minimizing the administrative expenses generated by administering a compensation scheme.¹⁷¹

Implicit throughout Calabresi's analysis is the concept that accident costs should be allocated initially to the activity and to the specific actors within that activity that produce them.¹⁷² This is required in order to accurately reflect the true economic costs of the activity and the differential costs among individual actors.¹⁷³ It is only after accidents are attributed to their causes that it is possible to make the necessary choices among regulation and enforcement, prohibition of activities or actors, or compensation for injuries "permitted" to occur.¹⁷⁴ Once costs are initially attributed to their causal sources, rational decisions can be made about re-allocations, subsidies, taxation, and funding compensation. Identifying the producing cause or causes is the *sine qua non* to any allocative decisions. Initial allocations are difficult to make, but must be made by a method akin to the substantial producing cause limitation of the legal system or the "could have prevented" definition of the safety engineers. The activity must produce injury in some substantial way in order for the harm to be so allocated. Some concept of causation must be applied in order to accurately allocate costs to the responsible activities.

169. Calabresi, *The Decision for Accidents: An Approach to Non-Fault Allocation of Costs*, 78 HARV. L. REV. 713 (1965).

170. See COSTS OF ACCIDENTS, *supra* note 160, particularly chs. 7 and 8, in which he discusses the problem he labels "what is the cost of what."

171. See COSTS OF ACCIDENTS, *supra* note 160, ch. 12.

172. In chs. 7 and 8 of COSTS OF ACCIDENTS, *supra* note 160, Calabresi discusses the problem of allocating costs to responsible activities. He recognizes that allocative decisions are not made in a world of perfect knowledge, and that allocations vary, depending upon whether the market or governmental regulatory activity is utilized as the allocative agency. He does not purport to discuss the bases for achieving proper allocations.

173. See, Coase, *The Problem of Social Costs*, 3 J. LAW & ECON. 1 (1960).

174. Felix S. Cohen made this point in a most apt way: "What we actually do when we look for a legal cause is to pick out of this infinity of intersecting strands a useful point at which public pressure can be placed." Cohen, *Field Theory and Judicial Logic*, 59 YALE L.J. 238, 252 (1950).

Imposing an activities tax upon motorists does not provide the best or even a rational method of allocation. Rather, it is based upon expediency, despite the mis-allocation of costs which results. User-funding beyond causal limits has been explained as imposing funding responsibility on the same basis as workmen's compensation funding or other forms of strict liability.¹⁷⁵ The analogy, however, is not valid. Prior to non-fault motor vehicle accident compensation plans, the allocation of accident costs by the legal system beyond causal limits has been placed only upon economically productive activities. The classes upon whom liability was imposed were enterprises: blasters, common carriers, innkeepers, employers and, most recently, manufacturers and sellers of products.¹⁷⁶ Imposing liability on such groups seemed appropriate in light of the large number of accidents they produced and the large social problems created by treating the victims.¹⁷⁷ The educative and deterrent effect in applying a sanction was a useful tool to encourage safety. As to the non-activity caused losses, imposing liability on an enterprise could be rationalized in two ways. First, although the enterprise was not responsible in a causal sense, victims needed money. The enterprise was receiving a general economic benefit from being permitted to engage in the activity and could better afford to absorb the costs of these injuries as an initial matter than could these victims.¹⁷⁸ It was in a better position to pass on the costs through price adjustments so that they could eventually be absorbed by the causative activity, or by society at large in the absence of a causative human or economic activity.¹⁷⁹ Secondly, remedies for re-allocating responsibility to causative activities were provided by the legal system. Although the costs of imposing liability vicariously were absorbed initially by the employer, they could in theory be re-allocated to the employee¹⁸⁰ or to the ultimate consumer. Most workmen's compensation acts permit the employer to be subrogated to

175. In particular by Professor Robert Keeton, R. KEETON, *VENTURING TO DO JUSTICE* (1969), at ch. 9. See also KEETON & O'CONNELL, *supra* note 10, at 72-73. BLUM & KALVEN, *supra* note 10, at 54-65, have effectively criticized the analogy.

176. See, generally PROSSER, *supra* note 111, § 77 at 519, § 79 at 541, and ch. 19; Gilmore, *Products Liability: A Commentary*, 38 U. CHI. L. REV. 103 (1970).

