

Issue Paper

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The Effects of a No-Pay/No-Play Plan on the Costs of Auto Insurance in Texas

Stephen J. Carroll and Allan F. Abrahamse

WHAT IS NO-PAY/NO-PLAY?

The cost of automobile insurance has been a major public policy issue for more than a decade. A variety of public and private organizations and individuals have proposed alternative, purportedly less expensive, automobile insurance plans. But to obtain those savings, states would have to limit the rights and compensation traditionally provided to people injured in auto accidents. Recently, a new concept has emerged called “no-pay/no-play,” which limits the compensation rights of people who were breaking the law when they were injured.

The Texas Senate Interim Committee on Civil Justice is studying Texas’s current liability system. Senator Teel Bivins, a member of the committee, asked the Institute for Civil Justice to analyze the effects of a no-pay/no-play automobile insurance plan similar to Proposition 213 adopted in California in November 1996. We used the models we had developed to analyze Proposition 213¹ to estimate the likely effects of a similar plan on the costs of automobile insurance in Texas. This issue paper presents our results.

¹Carroll and Abrahamse (1996) provide a description of the data and methods we used to analyze the effects of Proposition 213 in California. We drew upon the results presented there for this discussion.

The plan we examine here bars drunk drivers and uninsured motorists from compensation for any non-economic losses resulting from auto accident injuries.² We estimate the likely effects of this plan on the costs of private passenger auto insurance. Because of data limitations, we did not consider the effects of the plan on the costs of commercial auto insurance or on felons.

KEY FINDINGS

Our analyses suggest that the no-pay/no-play insurance plan could reduce the costs of auto insurance. If current claiming, negotiating, and insurance purchasing patterns persist, the plan would reduce auto insurers’ compensation costs for personal injuries by about 6 percent from the costs under Texas’s current auto insurance rules. Given the past relationship between compensation costs and auto insurance premiums in Texas, this difference would translate into a reduction of about 3 percent in the average Texas driver’s auto insurance premiums. To put this estimate in perspective, if the plan had been in force in 1996, the most recent year for which we have data

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on total auto insurance premiums,³ Texas drivers' auto insurance premiums would have been about \$182 million lower, a reduction of roughly \$23 in the average Texas driver's auto insurance costs.

Our results address relative costs; they show the difference between what will happen if the current system is retained and what would occur if the proposal were adopted. We do not suggest that auto insurance costs will necessarily fall if Texas adopts such a plan. For example, the plan may not reverse the long-term trend toward higher auto insurance costs. Rather, it is possible that no-pay/no-play provisions will slow the rate of growth in premiums so, over time, premiums would be roughly 3 percent less, on average, than they would be if the current system is not modified.

It should also be noted that our results address the effects of the plan on the average Texas driver. Both the expected costs of insuring a driver under the current auto insurance system and the likely effects of the plan vary from one driver to another, depending on a driver's risk factors and the coverages and policy limits purchased. For example, the savings that would result from limiting compensation to uninsured drivers injured in auto accidents would be greater in those communities in which the uninsured motorist rate is higher. Similarly, because the plan does not affect the costs of collision and comprehensive coverages, the relative savings would be greater for drivers who purchase only the personal injury and property damage liability coverages.

Because adoption of no-pay/no-play could engender changes in behavior, we recalculated our estimates under different sets of assumptions incorporating such changes. We also explored the sensitivity of these results to sampling error. Although the precise estimates vary from one set of behavioral assumptions to another, the results generally suggest that the plan would cut the costs of compensating auto accident victims by 3 to 10 percent. Thus, our basic conclusion—that the plan would result in savings of about 3 percent on the average driver's auto insurance premiums—holds for all the alternatives we considered.

PROBABLE EFFECTS OF NO-PAY/NO-PLAY IN TEXAS

The traditional rules of the tort system govern recovery for auto accident injuries in Texas. An accident victim

³National Association of Insurance Commissioners (1998).

may seek compensation for all economic and noneconomic losses from the driver who caused the accident.⁴ However, the victim is entitled to compensation only to the degree that the other driver is responsible for the accident.

The plan examined here would eliminate compensation for noneconomic losses to uninsured motorists and drunk drivers injured in auto accidents. This plan would not affect uninsured or drunk drivers' rights to compensation for economic losses. Nor would it affect the compensation rights of any other person injured in an auto accident—insured persons, sober drivers, passengers, pedestrians, bicyclists, etc.—including passengers injured while riding in cars operated by uninsured or drunk drivers.

