

# Tort Law Tally

How State Tort Reforms Affect Tort Losses and Tort Insurance Premiums

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*Foreword by Mitch Daniels  
Governor of Indiana*

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## FOREWORD BY GOVERNOR MITCH DANIELS

*Tort Law Tally* arrives at a critical time. The U.S. economy is in a crisis not seen in 75 years. Entire industries are crumbling. The nation's banking system is on life support. Workers are being laid off, unemployment is rising, and people are being forced out of their homes.

The recent presidential election demonstrated that Americans want change, but jump-starting the country's stalled economic engine will require more than a political mandate for change. It will also require smart, substantive policy reforms in key problem areas – one of which is our country's civil justice system.

The Pacific Research Institute's (PRI's) *Tort Law Tally* tackles one problem area head-on, the economic costs of our tort system and which tort reforms best lower tort costs. *Tort Law Tally* provides much needed facts on sensible, real-world solutions that policy makers can initiate right now.

The U.S. tort system has been described as the American economy's "special burden," imposing enormous and often hidden costs on consumers and on businesses of all kinds. Frivolous medical-malpractice lawsuits have helped health care costs to explode and stunted medical and technological innovation. Inequitable tort laws have made it too easy to fleece businesses, and therefore their employees, shareholders, and customers, through baseless personal-injury lawsuits.

Our country's economic vitality is directly affected by our tort laws. As governor of Indiana, I see this firsthand. Indiana is home to the highest rated business climate in the Midwest, according to *Forbes*, and one of the top few anywhere.

We believe that a significant factor in our business attractiveness is that Indiana's tort rules are among the five best nationwide, according to PRI's latest rankings of the states. (As validation of PRI's work, a similar survey in 2008 by the U.S. Chamber of Commerce rated Indiana's tort liability system the fourth best in the nation.) An efficient tort system leads to increased

job creation, lower prices, and greater innovation. Simply put, a properly functioning tort system is essential to a thriving economy, and to genuine consumer protection.

Conversely, states with burdensome tort laws deprive consumers of choices and impose unfair and unnecessary costs on every resident. Meritless lawsuits create a hidden “tort tax” that stunts business growth and ultimately is passed on to consumers as higher prices for goods and services.

PRI’s *Tort Law Tally* shows which tort rules do the best job of containing tort costs and lowering tort insurance premiums. It points the way for policy makers to implement reforms that will pay immediate and maximum dividends.

Changing the status quo won’t be easy, especially on an issue as contentious as tort reform. PRI’s *Tort Law Tally* proves what we’ve learned in Indiana: that tort reform works. While we Hoosiers currently enjoy a competitive advantage from our sensible court system, it is the overall economic strength and societal fairness of America that we desire most. Implementing the effective reforms in *Tort Law Tally* will help every American. The report should be required reading for every public official.

*Mitch Daniels is the Governor of Indiana*

## PREFACE

AMERICA IS A LITIGIOUS SOCIETY. Of that there is no doubt. But even among those who lament the litigious condition—and as readers of this study will learn, not everybody does—seldom do people ask the obvious follow-up questions: What does it mean, exactly, that America is a litigious society? What are the costs? Which states are the best, and worst, in terms of tort costs and tort reform? Fortunately, Dr. Lawrence J. McQuillan, director of Business and Economic Studies at the Pacific Research Institute (PRI), has been asking these questions for some time, and answering them as well.

His *Jackpot Justice* measured the true cost of America's tort-liability system. His *U.S. Tort Liability Index* has ranked the 50 states according to their tort costs, litigation risks, and tort reforms since 2006. That influential work, in turn, has prompted reforms, and gives rise to other questions, notably: Which tort reforms work and what are the cost savings from various reforms? As in other areas of public policy, not all reforms and rules have the same value. This study, *Tort Law Tally*, is grounded in the same rigorous analysis as all PRI studies for nearly 30 years. It sets out to measure which tort reforms work and the amount of their effects. The result is a study that will provide policy makers and grassroots advocates with solid, data-driven evidence as to which tort reforms make the biggest difference.

As president of PRI, I thank Drs. Nicole V. Crain and W. Mark Crain, distinguished professors and economists at Lafayette College in Easton, Pennsylvania, for serving as the study's chief econometricians and analysts. Hovannes Abramyan, PRI public policy fellow in Business and Economic Studies, was tireless in his work gathering data for *Tort Law Tally*. Dr. McQuillan has earned our gratitude by conceiving this project and overseeing it from start to finish in his usual thorough and careful manner. *Tort Law Tally* is the most recent contribution to PRI's continuing series of economic studies on legal reform.

Yes, America is a litigious society, crying out for tort reform. We applaud those making an effort to achieve common-sense reform and are pleased to add this new *Tort Law Tally* to the

arsenal. This study will play a key role in PRI's mission to research and educate, and provide public-policy solutions that strengthen freedom, voluntary exchange, and personal responsibility. All of us at PRI are confident that *Tort Law Tally* will bring precision and enlightenment to a complicated and contentious issue, and spur further meaningful state reforms that will improve the quality of life for all Americans.

**Sally C. Pipes**

President and Chief Executive Officer  
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San Francisco, California

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Our views and conclusions do not necessarily represent those of the board, supporters, or staff of PRI.

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## EXECUTIVE SUMMARY

In the 10 years from 1996 through 2005, more than 135 million civil lawsuits were filed in U.S. state courts, an average of 52,000 incoming cases every business day. Approximately 15 percent of these civil cases were defined as torts. The payouts for tort losses and insurance premiums associated with state tort cases increased 60 percent in inflation-adjusted dollars during the decade from 1996 through 2005.

In response to rising tort-liability burdens, many states have enacted tort reforms with the goal of reducing tort costs. At the same time, some people have denied that tort reforms reduce tort losses and tort insurance premiums. For example, Jon Haber, CEO of the prominent American Association for Justice, the trial bar's Washington, D.C., trade lobby, has boldly proclaimed that "tort reform does not work." Our rigorous statistical analysis proves that Mr. Haber is very wrong. The empirical evidence indicates that the right tort rules and tort reforms are capable of producing substantial savings in judgments, settlements, attorney fees, administrative expenses, and insurance premiums.

Of the 25 tort reforms that we examine, the statistical analysis identifies 18 reforms to state civil-justice systems that significantly reduced tort losses and tort insurance premiums from 1996 through 2006. For some categories of tort cases, specific reforms cut payouts by more than 50 percent. The cumulative effect of reforms across all tort categories is a 47-percent reduction in losses and a 16-percent reduction in insurance premiums for consumers. Some tort reforms are highly effective at reducing costs in certain tort categories, but are ineffective in other tort categories. It is important that reformers pick the right tool for each problem.

If we order the tort reforms according to each reform's ability to reduce aggregate tort losses, the top eight reforms are: attorney-retention sunshine (12 percent), *Daubert/Frye* (10 percent), frivolous lawsuits (7 percent), jury service (6 percent), appeal-bond caps (4 percent), negligence standard (3 percent), non-economic-damage caps (2 percent), and medical-malpractice damage caps (1 percent).

Our results provide direct evidence on the extent to which tort reforms cut losses and premiums and thereby lower expected tort-liability costs. At one level, payouts for tort liability represent income transfers that redistribute wealth from one group to another. The size of these transfers by the tort-liability system determines the liability costs for providing goods and services. Some of the costs are legitimate, but many costs are excessive because of lawsuit abuse. These liability costs have large consequences for the real economy and a healthy society.

The *Wall Street Journal* recently observed: “After 20 years of state and federal efforts to reform a runaway legal system, the trial bar is reviving the monster. . . . Tort reformers will have to push back.” This study provides much needed evidence on which reforms are worth pushing, enacting, and defending.

## 1.

# INTRODUCTION AND PURPOSE OF THE STUDY

In the 10 years from 1996 through 2005, more than 135 million civil lawsuits were filed in U.S. state courts, an average of 52,000 incoming cases every business day. Approximately 15 percent of these civil cases were defined as torts.<sup>1</sup> This torrent of tort cases flowing through the states' judicial systems adds value, but at the same time consumes substantial resources. Tort law in principle adds value by imposing costs on injurers, thus providing incentives for potential injurers to take care in their activities (efficient deterrence). Devoting resources to this process is easily justified on grounds of equity or efficiency. Observers of the U.S. legal system, however, increasingly express concern that unfair and outdated laws reward abuse of the tort-liability system.

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The litigious environment affects practically every business decision and a host of personal decisions. A prime example is that most individuals purchase automobile insurance (collision and liability) and with good reason: More than half of all state tort cases involve automobile accidents. And what business decision maker today would ignore the risk of becoming a defendant in a lawsuit? The most prominent of these involve product liability, construction liability, premises liability, and medical malpractice liability. Such threats permeate decisions affecting commerce and production in the United States, and become manifest in higher costs and fewer options, from medical care to housing to playgrounds.

