

AUTOMOBILE INSURANCE COSTS IN THE UNITED STATES

COMPARISON OF PERSONAL INJURY COSTS FOR PRIVATE PASSENGER AUTOMOBILE INSURANCE IN TORT, NO-FAULT AND ADD-ON STATES

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AUTOMOBILE INSURANCE IN TORT, NO-FAULT AND ADD-ON STATES**

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COMPARISON OF PERSONAL INJURY COSTS FOR PRIVATE PASSENGER AUTOMOBILE INSURANCE IN TORT, NO-FAULT AND ADD-ON STATES

1. Summary

This report presents an analysis of the cost of private passenger automobile insurance personal injuries depending upon the compensation system used. In broad categories, the various states fall into one of three types of compensation systems. These arrangements are: (a) tort, (b) no-fault and (c) add-on. The majority of states retained the same compensation system during the period of time examined in this report (1997 - 2001).

In tort states, the predominant mechanism through which personal injury claims are compensated remains the traditional tort liability system. To receive compensation, the injured party must show that some other entity was responsible for the injury. Limited first party coverage is available in tort states through medical payments coverage.

In no-fault states, covered persons can receive compensation for economic damages regardless of who was at fault. The extent and nature of the economic compensation received depends upon the laws in the state and the policy options selected by the insured. In addition, at fault drivers can be sued for non-economic damages if the injured party exceeds the "tort threshold" applicable in the state. The threshold can be expressed either as the amount of medical expenses, or as a verbal description of the injury.

In add-on states a tort threshold restriction is not placed upon the ability of injured parties to sue for non-economic damages. However, larger amounts of first party economic damages are available than for tort states.

A choice system exists in three states (i.e., Kentucky, New Jersey and Pennsylvania). Under this arrangement the insured can select to be compensated under either a tort system or a no-fault system. Because there are only three choice states, for the purpose of this report, we did not segregate them into a separate category. Instead, where possible we placed these states into one of the main groups depending upon the compensation system used by the majority of insureds in the state. For example, in New Jersey, most insureds are covered under a verbal no-fault threshold system. Therefore, in our analysis we included the statistical information for New Jersey within the no-fault group of states. Likewise, in Kentucky, since insureds are required to reject no-fault, more drivers opt for no-fault than tort. Pennsylvania has about an equal number of "full" tort versus "limited" tort policies, thus we classified it as a "mixed" state. Because of the potential distorting impact of these data on the losses, Pennsylvania was not included in the main part of our analysis comparing loss costs (Exhibits AIS-2 to AIS-12). However, the basic loss data for Pennsylvania are included as an Appendix to this report (Appendix AIS-1, Sheets 1 to 5).

Exhibit AIS-1 summarizes the type of reparation system in each state by: (1) type of liability law¹, (2) whether first party liability insurance is compulsory or optional, (3) whether third party liability insurance is compulsory or optional, (4) the minimum liability limits, (5) the tort threshold, if applicable, (6) the limit of medical expenses included in the first party coverage in no-fault and add-on states and (7) whether economic damages other than medical (i.e., wage loss, incidental expenses) are included under the first party coverage in no-fault and add-on states. As can be seen, there exists a wide diversity of provisions among the various states. None of the three groupings of states -- add-on, no-fault or tort -- is a homogeneous collection with regard to the characteristics that could impact costs.

In this study we have examined various cost and profitability statistics with regard to the three groupings of states by compensation system. We have not explicitly analyzed various external economic, social or demographic factors that could influence the level of personal injury costs in a given jurisdiction. For the purpose of this study, we have used bodily injury liability plus personal injury protection experience to measure personal injury costs. Bodily injury liability and personal injury protection constitute the major private passenger automobile insurance personal injury costs. For tort states, personal injury protection costs would be \$0, since that coverage is not applicable in tort states.

The results of our study are as follows:

(1) During the five year period from 1997 to 2001, the level of personal injury costs has been highest for no-fault states, less for add-on states and lowest for tort states. The rate of change in personal injury costs has been highest for no-fault states, less for tort states and lowest for add-on states. Furthermore, personal injury costs are higher and have increased faster in verbal threshold states than in monetary threshold states. [Exhibit AIS-2]

(2) Tort states experienced a decrease in the cost of bodily injury liability costs in three of the four years from 1997 to 2001. The total decrease in bodily injury liability costs for tort states during this period was -1.9%, for an average annual decrease of -0.5%. The total increase in bodily injury liability costs for no-fault states during this period was 7.7%, for an average annual increase of 1.9%. The total decrease in bodily injury liability costs for add-on states during this period was -8.4%, for an average annual decrease of -2.2%. [Exhibit AIS-3]

¹ Various sources were examined to determine whether a state had a tort, no-fault or add-on system. These were the (a) National Association of Insurance Commissioners publication "No-Fault Auto Insurance: A Survey", (b) Insurance Information Institute web page article "What are the driving laws in my state?", and (c) State Farm's publication "No Fault Press Reference Manual". There were some minor differences among the three sources as to whether certain states should be classified as tort or add-on. These differences would not impact the overall results of our study. Another issue is that certain states allow for different no-fault threshold options. For example, New Jersey allows policyholders to have either a zero or verbal threshold. Most policyholders have the verbal threshold, and we therefore classified New Jersey as a verbal threshold state.

(3) Tort states experienced a decrease in the frequency of bodily injury liability claims in each year from 1997 to 2001. The total decrease in bodily injury liability claim frequency for tort states during this period was -11.6%, for an average annual decrease of -3.0%. The total decrease in bodily injury liability claim frequency for no-fault states during this period was -5.2% for an average annual decrease of -1.3%. The total decrease in bodily injury liability claim frequency for add-on states was -13.8% for an average annual decrease of -3.6%. [Exhibit AIS-4]

(4) Tort states experienced an increase in the claim severity of bodily injury liability claims in each year from 1997 to 2001. The increase in bodily injury claim severity for tort states during 1997 to 2001 was 10.3%, for an average annual increase of 2.5%. The increase in bodily injury claim severity for no-fault states was 13.9%, for an average annual change of 3.3%. The increase in bodily injury claim severity for add-on states was 6.0% for an average annual change of 1.5%. [Exhibit AIS-5]

(5) The rate of inflation has been higher for first party personal injury protection losses than for third party bodily injury liability tort losses. [Exhibits AIS-3 and AIS-6]

(6) The rate of inflation of bodily injury liability costs has been higher in no-fault states than in tort states. This is attributable to both the higher rate of increase for the frequency and severity of bodily injury liability claims in no-fault than in tort states. The higher rate of increase for the frequency of bodily injury liability claims in no-fault states may be attributable to the general decline in the ability of tort thresholds to prevent recovery for non-economic losses. [Exhibits AIS-3, AIS-4, and AIS-14]

(7) After adjusting for differences between states through the use of the cost of property damage liability claims, no-fault states had a higher cost for personal injury claims than tort states.² [Exhibit AIS-12]

(8) For tort states, the rate of inflation for personal injury liability losses was lower than that for property damage liability losses in each year from 1997 to 2001. During this time period, the ratio of personal injury liability losses to property damage liability losses dropped by a total of -14.6% in tort states, which is an annual decrease of -3.9%. For add-on and no-fault states, this ratio (including consideration of personal injury protection losses) decreased at -5.0% per year and -0.9% per year, respectively. [Exhibit AIS-12]

(9) The cost impact of no-fault in the years immediately after its introduction in various states was mixed. Half of the eight states examined saw the cost of private passenger automobile insurance personal injuries increase as a result of the introduction of no-fault, while the other four states experienced a cost decrease. [Page 23]

(10) The impact of no-fault on personal injury claim frequency in the years immediately after its introduction in various states was somewhat mixed. Two of the eight states examined saw a

² This was also true before making an adjustment for the difference in property damage liability costs between the groups of states.

decrease in claim frequency. The other six states experienced claim frequency increases in varying percentages as a result of the introduction of no-fault. Across all eight states, personal injury claim frequency increased by 35% after the introduction of no-fault. [Page 25]

(11) On a long term basis covering the period from 1969/1971 to 1995/1997, the rate of personal injury cost inflation was higher for no-fault states than for tort states. The difference was about 1.5% per year, which compounds to a 50% higher increase in the cost for no-fault states than for tort states over the entire 26 year period. [Exhibit AIS-13]

