DOCUMENTED BRIEFING

RAND

The Costs of Excess Medical Claims for Automobile Personal Injuries

Stephen Carroll, Allan Abrahamse, Mary Vaiana

The Institute for Civil Justice

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THE INSTITUTE FOR CIVIL JUSTICE

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PREFACE

Escalating auto insurance premiums have become an issue in many states. It is often suggested that excess claims are contributing to these increases. This study is the first systematic attempt to estimate the costs of excess claiming. It focuses on a single aspect of this phenomenon—excess claims for medical care. The results have implications reaching far beyond auto insurance systems to the national consumption of health care resources.

The Institute for Civil Justice has been conducting research on auto insurance issues since its inception in 1979. This study will be of interest to policymakers in each state concerned with insurance matters, to insurers, and to consumers.

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The Costs of Excess Medical Claims for Automobile Personal Injuries

Stephen Carroll
Allan Abrahamse
Mary Vaiana

March 1995

Policy Debate

- **Widespread concern about auto insurance premiums**
  - **Growing rapidly**
  - **Particularly burdensome for low-income groups**
  - **Provide incentives to drive uninsured**
- **Debate over causes of premium growth**
- **How much does excess claiming contribute to high costs?**

Over the past decade and a half, automobile insurance premiums, particularly for personal injury coverages, have grown rapidly across the country. Stiff increases in auto insurance premiums are burdensome for everyone, and especially so for low-income populations. Moreover, high insurance premiums are an incentive to drive uninsured, thus exacerbating the uninsured motorist problem.

Escalating auto insurance premiums have touched off heated policy debates in most states: Why have insurance premiums been growing so rapidly? Insurers claim they have to raise premiums to keep pace with the growing costs of compensating auto accident victims. Are compensation costs growing? And, if so, why? Are American drivers having more accidents? How much do increasing health care costs contribute to the problem? Is there some truth to the claim that we are becoming a more litigious society, increasingly prone to seek compensation for injuries, real or imagined?

Debates over auto insurance costs generally feature a variety of clashing perspectives. But nearly everyone involved in the debates shares one common concern: the fear that excess claims may be a major contributor to auto insurance costs. When insurance companies pay compensation for nonexistent or exaggerated injuries, the costs are inevitably reflected in higher insurance bills for everyone. But are these fears justified: How much excess claiming is there? How much does it cost?

The study described in this briefing analyzes the pattern of excess medical claiming across the states to estimate the extent of excess medical claiming and the costs of excess claims to consumers.

Context: Findings from Other ICJ Studies

- **Costs of compensating auto accident victims increased 167% since 1980**
- **Frequency of accidents isn't changing**
- **Inflation, particularly in health care costs, accounts for 60 percent of growth in compensation costs**
- **Increases in number and size of claims account for remaining 40 percent of compensation cost growth**

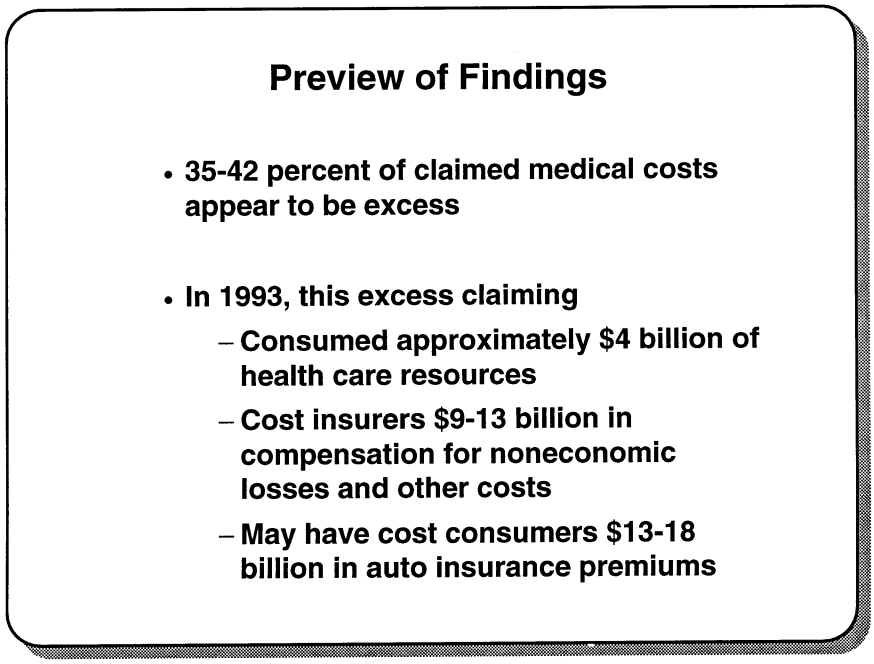
This analysis builds on research that the Institute of Civil Justice has been conducting on automobile insurance issues since 1985. A series of studies completed in the past several years examined the costs of compensation. These analyses provided an empirical basis for exploring various hypotheses about premium growth.

We found that the costs insurers incurred in compensating auto accident victims on behalf of Bodily Injury (BI) policyholders increased about 167% between 1980 and 1991, the most recent year for which complete data on compensation costs are available. (BI insurance pays the compensation an insured driver owes someone he or she injured.) These rapid increases in compensation costs are a primary, if not the only, factor driving increases in auto insurance premiums.

Why are compensation costs going up so fast?

- American drivers are *not* having more frequent accidents--in fact, the accident rate is actually falling nationwide;
- Inflation, particularly in health care costs, accounts for 60 percent of the growth;
- Increases in the number and size of claims account for the remaining 40 percent of premium growth.

Thus 60 percent of the increase in auto compensation costs is outside the insurance system and cannot be affected by policies that focus on that system. However, 40 percent of the increase stems from activities within the system: Drivers who have accidents are more prone to submit claims, and the claims have been growing in size over time, per auto accident.