The cost of this litigious environment, and its broad negative consequences for a healthy society, has given pause to state lawmakers. Between the mid-1990s and the mid-2000s, many states introduced reforms to their judicial systems. In an effort to balance the benefits and costs, lawmakers in some states have reformed the rules that constitute their civil-justice systems and especially their tort-liability systems. An overview of the civil-procedure process and a comparison of the tort costs, risks, and tort rules in the 50 U.S.

states are provided in the *U.S. Tort Liability Index: 2006 Report* and *U.S. Tort Liability Index: 2008 Report*.<sup>2</sup>

The purpose of this study is to assess the impact of tort rules and reforms on the costs associated with tort lawsuits. Which tort reforms have a measurable impact, and how large are the potential savings if a state were to implement certain types of reforms? Specifically, we examine the effects of tort rules and tort reforms on the judgments and settlements paid by defendants in state tort lawsuits, as well as the associated attorney fees and administrative expenses.<sup>3</sup> We also examine the effects of tort rules and tort reforms on tort losses paid on behalf of defendants by insurance companies. Additionally, we

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examine the effects of tort rules and tort reforms on tort insurance premiums. To put the loss and premium costs in perspective, for all states combined they amounted to about \$500 billion in 2006, roughly equal to 4 percent of U.S. gross domestic product (GDP). The payouts for tort losses and insurance premiums associated with state tort cases increased 60 percent in inflation-adjusted dollars during the decade from 1996 through 2005.<sup>4</sup>

This quantitative study of tort law is vitally important because, believe it or not, some people still deny that tort reforms reduce tort losses and tort insurance premiums. For example, Jon Haber, CEO of the prominent American Association for Justice, the trial bar's Washington, D.C., trade lobby, has boldly proclaimed that "tort reform does not work."<sup>5</sup> Our rigorous statistical analysis proves that Mr. Haber is very wrong. The empirical evidence indicates that the right tort rules and tort reforms are capable of producing substantial savings in judgments, settlements, attorney fees, administrative expenses, and insurance premiums.<sup>6</sup>

The methodology we use to assess the impact of institutional and procedural reforms is straightforward and relatively easy to describe. We undertake a quantitative analysis that compares the costs in states that have implemented a particular tort reform to the costs in states without this reform. We use this procedure to assess 25 specific reforms. We recognize, of course, that tort losses and insurance premiums differ among U.S. states for a variety of reasons that are unrelated to tort reform or any particular set of judicial institutions. An obvious example is that tort cases are driven in part by the level and type of economic activity in a state, and our statistical models include variables that reflect variations in state economies. In other words, we assess tort reform using multivariate regression analysis, and this method allows us to control for a number of factors that cause tort costs to vary.

To preview the results, the statistical analysis identifies 18 reforms to state civil-justice systems that significantly reduce tort losses and/or tort insurance premiums. For some categories of tort cases, specific reforms cut payouts by more than 50 percent. The cumulative effect of reforms across all tort categories is a 47-percent reduction in losses and a 16-percent reduction in insurance premiums for consumers. Some tort reforms are highly effective at reducing costs in certain tort categories, but are ineffective in other tort categories. In short, the findings from the analysis demonstrate the large potential for tort reforms to reduce both losses and insurance premiums associated with tort lawsuits.

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## 2. STATE TORT LAW IN BRIEF

A tort occurs when wrongful conduct by one individual results in injury to another, including physical harm, property damage, or both. Tort law gives someone who has suffered injury the right to recover monetary damages from another person or persons if the injury was caused by the failure of that other person to exercise a required duty of care, or, in some cases, independent of the level of care under strict-liability provisions. In essence, the goals of the tort system are to compensate victims and to deter harmful events. How well the system accomplishes these goals deserves careful scrutiny. For example, have lawyer fees and costs of administering the tort system grown to a level that distorts incentives and the ability of the system to function efficiently?

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While less than 15 percent of civil cases filed in U.S. state courts are torts, they are perhaps the most well known.<sup>7</sup> The largest categories of state tort cases, in terms of losses, are commercial self-insured and private passenger automobile cases, each accounting for 29 percent of total tort losses. The major categories for state tort cases as a percentage of all state tort losses and premiums are shown in table 1.

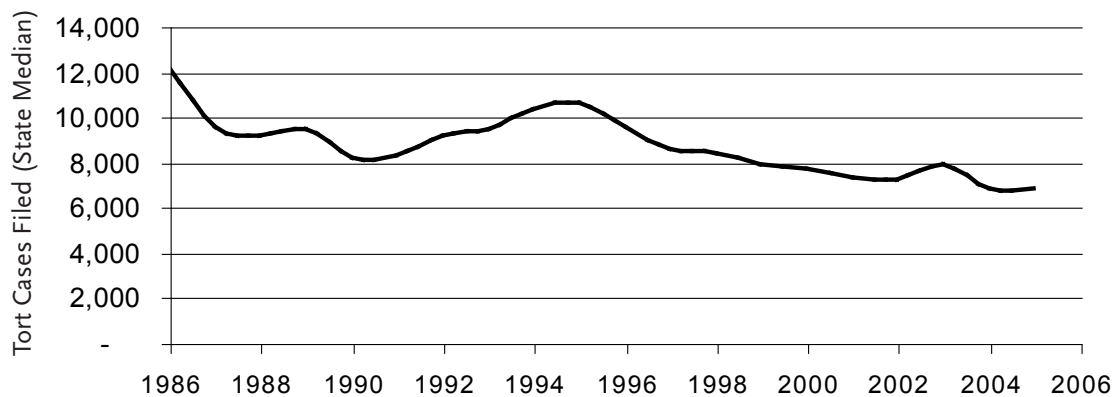
Figure 1 shows the trend in the number of incoming tort cases filed in state courts. Specifically, these data reflect the number of new filings in the median state from 1986 through 2005. We note the interesting distinction between the trend in the number of incoming tort cases and the trend in losses and premiums. While aggregate losses have increased by 60 percent, adjusted for inflation, the number of incoming tort cases has trended downward. In other words, the losses per tort case have risen sharply. This reflects a drop in cases that involve relatively small damages, and an increase in the proportion of large-damage cases—a sign, perhaps, that tort reform is removing smaller-dollar cases with less merit from court dockets, and moving them instead to arbitration, which would improve the overall use of the nation’s dispute resolution systems.<sup>8</sup>

**TABLE 1. TORT COSTS BY LOSSES AND PREMIUMS BY TORT CATEGORY, 2006**

| Category                                       | Percentage of All Tort Losses | Percentage of All Tort Premiums |
|--|-------------------------------|---------------------------------|
| Commercial Self-Insured                        | 29                            | n/a                             |
| Private Passenger Automobile Liability         | 29                            | 37                              |
| Homeowners' Multiple Peril [Liability Portion] | 14                            | 22                              |
| Other Liability Insurance                      | 13                            | 18                              |
| Commercial Automobile Liability                | 6                             | 9                               |
| Commercial Multiple Peril (Liability Portion)  | 3                             | 6                               |
| Medical Malpractice                            | 2                             | 4                               |
| Personal Self-Insured                          | 2                             | n/a                             |
| Farmowners' Multiple Peril [Liability Portion] | 1                             | 2                               |
| Product Liability                              | 1                             | 2                               |

n/a: not applicable for this category.

Source: Authors' calculations using data from A. M. Best Company

**FIGURE 1. TRENDS IN STATE TORT FILINGS**

Source: National Center for State Courts, Court Statistics Project, State Court Caseload Statistics, Tort Caseload in State Trial Courts of General Jurisdiction, 2006 ([http://www.ncsconline.org/D\\_Research/CSP/SCCS-pastreports.html](http://www.ncsconline.org/D_Research/CSP/SCCS-pastreports.html))

### 3.

## TORT RULES AND REFORMS AND WHY THEY MATTER

Our investigation of the impact of tort rules and tort reforms relies on a comparative analysis of quantitative data covering all 50 U.S. states from 1996 through 2006. The analysis specifies and estimates an empirical model to assess the impact of alternative institutional rules on the cost of the state tort-liability system. The general form of the empirical model is as follows:

$$\begin{aligned} \text{Tort Costs per Capita }_i = & \psi \text{ [Rules and Procedures for the Legal Process] }_i + \\ & \theta \text{ [Economic and Demographic Control Variables] }_i + \\ & \tau \text{ [Indicator = 1 if year is 2006 and = 0 if year is 2004] } + \\ & \beta \text{ [Tort Costs per Capita in 1996] }_i + \\ & \text{constant term} + \varepsilon_i \end{aligned}$$

In this notation, the subscript  $i$  denotes a particular state ( $i = 1$  to 50), and  $\varepsilon_i$  represents an error term in the regression model—that is, the difference between the actual value of tort costs versus the value predicted by the statistical model. The components of the empirical model are discussed below, starting with the dependent variables and then describing the explanatory variables.

#### TORT LOSSES AND TORT INSURANCE PREMIUMS PER CAPITA: THE DEPENDENT VARIABLES

In the broadest sense, the analysis examines two measures of tort costs: (i) payments by defendants (or their insurance companies) for judgments, settlements, attorney fees, and administrative expenses in tort lawsuits, and (ii) insurance premiums associated with state tort lawsuits. We examine losses and premiums separately for 10 categories of tort cases, two prominent examples being private passenger automobile liability and medical malpractice. We estimate separate regression models for each of the 10 categories and, within those, we estimate two regression models, one for losses and one for premiums (excluding self-insurance categories, of course).

The losses and premiums data used in the analysis are denominated in per-capita terms to make the values comparable across states. As an example, total payments for tort losses are obviously larger in California than in Vermont simply because California's population is 60 times larger than Vermont's population. What is pertinent for our purposes is whether tort losses per resident of California exceed tort losses per resident of Vermont. And, most important, to what extent are these cost differences per resident caused by the rules and procedures of the civil-justice system?

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We estimate separate regression models for each of the 10 categories and, within those, we estimate two regression models, one for losses and one for premiums.

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The categories of tort losses and insurance premiums include eight lines of insurance and two categories of self-insurance for 2004 and 2006. (2006 was the most recent year for which complete data were available at the time of our analysis). These categories are:

- commercial self-insurance
- private passenger automobile liability insurance
- commercial automobile liability insurance
- homeowners' multiple peril [liability portion] insurance
- commercial multiple peril (liability portion) insurance
- farmowners' multiple peril [liability portion] insurance
- other-liability insurance
- medical-malpractice insurance
- product-liability insurance
- personal self-insurance

The data for these variables come from composite financial data for the U.S. insurance industry, compiled by A. M. Best Company. These data are considered the gold standard because they are subject to audit and reviewed by state insurance regulatory agencies. The self-insurance losses are calculated using A. M. Best data run through a model developed by Tillinghast, a top consultant to the insurance industry. The only difference is that we use state-level data instead of national data.<sup>9</sup>

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These data are considered the gold standard because they are subject to audit and reviewed by state insurance regulatory agencies.