(12) The effectiveness of thresholds in eliminating tort claims has decreased during the last twenty years. Between 1977 and 1987 the proportion of personal injury protection claimants judged eligible to file a tort claim increased 66%. This increased another 15% from 1987 to 1992, and then decreased by -8% from 1992 to 1997. This overall decrease in the effectiveness of tort thresholds has occurred in the monetary threshold states, as well as in verbal threshold states. [Exhibit AIS-14, Sheets 1 to 3]

(13) The number of possible tort claims eliminated by no-fault systems averaged about 35% on a countrywide basis during 1987. The percentage of non-economic losses removed will be much smaller, since the serious claims which have the potential for the largest amount of non-economic compensation, will not be eliminated. [Exhibit AIS-14, Sheet 4]

(14) The transaction costs of investigating and settling losses are not materially different in the three types of systems. To the extent there is a difference, no-fault states have somewhat higher transaction costs than add-on or tort states. [Exhibit AIS-15]

(15) The overall level of profitability for private passenger automobile insurance is close for no-fault and tort states. To the extent there is a difference, no-fault states were somewhat more profitable for insurance companies than both add-on and tort states. [Exhibits AIS-16, AIS-17 and AIS-18]

(16) We estimate that about 35% to 40% more claimants are eligible to receive compensation under a no-fault system than a tort system. These first party benefits paid to at-fault drivers can easily exceed the reduction in costs from the tort threshold denying compensation for non-economic damages to certain classes of injuries. The end result is that a no-fault system can easily cost as much, or more, than a tort liability system. [Page 30]

(17) During the period from 1989 to 1999, average liability premiums increased most rapidly in add-on states, followed by no-fault states, with tort states having the smallest increase. The average annual liability premium increase in tort states was 1.1%, compared to a 2.7% increase in add-on states and a 2.1% increase in no-fault states. In addition, two verbal threshold states (i.e., Michigan and New York) experienced larger liability premium increases than the average of the tort states. [Exhibit AIS-20, Sheets 1 and 2]

(18) The average loss payment per injury claim during 1997 was 32% higher in no-fault states than in tort states. [Exhibit AIS-22]

(19) The average economic loss per injury claim during 1997 was 82% higher in no-fault states than in tort states. [Exhibit AIS-23]

(20) The rate of inflation of both injury claim loss payments and economic loss per injury claim was higher in no-fault states than in tort states. [Exhibits AIS-22 and AIS-23]

(21) Non-economic losses have had a lower rate of cost increase than economic losses. [Page 32]

In preparing our report we have relied on various sources of information. These included the National Association of Insurance Commissioners, insurance statistical agencies and the Insurance Research Council (formerly known as the All-Industry Research Advisory Council). We have not audited this information for accuracy, although these sources of information are generally recognized as being reasonably accurate.

AIS Risk Consultants prepared this report for the Association of Trial Lawyers of New Jersey. The conclusions set forth herein represent the opinions of AIS Risk Consultants.

2. Recent Cost Experience Under Various Reparation Systems

Our analysis of the recent cost experience for private passenger automobile insurance personal injuries was based upon Fast Track data through the fourth quarter of 2001. These data are collected and compiled for the National Association of Insurance Commissioners by three statistical agents: (1) Insurance Services Office [ISO], (2) National Association of Independent Insurers [NAII] and (3) National Independent Statistical Services [NISS].

Data elements gathered through the Fast Track system are the: (a) number of exposures, (b) dollars of paid losses, (c) number of claims paid and (d) number of claims arising. These figures are assembled for each of the major private passenger automobile insurance coverages -- bodily injury liability, property damage liability, personal injury protection, comprehensive and collision. From these data elements, the following statistics can be obtained:

$$\text{Claim Frequency} = \frac{\text{Number of Claims}}{\text{Number of Exposures}}$$

$$\text{Claim Severity} = \frac{\text{Dollars of Claims}}{\text{Number of Claims}}$$

$$\text{Pure Premium} = \text{Claim Frequency} \times \text{Claim Severity}$$

$$\text{Pure Premium} = \frac{\text{Dollars of Claims}}{\text{Number of Exposures}}$$

Claim frequency measures the number of claims per exposure. The unit of exposure is one car insured for a time period of one year. This is referred to as a car-year. The claim

severity measures the average cost of the loss payments per claim. Pure premium is a combination of the claim frequency and claim severity which measures the average cost of the loss payments for an insured car during a one year time period.

Through an analysis of these statistics, the cost of private passenger automobile insurance personal injuries can be compared across states, both in absolute value and as to trends over time.

Recent annual statistics for claim frequency, claim severity and pure premium by jurisdiction, as well as grouped between add-on, no-fault, tort and mixed states are set forth in Appendix AIS-4. Bodily injury liability and personal injury protection pure premiums are shown in Sheet 1. Information regarding bodily injury liability losses are contained in Sheet 2. Information regarding personal injury protection losses are contained in Sheet 3.

The coverages we examined in detail were bodily injury liability (third party tort coverage) and personal injury protection (first party economic loss coverage). We also examined property damage liability to provide a baseline to compare costs across states. This coverage provides a basis for a comparison across states, since its cost is not impacted by the type of personal injury reparation system used.

The results of our analysis are set forth in the remainder of this report.

Bodily Injury Liability and Personal Injury Protection Combined : Exhibit AIS-2

Bodily injury liability and personal injury protection constitute the major private passenger automobile insurance personal injury costs.³ Hence, the combination of these two coverages shows the cost of the majority of private passenger automobile insurance personal injury losses. The analysis of the combined cost of these two coverages is contained in Exhibit AIS-2.

A comparison of the level and trend in costs from 1997 to 2001 is set forth in the following tables.

³ The other personal injury liability costs are medical payments coverage and uninsured / underinsured motorists coverage. Information for these two coverages is not collected through the Fast Track data system. Medical payments is an optional coverage and is usually small in magnitude. The cost of uninsured / underinsured motorists coverage is a function of many factors other than the personal injury reparations system. Examples of these factors are the percentage of the population that does not carry insurance, the minimum limits of financial responsibility, the number of insureds with limits of liability coverage higher than those imposed by the financial responsibility requirements, whether stacking is allowed, whether a limits or damage trigger is used, etc. The percentage of personal injury payments made by coverage during part of 1987 is shown in the following table .

<u>Type of System</u>	<u>Percentage of Automobile Insurance Compensation</u>		
	<u>Bodily Injury Liability & Personal Injury Protection</u>	<u>Medical Payments</u>	<u>Uninsured/ Underinsured</u>
Add-On	81.8%	4.8%	13.4%
No-Fault	87.0%	0.9%	12.1%
Tort	74.0%	9.4%	16.6%

Source: "Compensation for Automobile Injuries in the United States", All-Industry Research Advisory Committee, March 1989, page 132.

*Level of Paid Pure Premium for Bodily Injury
Liability and Personal Injury Protection Combined*

Year Ending In the Fourth Quarter of	Type of Personal Injury Reparation System			
	<u>Add-On</u>	<u>No-Fault</u>	<u>Tort</u>	<u>All</u>
1997	\$138.29	\$205.14	\$105.51	\$141.97
1998	\$130.41	\$206.20	\$106.96	\$141.18
1999	\$127.38	\$209.81	\$104.94	\$140.57
2000	\$130.25	\$225.67	\$104.72	\$145.73
2001	\$130.29	\$232.72	\$103.52	\$147.21

*Annual Change in the Level of Paid Pure Premium for Bodily
Injury Liability and Personal Injury Protection Combined*

Year Ending In the Fourth Quarter of	Type of Personal Injury Reparation System			
	<u>Add-On</u>	<u>No-Fault</u>	<u>Tort</u>	<u>All</u>
1998	-5.7%	0.5%	1.4%	-0.6%
1999	-2.3%	1.8%	-1.9%	-0.4%
2000	2.3%	7.6%	-0.2%	3.7%
2001	0.0%	3.1%	-1.2%	1.0%
Average	-1.5%	3.2%	-0.5%	0.9%

(see Exhibit AIS-2, Sheet 1)

In examining the level in personal injury costs during the five year period from 1997 to 2001, tort states have been the lowest, add-on states have been in the middle, and no-fault states have been the highest. For the trend, add-on states have been the lowest, no-fault states have been the highest and tort states have been in the middle.