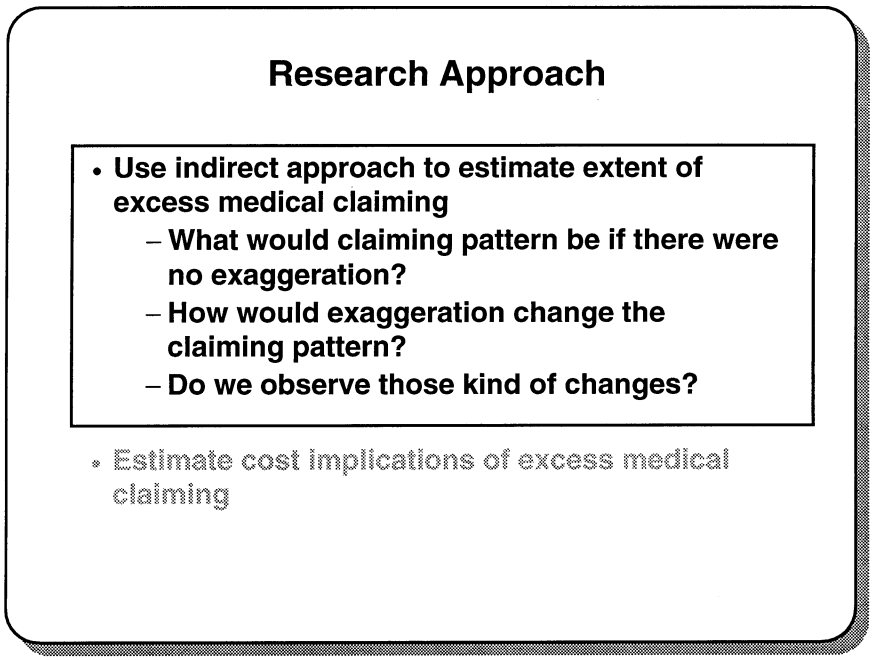


What is the role of excess claiming in this significant change in claiming behavior? To date, we have had no comprehensive evidence to answer that question. Sting operations conducted by various law enforcement agencies, private organizations, and investigative reporters have uncovered numerous examples of excess claiming ranging from fraud rings to medical personnel and lawyers who encouraged drivers to claim injuries that weren't real or to pad claims. But these are isolated incidents and do not support conclusions about what fraction of the million or so auto injury claims per year submitted to insurance companies involve excess claims.

Our research has taken a systematic approach to estimating the costs of excess medical claiming. To preview our key findings:

- 35-42 percent of medical costs claimed by auto accident victims appear to be excess;
- About $4 billion in unnecessary health care costs were incurred as a consequence of excess claims;
- These excess claims also cost insurers an additional $9-13 billion in compensation for noneconomic losses and other costs;
- If insurers pass these increased costs on to consumers in the form of proportional increases in premiums, then in 1993 excess medical claims cost auto insurance purchasers across the country anywhere from $13-18 billion.

In the remainder of this briefing, we describe the analysis that underlies these findings. We begin by describing the analytic framework that shaped our work. Then we discuss our research findings in detail. Finally, we briefly discuss some policy directions suggested by our findings.



In our analysis, we use the term *excess medical claiming* to cover a broad range of activities including claims based on staged or nonexistent accidents, claims for nonexistent injuries when the accidents were real, and buildup of claims for real injuries to leverage a settlement from the insurance company.

We focus on medical claims because virtually all auto personal injury claims include some kind of medical costs. Overall, medical costs account for about three-quarters of accident victims' claimed economic losses. About one-third of accident victims also claim other kinds of economic loss--for example, lost wages. We have deferred attention to these losses for the present; hence, our estimates of the costs of excess claiming are conservative because they ignore the costs generated by excess claims for lost wages.

We cannot directly observe excess claiming globally--we can only observe specific instances of it when it is detected by investigation or undercover activities. Therefore, we have taken an indirect approach to estimating the extent of excess medical claiming across the states. (1) We draw on a large database of individual claims to identify what the claiming patterns would be if there were no exaggeration of claims.* (2) We predict how excess claiming would change the claiming patterns. (3) We use the database to see if we observe those kinds of changes. (4) Finally, we estimate the cost implications of the excess claims.

*This database is described in detail in *No-Fault Approaches to Compensating People Injured in Automobile Accidents*, S. J. Carroll, J. S. Kakalik, N. M. Pace, J. Adams, R-4019-ICJ, RAND: Santa Monica, CA, 1991.

Access to General Damages Provides Incentive for Excess Claiming

	Medical Claim = $700		Medical Claim = $1,100	
	Compensation		Compensation	
	Medical costs	General damages	Medical costs	General damages
Tort	$700	$1,400	$1,100	$2,200

The incentives for excess medical claiming and the ability to exaggerate claims depend, in large measure, on the type of insurance systems in place in a given state and on the characteristics of injuries.

Incentives under the tort system. The tort liability system is the set of legal rules that governs compensation for injuries in all states and directly governs compensation for automobile injuries in about three-quarters of the states. Under the tort system, an individual who is injured is entitled to seek compensation for both the economic loss incurred as a result of that injury (medical costs, for example) and for noneconomic losses, termed *general damages*. These are hurts the individual has suffered that are not directly measured in dollars--"pain and suffering," for example. Because there is no objective measure of the magnitude of an accident victim's general damages, compensation for general damages is typically thought to be a multiple of the victim's economic loss.

This relationship between economic loss and general damages provides incentives for excess claiming.

Suppose an individual is injured in an accident and submits a claim for medical costs in the amount of $700. Under the tort system, that individual might reasonably expect to receive $700 as compensation for medical costs. (The amount of compensation would be reduced if the injured party was partially negligent. For simplicity, we neglect that concern; it has no bearing on the main point of the argument.) The injured party might also reasonably expect some amount of general damages. For purposes of this example, let us assume that general damages are twice the medical costs--in this case, $1,400.

This relationship between medical costs and general damages provides the incentive to bring a claim for nonexistent injuries. For example, driver A hits driver B's car. B is not injured but claims to be injured, and finds a doctor who provides treatment and runs up $700 worth of medical bills. B can pursue a claim with A's insurance company and reasonably expect to be reimbursed for medical costs *and* to receive $1,400 in general damages, which B can pocket. By a similar argument, if B submitted a medical claim of $1,100, B could get paid $1,100 for medical costs and $2,200 in general damages.

The link between medical costs and general damages also provides the incentive to build costs. For example, someone with a real injury, for which appropriate medical treatment would have cost $700, who manages to run up medical bills totaling $1,100, will end up with an extra $800 in his or her pocket.