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While we examine two forms of tort costs, from our perspective the data on tort losses provide the most comprehensive accounting of the actual tort costs incurred, though insurance pre-

miums are also an important component. The losses metric includes current payments and future payments for damages arising from a single case. That is, the metric includes current payments and the sum of future payments, which reflects the market's expected total cost of a claim at the time incurred.<sup>10</sup>

A second reason that the losses metric is so reliable is that it tracks both judgments and settlements. Business owners and individuals purchase insurance to protect themselves against both judgments and settlements, and the losses data track both. Finally, judgments rendered at trial are often reduced or corrected by appellate courts, and in these cases, initial awards do not reflect what defendants actually pay. Tort losses track final payouts, and corrections in the appeals process are reflected in the losses data we examine in the regression analysis.

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Tort losses track final payouts, and corrections in the appeals process are reflected in the losses data we examine in the regression analysis.

We also examine insurance premiums as a separate dependent variable in the analysis, although this metric has inherent drawbacks. For example, premiums are often regulated by state price controls or bureaucratic formulas, so premiums often do not reflect actual losses, or they might do so only with long lags. Nonetheless, insurance premiums represent a substantial financial consideration within the tort-liability system. This alone makes it important to analyze them. By examining both tort losses and tort insurance premiums we seek to identify differences in their responsiveness to tort reforms and thereby shed additional light on this issue.

#### EXPLANATORY VARIABLES: RULES, PROCEDURES, AND CONTROL VARIABLES

The main variables of interest to this study fall under the rubric Rules and Procedures for the Legal Process. The regression model includes a vector of 25 variables that control for the institutional rules and procedures of the legal process in effect in a state. These rules and procedures variables fall into five groups as shown in table 2. When we estimate the regression models, the resulting coefficients on these variables provide the basis for assessing their relative impact on costs. We code the Rules and Procedures as binary variables, equal to one if a state has implemented a particular rule/procedure and equal to zero if it has not. This technique facilitates comparison among the specific rules and procedures regarding the size of the impact on losses and premiums.

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The regression model includes a vector of 25 variables that control for the institutional rules and procedures of the legal process in effect in a state.

| <b>TABLE 2. VARIABLES THAT TRACK RULES AND PROCEDURES OF THE LEGAL PROCESS</b>  |
|---|
| <b>MONETARY CAPS</b>  |
| <ul style="list-style-type: none"> <li>Appeal-bond caps</li> <li>Caps on non-economic damages (excluding medical-malpractice lawsuits)</li> <li>Caps on punitive damages (excluding medical-malpractice lawsuits)</li> <li>Caps on damage awards in medical-malpractice lawsuits</li> </ul>   |
| <b>SUBSTANTIVE-LAW RULES AND REFORMS</b>  |
| <ul style="list-style-type: none"> <li>Class action</li> <li>Contingency attorney-fee limits (excluding medical-malpractice lawsuits)</li> <li>Negligence standard</li> <li>Joint and several liability</li> </ul>  |
| <b>MEDICAL MALPRACTICE</b>  |
| <ul style="list-style-type: none"> <li>Attorney-fee limitations</li> <li>Conditions on the use of expert witnesses</li> <li>Pre-trial screening or arbitration</li> <li>Statute of limitations</li> </ul>   |
| <b>PRODUCT LIABILITY</b>  |
| <ul style="list-style-type: none"> <li>Asbestos or silica</li> <li>Construction</li> <li>Does the state allow a “FDA defense” or “FTC defense”?</li> <li>Does the state provide guidelines for general-manufacturer liability or retailer liability?</li> <li>Does the state provide civil-liability exemptions for junk food or obesity?</li> </ul>                  |
| <b>PROCEDURAL/STRUCTURAL RULES AND REFORMS</b>  |
| <ul style="list-style-type: none"> <li>Appointed or elected state supreme court justices</li> <li>Attorney-retention sunshine</li> <li>Collateral-source rule</li> <li>Frivolous lawsuits</li> <li>Jury service</li> <li>Number of jurors needed to reach a verdict</li> <li>Venue</li> <li>Standard for scientific review of evidence by expert witnesses</li> </ul> |

Below we describe each of the 25 variables and provide a brief sense of why each reform might affect tort losses and tort insurance premiums based on prior studies. The descriptions in this section follow largely the descriptions in the *U.S. Tort Liability Index: 2006 Report*.

#### MONETARY CAPS (4 VARIABLES)

**APPEAL-BOND CAPS.** This variable tracks whether a state has a cap on appeal bonds. Appeal bonds are submitted by losing defendants in civil trials who wish to appeal to a higher court and forestall payment of awards until a final ruling has been made. Caps on appeal bonds may limit either the amount a signatory to a Master Settlement Agreement is required to pay in securing an appeal, the amount required to appeal punitive damages, or the amount required to appeal all damages. Mississippi, for example, limits bonds in punitive-damage appeals to \$100 million. Georgia, on the other hand, caps appeal bonds at \$25 million for all civil-case judgments. Appeal-bond caps information comes from *Tort Reform Record*, published by the American Tort Reform Association (ATRA).<sup>11</sup>

Excessive appeal bonds restrict defendants' access to the justice system and to their due-process rights as well as potentially threatening the survival of businesses that are required to post the bonds. Without an appeal-bond cap, states may demand unreasonably high payment for due process. A *New York Times* editorial described a \$12-billion bond that Philip Morris faced from a judge in Madison County, Illinois, in 2003 as "prohibitively costly."<sup>12</sup> In that case, the company claimed that it would have to file for bankruptcy if forced to post the appeal bond. Reasonable appeal-bond caps allow defendants to appeal decisions without putting them out of business, thus ensuring their due-process rights.

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The appeal-bond cap variable equals one if a state caps all appeal bonds and equals zero otherwise.

**CAPS ON NON-ECONOMIC DAMAGES (EXCLUDING MEDICAL-MALPRACTICE LAWSUITS).** This variable tracks whether a state has a cap on non-economic damages (excluding medical-malpractice lawsuits). Caps are enacted in order to limit the amount a jury may award for "pain and suffering" or "mental distress," and they generally vary according to circumstances. Colorado, for example, limits non-economic damages to \$468,010 unless the court finds evidence for a larger award not to exceed \$936,030, and bars damages in breach-of-contract claims unless

expressly allowed in the contract.<sup>13</sup> The data on non-economic damage caps come from ATRA and the National Association of Mutual Insurance Companies (NAMIC).<sup>14</sup>

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Non-economic damage caps lower insurance costs and litigation rates.

The intent of caps on non-economic damages, obviously, is to reduce insurance costs, litigation-filing rates, and awards. A study by W. Kip Viscusi and Patricia H. Born provides some support for this

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view, finding that non-economic damage caps reduce insurance losses, especially where a state had previously encountered relatively high losses.<sup>15</sup> The deterrent effects of damage caps are supported by a study by Mark J. Browne and Robert Puelz, which found that the imposition of a non-economic damage cap produced a 65-percent reduction in the probability of a claim filing.<sup>16</sup> The authors noted that non-economic damage caps provided the greatest disincentive to filing a lawsuit of any reforms examined. Non-economic damage caps lower insurance costs and litigation rates.

The caps on the non-economic damages variable equals one if a state has implemented a limit and equals zero otherwise.

**CAPS ON PUNITIVE DAMAGES (EXCLUDING MEDICAL-MALPRACTICE LAWSUITS).** This variable tracks whether a state has a cap on punitive damages (excluding medical-malpractice lawsuits). Punitive damages are awards granted in excess of actual damages to punish defendants and are, in that respect, contrary to tort law, which is intended to compensate, rather than punish. States use different methods to cap punitive damages. Some states cap punitive damages at a particular dollar amount; Virginia's cap is set at \$350,000, for example. New Hampshire prohibits punitive damages altogether. Another option is to devise a cap based on factors such as a defendant's net worth, type of lawsuit, or compensatory-award levels. Data on punitive-damage caps come from ATRA, NAMIC, and Wilson, Elser, Moskowitz, Edelman, and Dicker, LLP.<sup>17</sup>

Caps on punitive damages can reduce some excessive awards, thus lowering insurance rates and losses passed on to businesses. This is what Albert Yoon concluded: punitive-damage caps reduced the average medical-malpractice recovery by \$20,000 in Alabama.<sup>18</sup> Yoon showed that when the Alabama Supreme Court ruled caps unconstitutional and removed them, average plaintiff awards approximately doubled. Another study by Kenneth E. Thorpe found that punitive-damage caps lower physician insurance premiums.<sup>19</sup> Thorpe found that insurance premiums in states that capped awards were more than 17 percent lower than in states with no caps.

The caps on the punitive damages variable equals one if a state prohibits punitive damages altogether or imposes a dollar ceiling. The variable equals zero if the state has no cap on punitive damages.

**CAPS ON DAMAGE AWARDS IN MEDICAL-MALPRACTICE LAWSUITS.** This variable tracks whether a state has limits on damage awards in medical-malpractice lawsuits, or has increased the negligence standard required to find medical providers responsible for malpractice. Limits on medical-malpractice damages might stand on their own or might be dependent on a number of factors. West Virginia, for example, enacted a limit of \$250,000 for non-economic damages and \$500,000 for compensatory damages, but only for physicians who carry at least \$1 million in malpractice insurance. West Virginia allows limits to rise with inflation. Data on medical-malpractice damage limits were collected from ATRA, NAMIC, the National Conference of State Legislatures (NCSL), and Wilson, Elser, Moskowitz, Edelman, and Dicker, LLP.<sup>20</sup>

Limits on medical-malpractice damages lessen liability pressures on physicians and lead to reduced medical expenditures. This is supported by a report by Daniel Kessler and Mark McClellan, which found that direct malpractice reforms limiting awards reduce “defensive medicine” procedures.<sup>21</sup> Kessler and McClellan found that these reforms led to a reduction of 5 to 9 percent in medical expenditures without significant effects on mortality or medical complications. Limits on damage awards are the most direct way to reduce medical-malpractice awards.