The difference in the level of costs is not necessarily relevant by itself, since many factors other than the personal injury reparation system will impact the absolute level of costs. Examples of these factors are the level of traffic density and the overall cost of living. The impact of these factors is seen in the wide disparity of costs between states within each of the

three systems. Within each group of states (i.e., add-on, no-fault and tort), the cost in the most expensive state is about three to five times larger than that in the least expensive state.

A comparison of the trend in costs across the various reparation systems can validly be made, since the factors that would influence the level of costs should remain relatively consistent by state during the period of time being studied. As previously discussed, no-fault states had the highest trend, followed by tort states, with add-on states having the lowest annual trend during this time period.⁴ The difference in the cost trend between the no-fault group of states and the tort groups of states is statistically significant. That is, it can be inferred that there is a real difference in the annual cost trends between no-fault states and tort states, with no-fault states having a materially higher rate of inflation. The statistical possibility that no-fault states do not have a higher rate of cost inflation than tort states is relatively small. Therefore, it can be concluded that not only has the inflation in costs not been restrained through the use of a no-fault system, but in fact no-fault states have experienced a higher cost trend.

Within the no-fault states, a distinction is sometimes made between states with a verbal threshold as opposed to a monetary threshold. Four states have a verbal threshold. They are Florida, Michigan, New Jersey and New York (see page 1 for an explanation of why New Jersey has been included with verbal threshold states). In two of the four verbal threshold states, the rate of cost inflation has been greater than that for all no-fault states combined. The average annual trends for these states were 5.3%, 1.8%, 1.1% and 5.7% respectively, versus 3.2% for all no-fault states combined. The average inflation rate for the four verbal threshold states combined was 3.9%, compared to 1.2% for all monetary threshold states combined. Hence, verbal thresholds have not been any more effective than monetary thresholds in containing cost inflation. In fact, the rate of cost inflation for personal injury costs in all verbal threshold states combined has been higher than in all monetary threshold states combined. Furthermore, each of the four verbal threshold states had a higher rate of inflation than the average of the tort states.

⁴ This situation of no-fault states having a higher cost inflation than tort states has existed over an extended period of time. The annual change in bodily injury liability plus personal injury protection costs for prior years is summarized below.

Year Ending	Annual Change in Bodily Injury Liability Plus Personal Injury Protection Costs		
	<u>Tort</u>	<u>No-Fault</u>	<u>No-Fault Trend Above Tort</u>
<u>9/30</u>			
1997	-2.8%	+5.0%	+7.8%
1996	-7.6%	-1.3%	+6.3%
1995	-1.6%	+1.3%	+2.9%
1994	-1.8%	+3.0%	+4.8%
1993	+0.4%	+6.9%	+6.5%
1992	+1.8%	+5.9%	+4.1%
1991	+7.6%	+9.1%	+1.5%
1990	+9.9%	+10.5%	+0.6%
Average	+0.7%	+5.1%	+4.4%

In the following sections, the cost of private passenger automobile insurance personal injuries is broken down between bodily injury liability and personal injury protection, as well as between claim frequency and claim severity. This will provide a better understanding of what factors influence the cost of coverage by state and by group.

Bodily Injury Liability :
Exhibits AIS-3, 4 and 5 and Appendix AIS-4, Sheet 2

Statistics examined with regard to bodily injury liability costs were the pure premium (Exhibit AIS-3), claim frequency (Exhibit AIS-4) and claim severity (Exhibit AIS-5) over time, as well as summary data for the most recent year (Appendix AIS-4, Sheet 2).

Bodily Injury Liability Pure Premium

A summary of the level and trend in costs from 1997 to 2001 is set forth in the following tables.

Level of Paid Pure Premium for Bodily Injury Liability

Year Ending In the Fourth Quarter of	Type of Personal Injury Reparation System			
	<u>Add-On</u>	<u>No-Fault</u>	<u>Tort</u>	<u>All</u>
1997	\$112.55	\$108.74	\$105.51	\$108.05
1998	\$106.35	\$108.87	\$106.96	\$107.38
1999	\$103.49	\$108.69	\$104.94	\$105.70
2000	\$104.36	\$114.26	\$104.72	\$107.42
2001	\$103.14	\$117.08	\$103.52	\$107.38

*Annual Change in the Level of
Paid Pure Premium for Bodily Injury Liability*

Year Ending In the Fourth Quarter of	Type of Personal Injury Reparation System			
	<u>Add-On</u>	<u>No-Fault</u>	<u>Tort</u>	<u>All</u>
1998	-5.5%	0.1%	1.4%	-0.6%
1999	-2.7%	-0.2%	-1.9%	-1.6%
2000	0.8%	5.1%	-0.2%	1.6%
2001	-1.2%	2.5%	-1.2%	-0.0%
Average	-2.2%	1.9%	-0.5%	-0.2%

(see Exhibit AIS-3, Sheet 1)

A common expectation is that the level of bodily injury liability costs is lower for no-fault states than for tort states. This is because in no-fault states, some portion of economic losses are compensated by first party coverage instead of through third party liability coverage. In addition, for no-fault states, the tort threshold prevents compensation of non-economic losses for certain types of injuries. However, contrary to that expectation, during the five year period examined, the level of bodily injury losses in tort states was lower than in no-fault states.

The trend in bodily injury liability losses for no-fault states is higher than that in tort states : an annual increase of 1.9% compared to an annual decrease of -0.5%, respectively. That is, while the tort threshold may perhaps lower the level of bodily injury liability losses somewhat, (although that is not the current situation) it has not held down the rate of growth in these costs. During the four most recent years the rate of inflation of bodily injury costs has been higher in no-fault states than in tort states. In fact, bodily injury liability costs for tort states in the aggregate have decreased in three of the four years from 1998 to 2001, while no-fault states had an overall increase. Verbal threshold states have not been more effective than monetary threshold states in controlling inflation in costs. The average annual inflation rates for the verbal threshold states of Florida, Michigan, New Jersey and New York were 3.6%, -3.3%, 2.6% and 4.1%, respectively, versus -0.6% for all monetary threshold states combined (see page 1 for an explanation of why New Jersey has been included with verbal threshold states). The average inflation rate for these four verbal threshold states combined was 2.7%, versus 1.9% for all no-fault states combined. Also, three of the four verbal threshold states had a higher rate of inflation than the average of the tort states.

Summary of Annual Trend in
Bodily Injury Liability Pure Premium
From the 4th Quarter of 1997 to the 4th Quarter of 2001

<u>Jurisdiction</u>	<u>Average Annual Trend</u>
Florida	3.6%
Michigan	-3.3%
New Jersey	2.6%
New York	4.1%
Four Verbal Threshold States Combined	2.7%
Monetary Threshold States	-0.6%
All No-Fault States Combined	1.9%
Tort States	-0.5%

Bodily Injury Liability Claim Frequency

A summary of the level and trend in claim frequency from 1997 to 2001 is set forth in the following tables.

Level of Paid Claim Frequency for Bodily Injury Liability

<u>Year Ending In the Fourth Quarter of</u>	<u>Type of Personal Injury Reparation System</u>			
	<u>Add-On</u>	<u>No-Fault</u>	<u>Tort</u>	<u>All</u>
1997	0.0146	0.0069	0.0133	0.0117
1998	0.0140	0.0067	0.0132	0.0115
1999	0.0138	0.0067	0.0128	0.0113
2000	0.0133	0.0066	0.0122	0.0108
2001	0.0126	0.0065	0.0117	0.0104

*Annual Change in the Level of
Paid Claim Frequency for Bodily Injury Liability*

Year Ending In the Fourth Quarter of	Type of Personal Injury Reparation System			
	<u>Add-On</u>	<u>No-Fault</u>	<u>Tort</u>	<u>All</u>
1998	-4.6%	-2.8%	-0.9%	-2.3%
1999	-1.1%	-0.1%	-2.7%	-1.8%
2000	-3.7%	-0.6%	-5.1%	-3.9%
2001	-5.1%	-1.7%	-3.5%	-3.6%
Average	-3.6%	-1.3%	-3.0%	-2.9%

(see Exhibit AIS-4, Sheet 1)

The claim frequency level in add-on states was about 8% higher than in tort states for all five years combined. Also, during the most recent year the claim frequency in add-on states was about 7% higher than in tort states. The claim frequency in no-fault states was much lower than in either add-on or tort states. This is due in significant part to the elimination of the ability to receive non-economic damages for certain classes of injuries. In addition, some portion of the claims with only economic damages can be dealt with through the first party coverage alone in no-fault states.