177. The clearest evidence of the activity or enterprise as primary cause of injury may be located in a study of workmen's compensation "arising out of" cases. Although relatively infrequent when compared with the total number of claims processed, they have engendered considerable discussion about the limits of coverage provided. In general, see I A. LARSEN, *WORKMEN'S COMPENSATION LAW* (1968), ch. III.

178. See COSTS OF ACCIDENTS, *supra* note 160, at 40-41.

179. *Id.*

180. See A. CONARD & R. KNAUSS, *BUSINESS ORGANIZATION: CASES AND MATERIALS* 86-90 (1965).

the employee's remedy against a causally responsible actor.¹⁸¹ The assembler or seller of a defective product may seek recovery from the parts manufacturer actually responsible.¹⁸² All in all, imposing these responsibilities has worked quite well, has compensated the victims, applied a useful economic sanction when activities were causally responsible, and has provided a means of transferring these costs improperly allocated.

Enterprise or activity liability, although a reasonably effective and fair allocation of accident costs when applied to economically productive activity under circumstances in which most accidents are caused by the activity, does not operate in the same fashion when utilized as an allocative device for motoring accident costs. Motoring accidents are caused by several activities operating simultaneously. Imposing the cost burden for most accidents on one activity, motoring, cannot be rationalized as activity liability in the same sense that employer's liability for workmen's compensation benefits or manufacturer's liability for defective products can be rationalized. Motoring, though often occurring as part of an economically productive activity, especially if transportation to-and-from work is so considered, also is motivated by consumption activities—shopping, recreation and the like.¹⁸³ In the latter form, cost mis-allocations cannot be re-allocated by product or service price adjustments, but only through wage adjustments. Thus mis-allocations of accident costs are more likely and less easily remedied when compared with activity or enterprise liability. Transactional costs are very high, particularly in view of the number of causal variables working to produce motoring accidents. Differential costs are almost impossible to shift.

The foregoing criticisms of user-funding, though serious, do not appear decisive despite the complaints of the user-group about high costs. The monetary values of the mis-allocations are unknown. Depending upon one's estimate of the contribution of environmental, vehicular and operator activities to accidents, the mis-allocation of accident costs is or is not great. However, if an activity tax form of funding is adopted without modification, the extent of the mis-allocations will never be known. To the extent that funding is allocated to systems totally unrelated to motoring, the mis-allocation of costs is increased. Professor Calabresi has pointed out: "The justification found most often among legal writers today for allocation of accident losses on a non-fault basis is that accident losses will be least burdensome if they are spread broadly among people

181. 2 A. LARSEN, *WORKMEN'S COMPENSATION LAW* (1970), ch. XIV.

182. 3 FRUMER & FRIEDMAN, *PRODUCTS LIABILITY* (1960), ch. XV.

183. See Franklin, *supra* note 79.

and over time."¹⁸⁴ However, as Calabresi has also shown, the principal function of accident law "is to reduce the sum of the costs of accidents and the costs of avoiding accidents."¹⁸⁵ By giving primary significance to monetary requirements, the safety function of accident law has been largely ignored. As most proponents of compensation reform have taken the position that tort law does not deter motorists' bad driving,¹⁸⁶ they apparently believe that the allocation of responsibility to causal sources has no role to play in funding benefits.¹⁸⁷ Even if it is conceded that the imposition of a funding responsibility under no circumstances alters conduct, that still does not justify ignoring safety when designing a compensation plan. The allocation of funding responsibility is a question distinct from the allocation of costs to causal sources. Although the former may be placed upon motorists as a matter of political expediency, the latter ought be achieved as accurately and completely as is possible to do.

Sanction-based Rating: Toward A Safer Motoring Environment.

There are several advantages to retention of some system of allocating accident costs initially to those activities causing physical harm in a "could have prevented" sense; the sense used by traffic safety specialists. To the extent an initial allocation is so made, valuable information about accidents is obtained. Accident-producing activities, land uses, and vehicle designs, can be identified. Once these activities and conditions have been identified, rational decisions can be made about cost allocations and corrective measures. Sanctions need not always deter: correction is also a goal.¹⁸⁸ National policy favors safer motoring and correction: accident prevention and reduction is in the national interest. Correction has not

184. See COSTS OF ACCIDENTS, *supra* note 160, at 39.

185. *Id.* at 26. Professor Calabresi's original statement gives the requirements of justice equal significance as a function of accident law.