✦  
Limits on medical-malpractice  
damages lessen liability pressures  
on physicians and lead to reduced  
medical expenditures.  
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The caps on damage awards in the medical-malpractice lawsuits variable equals one if the state has a cap on damage awards in medical-malpractice lawsuits and equals zero otherwise.

#### SUBSTANTIVE-LAW RULES AND REFORMS (13 VARIABLES)

**CLASS ACTION.** This variable tracks whether a state has class-action reforms. Though class-action lawsuits were designed to be an efficient use of court resources by joining together a large number of plaintiffs into a single lawsuit, critics charge that weak standards have allowed class actions to become vehicles for abuse. For this reason, class-action reforms usually define the procedures for certifying a class, permit interlocutory appeal of class certifications, or reform attorney-fee arrangements. An interlocutory appeal allows an appellate court to review the legality of a class certification before a trial proceeds to prevent irreparable harm from occurring. Ohio, for example, provides for interlocutory appeal of

class certifications. Texas goes further by mandating that attorney fees reflect time and cost expended rather than a percentage of the total recovery. Data on class-action reforms at the state level come from ATRA.<sup>22</sup>

Class-action lawsuits have imposed significant costs on defendants, who often find it better to settle, regardless of fault, than risk exorbitant losses in court. A report by George L. Priest validates this strategy in an examination of class-action awards during a 10-year period.<sup>23</sup> Priest found that the average class-action award was \$138.6 million between 1993 and 2002, and that the top 10 percent of cases had an average recovery of \$1.08 billion. Priest concluded that the mere classification of a lawsuit as a class action causes many companies to settle, rather than risk crippling financial losses. Because class-action reforms tend to set strict criteria for the certification of a class and reduce attorneys' incentives to file, they reduce the number of

class actions and lead to fewer defendants settling in order to avoid potentially devastating losses.

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Because class-action reforms tend to set strict criteria for the certification of a class and reduce attorneys' incentives to file, they reduce the number of class actions and lead to fewer defendants settling in order to avoid potentially devastating losses.

The class-action variable equals one if the state has adopted class-action reforms and equals zero otherwise.

CONTINGENCY ATTORNEY-FEE LIMITS (EXCLUDING MEDICAL-MALPRACTICE LAWSUITS). This variable tracks whether a state has limits on contingency attorney-fee arrangements (excluding medical-mal-

practice cases). Contingency fees allow potential plaintiffs to retain legal assistance without cost if they are unsuccessful in recovering damages. Lawyers working on contingency are paid only if their client wins the case; the lawyers then take a percentage of the award. Contingency-fee reforms tend to limit the percentage of an award that attorneys can claim in legal fees, or require judicial approval of legal fees. Illinois, for example, limits contingency fees using a sliding scale ranging from one-third to one-fifth of the award, depending on the total recovery. Oklahoma strictly limits contingency fees to 50 percent of the plaintiff's recovery. Data were collected from ATRA.<sup>24</sup>

Some argue that contingency-fee reforms reduce incentives for attorneys to use unethical behavior to extract the largest possible dollar amount from defendants and limit the abuse of plaintiffs. Lester Brickman found that rates for plaintiff attorneys on contingency were several times higher than their defense counterparts' hourly rates.<sup>25</sup> Brickman also discovered a positive relationship between a state's litigiousness and the number of tort lawsuits financed

by contingency fees. Another criticism comes from Walter K. Olson, who described the contingency-fee problem as two-pronged.<sup>26</sup> According to Olson, there is increased temptation for exploitation of clients and, more dangerously, teaming of lawyer and client against deep-pocketed defendants. Olson's fear would seem to be validated by Brickman's discovery of the association between litigation rates and contingency-fee arrangements.

The contingency attorney-fee limits variable equals one if the state has enacted a limit on contingency attorney-fee arrangements and equals zero otherwise.

DOES THE STATE GENERALLY USE A CONTRIBUTORY, COMPARATIVE, OR MODIFIED COMPARATIVE NEGLIGENCE STANDARD? This variable tracks each state's negligence standard for recovery of damages in civil-liability cases as of 2005. Negligence standards fall into four categories: pure contributory negligence, pure comparative fault, modified comparative fault at 50 percent, and modified comparative fault at 51 percent. Pure contributory negligence prevents the recovery of any damages if the plaintiff is in any degree at fault. Pure comparative fault allows a plaintiff to recover an award that is reduced by the percentage of his or her fault. If he or she is 25 percent at fault, the award is reduced by a quarter.

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Pure comparative fault allows  
a plaintiff to recover an award that  
is reduced by the percentage of  
his or her fault.  
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Modified comparative fault prevents the recovery of damages if the plaintiff is above a certain percentage at fault, but allows a proportionally reduced award when fault is below that threshold. If the threshold is 50 percent, a damaged party cannot recover if he is 50 percent or more at fault. But if he is less than 50 percent at fault, he can recover, although his recovery is reduced by his degree of fault. Iowa, for example, bars the recovery of damages when the plaintiff is 51 percent or more at fault, but allows a reduced award when fault is less than 51 percent. Information on negligence standards comes from Matthiesen, Wickert, and Lehrer.<sup>27</sup>

States with a comparative negligence standard have larger legal payouts and lower business productivity than states with alternative standards. Daniel P. Kessler found that settlement amounts in states applying comparative negligence exceeded those in states applying contributory negligence.<sup>28</sup> He concluded: "This is consistent with conventional wisdom about comparative negligence: it compensates a wider variety of claimants, and it compensates them more generously than contributory negligence." Campbell et al. found that industries operating under "liability-increasing reforms" such as comparative negligence had less productivity growth: 5.1 percent less in the amusement and recreation sector and 2.9 percent less in

the transportation sector.<sup>29</sup> Businesses facing greater lawsuit liability must divert resources to fighting litigation rather than use the resources for capital improvements that increase productivity. Alternatives to pure comparative negligence, especially contributory negligence, reduce legal payouts and boost productivity.

The negligence standard variable equals one if the state uses pure contributory negligence, modified comparative fault at 50 percent, or modified comparative fault at 51 percent as its negligence standard for recovery of damages in civil-liability cases. The variable equals zero if the state uses a pure comparative fault standard.

**JOINT AND SEVERAL LIABILITY.** This variable tracks whether a state has modified the standard rule of joint and several liability. Joint and several liability allows a plaintiff to recover full compensation from any one defendant in a multiple-defendant lawsuit regardless of that particular defendant's proportional fault. For example, a defendant whose fault is only 1 percent could be stuck paying 100 percent of the damages.

Reforms either limit or bar application of the rule of joint and several liability, and generally define liability according to share of responsibility. Massachusetts, for example, bars the application of joint and several liability in the recovery of damages against public accountants, leaving individuals or firms liable only for their degree of fault. Data on reforms come from ATRA and American Lawyer Media.<sup>30</sup>

Joint and several liability can increase consumer costs by discouraging cost-saving contractor affiliations. James Boyd and Daniel E. Ingberman studied the effects of extended liability and found that joint and several liability creates incentives that stall affiliation in situations where contractors differ in wealth.<sup>31</sup> As a result, deep-pocketed contractors will be less likely to purchase from producers who also sell to shallow-pocketed contractors. According to the authors, if markets are thin, a producer might be unable to produce at the scale that minimizes production costs. Under a system of proportional liability, however, contractors of varying wealth are willing to be served by the same producer, allowing the producer to manufacture at the level that minimizes costs.

The joint and several liability variable equals one if the state bars, for all damages, the application of the standard rule of joint and several liability, or limits application for all damages based on a percentage of fault. The variable equals zero otherwise.

*Medical Malpractice (Four Variables)*

**MEDICAL MALPRACTICE: ATTORNEY-FEE LIMITATIONS.** This variable tracks whether a state limits attorney fees in medical-malpractice cases. States use a variety of ways to regulate attorney fees. New York, for example, uses a sliding scale to limit attorney fees; 30 percent is allowed for the first \$250,000 of an award, 25 percent for the second \$250,000, 20 percent for the following \$500,000, 15 percent for the subsequent \$250,000, and 10 percent above \$1.25 million. Washington state courts, on the other hand, must approve attorney fees for each party based on their perceived reasonableness. Data on attorney-fee regulations in medical-malpractice cases come from ATRA and NCSL.<sup>32</sup>

The regulation of attorney fees in medical-malpractice lawsuits increases the supply of physicians in regulated states. This is the conclusion of Daniel P. Kessler et al., who found that the adoption of tort reforms including attorney-fee limits increased the supply of physicians by 3.3 percent after three years, controlling for other factors.<sup>33</sup> The authors also noted that the reforms' greatest effect on the supply of physicians was on retirements and entries rather than on movement between states. More physicians enter the job market and remain in practice longer after adoption of tort reforms such as attorney-fee limitations. This benefits consumers of health care services.

+  
Adoption of tort reforms including  
attorney-fee limits increased the  
supply of physicians by 3.3 percent  
after three years.  
+

The attorney-fee limitations variable equals one if the state limits attorney fees in medical-malpractice cases using a sliding scale, limits fees to a percentage of the amount recovered, or limits fees to an amount approved by the court. It equals zero if the state has no limit.