Dollar No-Fault Systems Enhance Incentive to Pad Claims

	Medical Claim = $700		Medical Claim = $1,100	
	Compensation		Compensation	
	Medical costs	General damages	Medical costs	General damages
Tort	$700	$1,400	$1,100	$2,200
Dollar no-fault ($1,000 threshold)	$700	—	$1,100	$2,200

Incentives under a dollar no-fault system. About a quarter of the states have changed the rules for compensating people injured in auto accidents by introducing what are called dollar threshold no-fault systems. In these systems, a person injured in an automobile accident is not allowed to seek compensation for general damages from the other driver unless his or her medical costs exceed a specified dollar amount.

As the table shows, the dollar no-fault system changes the incentives facing claimants.

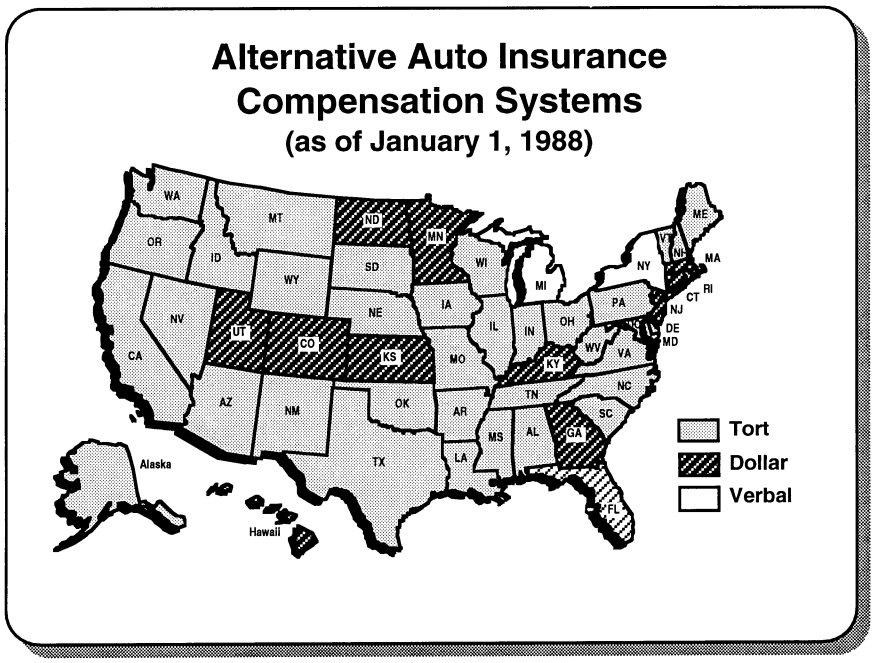
Suppose the driver we were considering in the previous example was in a no-fault state in which the dollar threshold was $1,000. If the individual makes a claim for $700, he or she would receive reimbursement for that amount. But there will be no payment for general damages because the medical costs are under the threshold. On the other hand, making a claim for $1,100 (perhaps by building the medical costs) yields not only $1,100 in medical compensation, but because the dollar threshold has been exceeded, general damages as well. In sum, building the claim to get over the threshold in the dollar no-fault system has a substantial marginal effect on the amount of general damages someone might receive as a result of an auto accident.

Verbal No-Fault Systems Weaken Incentives

	Medical Claim = $700		Medical Claim = $1,100	
	Compensation		Compensation	
	Medical costs	General damages	Medical costs	General damages
Tort	$700	$1,400	$1,100	$2,200
Dollar no-fault ($1,000 threshold)	$700	—	$1,100	$2,200
Verbal no-fault	**$700**	**—**	**$1,100**	**—**

Incentives under a verbal no-fault system. In 1988, when our data were collected, three states had adopted what are called verbal no-fault systems. In these systems, the law contains an explicit list of injuries for which one is allowed to seek general damages. If an injury is not on that list, the injured party may not seek general damages, no matter how high the medical bills are. The listed injuries tend to be serious: death, dismemberment, loss of a bodily part or sense, fracture.

The table illustrates how the verbal no-fault system weakens the incentives to submit excess medical claims.



The map shows where these three types of auto insurance systems were in place on January 1, 1988. The data on which this analysis is based, and the most recent data available of the type required, are drawn from claims for auto injuries that were closed in late 1987 and early 1988. Thus the law that is relevant for analyzing these claims is the law in place at that date.

The traditional tort system governed compensation for auto injuries in 36 states. Eleven states had adopted dollar no-fault systems.

The three verbal threshold states are Michigan, New York, and Florida. Michigan and New York have strong verbal thresholds--that is, the types of injuries that qualify an individual to seek general damages are all serious injuries. In contrast, the verbal threshold in Florida allows an individual to claim general damages if he or she has a permanent partial disability, no matter how small. Since this threshold is not as stringent as the thresholds in Michigan and New York, in subsequent discussions of verbal threshold states, we exclude Florida.

Characteristics of Injuries Affect Ability to Exaggerate Claims

	Hard injuries	Soft Injuries
Examples	Death, loss of limb or sense, fracture, lacerations	Sprains or strains
Objectively verifiable?	Yes	Usually not
Costly/ serious?	Usually	Often not

We have seen that the type of insurance system in place shapes the incentives to exaggerate medical claims. The opportunity for exaggeration is also influenced by the nature of the injuries themselves. This table presents a categorization of injuries that is useful for exploring the ability to exaggerate claims.

Hard injuries are injuries that are objectively verifiable. For example, there is no debate about the loss of a limb or a fracture detected by x-ray. Hard injuries are usually relatively costly; hence, they probably attract attention from claims agents who may pay some attention to the evidence submitted in support of a claim for compensation.

Soft injuries are sprains and strains. They are not usually objectively verifiable; hence, they present an opportunity to exaggerate their existence or seriousness. And because they are often not costly injuries, claims based on them may not attract scrutiny.

Where Do We Expect to See What Kinds of Exaggeration?

		Insurance System		
		Verbal no-fault	Dollar no-fault	Tort
Claims for nonexistent	Hard injuries	---	---	---
	Soft injuries	---	+	++
Cost buildup	Hard injury claims	+	++	+
	Soft injury claims	---	++	+

If we combine the incentives embedded in the different insurance systems with the potential for exaggeration inherent in injury types, we can construct hypotheses about what kinds of exaggeration we would expect to see and under what conditions. The table summarizes these hypotheses.

The first row of the table shows blanks--no claims for nonexistent hard injuries--under all three insurance systems. Since hard injuries are objectively verifiable, it is very difficult to fake a claim for one. Thus we would not expect to see claims for nonexistent hard injuries anywhere.