186. See, e.g., KEETON & O'CONNELL, *supra* note 10, at 247-49. Franklin, *supra* note 79, at 781, states: "The fault system is not needed to create deterrence. While it may be true that in order to deter carelessness something must be done to the transgressor, there is no logical reason why treatment of the transgressor should be tied inexorably to treatment of the victim. We already regulate conduct through our relatively mature system of criminal sanctions and our rapidly developing structure of administrative law."

187. *Id.*

188. See generally J. HALL, GENERAL PRINCIPLES OF CRIMINAL LAW (2d ed. 1960), at ch. IX; H. PACKER, THE LIMITS OF THE CRIMINAL SANCTION (1968), particularly chs. 3 and 4, is an excellent discussion of sanctioning rationales, and argues persuasively for a combined deterrence and rehabilitative theory for criminal punishment. Although much of what Chancellor Packer says is relevant to a discussion of the rationale for imposing economic sanctions through imposing an obligation to fund compensation benefits, for now it is enough to note that correction is one legitimate aim of sanctioning, and that the educative effects of sanction-based allocations of funding responsibility would be reduced by user-funding of non-fault compensation plans.

to date been emphasized in discussing the allocation of motoring accident costs,¹⁸⁹ and the issue has been treated as one of providing benefits to victims. The issue is not that alone, although providing compensation is an important consideration. The role any compensation system ought to play in furthering national transportation policies is equally important. Those policies include our continued reliance upon motoring as a major transportation instrument and improving the safety record of the motoring activity. A compensation system which permits the allocation of funding or the initial allocation of costs to causal activities could play an important role in furthering traffic safety. To the extent that costs are not allocated initially to causally relevant activities, decisions for safety are less likely to be made by drivers, manufacturers, public agencies, and activities adversely affecting the driving environment. From the traffic safety perspective, all elements of the motor transportation system are suspect as accident producers. It is much easier to design a reasonably safe system around human limitations than to attempt a substantial redesign of the driver, if the information to do so is available. It is also possible to train humans to operate motor vehicles in a reasonably safe manner if bad drivers are identified. It is possible to alter the vehicle and the motoring environment to reduce accidents with knowledge of accident creating conditions, and by assisting drivers in performing the complex tasks required to control an automobile. Furthermore it is possible to reduce the severity of accidents through redesign of the vehicle and the environment when it is not feasible to eliminate the possibility of accidents occurring at all, if injury enhancing features can be identified.¹⁹⁰

At present accident statistics are not being used effectively to promote a safer motoring climate. Accident information is collected by law enforcement agencies, by insurers, by traffic safety engineers, and by governmental agencies responsible for various parts of the motor transport system. An accident triggers the gathering of information about defects in the system. Police and insurance claims adjusters investigate accidents. Motorists must file accident reports in compliance with

189. Except insofar as the deterrent effect of a tort judgment upon an individual driver has been doubted, the complex of sanctions imposed civilly and criminally upon drivers and their effectiveness as a package has not been evaluated, although studies of specific sanctions have been made. In particular, see A. ANTONY, *SUSPENSION AND REVOCATION OF DRIVERS' LICENSES* (rev. ed. 1966) and R. McGUIDE, *et al.*, *Modifying Negligent Driver Behavior Through Warning-Letters*, Calif. Dept. of Motor Vehicles (1969). See also Conway, *Is Criminal or Civil Procedure Proper for Enforcement of Traffic Laws* (pts. 1-2), 1959 WIS. L. REV. 41, 1960 WIS. L. REV. 1.