**MEDICAL MALPRACTICE: CONDITIONS ON THE USE OF EXPERT WITNESSES.** This variable tracks whether a state applies conditions to the use of expert witnesses in medical-malpractice cases. Expert-witness rules vary in strictness from state to state. Minnesota, for example, requires that medical-malpractice claimants sign an affidavit whenever an expert has been consulted. Michigan, on the other hand, requires that expert witnesses be licensed and board-certified in a similar specialty to the defendant's, in active practice, or in education during the year preceding the action. Data on expert-witness rules in medical-malpractice cases come from ATRA and NCSL.<sup>34</sup>

Laws governing the use of expert witnesses in medical-malpractice cases increase the likelihood that fair decisions will be rendered. This occurs because courts are forced

to require that testimony be based on accepted professional opinion, rather than novel approaches. Walter K. Olson, in an article for *Fortune*, noted that judges are often expected to validate expert testimony on their own, but he argued that this should not be the case, as judges often lack sufficient medical knowledge to do so.<sup>35</sup> Olson also showed that the sale of expert witnesses is big business, as certain firms specialize in maximizing jury awards through expert-witness testimony. Tough validation criteria disallow expert views outside the mainstream and keep defendants accountable to accepted medical standards in their field.

The conditions on expert witnesses variable equals one if the state requires expert witnesses to be licensed, if expert witnesses must have certain qualifications, if a claimant must file an affidavit, or if a claimant must file a certificate of consultation. The variable equals zero if the state imposes no conditions on the use of expert witnesses.

**MEDICAL MALPRACTICE: PRE-TRIAL SCREENING OR ARBITRATION.** This variable tracks whether a state requires pre-trial screening or arbitration for medical-malpractice litigation. Pre-trial screenings are preliminary hearings to determine the validity of a case, while arbitration is an alternative to trial that relies on an impartial third party for resolution. Both of these alternative methods of dispute resolution intend to reduce a state's medical-malpractice caseload. Nebraska attempts to accomplish this goal by mandating a review of malpractice claims by a medical-review panel before the case can proceed to trial. Oregon, on the other hand, requires all parties to participate in dispute resolution within 270 days of the action's being filed, unless the case has already been settled or all parties voluntarily waive mediation or arbitration. Data on state reforms come from ATRA and NCSL.<sup>36</sup>

Pre-trial screening and arbitration reduce the number of meritless cases that clutter court-houses. Pre-trial screening allows a panel of medical professionals to determine the validity of a malpractice claim, instead of passing that burden to jurors who can lack necessary medical knowledge. A report by Claudia E. Lavenant et al. found that pre-trial screening cut the number of physicians who received medical-malpractice sanctions by filtering out cases in which injuries were not caused by physician negligence.<sup>37</sup> Arbitration also keeps a number of malpractice cases out of courtrooms, although, through arbitration, settlements can be reached outside courtrooms that are agreeable to all parties.

The screening or arbitration variable equals one if the state requires mandatory screening or mediation, optional mediation, or voluntary binding arbitration. It equals zero otherwise.

**MEDICAL MALPRACTICE: STATUTE OF LIMITATIONS.** This variable tracks whether a state has a medical-malpractice statute of limitations. Indiana, for example, sets its medical-malpractice statute of limitations at two years from the harmful act, omission, or neglect by a physician. Kentucky sets its statute of limitations at one year from the act or reasonable discovery, but no more than five years after the act. Data on state-level limitations come from ATRA and NCSL.<sup>38</sup>

A reasonable statute of limitations lowers litigation rates while, at the same time, ensuring that cases are tried when the actions and incidents are more easily recalled and causation more apparent. As the time lengthens between the alleged injury, or discovery, and when the claim or lawsuit is brought, a fair trial becomes more difficult as witnesses move away, get sick, or die, documents are lost, and memories fade.

Such limitations ultimately reduce medical-malpractice litigation by eliminating older cases, thus lowering legal costs for physicians. David Studdert et al. also found that such limitations cut medical costs.<sup>39</sup> The researchers found that among Pennsylvania physicians, the practice of “defensive medicine” was highly prevalent among doctors who paid the most for liability insurance. Nearly all the doctors they asked admitted to avoiding certain procedures and patients perceived to have higher litigation rates in order to reduce their insurance costs. By restricting eligible cases, limitations reduce legal and insurance expenses and reduce the need for costly defensive medicine.

The statute of limitations variable equals one if the state’s statute of limitations has a PRI ranking lower (better) than 25 and equals zero otherwise. In other words, we used the median ranking of the states as the demarcation point.

#### *Product Liability (Five Variables)*

**PRODUCT LIABILITY: ASBESTOS OR SILICA.** This variable tracks whether a state has enacted an asbestos or silica reform. Asbestos and silica reforms generally define the procedures and minimum medical requirements for filing asbestos-related or silica-related lawsuits. Florida, for example, sets minimum medical criteria and a statute of limitations for filing asbestos and silica claims that starts from the time a patient demonstrates symptoms of illness. Texas additionally requires that asbestos cases be tried individually, shutting down the mass screening of potential claimants. Data on asbestos and silica reforms come from ATRA.<sup>40</sup>

Asbestos litigation has burdened an ever-expanding pool of defendants with enormous costs, though cancer victims currently represent only about one out of every 10 asbestos claimants. A

RAND study by Stephen J. Carroll et al. determined that from the 1960s through 2002, approximately 730,000 individuals brought claims against about 8,400 businesses.<sup>41</sup> According to the authors, these defendants and their insurers spent \$70 billion on legal costs and payouts. A report by Michael J. McCabe estimated that the cost could eventually exceed \$250 billion for asbestos litigation, a category that had only about 300 defendants 20 years ago.<sup>42</sup> McCabe also noted that the effect on business has been significant. Seventy companies have declared bankruptcy, costing up to 60,000 workers their jobs. The establishment of stricter medical standards for filing claims, a reform enacted in several states and supported by the American Bar Association, would drastically reduce the number of claims filed, resulting in fewer defendants, lower defense costs, and more jobs.

The asbestos or silica reforms variable equals one if the state has enacted asbestos or silica reforms, and equals zero if the state has not enacted such reforms.

**PRODUCT LIABILITY: CONSTRUCTION.** This variable tracks whether a state limits construction liability. Construction-liability reforms vary from state to state, but they often set a statute of repose or allow the seller of a property to correct a problem before the buyer can litigate.<sup>43</sup> Alaska, for example, sets a 15-year statute of repose for litigation against design and construction professionals, starting from substantial completion of the work. Arizona requires that a purchaser wait until the seller is given an opportunity to fix the problem before allowing a lawsuit to be filed. Data on state-level reforms come from ATRA.<sup>44</sup>

Construction-liability reform lowers liability insurance costs and increases the supply of affordable housing. A 2002 *San Diego Union-Tribune* article on California's affordable-housing crisis suggested reform of construction liability as a potential fix of the problem.<sup>45</sup> In the early 1990s, construction-defect litigation almost completely halted condominium and townhouse construction in California. As a result, the median home price in San Diego County rose by nearly 25 percent in one year. Because construction-liability reform reduces the threat of sellers' being sued, it cuts liability costs and encourages builders to construct more affordable housing.

The construction-liability variable equals one if the state limits construction liability, and equals zero if the state does not limit construction liability.

**PRODUCT LIABILITY: DOES THE STATE ALLOW A "FDA DEFENSE" OR "FTC DEFENSE"?** This variable tracks whether a state allows for use by defendants of a "FDA defense" (U.S. Food and Drug Administration) or "FTC defense" (U.S. Federal Trade Commission). The FDA defense

and FTC defense allow a product manufacturer some degree of immunity from liability if the product meets mandatory FDA safety standards or if the product's advertising complies with FTC standards. West Virginia, a state with a FDA defense, holds that health care providers are not liable for injuries caused by prescribed drugs or medical devices used in accordance with FDA regulations. Ohio, on the other hand, allows the use of the FDA defense only with regard to punitive damages for drug manufacturers. The Illinois Supreme Court recognizes an FTC defense against product liability for manufacturers of "light" or "low-tar" cigarettes. Data on state reforms come from ATRA and NCSL.<sup>46</sup>

Enacting the FDA or FTC defense restricts product-liability cases. In a recent study of drug liability, James A. Henderson Jr. and Aaron D. Twerski concluded that, assuming drug manufacturers meet all government standards and do not overpromote their products, misprescriptions should be the sole responsibility of the negligent physician or pharmacist.<sup>47</sup> Overextending liability, especially to drug manufacturers, reduces innovation, because manufacturers whose products meet all government standards and yet who get sued are deterred from investing in research and development and instead must redirect funds to lawsuit defense.

The FDA or FTC defense variable equals one if the state allows defendants to use one or both of these defenses, and equals zero if the state does not allow the use of these defenses.

**PRODUCT LIABILITY: DOES THE STATE PROVIDE GUIDELINES FOR GENERAL-MANUFACTURER LIABILITY OR RETAILER LIABILITY?** This variable tracks whether a state has specific guidelines defining liability for manufacturers or retailers. Florida, as an example, sets a 12-year statute of repose for products with a useful life of 10 years or less, with an exception for products specifically warranted for a life longer than 12 years. Mississippi holds retailers harmless for liability unless the retailer had control over the aspect of the product that caused harm, the retailer modified the product in a way that caused harm, the retailer knew of the harmful defect when the product was sold, or the retailer made a precise warranty about the aspect of the product that caused the plaintiff's harm. All data on state reforms come from ATRA.<sup>48</sup>

Specifying limitations on manufacturer and retailer liability reduces the cost of product-liability insurance, thus encouraging product innovation. An analysis by Richard J. Mahoney and Stephen E. Littlejohn found that strict liability, large awards, and a proliferation of lawsuits have created an environment of fear and uncertainty for innovators.<sup>49</sup> Mahoney and Littlejohn argued that legal uncertainty and scientific innovation are incompatible, resulting in less product research and fewer new products on store shelves.

The general-manufacturer liability or retailer liability variable equals one if the state has specific guidelines defining liabilities for manufacturers or retailers, and equals zero if the state does not have such guidelines.