In sum, the only accident victims who would be affected by the plan are uninsured or drunk drivers injured by an insured driver, and drunk drivers covered by uninsured motorist insurance injured by a negligent, uninsured motorist. The savings achieved by the plan would be the amount of compensation for noneconomic loss that would be paid to affected victims under the current law, plus the transactions costs—claims handling and defense costs—that insurers would have incurred in providing that compensation.

To estimate the effects of the plan, we used data derived from a representative sample of Texas auto accident injury claims closed with payment during 1992.⁵ For purposes of the analysis, we assume that the distributions of accidents, losses, and claimants reported in those data are representative of the corresponding future distributions. As a result of conversations with several major insurers, we assume that the uninsured motorist rate is 20 percent, that 90 percent of insured drivers will purchase uninsured motorist coverage, that 10 percent of insured drivers purchase medical payments coverage, and that 80 percent of insured drivers purchase personal injury protection coverage.

⁴Economic losses include an accident victim's medical costs, lost wages, burial expenses, replacement service losses, and other pecuniary expenditures. Noneconomic losses include physical and emotional pain, physical impairment, mental anguish, disfigurement, loss of enjoyment, and other nonpecuniary losses.

⁵The data were collected by the Insurance Research Council (1994) from 61 insurance companies that together accounted for about 81 percent of Texas's private-passenger automobile insurance (by premium volume) in 1992.

Given these assumptions, about 7 percent of future Texas auto accident victims will be uninsured drivers injured by an insured driver. Another 2 percent of future victims will be insured drunk drivers who are either injured by another insured driver or are injured by an uninsured motorist and have uninsured motorist coverage. In all, the plan would bar about 9 percent of auto accident victims from compensation for noneconomic loss. If the costs of compensating uninsured or drunk drivers hurt in auto accidents are reduced by the average compensation for noneconomic loss paid Texas drivers hurt in auto accidents, plus the associated transactions costs, the total costs of compensating auto accident victims would fall about 6 percent.

Personal injury coverages account for about half of auto insurance premiums; property damage coverages account for the other half. Thus, a 6 percent reduction in the costs of compensating auto accident victims for personal injuries translates into a 3 percent reduction in total auto insurance premiums. In 1996, total auto insurance premiums in Texas added up to about \$5.8 billion. If the plan had been in force then, the costs of auto insurance in 1996 would have been about \$182 million lower:

- Drivers denied compensation for noneconomic losses because they were drunk or uninsured when they were injured would have lost about \$124 million. (Because the attorneys who represent auto accident victims are typically paid on a contingency fee basis, a reduction of \$124 million in accident victims' gross compensation would have been divided between the victims—in the form of lower net compensation—and their attorneys—in the form of lower fees.)
- Because insurance companies would have faced smaller claims from drunk, insured drivers injured in accidents, they would have had to pay about \$21 million less in claims handling and defense costs.
- Finally, if insurance companies' other costs (general expenses, selling expenses, taxes and license fees, and dividends to policyholders) vary in proportion to compensation costs, insurance companies would have been able to cut premiums another \$37 million and still earn the same rate of profit.

POSSIBLE BEHAVIORAL RESPONSES TO NO-PAY/NO-PLAY AUTO INSURANCE

In the estimates described above, we assume that past behaviors persist. But it is possible that people will change their behavior if the plan is adopted. We identi-

fied what some of these possible behavioral changes might be, modified our model to reflect alternative behavioral assumptions, and reestimated the effects of the plan. We emphasize that we have no evidence that any of these behavioral changes will occur if the plan is approved. Our purpose is to identify the extent to which our estimates are sensitive to the behavioral assumptions that underlie the calculations.

It is possible that the *claiming behavior* of uninsured or drunk drivers might change if they could no longer obtain compensation for noneconomic loss. We have found evidence of excess claiming for medical costs in auto personal injury cases across the United States.⁶ Texas's current system encourages excess claiming as a way to leverage greater compensation for noneconomic loss; by eliminating that incentive, the plan would discourage fraudulent or excessive claims. At the same time, many accident victims rely on compensation for noneconomic loss for the funds needed to pay their attorneys; eliminating this source of funds may reduce victims' ability to obtain an attorney and, consequently, discourage legitimate claims.