With regard to the trend in bodily injury liability claim frequency, all three categories displayed a decrease in every year from 1997 to 2001. However, no-fault states had the smallest decrease. The average annual claim frequency trend for the verbal threshold states of Florida, Michigan, New Jersey and New York were -0.4%, -11.2%, -2.1% and 2.4%, respectively, versus -2.2% for all monetary threshold states combined (see page 1 for an explanation of why New Jersey has been included with verbal threshold states). The average inflation rate for these four verbal threshold states combined was -0.9%, versus -1.3% for all no-fault states combined. Also, three of the four verbal threshold states had a higher claim frequency trend than the average of the tort states. A summary of these data are set forth in the following table.

Summary of Annual Trend in
Bodily Injury Liability Claim Frequency
From the 4th Quarter of 1997 to the 4th Quarter of 2001

<u>Jurisdiction</u>	<u>Average Annual Trend</u>
Florida	-0.4%
Michigan	-11.2%
New Jersey	-2.1%
New York	2.4%
Four Verbal Threshold States Combined	-0.9%
Monetary Threshold States	-2.2%
All No-Fault States Combined	-1.3%
Tort States	-3.0%

Bodily Injury Liability Claim Severity

A summary of the level and trend in claim severity from 1997 to 2001 is set forth in the following tables.

Level of Paid Claim Severity for Bodily Injury Liability

<u>Year Ending In the Fourth Quarter of</u>	<u>Type of Personal Injury Reparation System</u>			
	<u>Add-On</u>	<u>No-Fault</u>	<u>Tort</u>	<u>All</u>
1997	\$7,709	\$15,791	\$7,986	\$9,328
1998	\$7,644	\$16,207	\$8,172	\$9,487
1999	\$7,502	\$16,242	\$8,199	\$9,469
2000	\$7,845	\$17,173	\$8,617	\$9,960
2001	\$8,174	\$17,981	\$8,811	\$10,303

Annual Change in the Level of

Paid Claim Severity for Bodily Injury Liability

Year Ending In the Fourth Quarter of	Type of Personal Injury Reparation System			
	<u>Add-On</u>	<u>No-Fault</u>	<u>Tort</u>	<u>All</u>
1998	-0.8%	2.6%	2.3%	1.7%
1999	-1.9%	0.2%	0.3%	-0.2%
2000	4.6%	5.7%	5.1%	5.2%
2001	4.2%	4.7%	2.3%	3.4%
Average	1.5%	3.3%	2.5%	2.5%

(see Exhibit AIS-5, Sheet 1)

The claim severity for no-fault states was much higher -- about twice as much -- than in either add-on or tort states. This is due in significant part to only the more costly claims being compensated on a third-party liability basis in no-fault states.

With regard to the trend in claim severity, no-fault states had the highest trend, followed by tort states and then by add-on states.

Personal Injury Protection :
Exhibits AIS-6, 7 and 8 and Appendix AIS-4, Sheet 3

Statistics examined with regard to personal injury protection costs were the pure premium (Exhibit AIS-6), claim frequency (Exhibit AIS-7) and claim severity (Exhibit AIS-8) over time, as well as summary data for the most recent year (Appendix AIS-4, Sheet 3).

Personal Injury Protection Pure Premium

A summary of the level and trend in costs from 1997 to 2001 is set forth in the following tables.

Level of Paid Pure Premium for Personal Injury Protection

Year Ending In the Fourth Quarter of	Type of Personal Injury Reparation System			
	<u>Add-On</u>	<u>No-Fault</u>	<u>Tort</u>	<u>All</u>
1997	\$38.36	\$96.35	N/A	\$78.82
1998	\$35.87	\$97.27	N/A	\$78.71
1999	\$35.95	\$101.07	N/A	\$81.39
2000	\$39.41	\$111.37	N/A	\$89.62
2001	\$40.91	\$115.61	N/A	\$93.03

Annual Change in the Level of
Paid Pure Premium for Personal Injury Protection

Year Ending In the Fourth Quarter of	Type of Personal Injury Reparation System			
	<u>Add-On</u>	<u>No-Fault</u>	<u>Tort</u>	<u>All</u>
1998	-6.5%	1.0%	N/A	-0.1%
1999	0.2%	3.9%	N/A	3.4%
2000	9.6%	10.2%	N/A	10.1%
2001	3.8%	3.8%	N/A	3.8%
Average	1.6%	4.7%	N/A	4.2%

(see Exhibit AIS-6, Sheet 1)

N/A means not applicable, as personal injury protection coverage does not exist in tort states. See pages 10 to 15 for a discussion of bodily injury costs and trends in tort states.

As can be seen, the cost of first party economic loss benefits, which covers both innocent and at-fault drivers, can be significant. This is especially so in the no-fault states. The high cost of this first party coverage explains in large part why the total cost of the bodily injury liability plus personal injury protection coverages combined is significantly more expensive for no-fault states than for tort states.

The cost level of personal injury protection coverage within each group of states varies dramatically, depending upon many factors. These include the statutory level of benefits and

policy options selected by insureds. Within each group (i.e., add-on and no-fault), the most expensive state is about six times as costly as the least expensive state.

With regard to trends, the cost of first party benefits has been escalating faster than third party benefits on a countrywide basis. The comparison is an annual rate of inflation of 4.2% for first party costs, versus -0.2% for third party costs countrywide and -0.5% for third party costs in tort states. In the four verbal threshold states -- Florida, Michigan, New Jersey and New York -- the average annual increase in first party benefits was 7.5%, 4.7%, -0.3% and 7.7%, respectively (see page 1 for an explanation of why New Jersey has been included with verbal threshold states).

The higher rate of escalation for first party benefits has contributed to driving up overall personal injury costs in add-on and no-fault states compared to tort states.

Personal Injury Protection Claim Frequency

A summary of the level and trend in claim frequency from 1997 to 2001 is set forth in the following tables.

Level of Paid Claim Frequency for Personal Injury Protection

Year Ending In the Fourth Quarter of	Type of Personal Injury Reparation System			
	<u>Add-On</u>	<u>No-Fault</u>	<u>Tort</u>	<u>All</u>
1997	0.0177	0.0181	N/A	0.0180
1998	0.0165	0.0176	N/A	0.0172
1999	0.0159	0.0171	N/A	0.0167
2000	0.0161	0.0171	N/A	0.0168
2001	0.0163	0.0172	N/A	0.0169

*Annual Change in the Level of
Paid Claim Frequency for Personal Injury Protection*

Year Ending In the Fourth Quarter of	Type of Personal Injury Reparation System			
	<u>Add-On</u>	<u>No-Fault</u>	<u>Tort</u>	<u>All</u>
1998	-7.0%	-2.9%	N/A	-4.1%
1999	-3.5%	-2.8%	N/A	-3.0%
2000	1.4%	0.2%	N/A	0.6%
2001	1.3%	0.4%	N/A	0.7%
Average	-2.0%	-1.3%	N/A	-1.5%

(see Exhibit AIS-7, Sheet 1)

The claim frequency level for personal injury protection has been somewhat higher in no-fault states than add-on states during the five year period from 1997 to 2001. For both groups of states, the level of claim frequency is much higher for first party claims than for third party claims. In add-on states, first party claims are about 29% more frequent than third party claims. This provides a rough estimate of the number of additional claimants who receive benefits under a first party system. The funding of benefits for these at-fault drivers raises the cost of personal injury compensation in a no-fault system compared to a tort system. For no-fault states, first party claims are more than two and one half times as frequent as third party claims. This large difference exists because in addition to more people receiving first party compensation, the tort thresholds eliminate a portion of the possible third party liability claims.

With regard to the trend in claim frequency, the rate of change for no-fault states was higher (i.e., smaller decreases) than for add-on in recent years. For tort and add-on states the average annual bodily injury claim frequency trends of -3.0% and -3.6% are larger decreases than the no-fault personal injury protection frequency trend of -1.3%. The countrywide bodily injury claim frequency trend of -2.9% shows a larger decrease than the first party personal injury protection claim frequency trend of -1.5%.