**PRODUCT LIABILITY: DOES THE STATE PROVIDE CIVIL-LIABILITY EXEMPTIONS FOR JUNK FOOD OR OBESITY?** This variable tracks whether a state has a junk food or obesity civil-liability exemption for businesses. Junk food and obesity civil-liability exemptions give civil-damage immunity to manufacturers and distributors of food under certain conditions for claims alleging weight gain, obesity, or other conditions resulting from the long-term consumption of food.

Tennessee, for example, exempts manufacturers, distributors, sellers, and advertisers of food from liability in obesity claims in all instances except when the claim is based on a material violation of federal or state law for adulteration or misbranding. Twenty-two other states have virtually identical provisions. Information regarding junk food and obesity civil-liability exemptions comes from the National Restaurant Association.<sup>50</sup>

Immunity from liability lawsuits alleging weight gain or obesity protects American restaurants and the food industry's approximately 12 million workers from an onslaught of litigation and reaffirms personal responsibility for one's actions. Robert P. Hartwig and Claire Wilkinson analyzed the potential effect of obesity-related litigation and found that smaller companies would be most negatively affected by large settlements and awards.<sup>51</sup> The authors discovered that large food manufacturers and restaurants tend to self-insure, but smaller entities are likely to purchase insurance in a market affected by large awards and extended liability.

Also vulnerable under extended liability would be franchises of large restaurant chains, marketing partners, advertisers, television networks, and sporting-event organizers, among others. By providing immunity from obesity-related lawsuits, states avoid widespread litigation and protect small restaurants and millions of jobs.

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By providing immunity from obesity-related lawsuits, states avoid widespread litigation and protect small restaurants and millions of jobs.

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The junk food or obesity variable equals one if the state has an exemption for businesses, and equals zero if it does not have such an exemption for businesses.

## PROCEDURAL/STRUCTURAL RULES AND REFORMS (EIGHT VARIABLES)

**ARE STATE SUPREME COURT JUSTICES APPOINTED OR ELECTED?** This variable tracks whether a state's supreme court justices were appointed or elected as of 2005. In Arizona, the governor appoints supreme court justices, with mandatory retention elections after two years. Rhode Island justices, conversely, are nominated by the governor and must be confirmed by both the state House and Senate. And in Nevada, there are statewide nonpartisan elections for state supreme court justices. Other methods include merit selection by committee, legislative appointment, and partisan elections by district. Information on the selection method of justices comes from the Justice at Stake Campaign.<sup>52</sup>

Whether a state appoints or elects its supreme court justices is significant because litigation awards tend to be larger in states where the judiciary is elected. In other words, the appointment of justices leads to lower awards and a more business-friendly climate than the election of justices.

Alexander Tabarrok and Eric Helland found that awards are larger in states with an elected judiciary.<sup>53</sup> The authors argue that this result is driven by the need for elected judges to buy votes by redistributing money from out-of-state defendants (nonvoters) to in-state plaintiffs (voters) and to satisfy trial lawyers, many of whom not only vote but also help fund judges' election campaigns. When judges act as politicians in robes, they further erode the civil-justice system.

✦  
When judges act as politicians  
in robes, they further erode the  
civil-justice system.

✦

The appointed or elected variable equals one if the state appoints its justices, and equals zero if the state elects its justices.

**ATTORNEY-RETENTION SUNSHINE.** This variable tracks whether a state has limits on attorney retention that tend to require open, competitive bidding between private lawyers and a state seeking their counsel; make public the amount and type of work that private lawyers do for the state that has hired them; or limit the fees an attorney general is allowed to pay a private attorney without some form of additional government approval. North Dakota, for example, requires that an emergency commission approve the attorney general's selection of a private-lawyer assistant in civil cases where the amount in question exceeds \$150,000. In addition, North Dakota strictly limits the circumstances in which contracted legal services can be acquired through contingency arrangements. Virginia requires open, competitive bidding for all contingency-fee contracts between the state and outside counsel where fees and services are likely to exceed \$100,000. Data on reforms come from ATRA and NAMIC.<sup>54</sup>

Regulation of exclusive partnerships between an attorney general and a private trial lawyer reduces potential deception and exploitation. In an opinion piece for the *Washington Post*, Victor E. Schwartz noted that contracts between public attorneys general and private personal-injury lawyers can help protect the public interest.<sup>55</sup> Schwartz warns, however, that if private-public alliances are allowed to flourish, trial lawyers motivated by profit and dishonest attorneys general will together assume the role of making laws that benefit them rather than interpreting existing laws. For this reason, reforms that allow for more competitive bidding or require strict oversight are essential to keep partnerships honest and accountable.

✦  
Reforms that allow for more  
competitive bidding or require  
strict oversight are essential to keep  
partnerships honest and accountable.  
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The variable for attorney-retention sunshine equals one if the state regulates exclusive partnerships between an attorney general and a private trial lawyer, and equals zero if the state does not have such regulations.

**COLLATERAL-SOURCE RULE.** This variable tracks whether a state has modified the collateral-source rule. The collateral-source rule allows a plaintiff to receive compensation from a party not involved in the litigation, such as an insurance company, and bars the defense from introducing that fact as evidence. Because the collateral-source rule results in many plaintiffs recovering damages twice, some states have modified it. Connecticut allows the introduction of collateral-source evidence, though only after judgment has been made, and it permits the court to reduce damages accordingly. Kentucky, on the other hand, mandates that juries be informed of collateral-source payments. Data on collateral-source rule reforms come from ATRA and NAMIC.<sup>56</sup>

Thomas Campbell et al. found that reforms, such as collateral-source reforms, that decrease business exposure to liability had a significant positive relationship with productivity gains.<sup>57</sup> States that adopted liability-reducing reforms experienced a productivity boost of 1.7 percent compared with states that did not enact such reforms. Also noted was the fact that liability-reducing reforms had the greatest effect on the insurance industry and industries with the highest liability risk.

The variable for the collateral-source rule equals one if the state has made modifications to the collateral-source rule applicable to all cases including medical-malpractice cases, and equals zero otherwise.

**FRIVOLOUS LAWSUITS.** This variable tracks whether, as of 2005, a state had adopted Federal Rule 11 or a similar rule to limit frivolous lawsuits. Rule 11 of the Federal Rules of Civil Procedure applies monetary sanctions on attorneys and their clients who file lawsuits determined to be frivolous. Many states have adopted Federal Rule 11, including Indiana, North Carolina, and Tennessee. Data on frivolous-lawsuit reform come from Fred H. Smith of the Georgia Civil Justice Foundation.<sup>58</sup>

Imposing sanctions to combat frivolous lawsuits increases the potential cost to plaintiffs of pursuing meritless litigation, thereby reducing case filings. Mark J. Browne and Robert Puelz confirmed this in a report on the effects of various reforms on damage awards and the decision to file.<sup>59</sup> The adoption of at least one reform from a group that included frivolous-law-suit reform reduced the probability of filing by 28 percent. Frivolous-lawsuit reforms weed out cases with little substance that would otherwise clog courtrooms.

✦  
Frivolous-lawsuit reforms weed out  
cases with little substance that would  
otherwise clog courtrooms.  
✦

The frivolous-lawsuits variable equals one if the state has adopted Federal Rule 11 or a similar rule to limit frivolous lawsuits, and equals zero otherwise.

**JURY SERVICE.** This variable tracks whether a state has enacted a jury-service reform. To help resolve the problem of losing representative juries, some states have adopted reforms addressing ignored jury summonses, the financial imposition on jurors, and increased administrative costs. Colorado's jury-service reform sets stricter criteria for excusal from jury service, and provides protections for small businesses that might suffer financially from a temporary loss of employees. Maryland increased juror compensation from \$15 to \$50 per day after the fifth day of service in order to reduce the number of residents who ignore jury summonses. Data on jury-service reform come from ATRA and NAMIC.<sup>60</sup>

Reforming the rules of jury service to increase participation strengthens the constitutionally protected right to a representative jury of one's peers. An analysis by Harry F. Mooney et al. tracked the progress made by both state and federal courts in creating more diverse and inclusive juries.<sup>61</sup> The authors argued that removing exclusions from jury service creates socially diverse and representative juries that are more likely to be fair and desirable for defendants. Such juries, in turn, lend additional credibility to the rendered jury verdicts.

✦  
Reforming the rules of jury service to  
increase participation strengthens the  
constitutionally protected right to a  
representative jury of one's peers.  
✦

The jury-service variable equals one if the state has enacted a jury-service reform, and equals zero if the state has not enacted such a reform.

SIZE OF JURIES IN GENERAL-JURISDICTION COURTS MULTIPLIED BY THE PERCENTAGE OF JURORS NEEDED TO REACH A VERDICT. This variable tracks the size of juries multiplied by the percentage of jurors needed to reach a verdict in general-jurisdiction courts in each state as of 2001, the most recent year for which data are available. Alabama civil trials require a unanimous decision by 12 jurors to reach a verdict. Pennsylvania also mandates juries of 12 people; however, agreement by only 10 jurors is required for a verdict. Data on this variable come from the Bureau of Justice Statistics at the U.S. Department of Justice.<sup>62</sup>

Requiring more jurors to reach a verdict helps guarantee fair trials for defendants and maintains faith in court operations. The American Bar Association's House of Delegates agrees, having adopted a set of principles in February 2005 calling for the return to 12-person juries and unanimous verdicts. Terry Carter, a senior writer for the *American Bar Association Journal*, argued in favor of these principles in a feature story on jury reforms.<sup>63</sup> Carter noted that non-unanimous juries often neglect to consider the potentially helpful opinions of some jurors if they have already reached the necessary majority for a verdict.