The civil justice policy implications of reducing the frequency of excessive claims are very different from the policy implications of reducing the frequency of legitimate claims. But from a cost perspective, the two look the same: Fewer claims imply lower costs.

To estimate how reducing the frequency of claims—excessive claims, legitimate claims, or some combination—would affect costs, we assumed that adoption of no-pay/no-play would result in either a 25 percent or a 50 percent reduction in the frequency of claims, and we estimated the savings in both cases.

The *negotiating behavior* of accident victims, of their attorneys, or of claims adjusters might change if the plan is adopted. In principle, those involved in resolving a liability claim determine the victim's economic and noneconomic loss as well as the insured's negligence. In practice, the parties often focus on the total amount of compensation that will be paid the victim, without regard for the specifics of just how much compensation is being paid for what. It is possible that those involved in resolving a claim by an uninsured or drunk driver will agree on a compensation figure that is less than what would have been paid under the current system, but not by the full amount that our data suggest is being paid for noneconomic loss.

⁶See Carroll, Abrahamse, and Vaiana (1995).

To estimate how a partial, rather than full, elimination of compensation for noneconomic loss to uninsured or drunk drivers would affect our estimates, we assumed that despite the formal provisions of the plan, uninsured or drunk drivers injured in auto accidents would be compensated for either 25 percent or 50 percent of their noneconomic loss, and we estimated the savings in both cases.

Adoption of the plan could also change some drivers' *insurance purchasing behavior*. The potential costs of going uninsured would be increased—uninsured drivers would not only be in violation of the law, they would not have access to compensation for noneconomic loss in the event that they were injured in an auto accident. At the same time, the plan would reduce the costs of purchasing auto insurance, relative to the current system. It is possible that some drivers who would go uninsured under the current system will choose to purchase insurance under the plan.

To estimate how an increase in the fraction of drivers who purchase insurance would affect our estimates, we assumed that either 25 percent or 50 percent of the uninsured motorist population chooses to purchase insurance, and we estimated the savings in both cases.

Our estimates are based on data obtained in a sample of claims; they are subject to *sampling error*. Some of these claims were high-dollar claims, and it is possible that these high-dollar claims had an undue influence on our results. However, high-dollar claims are a fact of life, and although they are relatively rare, they might indeed have a real influence on savings under the plan.

To examine the possible effect of sampling error on our results, we estimated the effects of the plan under three very different assumptions regarding the sample: First, we used all the cases in our sample to make nominal cost estimates. We then dropped the 10 percent of all cases with the greatest economic loss to obtain a second set of cost estimates. Finally, we doubled the economic loss of those in the top 10 percent of all cases to obtain a third set of cost estimates. It is unlikely that the effect of sampling error would be as great as the effect of discarding or doubling the top 10 percent of the sample.

In sum, we considered the sensitivity of our results to three alternative assumptions regarding the values of each of four factors: claim frequency, the fraction of noneconomic loss compensated, the percentage of uninsured drivers induced to purchase insurance, and the frequency of very large claims. We calculated relative savings under the plan under all 81 combinations of the four factors over

the three levels discussed above. The table shows the results of these calculations.

The first point to be seen from the table is that *relative savings in compensation costs always exceed about 3 percent*, regardless of how we combine the various factors. It seems quite likely that no-pay/no-play will reduce compensation costs in Texas.

The second point is that *relative savings in compensation costs generally exceed 6 percent*. Savings drop below 6 percent in relatively few cases, mostly those cases where drivers negotiate high compensation for noneconomic losses. Assuming that the terms of the plan are really put into practice, it seems unlikely that such negotiations will occur frequently. Thus, it seems quite likely that no-pay/no-play will modestly reduce compensation costs.

Finally, relative savings rarely exceed 10 percent. Savings approach and exceed this level when many currently uninsured drivers decide to purchase insurance after the plan goes into effect, or if we assume that our data file underrepresents high-dollar claims.

In light of the above, we believe that relative savings in compensation costs under the plan will fall somewhere between 6 and 10 percent.