Personal Injury Protection Claim Severity

A summary of the level and trend in claim severity from 1997 to 2001 is set forth in the following tables.

Level of Paid Claim Severity for Personal Injury Protection

Year Ending In the Fourth Quarter of	Type of Personal Injury Reparation System			
	<u>Add-On</u>	<u>No-Fault</u>	<u>Tort</u>	<u>All</u>
1997	\$2,173	\$5,228	N/A	\$4,337
1998	\$2,183	\$5,459	N/A	\$4,504
1999	\$2,267	\$5,897	N/A	\$4,838
2000	\$2,444	\$6,455	N/A	\$5,285
2001	\$2,504	\$6,724	N/A	\$5,494

Annual Change in the Level of
Paid Claim Severity for Personal Injury Protection

Year Ending In the Fourth Quarter of	Type of Personal Injury Reparation System			
	<u>Add-On</u>	<u>No-Fault</u>	<u>Tort</u>	<u>All</u>
1998	0.5%	4.4%	N/A	3.8%
1999	3.9%	8.0%	N/A	7.4%
2000	7.8%	9.5%	N/A	9.2%
2001	2.5%	4.2%	N/A	3.9%
Average	3.6%	6.5%	N/A	6.1%

(see Exhibit AIS-8, Sheet 1)

The average severity of first party benefits is much higher in no-fault states than in add-on states. The trend is also higher for no-fault states. This is likely attributable in large part to the higher amount of statutory first party benefits in no-fault states. This high average first party benefit cost in no-fault states is a part of the reason why no-fault states have the highest personal injury costs among the three groups of states. The trend in the average first party benefit cost in no-fault states is a part of the reason why no-fault states have a higher trend in personal injury costs than tort states.

On a countrywide basis, the average cost of first party claims have been growing faster than the average cost of third party claims. The average annual increase in claim severity has

been 6.1% for first party benefits, compared to an annual increase of 2.5% for third party benefits.

Property Damage Liability : Exhibits AIS-9, 10 and 11

The statistics examined with regard to property damage liability costs were the pure premium (Exhibit AIS-9), claim frequency (Exhibit AIS-10) and claim severity (Exhibit AIS-11).

A summary of the results is given in the following tables.

Level of Paid Property Damage Liability Costs

Five Years Ending in The Fourth Quarter of 00	Type of Personal Injury Reparation System			
	<u>Add-On</u>	<u>No-Fault⁵</u>	<u>Tort</u>	<u>All</u>
Pure Premium	\$90.41	\$74.74	\$85.86	\$83.65
Claim Frequency	0.0419	0.0349	0.0401	0.0390
Claim Severity	\$2,158	\$2,142	\$2,142	\$2,146

Annual Change in the Level of
Paid Property Damage Liability Costs

Five Years Ending in The Fourth Quarter of 00	Type of Personal Injury Reparation System			
	<u>Add-On</u>	<u>No-Fault</u>	<u>Tort</u>	<u>All</u>
Pure Premium	4.4%	3.9%	3.6%	3.9%
Claim Frequency	-0.2%	-0.8%	-0.6%	-0.6%
	4.5%	4.6%	4.2%	4.4%

⁵ The inclusion of Michigan in these values, which has a no-fault system for property damage liability claims, lowers the claim frequency and pure premium values for all no-fault states combined by about -15%. With Michigan excluded, the no-fault pure premium would be \$90.39, the frequency 0.0409 and the severity \$2,212.

Claim Severity

(see Exhibits AIS-9, AIS-10 and AIS-11, Sheet 1)

The property damage liability experience by itself is not important for this study, since it is not expected that these costs would be influenced by the type of reparation system used to compensate personal injuries. However, it does provide a point of reference against which to measure differences in the cost of personal injury claims across states. Factors such as traffic density and road conditions would influence the frequency of both property damage and personal injury claims. Other items such as the overall cost of living and the minimum level of financial responsibility limits would influence the severity of both property damage and personal injury claims.⁶

The level and trend in property damage liability costs between the three groups of states are similar. The pure premium and the claim frequency level are somewhat lower in no-fault states than in add-on or tort states (this comparison includes Michigan, which somewhat distorts the results because it has a no-fault system for property damage liability claims as well as for bodily injury liability claims; if Michigan were excluded the relationship of no-fault states to tort states would be reversed). Also, the trends in claim frequency are close for all three groups of states. With regard to claim severity, the level of and trend in costs are close for the three groups of states.

Using these property damage liability data, an additional comparison of the cost of personal injury claims across the three groups of states can be made. The analysis performed is discussed below.

Comparison of the Ratio of Bodily Injury Liability Plus Personal Injury Protection to Property Damage Costs Across States : Exhibit AIS-12

As previously discussed, a direct comparison of the level of combined bodily injury liability plus personal injury protection costs across states is not necessarily relevant by itself. This is because there are many factors that influence personal injury costs between states in addition to the type of reparation system. Some of these differences are legal (i.e., optional versus mandatory insurance requirement), others are economic (i.e., cost of living), while additional ones are demographic (i.e., traffic density).

⁶ Admittedly, not all items which would influence personal injury claim frequency would also influence property damage claim frequency. For example, the degree of litigiousness could strongly impact bodily injury claim frequency, but would hardly impact property damage claim frequency. Also, differences in the cost of living between states may not be the same for the items that constitute personal injury claims as those that impact property damage liability claims. For example, the wage rate paid to health care providers may vary differently among states than the wage rate paid to automobile mechanics. However, as a first attempt to control for differences between states, property damage liability costs provide a reasonable basis for comparison.

To control for these variables, we have examined the property damage liability costs across states. Property damage liability costs are not influenced by the type of personal injury repair system used, but are influenced by the other types of variables⁷.

The ratio of bodily injury liability plus personal injury protection costs to property damage liability costs is shown in Exhibit AIS-12. A summary of that experience is given in the following table.

*Ratio of Paid Bodily Injury Liability Plus Personal
Injury Protection Costs to Property Damage Liability Costs*

Year Ending In the Fourth Quarter of	Type of Personal Injury Reparation System			
	<u>Add-On</u>	<u>No-Fault</u>	<u>Tort</u>	<u>All</u>
1997	1.660	2.681	1.314	1.771
1998	1.537	2.717	1.293	1.743
1999	1.423	2.613	1.214	1.649
2000	1.387	2.610	1.173	1.619
2001	1.355	2.585	1.121	1.579
Average	1.472	2.641	1.223	1.672
Annual Trend	-5.0%	-0.9%	-3.9%	-2.8%

(see Exhibit AIS-12, Sheet 1)

Three main conclusions can be drawn from these data. First, the cost of private passenger automobile insurance personal injuries in tort states are no more expensive than in no-fault states.

In fact, the indication from these data are that tort states are significantly less expensive than no-fault states. Second, for tort states, the cost of personal injury claims relative to property damage liability claims decreased every year from 1997 to 2001. Third, the decrease in personal injury costs has been at a significantly larger downward rate in tort states than in no-fault states.

For verbal threshold states, New Jersey and New York had ratios above the average of all no-fault states during the five year period from 1997 to 2001, whereas Florida had a ratio somewhat below the no-fault average (see page 1 for an explanation of why New Jersey has been

⁷ Although personal injury and property damage costs are not necessarily impacted to the exact same degree by all the various factors.

included with verbal threshold states). An analysis could not be performed for Michigan since property damage liability claims are handled on a no-fault basis instead of a tort basis.

3. Initial Experience Under No-Fault Laws

We were able to find information on the experience just before and after eight states adopted no-fault systems in the early to mid 1970's. These eight states were Connecticut, Florida, Kansas, Massachusetts, Michigan, Minnesota, New Jersey and New York. A comparison of the change in personal injury pure premiums attributable to the shift from a tort to a no-fault system is shown in the following table. The data are arranged in chronological order by when the state implemented no-fault coverage.