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Requiring more jurors to reach a verdict helps guarantee fair trials for defendants and maintains faith in court operations.  
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To make this variable consistent and comparable with the other institutional variables, we transformed it into a binary variable depending on whether the consensus number required for a verdict was greater than or equal to the median value for the states, which was nine jurors. The variable equals one if the jury consensus size is nine or greater, and equals zero if it is less than nine.

VENUE. This variable tracks whether a state has enacted a venue reform. Venue reforms limit the ability of a plaintiff to file a lawsuit in a jurisdiction other than where the damage allegedly occurred, where the plaintiff resides, or where the defendant resides or a company has its principal place of business. West Virginia, for instance, specifies that a sizeable part of the action had to have occurred in the state for consideration in state courts, and requires each plaintiff to establish venue independently. Louisiana allows district court judges to dismiss a case at the defendant's request if the alleged act causing the lawsuit occurred outside the state. Data on venue reforms come from ATRA.<sup>64</sup>

Susan Kostal, in an article for the *American Bar Association Journal*, pointed out the shift of asbestos litigation to plaintiff-friendly venues once states began imposing tort reforms.<sup>65</sup> Kostal noted the concentration of cases in San Francisco and Alameda Counties in California, where verdicts are known to be more favorable to plaintiffs and awards higher than those in other jurisdictions. According to the author, awards in California's more favorable counties average \$3 million more than awards in less favorable counties. Because plaintiffs and their attorneys can benefit from filing where there is a higher chance of winning and collecting a large award, "venue shopping" or "litigation tourism" is common. Eric Helland and Alexander Tabarrok show that venue shopping can increase awards by hundreds of thousands of dollars.<sup>66</sup> Venue reforms lessen this practice by plaintiffs.

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Because plaintiffs and their attorneys can benefit from filing where there is a higher chance of winning and collecting a large award, "venue shopping" or "litigation tourism" is common.

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The venue-reform variable equals one if the state has enacted a venue reform and equals zero if no reform has been enacted.

WHAT IS THE STANDARD FOR SCIENTIFIC REVIEW OF EVIDENCE BY EXPERT WITNESSES? This variable tracks each state's standard for scientific review of evidence by expert witnesses as of 2005. States fall into one of four general categories: those that have adopted *Daubert v. Merrell Dow Pharmaceuticals* (509 U.S. 579, 1993); those that use a modified version of *Daubert*; those that use *Frye v. United States* (293 F. 1013, D.C. Cir., 1923); and those that use an alternative state standard. California is one of the states using the *Frye* standard, which holds that new scientific evidence is permissible in court if the method has gained "general acceptance" in the related field.

Mississippi, on the other hand, has adopted the stricter *Daubert* standard, which requires expert testimony to reflect a method that is not only generally accepted, but also supported by "good grounds." Data on scientific-review standards come from the Product Liability Advisory Council and Merrick L. Gross and Jason Kellogg, attorneys with the law firm of Akerman Senterfitt in Miami, Florida.<sup>67</sup>

*Daubert* raises the bar for expert review of evidence and testimony, and it reduces the influence of interest groups in the content of testimony. Jeffrey S. Parker builds on these effects, arguing

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*Daubert* is the preferred, stricter standard for scientific review of evidence by expert witnesses.

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that *Daubert* is more economically efficient than alternative standards.<sup>68</sup> In addition, Parker found that other proposals that allow for more judicial supervision or impose external constraints are both “unnecessary” and “socially undesirable.” For these reasons, *Daubert* is the preferred, stricter standard for scientific review of evidence by expert witnesses.

The standard for evidence review variable equals one if the state uses *Daubert* or a modified version, or uses an alternative state standard, for scientific review of evidence by expert witnesses. The variable equals zero if the state uses the *Frye* standard.

#### ECONOMIC AND DEMOGRAPHIC CONTROL VARIABLES

In addition to the main variables of interest described above, the regression models contain a vector of control variables that are likely to explain some of the differences in tort costs among states. These control variables are: gross state product (GSP) per capita, the share of the state population residing in metropolitan areas, the share of the state population older than 65, and the size of the construction sector as a share of GSP. We selected these because they are typical of the control variables used in other empirical analyses of state economies, and because they are for the most part statistically significant and robust with respect to the alternative specifications.

We note that we examined other control variables in the preliminary analysis of the data. For example, we examined the size of the financial sector and insurance sector relative to a state’s economy, since these might have affected premiums through political influence. We also examined the size of other sectors such as manufacturing and retail, but none of these had a statistically significant effect.

The models control for GSP because the number of lawsuits is likely driven by the level of exchanges, trades, transactions, and interactions—collectively called economic activity and measured by GSP. After all, most torts arise during the course of the trading process, whether the stage is production, distribution, consumption, or investment.

The models control for the share of the state population residing in metropolitan areas because this reflects different types of state economies—for example, one based on agriculture versus one based on financial services—and the ease of finding qualified personal-injury lawyers.

We included the share of the state population older than 65 for the obvious reason that elderly citizens consume the most health care services. Transactions related to health care—and there-

fore health care litigation—will be greater and medical insurance premiums will be higher in states with a higher concentration of elderly residents.

Finally, the models control for the size of the construction sector as a share of GSP because, even with workers' compensation insurance, construction involves activities that are inherently more dangerous, both for personal injury and for property damage, than many other business activities, and tort law often comes into play.

We also included a year indicator variable because we have two years of data on tort costs, 2004 and 2006. These data are denominated in constant 2006 dollars, and the indicator variable will control for a general increase or decrease in costs during this period. We include the variable Tort Cost per Capita in 1996 to account for litigation-related costs a decade earlier—that is, in a period before the latest era of major tort reform. This means that the models estimate how much costs have changed using costs in 1996 as the baseline. This procedure—controlling for costs in the pre-reform era—mitigates to some extent potential problems that result from reverse causation, the possibility that a state adopted reforms in response to high tort costs.<sup>69</sup>

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Controlling for costs in the pre-  
reform era mitigates to some extent  
potential problems that result from  
reverse causation.

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## 4. THE RESULTS: WHICH TORT REFORMS MATTER AND HOW MUCH?

Summary statistics for all variables used in the analysis are presented in the appendix, which also presents the estimated coefficients on all the variables described above for all of the models. In this section, we focus on the results for the main tort variables of interest that were statistically significant. We refer interested readers to the appendix to see the complete findings for the control variables and relevant test statistics.

To make the analysis and presentation of the results tractable, this section focuses on the estimated parameters that are significant at the 20-percent confidence level. We choose this level instead of more conventional levels (say, 5 percent) because some of the standard errors are likely to be biased upwards. This bias is the result of correlations among some of the procedural and substantive variables. For example, the simple correlation coefficient between venue reform and attorney-fee limitations is  $-0.44$ . While the degree of multicollinearity is not severe, it creates a potential problem for some of the test statistics, making it harder to reject the null hypothesis that the rule has no impact. The estimated coefficients will still be unbiased, however, and thus provide our best estimate of the expected impact of a rule. We reiterate that the appendix provides the t-statistics and indicates which coefficients are significant at the 5-percent confidence level. These values allow interested readers to select alternative statistical confidence levels.

Table 3 shows the effects on tort losses and tort insurance premiums for the total of all 10 tort case categories. We obtain these aggregate results by summing the estimated coefficients from the 10 separate categories.<sup>70</sup> Results for each tort category are presented separately in subsequent tables.

We illustrate how to interpret the results using table 3. The coefficient for the appeal-bond caps variable is  $-\$27.80$  in the Losses per Capita column. This means that aggregate tort losses per capita in a state that has adopted an appeal-bond cap are  $\$27.80$  lower than in states with-

**TABLE 3. EFFECTS ON ALL CATEGORIES OF TORT LOSSES AND TORT INSURANCE PREMIUMS\***

|  | Losses                   |            | Premiums        |            |
|--|--------------------------|------------|-----------------|------------|
|  | per Capita (\$)          | Saving (%) | per Capita (\$) | Saving (%) |
| <b>Monetary Caps</b>   |                          |            |                 |            |
| Appeal-bond caps   | -27.8                    | -4         | -25.1           | -3         |
| Caps on non-economic damages<br>(excluding medical-malpractice lawsuits)       | -10.2                    | -2         | -22.0           | -3         |
| Caps on punitive damages<br>(excluding medical-malpractice lawsuits)           | -0.9                     | -0.1       |                 |            |
| Caps on damage awards in<br>medical-malpractice lawsuits                       | -5.9                     | -1         | -4.5            | -0.6       |
| <b>Substantive-Law Rules and Reforms</b>                                       |                          |            |                 |            |
| Class action   | 50.7                     |            | 19.5            |            |
| Contingency attorney-fee limits<br>(excluding medical-malpractice lawsuits)    | 0.5                      |            | 16.9            |            |
| Negligence standard  | -21.8                    | -3         | -17.2           | -2         |
| Joint and several liability  | 4.8                      |            | 7.5             |            |
| <b>Medical Malpractice</b>   |                          |            |                 |            |
| Attorney-fee limitations   |                          |            | -7.8            | -1         |
| <b>Product Liability</b>   |                          |            |                 |            |
| Does the state provide civil-liability<br>exemptions for junk food or obesity? | -2.3                     | -0.4       | -1.2            | -0.1       |
| <b>Procedural/Structural Rules and Reforms</b>                                 |                          |            |                 |            |
| Appointed or elected state supreme court justices                              | 17.5                     |            | 9.8             |            |
| Attorney-retention sunshine  | -74.2                    | -12        | 4.4             |            |
| Collateral-source rule   | -6.2                     | -1         | -8.8            | -1         |
| Frivolous lawsuits   | -47.2                    | -7         | -17.1           | -2         |
| Jury service   | -40.9                    | -6         | 10.1            |            |
| Number of jurors needed to reach a verdict                                     | 22.9                     |            | -8.3            | -1         |
| Venue  | -2.6                     | -0.4       | -14.7           | -2         |
| Standard for scientific review of evidence<br>by expert witnesses              | -59.0                    | -10        | -1.3            | -0.2       |
|  | <b>State Median</b>      |            | 819             |            |
|  | <b>Cumulative Effect</b> | -295       | -47             | -128       |
|  |                          |            | -16             |            |

\*These results are computed as the sum of the coefficients for the 10 categories that were significant. Saving (%) is the percentage reduction in losses or premiums relative to the median value among the states. If the net effect on losses or premiums is positive—that is, an increase in costs—we show the effect, and leave the Saving column blank.

out an appeal-bond cap. This difference equals a 4-percent saving relative to the losses in the median state, which are \$632 per capita. Appeal-bond caps also tend to reduce insurance premiums by about \$25 per capita, which is a 3-percent saving relative to the state median of \$819 per capita. Appeal-bond caps are effective because they ensure due process, allowing defendants to have their day in court, and likely lower settlement amounts as well.