DATA AND METHODS

We obtained detailed information on a random sample of about 4,800 Texas auto accident injury claims closed with payment during 1992 under the principal auto injury coverages.⁷ The data describe each victim's accident, resulting injuries and losses, and the compensation obtained from auto insurance. We combined data from several sources to estimate insurers' transaction costs,⁸ including both allocated loss-adjustment expenses (costs, primarily including legal fees and related expenses, incurred on behalf of and directly attributed to a specific claim) and unallocated, or general claim-processing costs, for each line of private-passenger auto insurance.⁹

We estimated the effects of the plan on insurance costs by comparing the costs of compensating the accident vic-

⁷Insurance Research Council (1994) provides a detailed description of the database used for this work.

⁸Carroll et al. (1991), Appendix D, describe the data and methods used to estimate insurers' transaction costs.

⁹We do not include claimants' legal costs, the value of claimants' time, or the costs the courts incur in handling litigated claims. Those costs do not affect insurers' costs and hence do not affect auto insurance premiums.

**Relative Savings in Compensation Costs Provided by a No-Pay/No-Play Plan
Under Alternative Assumptions, in Texas, by Percent**

Claiming Rate	Percentage of Noneconomic Loss Compensated	Percentage of Uninsured Drivers Purchasing Insurance	Compensation Cost Savings Estimates			
			Nominal	When Top 10% Dropped	When Top 10% Doubled	
No reduction	None	0	5.7	6.3	5.5	
		25	7.8	7.8	7.8	
		50	9.9	9.4	10.2	
	25	0	4.3	4.8	4.2	
		25	6.7	6.7	6.8	
		50	9.1	8.5	9.4	
	50	0	3.0	3.3	2.9	
		25	5.6	5.5	5.8	
		50	8.3	7.6	8.7	
25%	None	0	7.0	7.3	6.9	
		25	8.8	8.7	9.0	
		50	10.7	10.0	11.1	
	25	0	6.0	6.2	5.9	
		25	8.0	7.8	8.2	
		50	10.1	9.3	10.5	
	50	0	5.0	5.1	4.9	
		25	7.2	6.9	7.4	
		50	9.5	8.7	9.9	
	50%	None	0	8.3	8.4	8.3
			25	9.9	9.5	10.1
			50	11.5	10.6	11.9
25		0	7.6	7.6	7.6	
		25	9.3	8.9	9.6	
		50	11.1	10.2	11.5	
50		0	6.9	6.9	7.0	
		25	8.8	8.3	9.0	
		50	10.7	9.7	11.1	

Calculations are based on a representative sample of Texas auto accident injury claims closed with payment during 1992.

tims in the sample under the current insurance system to the costs of compensating the same victims for the same injuries and losses under a no-pay/no-play provision. We included all accident victims—insured and uninsured drivers, passengers, pedestrians, bicyclists, people injured in single-car accidents, etc.—in these calculations.

We assumed the proportions of drivers who will purchase each available type of auto insurance personal injury coverage and, by implication, the proportion of drivers who will go uninsured under Texas's current system. Given these assumptions, we computed the probability that an accident victim will have access to compensation under each coverage, multiplied by the average compen-

sation paid to Texas accident victims under that coverage, and summed over all coverages to estimate insurers' expected compensation costs under the current system. We then estimated a break-even premium for the current system—the amount insurers would have to charge the average insured driver to recover just what they paid out in compensating victims and the transaction costs they incurred in providing that compensation.

We assumed that drivers would make the same insurance purchasing decisions under the plan and, by implication, that the same proportion of drivers would go uninsured. We computed insurers' expected compensation costs, given those assumptions, and estimated the break-

even premium under the plan—the amounts insurers would have to charge insured drivers to recover compensation costs.

Finally, we calculated relative savings under the plan as the percentage difference between the break-even premium under the current system and the one under the plan.

We focused on the effects of the proposed plan on auto insurers' compensation costs, including both the amounts they pay out in compensation and the transaction costs they incur in providing that compensation. We neglected the many other factors (e.g., insurers' overhead and profit margins and investment income) that also affect insurance premiums.

We focused on the relative costs of the two insurance systems. Because any factors that proportionately affect costs under both the current system and the proposed plan cancel out in the comparison, the results are insensitive to changes in such factors over time.

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RESEARCH BRIEFS ON AUTOMOBILE INSURANCE

RAND research briefs offer readers succinct summaries of research reports. In recent years, the ICJ has published two research briefs on automobile insurance.

Choosing an Alternative to Tort, Santa Monica, California: RAND, RB-9024, 1995, no charge; summarizes "No-Fault Approaches to Compensating Auto Accident Victims," RAND RP-229; and "Consumer Choice in the Auto Insurance Market," RAND RP-254.