<i>Personal Injury Pure Premium Relative to Year Prior to No-Fault⁸</i>					
<u>State</u>	<u>1st Yr</u>	<u>2nd Year</u>	<u>3rd Yr</u>	<u>4th Yr</u>	<u>5th Yr</u>
Massachusetts	-45.8%	-46.1%	-48.1%	-48.1%	-52.5%
Florida	-17.9%	+ 5.3%	+15.5%	+28.5%	+26.0%
Connecticut	- 8.5%	- 2.6%	- 3.6%	- 3.6%	
New Jersey	- 5.2%	+ 9.3%	+16.3%	+11.3%	
Michigan	-20.7%	-19.8%	-16.2%		
Kansas	+28.1%	+ 6.7%	+ 4.2%		
New York	+ 3.4%	+19.7%	+24.6%		
Minnesota	- 6.8%	-22.3%			
Number Showing					
Increase	2	4	4	2	1
Decrease	6	4	3	2	1

The results from these data are mixed. Half the states showed cost increases, while the other half showed cost decreases. Some of the states that initially had cost decreases eventually

⁸ Source: "An Evaluation of No-Fault Automobile Insurance Costs", prepared by Conning & Company for the American Insurance Association, November 1977, page 7. The pure premium changes are net of cost changes in liability states to remove the effect of inflation, the energy crisis, etc. The coverages included are bodily injury liability, medical, uninsured motorists and personal injury protection.

had the costs increase in later years (i.e., Florida and New Jersey). Other states had the cost decrease become smaller or the cost increase become larger over time (i.e., Connecticut, Michigan and New York). For other states, the cost increase became smaller or the cost decrease became larger (i.e., Kansas, Massachusetts and Minnesota).

Another statistic which is useful to examine is the change in the number of claims which are compensated when going from a tort to a no-fault system. The number of claims will tend to decrease because some third party liability claims will be eliminated by the tort threshold. On the other hand, the number of claims will tend to increase because at-fault drivers will receive first party benefits under a no-fault system.

On balance, the number of claims compensated will tend to increase under a no-fault system compared to a tort system. A comparison of the changes in personal injury claim frequency for the mandatory coverages which are attributable to the shift from a tort to a no-fault system are shown in the following table. The data are arranged in chronological order by when the state implemented no-fault coverage.

<u>State</u>	<i>Personal Injury Claim Frequency Relative to Year Prior to No-Fault⁹</i>				
	<u>1st Yr</u>	<u>2nd Year</u>	<u>3rd Yr</u>	<u>4th Yr</u>	<u>5th Yr</u>
Massachusetts	-41.0%	-49.7%	-55.6%	-55.4%	-52.9%
Florida	+29.6%	+31.6%	+31.6%	+47.6%	+40.5%
Connecticut	+29.4%	+42.5%	+55.9%	+52.9%	
New Jersey	+57.7%	+72.4%	+87.1%	+76.2%	
Michigan	-10.2%	-12.5%	-18.1%		
Kansas	+90.7%	+72.3%	+75.1%		
New York	+46.4%	+70.8%	+80.2%		
Minnesota	+61.1%	+29.1%			
Number Showing					
Increase	6	6	5	3	1
Decrease	2	2	2	1	1

These results show that in the majority of states, claim frequency increases after the introduction of no-fault. The average increase in claim frequency across all states was 35%. This differential provides an estimate of the additional number of claims covered under a no-fault system which are not entitled to compensation under a traditional liability system.

4. Long-Term Experience Under Various Compensation Systems - Exhibits AIS-13 and 14

Most no-fault laws were adopted during the beginning to middle 1970's. By comparing the experience of these states just prior to the introduction of no-fault with the experience in recent years, a long-term perspective on the cost implications of no-fault systems can be obtained. By also examining the cost changes for add-on and tort states, a comparison can be made as to which of the three systems has led to the largest increase in costs. This comparison is set forth in Exhibit AIS-13. The results are summarized below.

Change in the Cost of Bodily Injury Liability Plus

⁹ Source: "An Evaluation of No-Fault Automobile Insurance Costs", prepared by Conning & Company for the American Insurance Association, November 1977, page 73. The pure premium changes are net of cost changes in liability states to remove the effect of inflation, the energy crisis, etc. Experience is for mandatory coverages of bodily injury, uninsured motorists and personal injury protection.

Personal Injury Protection Costs From 1969/1971 to 1995/1997

<u>Type of System</u>	<u>Annual Change</u>	<u>Total Change</u> ¹⁰
Add-On	+6.2%	+380.2%
No-Fault	+6.5%	+413.8%
Tort	+4.9%	+243.0%

On an annual basis, costs during this 26 year period have increased in no-fault states by about 1.5% per year more than in tort states¹¹. Over the entire period, the total inflation in costs for no-fault states was 50% more than for tort states¹².

The annual trends for verbal threshold states during this period have been as follows, Florida : +6.0%, Michigan : +5.9%, New Jersey : +8.4% and New York : +6.6%. These values are all above the average change for all tort states combined.

The differentially higher trend in no-fault states may be explained by the tradeoff made in switching from a tort system to a no-fault system. A no-fault system provides first party economic benefits to all covered individuals, whether or not they were at fault for the accident. In order to fund these first party benefits, the ability of innocent claimants to receive compensation for non-economic benefits is restricted. This constraint takes the form of a tort threshold which must be overcome before compensation can be obtained for non-economic damages.

However, the ability of tort thresholds to prevent claims for non-economic damages has decreased over time. This is seen from the data in Exhibit AIS-14, Sheets 1 to 3. For thirteen of the fourteen no-fault states,¹³ the effectiveness of the threshold in preventing compensation for non-economic losses was much less in 1987 than in 1977 (Sheet 1). The decrease in the effectiveness of tort thresholds continued between 1987 and 1992 in ten of eleven states (Sheet

¹⁰ The annual and total changes are somewhat overstated since the earlier experience (1969/71) is undeveloped, while the latter experience (1995/97) is developed to 63 months. The impact should be rather small -- no more than 1% on an annual basis. Furthermore, the relative changes between the add-on, no-fault and tort states should not be impacted.

¹¹ $1.5\% = 1.065/1.049 - 1$

¹² $50\% = 513.8/343.0 - 1$

¹³ The one state showing an increase in the effectiveness of the threshold was Utah. The change from 1977 to 1987 was very small -- from 19.4% to 19.1%. In addition, Utah raised the tort threshold from \$500 of medical expenses to \$3,000 of medical expenses in 1986. This increase in the threshold would be expected to have the impact of decreasing the number of tort claims. Utah also had a very small number of claims and the result is not statistically significant.

2). There was a smaller increase in effectiveness between 1992 and 1997¹⁴ (Sheet 3). The overall decrease in the ability to prevent compensation for non-economic damages occurred in both verbal and monetary threshold states.

From 1977 to 1987 the percentage of personal injury claimants judged eligible for benefits from the tort liability system increased from 23.9% to 39.7%, a 66% increase in the proportion of first party claimants who could file tort claims in no-fault states. From 1987 to 1992 the percentage of personal injury claimants judged eligible for benefits from the tort liability system increased from 28.7% to 33.1%, a 15% increase. The one state with a decline, Kansas, increased the monetary tort threshold from \$500 to \$2,000 effective January 1, 1988. During the years from 1992 to 1997, the percentage of personal injury claimants judged eligible to pursue tort claims decreased from 30.8% to 28.2%, a decrease of -8.4%¹⁵. The combined impact for these three periods is a decrease in the effectiveness of the tort threshold resulting in a 75% increase in claimants eligible to file tort claims in no-fault states.¹⁶ The combination of more injuries being qualified to receive compensation for non-economic damages, as well as the high rate of inflation for first party benefits, has caused costs to escalate faster for no-fault states than for tort states during this long term period.

In analyzing the effectiveness of tort thresholds, it should be remembered that a certain group of personal injury protection claimants would not be eligible to file a tort claim even if there was no threshold. For example, at fault claimants would not be eligible for tort benefits even if no threshold existed. During 1987, on a countrywide basis, the percentage of the possible number of tort claims that exceeded the threshold was 65%. As shown on Exhibit AIS-14, Sheet 4, only 35% of the possible tort claims were eliminated by the tort thresholds in the no-fault states. This ranged from a low of 15% in New Jersey to a high of 74% in Michigan. For Florida and New York, the other two verbal threshold states, the percentage of possible tort claims eliminated by the threshold were 44% in both states. For Hawaii, the state with the highest monetary threshold, the percentage of possible tort claims eliminated was 66%. Hawaii, however, suffered the largest deterioration in its tort threshold from 1977 to 1987, as the percentage of personal injury protection claimants eligible to file a tort claim increased by a factor of 6.