190. See Michaels, *Systems Research in Safety* in Haddon, *supra* note 129, at 366, and Goldston, *Social Relations: The Emerging Behavioral Science*, 19 CASE W. RES. L. REV. 78 (1967).

financial responsibility laws. This information is not now being collected in a systematic way, nor is it being analyzed and used to make decisions which would lead to improvements which would reduce the number and severity of accidents.¹⁹¹ Since accidents generate considerable information, an accident compensation system has an obvious role in gathering and analyzing information of great value and assistance in improving traffic safety.¹⁹²

Adopting of some form of non-fault compensation plan permits the separation of two questions: formerly, tort actions decided both the compensation due and the funding responsibility simultaneously. By using an insurance fund to provide benefits immediately, it is not necessary to decide to whom funding should be allocated at the same time. So long as the fund is solvent, victims entitled to compensation can be paid without regard to the sources of the funds. The sources can be identified and further resources obtained on a periodic basis and without regard to particular occurrences except insofar as each occurrence is used to establish the funding group and the appropriate monetary level of contribution. Each accident thus serves a statistical purpose. Accumulating accident statistics and analyzing them with appropriate techniques allows causal relationships to be established statistically. Significant correlations would establish the contribution of causal factors over periods of time despite the impossibility of doing so in any single occurrence.¹⁹³ As an example of the possibilities of the techniques, if the unusual incidence of single vehicle accidents involving Corvairs had been analyzed by such methods, it would have established the vehicle's culpability, once a sufficient number of incidents had occurred to permit the statistical exclusion of other variables.¹⁹⁴ The same analysis might be

191. The proposed collection and analysis of information by a governmental agency raises an issue of individual privacy. See WESTON, *PRIVACY AND FREEDOM* (1967); Miller, *Personal Privacy in the Computer Age: The Challenge of a New Technology in an Information Oriented Society*, 67 MICH. L. REV. 1091, 1136-40 (1969). As the information required is already being collected by the policy insurance companies and governmental agencies, the major risk of additional loss of privacy lies in the centralized collection and storage of information already available from diverse sources. Access presumably could be limited, although some states have sold license lists to private businesses.

192. In most states today, administrative responsibility over insurers is separated from administrative responsibility for licensing and financial responsibility enforcement. Implementing the plan proposed here need not involve a consolidation of responsibilities. It would require only the channeling of information from various sources to the computer, wherever located, and a program which would provide the varying outputs required for each agency.

193. For a description of the use of a quantitative multivariate analysis to solve legal problems see Lozowick, Steiner and Miller, *Law and Quantitative Multivariate Analysis: An Encounter*, 66 MICH. L. REV. 1641 (1968).

194. Ralph Nader reported over 100 suits alleging instability in the Corvair had been filed by October, 1965. See, NADER, *supra* note 3, at 7.

used to identify accident sites where a poorly designed environment is a factor.¹⁹⁵ Analytic techniques operating on large numbers of incidents can provide proof not available when dealing with one such incident. Once causal contributions are established, costs can be allocated to responsible activities, and alternative funding possibilities considered. The statistical techniques are available. They are a modification of present rating practices,¹⁹⁶ which usually are based upon predicted incidence rates,¹⁹⁷ although a greater number of variables would be analyzed than is presently true. The merit rating systems developed by some insurers foreshadow use of multiple variable analysis in this setting.¹⁹⁸

The kind of analysis proposed requires informational inputs in a form which can be analyzed. The accident reports now used in most states might need revision to reflect additional information. In large part, though, the information needed to identify non-driver causes of accidents is already being obtained. Information about the contribution of vehicle defects, for example, is reported by the user, the police, and by vehicle inspectors.¹⁹⁹ To illustrate, motorists often report that they did not see the victim. This may be a result of driver error, of a poorly designed vehicle, or of environmental factors obstructing vision.²⁰⁰ The specific occurrence might be assignable to each category. If, however, a number of accidents occur at the same locations, involving different makes of vehicles and different types of users, the pattern identifies the environmental variable as causally significant. Little change in data gathering processes needs be made to produce the information for such

195. A pilot project has proved successful in Marion County, Indiana (Indianapolis). Reported in a personal conversation with Dr. John Stoner, Indiana University Department of Government.

196. For a description of customary rating practices see *Auto Rates: The Big Picture*, 45 J. AM. INS. 24 (1969); Curry, *Refinement of Automobile Rates and Underwriting Classes*, 31 J. RISK & INS. 217 (1964).