How Big Is the Price Tag for Excess Auto Injury Claims? Santa Monica, California: RAND, RB-9023, 1995, no charge; summarizes *The Costs of Excess Medical Claims for Automobile Personal Injuries*, RAND DB-139-ICJ.

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“The Comparative Costs of Allowing Consumer Choice for Auto Insurance in All Fifty States,” J. O’Connell, Stephen J. Carroll, M. Horowitz, Allan F. Abrahamse, and P. Jamieson, *Maryland Law Review*, Vol. 55, No. 1, 1996, pp. 160–222; also available as RAND RP-518, no charge.

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“The Costs of Consumer Choice for Auto Insurance in States Without No-Fault Insurance,” J. O’Connell, Stephen J. Carroll, M. Horowitz, Allan F. Abrahamse, and D. Kaiser, *Maryland Law Review*, Vol. 54, No. 2, 1995, pp. 281–351; also available as RAND RP-442, no charge.

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Abstracts of all of these documents and full text of some are available on the ICJ web page at <http://www.rand.org/centers/icj/>.

even premium under the plan—the amounts insurers would have to charge insured drivers to recover compensation costs.

Finally, we calculated relative savings under the plan as the percentage difference between the break-even premium under the current system and the one under the plan.

We focused on the effects of the proposed plan on auto insurers' compensation costs, including both the amounts they pay out in compensation and the transaction costs they incur in providing that compensation. We neglected the many other factors (e.g., insurers' overhead and profit margins and investment income) that also affect insurance premiums.

We focused on the relative costs of the two insurance systems. Because any factors that proportionately affect costs under both the current system and the proposed plan cancel out in the comparison, the results are insensitive to changes in such factors over time.

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RESEARCH BRIEFS ON AUTOMOBILE INSURANCE

RAND research briefs offer readers succinct summaries of research reports. In recent years, the ICJ has published two research briefs on automobile insurance.

Choosing an Alternative to Tort, Santa Monica, California: RAND, RB-9024, 1995, no charge; summarizes “No-Fault Approaches to Compensating Auto Accident Victims,” RAND RP-229; and “Consumer Choice in the Auto Insurance Market,” RAND RP-254.

How Big Is the Price Tag for Excess Auto Injury Claims? Santa Monica, California: RAND, RB-9023, 1995, no charge; summarizes *The Costs of Excess Medical Claims for Automobile Personal Injuries*, RAND DB-139-ICJ.

Given these assumptions, about 7 percent of future Texas auto accident victims will be uninsured drivers injured by an insured driver. Another 2 percent of future victims will be insured drunk drivers who are either injured by another insured driver or are injured by an uninsured motorist and have uninsured motorist coverage. In all, the plan would bar about 9 percent of auto accident victims from compensation for noneconomic loss. If the costs of compensating uninsured or drunk drivers hurt in auto accidents are reduced by the average compensation for noneconomic loss paid Texas drivers hurt in auto accidents, plus the associated transactions costs, the total costs of compensating auto accident victims would fall about 6 percent.

Personal injury coverages account for about half of auto insurance premiums; property damage coverages account for the other half. Thus, a 6 percent reduction in the costs of compensating auto accident victims for personal injuries translates into a 3 percent reduction in total auto insurance premiums. In 1996, total auto insurance premiums in Texas added up to about \$5.8 billion. If the plan had been in force then, the costs of auto insurance in 1996 would have been about \$182 million lower:

- Drivers denied compensation for noneconomic losses because they were drunk or uninsured when they were injured would have lost about \$124 million. (Because the attorneys who represent auto accident victims are typically paid on a contingency fee basis, a reduction of \$124 million in accident victims' gross compensation would have been divided between the victims—in the form of lower net compensation—and their attorneys—in the form of lower fees.)
- Because insurance companies would have faced smaller claims from drunk, insured drivers injured in accidents, they would have had to pay about \$21 million less in claims handling and defense costs.
- Finally, if insurance companies' other costs (general expenses, selling expenses, taxes and license fees, and dividends to policyholders) vary in proportion to compensation costs, insurance companies would have been able to cut premiums another \$37 million and still earn the same rate of profit.