Soft injuries present some opportunities for nonexistent claiming. We would not expect to see claims for nonexistent soft injuries in a verbal threshold no-fault state since this insurance system provides no access to general damages unless the injury is one of those explicitly specified by the law. But we can anticipate some claims for nonexistent soft injuries in dollar no-fault states if the medical claim can be pushed over the threshold, thus providing the potential for general damages. Of course, in tort states, where general damages can flow from the first dollar of one's medical claim, we expect to see comparatively more claims for nonexistent soft injuries.

Where do we expect to see cost buildup on true claims? Many hard injuries are the kinds of injuries that exceed a verbal threshold, so we can anticipate some building of claims for hard injuries in that insurance environment. We can expect even more cost buildup on hard injuries in dollar no-fault states because some hard injuries that normally would not exceed the threshold can be built to exceed a dollar threshold, thus providing the claimant with general damages. Tort states should have levels of cost buildup on hard injuries comparable to verbal no-fault states.

Finally, what about soft injury claims? It makes no sense to build medical claims for soft injuries in a verbal no-fault state because doing so does not provide access to general damages. Dollar threshold states offer the same strong incentive to build medical claims for soft injuries as they do to build claims for hard injuries. The tort system also offers incentives to build medical claims for soft injuries, but these incentives are less strong than in dollar threshold systems.

Estimating Frequency of Claims for Nonexistent Injuries

- Assume hard injury claims generally real
- Soft injury claims may be for nonexistent injuries
  - Rarely in Michigan and New York
  - Sometimes in dollar states
  - More often in tort states
- Number of soft claims per hard claim indicates extent of claims for nonexistent injuries
- Example:

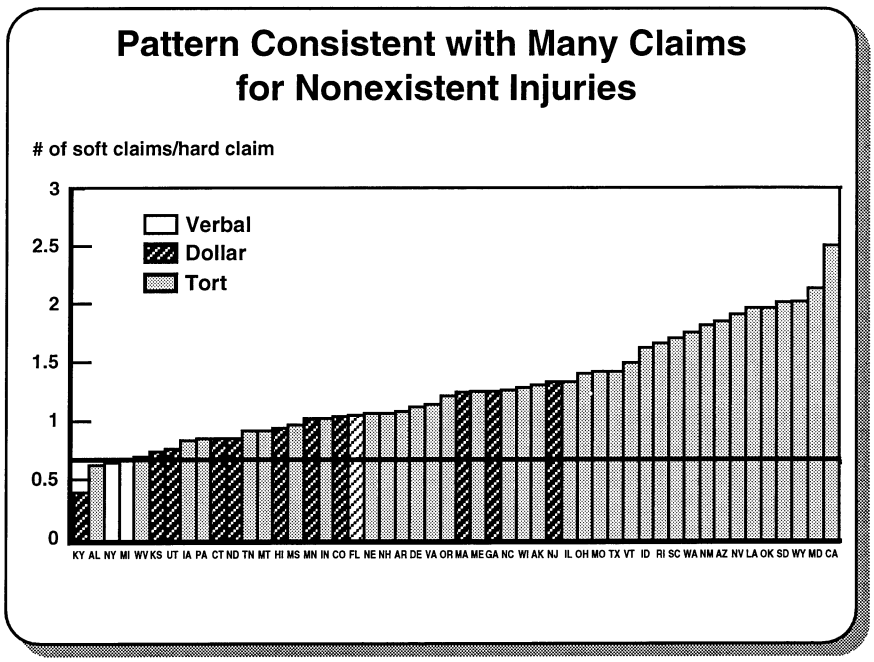


Having stated our expectations about where nonexistent or exaggerated claiming will occur, we now examine the data to see if they support our hypotheses.

To recap: We assumed that hard injury claims were generally real, and that claims for nonexistent soft injuries would be rare in Michigan and New York (the strong verbal threshold states), occasional in dollar threshold states, and more frequent in tort states. Using these assumptions, we have created an index to measure the frequency of claims for nonexistent injuries:

Index: Number of soft claims per hard claim

Based on this definition, Michigan and New York have an index of 0.7. That is, in these states there are 7 soft injury claims for every 10 hard injury claims. In Hawaii, a dollar threshold state, we see 9 soft injury claims for every 10 hard injury claims--an index value of 0.9. That's 25% more than in the verbal threshold states, but much less than in California, a tort state, where we expect to see, and indeed find, evidence of many claims for nonexistent injuries. California's index is 2.5--that is, 25 soft claims for every 10 hard claims.



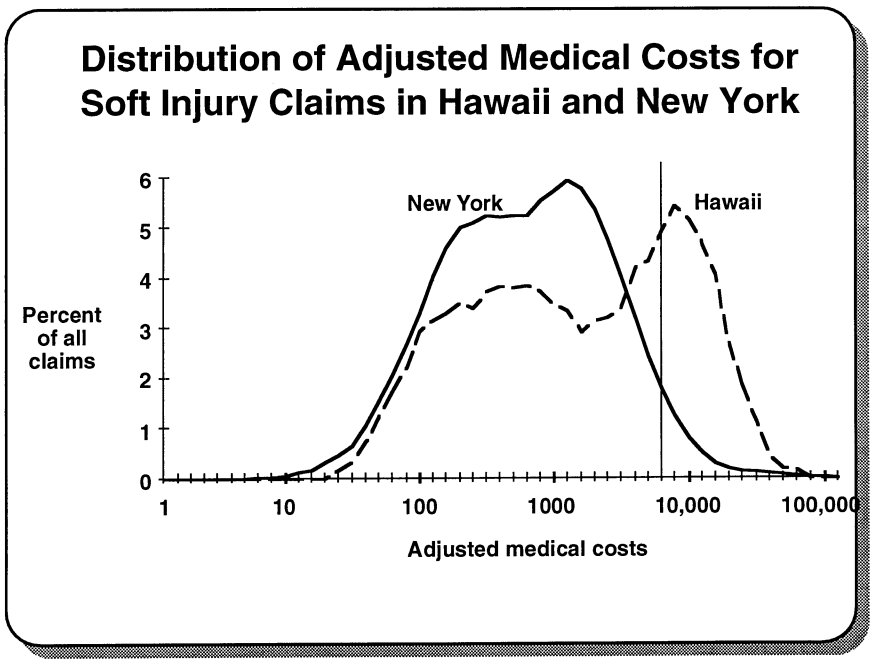
This figure shows the value of the index for all fifty states. The horizontal black line shows the average value for Michigan and New York, which we use as our "baseline." We expect few claims for nonexistent injuries in these states, and the economic barriers to an accident victim's access to medical care are as low or lower than in any other state.