197. Most rating has not been particularly successful. See Mehr, *Merit Rating*, 54 BEST'S INS. NEWS 21 (1953); ARTHUR D. LITTLE, INC., *THE STATE OF THE ART OF TRAFFIC SAFETY* (1966). Merit rating is currently required in North Carolina and is available in New York. See KEETON & O'CONNELL, *supra* note 10, at 84.

198. As has been true throughout the preparation of this article, Professors Blum and Kalven in their remarkable essay, *supra* note 10, at 67-71, have preceded the author to this conclusion. They suggest the need for "experimentation and greater daring in setting insurance rates for the sake of creating more deterrent impact." *Id.* at 69.

199. In states, such as Indiana, having vehicle inspection laws.

200. At present, failure to observe is usually charged to driver error. Investigating police often issue tickets for such failures. More often citations for failure to yield the right of way encompass operator failure to observe. If an accident occurred, it is common for the motorist to be interviewed and his explanation recorded. Such explanations would provide much useful information, as would diagrams by investigating police officers.

a causal analysis.²⁰¹

Once the informational inputs are obtained,²⁰² they must be analyzed. Data storage and retrieval systems with sufficient capacity to perform the computations necessary to analyze for causal types are already installed in most states.²⁰³ The programming is, of course, critical. Initially the program should be designed to reflect the variables now used by insurers to rate, plus other variables which have been identified as causing accidents or injuries. Classes and sub-classes by causal type could be added or subtracted to reflect the developing state of the art of traffic safety. Ideally the analysis should be performed by a governmental agency charged with responsibilities for administering and licensing financial responsibility laws and insurance rates. Insurers themselves might be able to perform the analysis through some form of information pooling arrangement.²⁰⁴ A computer program has been designed at Indiana University which can be utilized to perform the necessary analysis.²⁰⁵

The final step is to translate the statistical patterns which emerge into funding allocations and safety decisions. Any novelty in the proposed plan rests upon using the analysis to allocate responsibility for funding compensation benefits to non-users. To avoid the political ramifications, several approaches are available. The least disruptive of the status quo would approximate the funding allocation now in use and proposed for most non-fault plans. Hence, the only innovation would be to require insurance rating based upon the variables.²⁰⁶ Funding would remain solely the responsibility of users in part as a tax and in part as a sanction. The user through the various rating adjustments reported to him would be in a position to adjust his driving habits, vehicle choice and driving environment, or to pay increased premium costs without altering his activities and choices. At a minimum the impact would be educational,

201. Dr. John Stoner reported that all information necessary for identifying accident locations needing improvement by computer analysis was available from police accident reports.

202. Analysis of reports for computer-coding would require a fairly large trained staff. Presumably insurance companies could provide most coding, although it could be done by a state agency.

203. At the present time most states are storing license and registration information in computers. Many states have installed centralized storage and retrieval equipment which enables police to obtain information about vehicle ownership rapidly. As to the utility of tapping this information for insurance rating purposes, see Vonda, *A Revised Plan for Protective Automobile Insurance*, 1969 *INS. LAW J.* 7 (1969).

204. *Id.* at 7, 28.

205. As reported in a conversation with Dr. John Stoner, Indiana University Department of Government. Dr. Stoner has designed a computer program which uses traffic accident information to identify dangerous road locations.

206. See *COSTS OF ACCIDENTS*, *supra* note 160, at 145-50.

although it could also generate political action inasmuch as motorists might mobilize to demand safer vehicles and a safer driving environment. Presumably a modified merit rating system would direct the motorist's attention to the varying accident risks he has assumed or to which he exposes others. Some have doubted that imposing financial responsibility upon motorists has any deterrence effect. Such criticisms may be valid when directed toward an after-the-fact imposition of responsibility. They are not necessarily valid, however, when judging the efficacy of directing information to motorists before-the-fact.

The heart of this approach is a redesigned rating system. It must permit translating the causal variables into rating variables. One possible rating system would consist of the following components: a base rate, representing that group of accidents traditionally viewed as unavoidable, or to which it is not possible to locate a cause; a user rate, based upon diverse factors such as driving record; a vehicle rate, reflecting the sum of the safety risks presented by the vehicle; and a driving environment rate, based upon vehicle use, miles per year driven, neighborhood, and customary routes driven. Each general rate category could be broken down further into sub-rates reflecting sub-variables.²⁰⁷ Premium charges to each insured would be the sum of the premium charges for each category. Insureds would thus be provided with information about the respective driving risks his driving involves or encounters.