The above values deal with the number of tort claims eliminated in no-fault states compared to tort states. The percentage of total benefits eliminated is much smaller for two reasons. First, the economic damages that would have been recovered under a tort claim will instead be received from the first party coverage. Therefore, none of the economic losses on tort claims will be removed. Second, the non-economic damages eliminated will be much smaller than the number of tort claims excluded. This is because the claims removed from the system will be the least serious claims which have the lowest cost. The more serious claims, which have the potential for much higher levels of non-economic damages, are not eliminated by the tort

¹⁴ Some of the states with a reported increase in the effectiveness of the tort threshold from 1992 to 1997 had statutory/regulatory changes that could distort the results.

¹⁵ The group of states with reported data differed in each of the three periods.

¹⁶ $75\% = 1.66 \times 1.15 \times .916 - 1$

threshold. Therefore, the percentage of non-economic losses eliminated by the threshold will be much smaller than the number of claims removed from the system.

Overall, none of the economic losses are eliminated from tort claims in shifting to a no-fault system from a tort system. In addition, the percentage of the non-economic loss dollars removed can be relatively small. The additional economic benefits provided to at-fault claimants under a no-fault system can be substantial, and easily exceed the savings from the small amount of non-economic losses removed. This is why a no-fault system can cost just as much, or even more, than a tort system.

5. Claims Adjudication Transaction Costs - Exhibit AIS-15

Proponents of no-fault assert that switching from a tort to a no-fault system will lower the transaction costs associated with investigating and settling claims. The lower costs could arise from decreased use of the legal system to settle claims.

The insurance industry data we have examined does not show a significant difference in the transaction costs of investigating and settling claims for the three types of systems. To the extent there is a difference, no-fault states have somewhat higher costs than add-on or tort states. The ratio of loss adjustment expenses¹⁷ to earned premium from 1990 to 2000 for the three types of systems are shown in Exhibit AIS-15. The average ratio of loss adjustment expenses to premiums during this ten year period for add-on, no-fault and tort states are 12.6%, 14.3% and 12.8%, respectively. Based upon these data, there does not appear to be any transaction cost savings from a no-fault system.

6. Insurance Company Profitability - Exhibits AIS-16, 17 and 18

Insurance company profitability¹⁸ was examined to determine if a difference exists between the states with different types of personal injury reparations systems. The results are summarized in the following table.

Average Insurance Industry Profitability From 1985 to 2000

¹⁷ Loss adjustment expenses consist of allocated loss adjustment expenses (ALAE) and unallocated loss adjustment expenses (ULAE). ALAE are those costs that can be directly related to a particular claim. Examples of these costs would be legal fees, expert witnesses, transcripts of testimony, medical examinations, etc. ULAE are costs that cannot be attributed to a particular claim, such as rent, utilities and salaries for an insurance company's claim division.

¹⁸ The profit values used were derived by the National Association of Insurance Commissioners (NAIC). These profit values take into account underwriting results plus investment income on reserves and surplus. They are computed on an after federal income tax basis. The profit percentages are in relation to earned premium. The NAIC has provided standard disclaimers which are attached as Appendix 2.

<u>Type of System</u>	<u>Type of Automobile Insurance Coverage</u>		
	<u>Liability</u>	<u>Physical Damage</u>	<u>All</u>
Add-On	+4.5%	+1.4%	+3.4%
No-Fault	+5.6%	+4.9%	+5.4%
Tort	+5.0%	+3.1%	+4.3%
Countrywide	+5.2%	+3.5%	+4.6%

States with a no-fault system had a somewhat higher profitability than tort states for the liability and physical damage coverages, and a higher overall profit.

In two of the verbal threshold states -- Michigan and New York -- insurance company profitability has been higher than the average of all no-fault states. In Michigan, the profitability has been impacted by the experience reported for the Michigan Catastrophic Claims Association.¹⁹ Hawaii, the state with the highest monetary threshold, had a profit higher than the average across all no-fault states.

7. Additional Claimants Under a No-Fault System - Exhibit AIS-19

Based upon the preceding analysis, we have made two estimates of the additional claimants that qualify for benefits under a no-fault system as opposed to a tort system. One estimate was made by comparing claim frequencies in add-on states for first party and third party coverages. The result was an increase of 29% in the number of first party compared to third party claims. Another estimate was made in connection with an examination of claim frequency just before and after various states adopted no-fault in the early to mid-1970's. The average increase in claims frequency across the eight states examined was 35%. In this section we derive another estimate of the additional number of claimants who receive benefits under a no-fault system compared to a tort system.

¹⁹ The Michigan Catastrophic Claims Association (MCCA) collects a charge for both the current year and a deficit reduction amount for prior years. These revenues are included in companies' premiums on Page 14. The total impact of MCCA transactions is not easily determined because of the difficulty in identifying losses attributable to MCCA transactions. See Appendix 3 for an excerpt from the NAIC profitability report discussing the situation in Michigan as well as other state specific situations.

The results of a claim study²⁰ showing the number of claimants eligible under a tort system or a no-fault system are shown in Exhibit AIS-19. The average increase in the number of claimants eligible for benefits under a no-fault system compared to a tort system was +54%.

Based upon these three estimates, a reasonable projection for the increase in the number of claimants under a no-fault system is in the range of 35% to 40%. Funding first party benefits for these additional claimants can be quite expensive, depending upon the statutory provisions and the policy options selected by insureds. Given that a tort threshold may remove only a modest portion of the total non-economic damages, it is easy to see why a no-fault system can cost as much, or more, than a tort liability system.

The increase in the number of claimants receiving payments under a no-fault system is due to the fact that at fault drivers obtain benefits. This can be seen, for example, by comparing the number of single vehicle accidents receiving compensation under tort and no-fault systems. In tort states, single vehicle accidents constitute 3.4% of the number of personal injury claims.²¹ In no-fault states, single vehicle accidents constitute 16.0% of the number of personal injury claims -- or almost 5 times larger than the percent in tort states. The large increase in the number of claims covered in no-fault states, resulting from at fault drivers being compensated, drives up the cost of private passenger automobile insurance in no-fault states.

8. Premiums Under Different Reparation Systems - Exhibits AIS-20 and 21

Another way to examine the cost impact of a reparation system is to analyze the premium changes over time. Premium changes were reviewed by type of reparation system for the liability coverages alone, as well as combined for all coverages.²² A summary of the results is set forth in the following table.

²⁰ "Compensation for Automobile Injuries in the United States", All-Industry Research Advisory Committee, March 1989, page 150.

²¹ "Compensation for Automobile Injuries in the United States", All-Industry Research Advisory Committee, March 1989, page 40.

²² Liability includes bodily injury, property damage, personal injury protection, medical payments, uninsured motorists for both BI and PD, underinsured motorist for both BI and PD, and unique state coverages including property protection and limited property damage in Michigan. Combined all coverages consists of liability plus collision and other than collision.

Average Annual Premium Change From 1989 to 1999

<u>Type of System</u>	<u>Coverages Included</u>	
	<u>Liability</u>	<u>Combined</u>
Add-On	+2.7%	+2.8%
No-Fault	+2.1%	+2.4%
Tort	+1.1%	+1.7%
Countrywide	+1.7%	+2.2%

The highest average annual premium changes -- both for liability alone and combined all coverages -- were for the add-on states. The no-fault states had somewhat smaller premium changes. Tort states had the lowest premium changes, both for the liability coverages alone and combined for all coverages.

The states with verbal tort thresholds -- Florida, Michigan, New Jersey and New York -- had average annual liability premium changes of +1.0%, +1.3%, -0.1% and +4.9%, respectively (see page 1 for an explanation of why New Jersey has been included with verbal threshold states). The liability premium change for New York is higher than the average increase across all no-fault states. Both New York and Michigan experienced higher liability premium increases than the average for tort states.

**9. Average Economic Loss and Injury Payment
By Reparation System - Exhibits AIS-22 and 23**

An additional way of evaluating the cost impact of a reparation system is to examine the economic loss and injury payment per claimant. The average economic loss and injury payment per claim were calculated by type of reparation system for 1977 and 1997. A summary of the results is set forth in the table below.