The pattern of the data across all states is consistent with our predictions about where claims for nonexistent injuries would occur. Michigan and New York are at the bottom of the claiming distribution. The dollar threshold states are scattered, but by and large they cluster toward the lower end of the distribution. All of the top 18 states are tort states. Formally stated, a state's insurance system has a statistically significant effect on the distribution of states.

We have explored the possibility that other factors--for example, demographics (percent of population that is rural, over 65, low income) or characteristics of a state's highway system--account for the distribution of states. Only the percent of the population that is rural had a significant effect: The ratio of soft injury claims to hard injury claims declines as the percent of rural population increases. If we adjusted for this relationship, the results would be even stronger than as stated above. To be conservative, we made no adjustments.

We interpret the extent to which the ratio of soft claims to hard claims in each state exceeds the corresponding ratio for Michigan and New York as our measure of the degree to which claims are being submitted for nonexistent soft injuries in that state.*

*Michigan and New York offer first party auto insurance with no deductible or coinsurance, very high benefit levels, and prohibitions on rate increases based on claiming. Thus, more than in other insurance environments, accident victims are likely to claim whatever medical care they need.



We now turn to estimating the extent of cost buildup on soft injury claims. Recall that there is no incentive to build costs on soft injury claims in Michigan and New York. However, there are incentives to build them in other states, especially in dollar threshold states, as claimants inflate claims to get over the threshold and gain access to general damages. The figure, for example, shows the distributions of medical costs for soft injury claims in Hawaii, a dollar threshold state, and New York. (The distribution of medical costs for soft injury claims in New York is nearly identical to that of Michigan.) The vertical line in the figure shows Hawaii's threshold. (To put these two states on a comparable basis, we adjusted the average cost of a soft injury claim in each state for interstate differences in medical costs and treatment patterns.

The distribution for New York is exactly what we expected: The distribution rises sharply, peaks, and then tails off sharply to the right. The large majority of claims are for relatively small medical costs. (Note that the horizontal axis in the figure is a logarithmic scale: Equal intervals show equal percentage differences.)

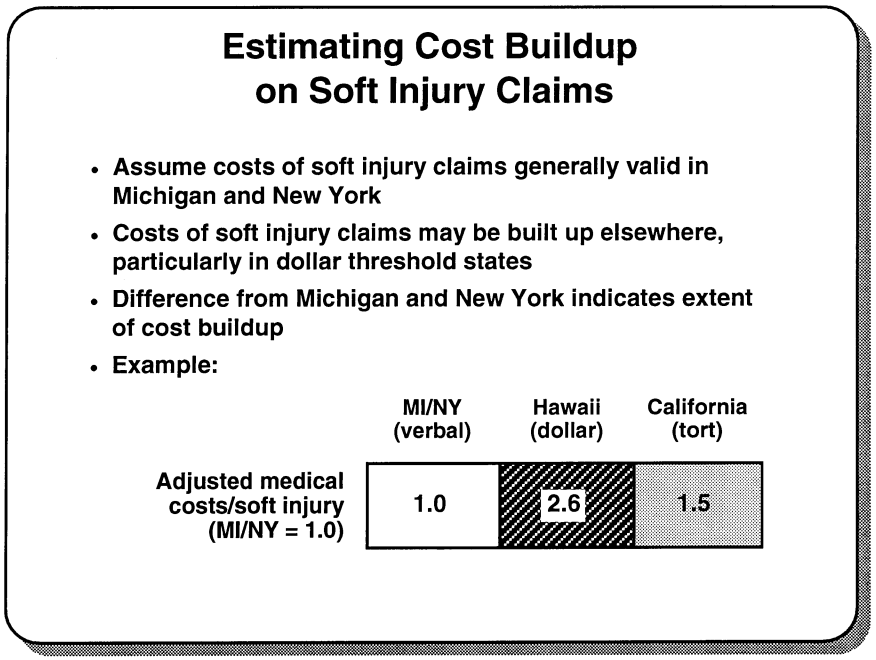
The distribution begins to decline well below the Hawaii threshold and continues to fall, without interruption, past the threshold. New York had very few claims for medical costs that exceeded Hawaii's threshold.

Hawaii's distribution also rises sharply, but then flattens out. It actually begins to decline at a relatively low level of medical costs, then turns up again and rises sharply through the threshold. The Hawaii distribution peaks above the threshold, and finally, falls off. The distribution is clearly bimodal: There are many smaller claims, but there are also many larger claims. A substantial fraction of Hawaii's claims are for medical costs above the threshold.

Adjusting for interstate cost differences, the fraction of Hawaii claims that is above the Hawaii threshold is much greater than the fraction of New York claims that exceeds that number. It is clear that, compared to New York, the distribution of adjusted medical costs in Hawaii is shifted substantially to the right, exactly as we predicted, given the incentives built into the state's insurance system.

We compared the distribution of adjusted medical costs for soft injury claims in each of the dollar threshold states to the corresponding distribution for Michigan and New York, combined. All the dollar threshold states were "right-shifted" relative to the reference states; the magnitude of the shift was statistically significant in eight of the eleven dollar threshold states. (The exceptions were Kansas, North Dakota, and Utah.)

We also expect to see some exaggeration of soft injury claims in the tort states although we would not expect to see the bimodal distribution of claims driven by the thresholds in dollar threshold states. To investigate this hypothesis, we compared the distribution of adjusted medical costs for soft injury claims in each of the tort states to the combined distribution for Michigan and New York. The distributions were significantly "right-shifted" in twenty of the thirty-six tort states. There were no tort states in which the distribution of adjusted medical costs was shifted to the left of the combined Michigan/New York distribution.