By providing users with additional information about motoring risks, a modified merit rating plan might achieve greater safety than is currently the case. However it would not use funding responsibility to reflect causal contribution. Mis-allocations of the real costs of all activities contributing to accidents still result; thus, modified merit rating does not make full use of the possibilities for deterring or educating all causally responsible actors to act in a way to reduce accidents. In order to achieve this, all causally responsible activities must be financially responsible ones. There are several ways this could be done and yet preserve private insurance. For example, tax funds might be contributed to a government-maintained compensation fund in an amount reflecting vehicle and environmental contribution to accidents. The relevant governmental unit would raise

207. Mr. David T. Skelton, a recent graduate of Indiana University School of Law and a former administrator in the Indiana Department of Motor Vehicles, Financial Responsibility Section, has prepared two as yet unpublished papers in which a more detailed modified merit rating formula is discussed. I am indebted to Mr. Skelton for his permission to make use of these manuscripts while preparing this article. I am even more deeply in his debt for stimulating my interest in utilizing merit rating as one aspect of an overall system of motor vehicular control. I have adopted Mr. Skelton's ideas for my purposes, and he, of course, is not responsible for my modifications.

these funds by a graduated income tax or a special tax assessment upon land uses,²⁰⁸ and vehicle manufacturers or sellers.²⁰⁹ A percentage of each victim's compensation benefits would be paid from the state operated fund²¹⁰ and the rest from a private insurer. The percentages of contribution would be determined annually, based upon the prior year's experience. Alternatively, insurers could be reimbursed from tax-provided funds every year in amounts corresponding to non-user caused accident benefits paid. If private insurance were eliminated and governmental insurance provided, it would still be both feasible and desirable to allocate funding responsibility to all causally significant activities. Although some form of tax would be used to raise the money for benefits, the tax rate could be based upon causal contribution accidents. The tax as sanction is not unknown. The educative and deterring values resulting from imposing a sanction would thus be retained.

That aspect of the law of torts which utilized causal responsibility as a way of allocating the responsibility to provide compensation to victims retains its vitality and usefulness in a modern society. The tort remedy, which focused upon individual occurrences, is not a viable instrument for allocating such responsibility in large numbers of incidents. The tort remedy is also of limited usefulness whenever the allocation of responsibility must be made among many causally responsible activities. As this article demonstrates, the need to provide benefits to a large number of victims does not require abandoning the sanctioning rationale when allocating the responsibility to provide benefit funding. It is possible to provide adequate levels of benefits to victims in a fairly and efficiently administered claims system, and yet to retain the corrective values achieved through identifying those activities responsible for producing accidents. Although many activities and conditions interact to cause accidents, they can be identified. By using statistical methods and

208. The special assessment has been used for many years by local governmental units to finance road repairs. The special assessment tax device could be used to force land use contribution to roadway or intersection redesign, improved ingress and egress, and the like, as an alternative to continued, annual contribution to the state compensation fund.

209. A manufacturers or sellers tax would be easy to administer. The major difficulty would arise from the variable assessment based upon the statistical analysis of vehicle contribution to accident incidence or severity. Initially the rating formula would probably have to be established in a way to insure that only those costs clearly caused by vehicular failures were used to levy the tax. Presumably as the statistical analysis became more sophisticated, it would be possible to refine the tax rating formula. It is theoretically possible, though technically not yet feasible, to extend the taxing formula to tire sellers and manufacturers, repair shops and the like.

210. Similar to New York's Motor Vehicle Accident Indemnity Corporation, or many state-run workmen's compensation second-injury funds.

modern data processing equipment it is possible to obtain information which will lead to a better allocation of resources to provide maximum motoring safety for given levels of resources so allocated. Inevitably, such a program will require greater governmental regulation of and control over insurance. It probably will result in further regulation of many activities not now being regulated for safety. It will also probably mean that levels of taxation will be altered. When the social costs of so harmful an activity as motoring are considered, the failure to take all feasible steps to improve traffic safety appears irresponsible.