POSSIBLE BEHAVIORAL RESPONSES TO NO-PAY/NO-PLAY AUTO INSURANCE

In the estimates described above, we assume that past behaviors persist. But it is possible that people will change their behavior if the plan is adopted. We identi-

fied what some of these possible behavioral changes might be, modified our model to reflect alternative behavioral assumptions, and reestimated the effects of the plan. We emphasize that we have no evidence that any of these behavioral changes will occur if the plan is approved. Our purpose is to identify the extent to which our estimates are sensitive to the behavioral assumptions that underlie the calculations.

It is possible that the *claiming behavior* of uninsured or drunk drivers might change if they could no longer obtain compensation for noneconomic loss. We have found evidence of excess claiming for medical costs in auto personal injury cases across the United States.⁶ Texas's current system encourages excess claiming as a way to leverage greater compensation for noneconomic loss; by eliminating that incentive, the plan would discourage fraudulent or excessive claims. At the same time, many accident victims rely on compensation for noneconomic loss for the funds needed to pay their attorneys; eliminating this source of funds may reduce victims' ability to obtain an attorney and, consequently, discourage legitimate claims.

The civil justice policy implications of reducing the frequency of excessive claims are very different from the policy implications of reducing the frequency of legitimate claims. But from a cost perspective, the two look the same: Fewer claims imply lower costs.

To estimate how reducing the frequency of claims—excessive claims, legitimate claims, or some combination—would affect costs, we assumed that adoption of no-pay/no-play would result in either a 25 percent or a 50 percent reduction in the frequency of claims, and we estimated the savings in both cases.

The *negotiating behavior* of accident victims, of their attorneys, or of claims adjusters might change if the plan is adopted. In principle, those involved in resolving a liability claim determine the victim's economic and noneconomic loss as well as the insured's negligence. In practice, the parties often focus on the total amount of compensation that will be paid the victim, without regard for the specifics of just how much compensation is being paid for what. It is possible that those involved in resolving a claim by an uninsured or drunk driver will agree on a compensation figure that is less than what would have been paid under the current system, but not by the full amount that our data suggest is being paid for noneconomic loss.

⁶See Carroll, Abrahamse, and Vaiana (1995).

To estimate how a partial, rather than full, elimination of compensation for noneconomic loss to uninsured or drunk drivers would affect our estimates, we assumed that despite the formal provisions of the plan, uninsured or drunk drivers injured in auto accidents would be compensated for either 25 percent or 50 percent of their noneconomic loss, and we estimated the savings in both cases.

Adoption of the plan could also change some drivers' *insurance purchasing behavior*. The potential costs of going uninsured would be increased—uninsured drivers would not only be in violation of the law, they would not have access to compensation for noneconomic loss in the event that they were injured in an auto accident. At the same time, the plan would reduce the costs of purchasing auto insurance, relative to the current system. It is possible that some drivers who would go uninsured under the current system will choose to purchase insurance under the plan.

To estimate how an increase in the fraction of drivers who purchase insurance would affect our estimates, we assumed that either 25 percent or 50 percent of the uninsured motorist population chooses to purchase insurance, and we estimated the savings in both cases.

Our estimates are based on data obtained in a sample of claims; they are subject to *sampling error*. Some of these claims were high-dollar claims, and it is possible that these high-dollar claims had an undue influence on our results. However, high-dollar claims are a fact of life, and although they are relatively rare, they might indeed have a real influence on savings under the plan.

To examine the possible effect of sampling error on our results, we estimated the effects of the plan under three very different assumptions regarding the sample: First, we used all the cases in our sample to make nominal cost estimates. We then dropped the 10 percent of all cases with the greatest economic loss to obtain a second set of cost estimates. Finally, we doubled the economic loss of those in the top 10 percent of all cases to obtain a third set of cost estimates. It is unlikely that the effect of sampling error would be as great as the effect of discarding or doubling the top 10 percent of the sample.

In sum, we considered the sensitivity of our results to three alternative assumptions regarding the values of each of four factors: claim frequency, the fraction of noneconomic loss compensated, the percentage of uninsured drivers induced to purchase insurance, and the frequency of very large claims. We calculated relative savings under the plan under all 81 combinations of the four factors over

the three levels discussed above. The table shows the results of these calculations.

The first point to be seen from the table is that *relative savings in compensation costs always exceed about 3 percent*, regardless of how we combine the various factors. It seems quite likely that no-pay/no-play will reduce compensation costs in Texas.