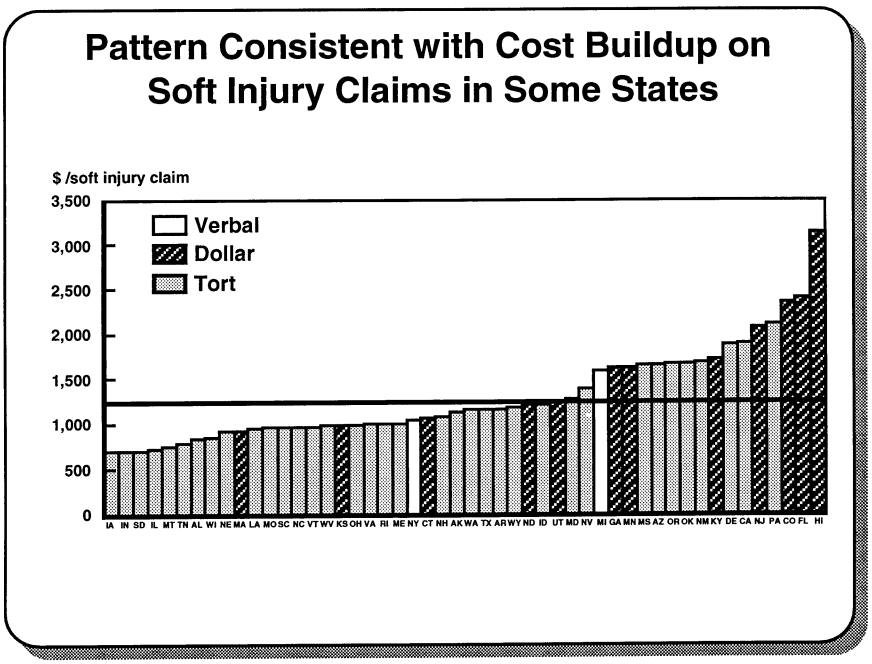
To estimate the extent of cost buildup on soft injury claims, we adjust the average cost of a soft injury claim in each state for interstate differences in medical costs and practice patterns.

We then set Michigan and New York at a level of 1, and index the other state averages by a ratio to Michigan and New York.* Using these assumptions, we have created an index to measure the extent of cost buildup on soft injury claims:

Index: Average adjusted medical costs per soft injury relative to Michigan and New York

If we apply this index to Hawaii and California, the two example states we discussed above, we would assign a value of 2.6 to Hawaii, where the dollar threshold provides strong incentives to build medical claims, and 1.5 to California, a tort state where we expected to find less buildup.

*In indexing the other state averages to the average cost of a soft injury claim in Michigan and New York, we are not asserting that the medical care that accident victims in these two states receive is medically appropriate. We have no information about the appropriateness of their care.

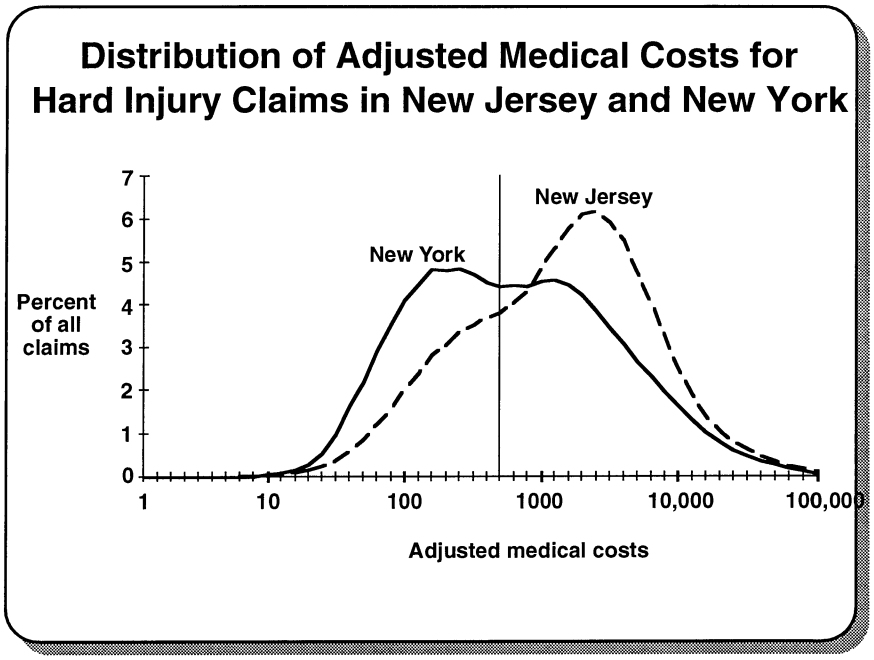


This figure shows the average costs per soft injury claim across all states.

Again we see a pattern consistent with our hypotheses. The strong verbal threshold states, Michigan and New York, bracket the center of the distribution. Very few dollar threshold states appear at the left of the distribution. Eighteen of the 20 states in which the average adjusted medical costs per soft injury claim are below New York are tort states. Of the 14 states in which average adjusted medical costs per claim fall between New York and Michigan, only three are dollar threshold states. The other 11 are all tort states.

In contrast, a high proportion of the states at the far right of the distribution are dollar threshold states. Aside from Florida, five of the 12 highest spending per claim states are those in which there is an incentive to inflate soft claims to exceed a dollar threshold.

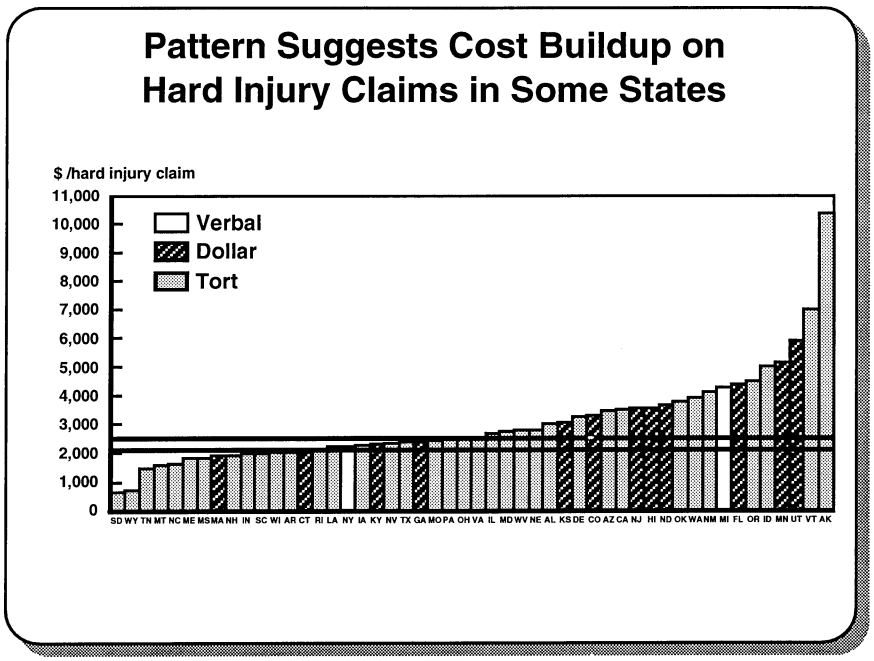
Note that the average adjusted costs of soft injury claims in Hawaii were the highest in the nation. Hawaii had the nation's highest dollar threshold, $6,400; someone interested in padding a soft claim to get over the threshold would have to exaggerate more, on average, in Hawaii than anywhere else. The second and fourth highest threshold states, Minnesota at $4,000 and Colorado at $2,500, were close behind Hawaii. Among the five highest threshold states, only Utah and North Dakota were not at the far right of the distribution; and both of them fell in the upper half of the states.