Injury Loss Payment Per Claim & Change From 1977 to 1997

<u>Type of System</u>	<u>1977</u>	<u>1997</u>	<u>Annual Change</u>
Add-On	\$1,439	\$4,626	+ 6.0%
No-Fault	\$1,995	\$6,664	+ 6.2%
Tort	\$1,673	\$5,050	+ 5.7%
Countrywide	\$1,740	\$5,465	+ 5.9%

The average injury payment per claim was highest in no-fault states, lowest in add-on states, with tort states in the middle. The annual change in average loss payment per injury claim was highest in no-fault states at +6.2%, lowest in tort states at +5.7%, and in the middle for add-on states at +6.0%.

Economic Loss Per Injury Claim & Change From 1977 to 1997

<u>Type of System</u>	<u>1977</u>	<u>1997</u>	<u>Annual Change</u>
Add-On	\$ 910	\$3,369	+ 6.8%
No-Fault	\$1,413	\$6,512	+7.9%
Tort	\$ 961	\$3,587	+ 6.8%
Countrywide	\$1,112	\$4,470	+ 7.2%

As these data show, economic losses per injury claim increased more rapidly than the payment per claim. The residual amount, which is the non-economic loss per claim, is therefore increasing at a rate slower than either the total payments or the economic losses.

The average economic loss per injury claim was highest in no-fault states, with tort states and add-on states being the lower. For 1997, the average economic loss per injury claim was 82% higher in no-fault states than in tort states, and was 93% higher in no-fault states than in add-on states.

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State	(1) Type of Liability	(2) 1 st Party Insurance Requirement	(3) 3 rd Party Liability Insurance Requirement	(4) Minimum Liability Limits	(5) Tort Threshold	(6) Medical Expenses	(7) Other Economic Losses
Alabama	Tort		Compulsory	20/40/10			
Alaska	Tort		Compulsory	50/100/25			
Arizona	Tort		Compulsory	15/30/10			
Arkansas	Add-on	Optional	Compulsory	25/50/25	None	\$5,000	Yes
California	Tort		Compulsory	15/30/5			
Colorado	No-fault	Compulsory	Compulsory	25/50/15	\$2,500	\$50,000	Yes
Connecticut (a)	Tort		Compulsory	20/40/10			
Delaware	Add-on	Compulsory	Compulsory	15/30/5	None	\$15,000	Yes
D. C. (b)	Add-on	Optional	Compulsory	25/50/10	None/Verbal	\$50,000	Yes
Florida (c)	No-fault	Compulsory	Optional	10/20/10	Verbal	\$10,000	Yes
Georgia (d)	Tort		Compulsory	25/50/25			
Hawaii (e)	No-fault	Compulsory	Compulsory	20/40/10	\$5,000	\$10,000	Yes
Idaho	Tort		Compulsory	25/50/15			
Illinois	Tort		Compulsory	20/40/15			
Indiana	Tort		Compulsory	25/50/10			
Iowa	Tort		Compulsory	20/40/15			
Kansas	No-fault	Compulsory	Compulsory	25/50/10	\$2,000	\$4,500	Yes
Kentucky (f)	No-fault	Compulsory	Compulsory	25/50/10	None/\$1,000	\$10,000	Yes
Louisiana	Tort		Compulsory	10/20/10			
Maine	Tort		Compulsory	50/100/25			
Maryland	Add-on	Compulsory	Compulsory	20/40/15	None	\$2,500	Yes
Massachusetts	No-fault	Compulsory	Compulsory	20/40/5	\$2,000	\$8,000	Yes
Michigan	No-fault	Compulsory	Compulsory	20/40/10	Verbal	Unlimited	Yes
Minnesota (g)	No-fault	Compulsory	Compulsory	30/60/10	\$4,000	\$20,000	Yes
Mississippi	Tort		Compulsory	10/20/5			
Missouri	Tort		Compulsory	25/50/10			
Montana	Tort		Compulsory	25/50/10			
Nebraska	Tort		Compulsory	25/50/25			
Nevada	Tort		Compulsory	15/30/10			
New Hampshire (h)	Tort		Optional	25/50/25		\$5,000	
New Jersey (i)	No-fault	Compulsory	Compulsory	15/30/5	None/Verbal	\$250,000	Yes
New Mexico	Tort		Compulsory	25/50/10			
New York (j)	No-fault	Compulsory	Compulsory	25/50/10	Verbal	\$50,000	Yes
North Carolina	Tort		Compulsory	30/60/25			
North Dakota	No-fault	Compulsory	Compulsory	25/50/25	\$2,500	\$30,000	Yes
Ohio	Tort		Compulsory	12.5/25/7.5			
Oklahoma	Tort		Compulsory	10/20/10			
Oregon	Add-on	Compulsory	Compulsory	25/50/10	None	\$10,000	Yes
Pennsylvania (k)	No-fault	Compulsory	Compulsory	15/30/5	None/Verbal	\$5,000	Yes
Rhode Island	Tort		Compulsory	25/50/25			
South Carolina (l)	Add-on	Optional	Optional	15/30/10	None	\$1,000	Yes
South Dakota	Add-on	Optional	Compulsory	25/50/25	None	\$2,000	Yes
Tennessee	Tort		Optional	25/50/10			
Texas	Add-on	Optional	Compulsory	20/40/15	None	\$2,500	Yes
Utah	No-fault	Compulsory	Compulsory	25/50/15	\$3,000	\$3,000	Yes
Vermont	Tort		Compulsory	25/50/10			
Virginia	Add-on	Optional	Compulsory	25/50/20	None	\$2,000	Yes
Washington (m)	Add-on	Optional	Compulsory	25/50/10	None	\$10,000	Yes
West Virginia	Tort		Compulsory	20/40/10			
Wisconsin (n)	Add-on	Optional	Optional	25/50/10	None	\$1,000	No
Wyoming	Tort		Compulsory	25/50/20			

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Notes

- a) Connecticut changed from a no-fault system to a tort system on January 1, 1994.
- b) D. C. allows the injured party until 60 days after the accident to decide to elect PIP benefits. Injured individuals who elect PIP benefits have a verbal threshold. If PIP benefits are not elected tort liability applies. This change was effective June 2, 1986.
- c) In Florida BI liability is optional, while PD liability is compulsory.
- d) Georgia changed from a no-fault system to a tort system on October 1, 1991.
- e) Hawaii originally had a \$1,500 tort threshold. This was changed to a \$13,900 threshold that was indexed every year in September. Effective January 1, 1998 Hawaii changed to a right to sue with a verbal threshold or a \$5,000 covered loss deductible.
- f) Kentucky permits the insured to reject the tort limitation.
- g) The tort threshold in Minnesota excludes diagnostic x-rays and rehabilitation expenses.
- h) We have classified New Hampshire as a tort state based on an IRC study. Some studies classify New Hampshire as an add-on state. If you purchase liability insurance you must also purchase medical payments coverage.
- i) Effective January 1, 1989 New Jersey tort threshold options were changed to none and a verbal threshold. The medical expense coverage was reduced to \$250,000 per person from unlimited coverage effective January 1, 1989. In addition, effective in 1999, New Jersey offers a reduced price Basic policy with a \$15,000 limit to Medical expenses, except for specified serious injuries.
- j) New York amended the tort threshold from \$500 to a verbal threshold effective December 1, 1977. The bodily injury liability limits increase to 50/100 for fatal accidents.
- k) Pennsylvania has made various changes to their no-fault law. Originally a \$750 tort threshold existed. In 1984 the tort threshold was eliminated. In 1990 this changed to a choice system. The minimum no-fault benefits were reduced to \$5,000 of first party coverage. The tort option applies if the insured fails to select.
- l) South Carolina changed from mandatory to optional PIP coverage in 1977. In 1989 the law was changed to repeal the requirement that insurers offer PIP coverage. Effective March 1, 1999 liability insurance is no longer compulsory.
- m) Washington law gives the insurance companies the option to offer PIP benefits. Some insurers offer similar benefits but do not meet the state standards to be called personal injury protection coverage.
- n) We have classified Wisconsin as an add-on state based on the NAIC. Some studies classify Wisconsin as a tort state.

Sources: (1), (2) & (4) , Insurance Information Institute web page article "What are the driving laws in my state?", at site <http://www.iii.org/individuals/auto/a/stateautolaws/>

(3) & (5) to (7) NAIC Automobile Insurance Publication "No-Fault Auto Insurance: A Survey" by the Property & Casualty Insurance © Committee, December 2000.