The second point is that *relative savings in compensation costs generally exceed 6 percent*. Savings drop below 6 percent in relatively few cases, mostly those cases where drivers negotiate high compensation for noneconomic losses. Assuming that the terms of the plan are really put into practice, it seems unlikely that such negotiations will occur frequently. Thus, it seems quite likely that no-pay/no-play will modestly reduce compensation costs.

Finally, relative savings rarely exceed 10 percent. Savings approach and exceed this level when many currently uninsured drivers decide to purchase insurance after the plan goes into effect, or if we assume that our data file underrepresents high-dollar claims.

In light of the above, we believe that relative savings in compensation costs under the plan will fall somewhere between 6 and 10 percent.

DATA AND METHODS

We obtained detailed information on a random sample of about 4,800 Texas auto accident injury claims closed with payment during 1992 under the principal auto injury coverages.⁷ The data describe each victim's accident, resulting injuries and losses, and the compensation obtained from auto insurance. We combined data from several sources to estimate insurers' transaction costs,⁸ including both allocated loss-adjustment expenses (costs, primarily including legal fees and related expenses, incurred on behalf of and directly attributed to a specific claim) and unallocated, or general claim-processing costs, for each line of private-passenger auto insurance.⁹

We estimated the effects of the plan on insurance costs by comparing the costs of compensating the accident vic-

⁷Insurance Research Council (1994) provides a detailed description of the database used for this work.

⁸Carroll et al. (1991), Appendix D, describe the data and methods used to estimate insurers' transaction costs.

⁹We do not include claimants' legal costs, the value of claimants' time, or the costs the courts incur in handling litigated claims. Those costs do not affect insurers' costs and hence do not affect auto insurance premiums.

**Relative Savings in Compensation Costs Provided by a No-Pay/No-Play Plan
Under Alternative Assumptions, in Texas, by Percent**

Claiming Rate	Percentage of Noneconomic Loss Compensated	Percentage of Uninsured Drivers Purchasing Insurance	Compensation Cost Savings Estimates			
			Nominal	When Top 10% Dropped	When Top 10% Doubled	
No reduction	None	0	5.7	6.3	5.5	
		25	7.8	7.8	7.8	
		50	9.9	9.4	10.2	
	25	0	4.3	4.8	4.2	
		25	6.7	6.7	6.8	
		50	9.1	8.5	9.4	
	50	0	3.0	3.3	2.9	
		25	5.6	5.5	5.8	
		50	8.3	7.6	8.7	
25%	None	0	7.0	7.3	6.9	
		25	8.8	8.7	9.0	
		50	10.7	10.0	11.1	
	25	0	6.0	6.2	5.9	
		25	8.0	7.8	8.2	
		50	10.1	9.3	10.5	
	50	0	5.0	5.1	4.9	
		25	7.2	6.9	7.4	
		50	9.5	8.7	9.9	
	50%	None	0	8.3	8.4	8.3
			25	9.9	9.5	10.1
			50	11.5	10.6	11.9
25		0	7.6	7.6	7.6	
		25	9.3	8.9	9.6	
		50	11.1	10.2	11.5	
50		0	6.9	6.9	7.0	
		25	8.8	8.3	9.0	
		50	10.7	9.7	11.1	

Calculations are based on a representative sample of Texas auto accident injury claims closed with payment during 1992.

tims in the sample under the current insurance system to the costs of compensating the same victims for the same injuries and losses under a no-pay/no-play provision. We included all accident victims—insured and uninsured drivers, passengers, pedestrians, bicyclists, people injured in single-car accidents, etc.—in these calculations.

We assumed the proportions of drivers who will purchase each available type of auto insurance personal injury coverage and, by implication, the proportion of drivers who will go uninsured under Texas's current system. Given these assumptions, we computed the probability that an accident victim will have access to compensation under each coverage, multiplied by the average compen-

sation paid to Texas accident victims under that coverage, and summed over all coverages to estimate insurers' expected compensation costs under the current system. We then estimated a break-even premium for the current system—the amount insurers would have to charge the average insured driver to recover just what they paid out in compensating victims and the transaction costs they incurred in providing that compensation.

We assumed that drivers would make the same insurance purchasing decisions under the plan and, by implication, that the same proportion of drivers would go uninsured. We computed insurers' expected compensation costs, given those assumptions, and estimated the break-