Finally, we estimate the extent of cost buildup on hard injury claims. There are incentives to build costs on hard injury claims everywhere. These incentives are particularly strong in dollar threshold states, as claimants are induced to inflate claims to get over the threshold and gain access to general damages. The figure, for example, shows the distributions of adjusted medical costs for hard injury claims in New Jersey, a dollar threshold state, and New York. The vertical line in the figure shows New Jersey's threshold.

As was the case for soft injury claims, the distributions are exactly as expected. New York's distribution rises sharply, flattens out, and then tails off to the right. New Jersey's distribution is distinctly right-shifted, compared to New York's. The fraction of New Jersey claims that are above the New Jersey threshold is much greater than the fraction of New York claims that exceed that number.

We compared the distribution of adjusted medical costs for hard injury claims in each of the states to the corresponding distribution for Michigan and New York combined. Four of the dollar threshold states--Hawaii, Massachusetts, New Jersey, and North Dakota--were significantly right-shifted relative to the reference states. The distribution of adjusted medical costs for hard injury claims in Florida and in eleven of the tort states was significantly right-shifted compared to the combined Michigan/New York distribution.



We believe that the cost of hard injury claims can be built up everywhere, and we expect the buildup to be greatest in dollar threshold no-fault states. However, because we expect some buildup under any insurance system, we do not have a readily available baseline against which to measure buildup. Consequently, we consider two alternative indexes for assessing the amount of cost buildup on hard injury claims:

Index 1 : Average adjusted medical costs per hard injury relative to the 10th lowest spending state

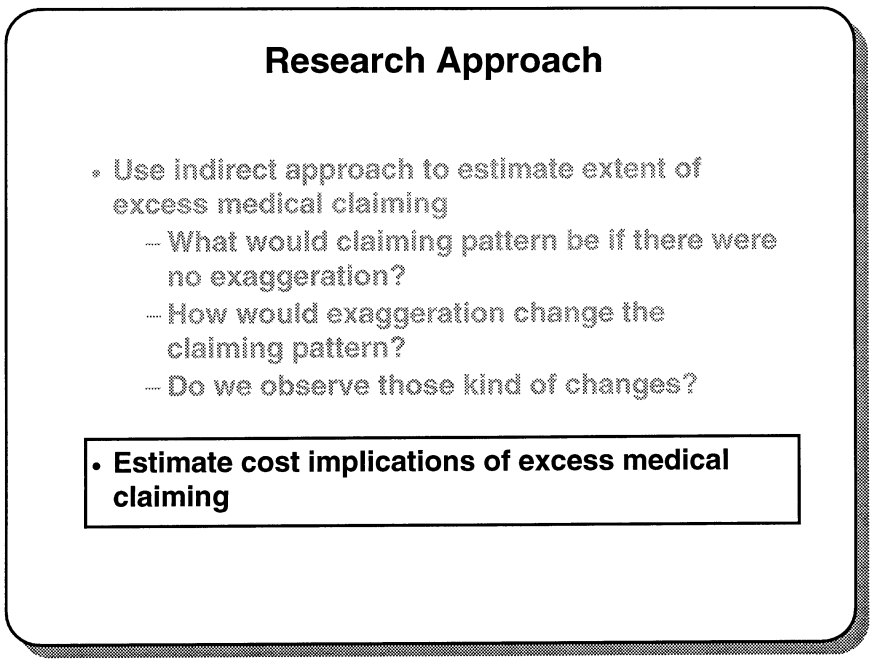
In using this index, we assume that there is no exaggeration in the costs of hard injury claims in the 10 states having the lowest average adjusted costs per hard injury claim.

Index 2: Average adjusted medical costs per hard injury relative to the 25th lowest spending state

The second index is based on a more conservative assumption: that there is no exaggeration in any of the hard injury claims submitted in the 25 states having the lowest average adjusted costs per hard injury claim.

The figure shows average adjusted expenditures per hard claim across all states.

The two lines drawn across the distribution reflect the two comparison points. That part of the bar for any state that extends above a given line represents cost buildup on hard injury claims in that state. Even under the more conservative assumption, the pattern of the data suggests significant amounts of cost buildup, particularly, as we hypothesized, in the dollar threshold states.



To recap the argument so far: We have

- Distinguished among insurance systems in terms of the incentives they provide to submit claims for nonexistent injuries and to build costs on real injuries;
- Predicted where, given these incentives and the nature of injuries, we would expect to see exaggeration;
- Tested our hypotheses using a large database of individual closed claims;
- Concluded that the data support our hypotheses about the types and extent of exaggeration that will occur in a particular auto insurance environment.

We now consider the cost implications of excess medical claiming.

Estimated Costs of Excess Claiming

Excess medical costs

- **Hard injury claims: 19-31%**
- **Soft injury claims: 59%**
- **Overall: 35-42%**

Cost of excess health care consumption (1993)

- **$4 billion**

Additional insurer costs

- **$9-13 billion**

***If premiums vary in proportion to costs* (1993), excess claiming adds**

- **$13-18 billion to total premiums**
- **$100-130 per policy**

Hard Injury Claims: We assume that average adjusted medical expenditures per hard injury claim in the 25th lowest spending state is an index of appropriate average medical expenditures on hard injury claims. Given this assumption, we calculate how much is spent in excess of that index on hard injury claims in the 25 states in which average expenditures per hard injury claim are greater than that index. Adding over those states and dividing by total medical expenditures on hard injury claims in all 50 states, we find that 19% of all the dollars spent for medical costs on hard injury claims are in excess. If we use the 10th lowest spending state as the *numeraire*, our estimate goes up to 31%. The difference between these estimates has two sources. First, the *10th lowest state* assumption allows for excess claiming in 15 more states than the more conservative assumption permits. Second, the *10th lowest state* assumption results in a lower standard.

Soft Injury Claims: We assume that the Michigan/New York ratio of soft injury claims to hard injury claims is an index of the appropriate number of soft injury claims per hard injury claim. Given this assumption, we multiply the Michigan/New York ratio times the number of hard injury claims in each state and subtract the result from the number of soft injury claims in that state. This difference is our estimate of the number of excess soft injury claims in each state.

We then assume that the average adjusted medical expenditure per soft injury claim in Michigan and New York is an index of the appropriate average medical expenditure on soft injury claims. Given this assumption, we calculate how much is spent in excess of that index on soft injury claims in each of the other states.

Finally, we combine our estimates of the number of excess soft claims and the extent of excess spending on the valid soft claims for each state, add over all states, and divide by total medical expenditures on soft injury claims in all 50 states. We estimate that 59% of the costs submitted in support of soft injury claims is excess. This includes both claims for nonexistent soft injuries, and cost buildup on real soft injuries.

Overall: We estimate that 35-42% of all medical costs submitted in support of auto injury claims are excess.

Effects on Consumption of Health Care: We estimate that excess consumption of health care in the auto arena in response to tort liability incentives accounted for about $4 billion of health care resources in 1993.

Effects on Insurer Costs: We estimate that these excess claims would also cost insurers an additional $9-13 billion in compensation for noneconomic losses and other costs.

Effects on Auto Insurance Premiums: If insurers pass these increased costs on to consumers in the form of proportional increases in premiums, in 1993 excess medical claims cost auto insurance purchasers across the country $13-18 billion dollars. Put another way, the costs generated by excess medical claiming add $100-130 to every auto insurance policy.*

*These estimates are for 1993 because that is the last year for which we have the appropriate data.

Conclusions

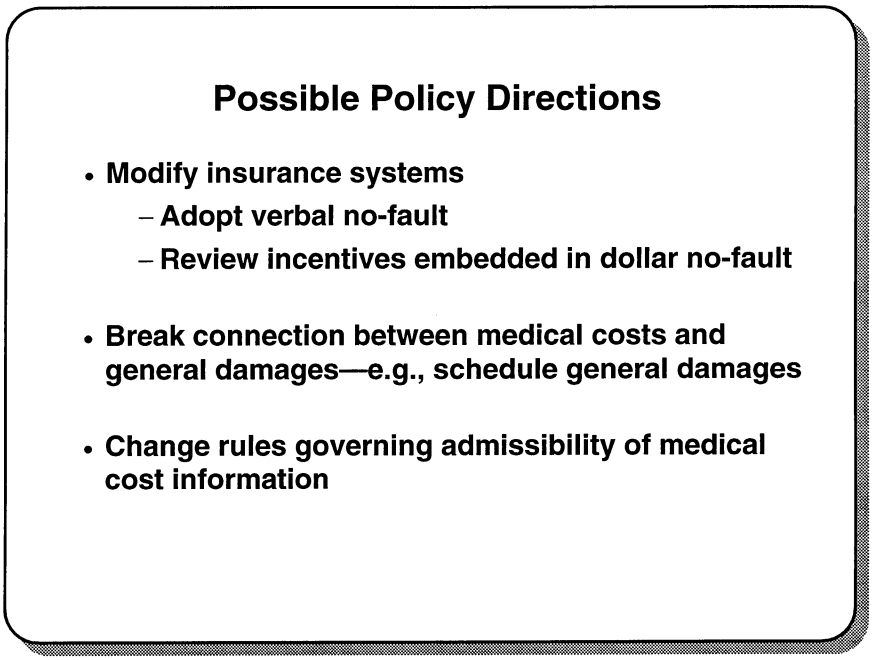
- **Tort liability system offers significant incentives to submit excess claims for auto injuries**
- **Different auto insurance systems modify incentives**
- **Costs of excess claiming can be very large**
- **Our estimates are conservative**
- **Excess claiming has implications for health care costs**

The tort liability system in the United States has been widely accused of providing incentives to submit excess claims for auto injuries. Although that accusation is well known, and numerous investigators have documented specific examples of excess claiming practices, there has been little empirical evidence regarding the overall extent and magnitude of excess claims for auto injuries. This study provides evidence that the assertions are correct and empirically based estimates of how much exaggeration exists.

The study also shows that different insurance systems modify those incentives. Dollar no-fault systems reduce incentives to submit claims for minor nonexistent injuries. But, at the same time, they provide very strong incentives to build claims on either real or imaginary injuries. Verbal threshold systems appear to eliminate these incentives.

The estimated costs of excess claiming are very large, amounting to perhaps one-third to 40% of all medical bills submitted in support of auto injury claims. We believe that these estimates are conservative. For example, we have assumed no exaggeration for Michigan and New York, but we must assume that some exaggeration occurs. We have not attempted to capture transaction costs or whatever exaggeration might be done by physicians. Nor have we accounted for the costs involved in lost wages.

The implications of this analysis reach far beyond auto insurance premiums. Our data clearly suggest that large amounts of medical resource are being unnecessarily consumed.



There are no easy solutions to the problem we have identified, but three policy directions appear promising.

(1) *Examine our insurance systems.* In particular, verbal no-fault systems appear to eliminate the incentives driving excess claiming while dollar no-fault systems appear to exacerbate them.

(2) *Break the connection between medical costs and general damages.* For example, establishing a schedule for general damages based on the nature of the injury--similar to the schedule embedded in disability policies--would eliminate the incentive to inflate medical costs in order to leverage general damages.

(3) *Change the rules governing admissibility of medical cost information in courts.* Currently, juries may be told the cost of a claimant's medical treatment. Several participants in an earlier ICJ conference on interactions between our health care and liability systems argued that claimants inflate costs to impress the jury or to stimulate a favorable settlement in the shadow of the jury. Modifying admissibility rules about medical costs could eliminate the incentive to build medical costs.