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 Appeal-bond caps are effective because they ensure due process, allowing defendants to have their day in court, and likely lower settlement amounts as well.  
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Reforms in the attorney-retention sunshine rules have the largest effect on combined tort losses, reducing losses by 12 percent, or \$74 per capita.

As seen in table 3, the estimated coefficients on a number of other reforms are statistically significant, and reduce tort losses.<sup>71</sup> In addition to appeal-bond caps and attorney-retention sunshine, the most promising of these reforms are: standard for scientific review of evidence (a saving of 10 percent), frivolous lawsuits (7 percent), jury service (6 percent), the negligence standard (3 percent), and caps on non-economic damages (excluding medical malpractice) (2 percent). Again, we stress that these savings are for aggregate losses across all categories of tort losses. Collectively, if all of the reforms that had statistically significant coefficients were implemented (that is, regardless of whether the estimated effects were positive or negative), the findings in table 3 indicate a cumulative reduction in losses equal to \$295 per capita, or a 47-percent saving relative to the losses in the typical state (here defined as the median) state.

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 A cumulative reduction in losses equal to \$295 per capita, or a 47-percent saving relative to the losses in the typical state.  
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The results in table 3 indicate that the estimated total effect on tort insurance premiums is a reduction of \$128 per capita, or a 16-percent saving relative to premiums per capita in the typical state. Two reforms have the largest impact in reducing premiums: appeal-bond caps and caps on non-economic damages; each cuts insurance premiums by 3 percent relative to the median state.

Next we turn to the results for the various categories of tort liability, presented in tables 4 through 13. We note that of the 25 institutional variables examined in the empirical analysis (listed in table 2), 18 had coefficients that were statistically significant at the 80-percent

confidence level or higher in at least one of the models reported in tables 4 through 13. The coefficients on seven variables were not statistically significant at the 80-percent level and, therefore, we omit these seven from the results tables. These reforms are: conditions on expert witnesses; pre-trial screening or arbitration; statute of limitations; asbestos or silica; construction liability; FDA/FTC defense; and guidelines for general-manufacturer liability or retailer liability.

Keep in mind that just because a reform does not significantly reduce tort costs, that does not mean the reform could never be effective. The reform might not be effective now because, for example, some judges and juries in a state refuse to apply the reform consistently as written. This has been the case for some tort reforms in parts of Texas, for example. This is much different from the reform being inherently “bad” or “ineffective.”

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An explanation for some of the positive variable coefficients is that tort reforms tend to eliminate smaller-dollar and less meritorious lawsuits, leaving the higher-dollar cases with more merit and billable hours to move forward (in class-action lawsuits, these cases are likely the ones where personal injury lawyers have put together more plaintiffs). Because of this tort-reform screening or gatekeeper effect, the direct tort costs of the remaining cases that go forward could, on net, actually increase. Of course, a net positive effect would vary greatly by time, place, and type of case—which can all affect the mix of plaintiffs, defendants, and lawsuits among other things. For example, an elected judge facing one plaintiff, but many defendants, or facing a single defendant with a higher tendency to vote (a homeowner, for example) might be motivated by re-election to side with the defendants or defendant, while these considerations would not enter the calculus of an appointed judge.

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The estimated total effect on tort insurance premiums is a reduction of \$128 per capita, or a 16-percent saving relative to premiums per capita in the typical state.

Table 4 contains the results for the Commercial Self-Insured Losses category. The Premiums columns are not included in table 4 because the self-insured do not pay premiums. The findings here indicate that three reforms reduce commercial self-insured losses: venue (7 percent), standard for scientific review of evidence (6 percent), and caps on non-economic damages (5 percent).

TABLE 4. EFFECTS ON COMMERCIAL SELF-INSURED LOSSES\*

|   | Losses<br>per Capita (\$) | Saving<br>(%) |
|---|---------------------------|---------------|
| <b>Monetary Caps</b>  |                           |               |
| Appeal-bond caps  |                           |               |
| Caps on non-economic damages<br>(excluding medical-malpractice lawsuits)    | -10.2                     | -5            |
| Caps on punitive damages<br>(excluding medical-malpractice lawsuits)        |                           |               |
| <b>Substantive-Law Rules and Reforms</b>                                    |                           |               |
| Class action  |                           |               |
| Contingency attorney-fee limits<br>(excluding medical-malpractice lawsuits) |                           |               |
| Negligence standard   | 6.4                       |               |
| Joint and several liability   |                           |               |
| <b>Medical Malpractice</b>  |                           |               |
| Attorney-fee limitations  |                           |               |
| <b>Product Liability</b>  |                           |               |
| Does the state provide civil-liability exemptions for junk food or obesity? |                           |               |
| <b>Procedural/Structural Rules and Reforms</b>                              |                           |               |
| Appointed or elected state supreme court justices                           |                           |               |
| Attorney-retention sunshine   |                           |               |
| Collateral-source rule  |                           |               |
| Frivolous lawsuits  |                           |               |
| Jury service  | 9.6                       |               |
| Number of jurors needed to reach a verdict                                  |                           |               |
| Venue   | -13.9                     | -7            |
| Standard for scientific review of evidence by expert witnesses              | -11.7                     | -6            |
| <b>State Median</b>   | 187.1                     |               |
| <b>Cumulative Effect</b>  | -19.6                     | -11           |

\*Results for all coefficients in the model are provided in the appendix. Saving (%) is the percentage reduction in losses relative to the median value among the states.

Table 5 presents the results for private passenger automobile liability losses and insurance premiums. For this category, five reforms appear to reduce losses substantially, and the cumulative effect of all reforms is a 36-percent reduction in losses. Three reforms result in lower premiums, and the cumulative effect is a 9-percent reduction in private passenger automobile liability premiums.

**TABLE 5. EFFECTS ON PRIVATE PASSENGER AUTOMOBILE LIABILITY LOSSES AND INSURANCE PREMIUMS\***

|  | Losses          |            | Premiums        |            |
|--|-----------------|------------|-----------------|------------|
|  | per Capita (\$) | Saving (%) | per Capita (\$) | Saving (%) |
| <b>Monetary Caps</b>   |                 |            |                 |            |
| Appeal-bond caps   | -15.5           | -9         | -30.3           | -10        |
| Caps on non-economic damages<br>(excluding medical-malpractice lawsuits)       |                 |            | -20.7           | -7         |
| Caps on punitive damages<br>(excluding medical-malpractice lawsuits)           |                 |            |                 |            |
| <b>Substantive-Law Rules and Reforms</b>                                       |                 |            |                 |            |
| Class action   |                 |            | 21.1            |            |
| Contingency attorney-fee limits<br>(excluding medical-malpractice lawsuits)    |                 |            |                 |            |
| Negligence standard  | -23.7           | -13        | -21.3           | -7         |
| Joint and several liability  |                 |            |                 |            |
| <b>Medical Malpractice</b>   |                 |            |                 |            |
| Attorney-fee limitations   |                 |            |                 |            |
| <b>Product Liability</b>   |                 |            |                 |            |
| Does the state provide civil-liability<br>exemptions for junk food or obesity? |                 |            |                 |            |
| <b>Procedural/Structural Rules and Reforms</b>                                 |                 |            |                 |            |
| Appointed or elected state supreme court justices                              | -16.0           | -9         |                 |            |
| Attorney-retention sunshine  |                 |            |                 |            |
| Collateral-source rule   | -13.0           | -7         |                 |            |
| Frivolous lawsuits   | -14.0           | -8         |                 |            |
| Jury service   |                 |            |                 |            |
| Number of jurors needed to reach a verdict                                     |                 |            |                 |            |
| Venue  |                 |            |                 |            |
| Standard for scientific review of evidence<br>by expert witnesses              | 17.3            |            | 24.5            |            |
| <b>State Median</b>  | 180.3           |            | 297.2           |            |
| <b>Cumulative Effect</b>   | -64.9           | -36        | -26.8           | -9         |

\*Results for all coefficients in the model are provided in the appendix. Saving (%) is the percentage reduction in losses or premiums relative to the median value among the states.

Table 6 presents the results for commercial automobile liability losses and premiums. In this category, the analysis indicates that three reforms effectively reduce losses, and the cumulative effect of reforms on losses is a 42-percent saving. The cumulative effect of reforms on commercial automobile liability premiums is a saving of 13 percent.

**TABLE 6. EFFECTS ON COMMERCIAL AUTOMOBILE LIABILITY LOSSES AND INSURANCE PREMIUMS\***

|  | Losses          |            | Premiums        |            |
|--|-----------------|------------|-----------------|------------|
|  | per Capita (\$) | Saving (%) | per Capita (\$) | Saving (%) |
| <b>Monetary Caps</b>   |                 |            |                 |            |
| Appeal-bond caps   |                 |            | -4.1            | -5         |
| Caps on non-economic damages<br>(excluding medical-malpractice lawsuits)       |                 |            | -4.6            | -6         |
| Caps on punitive damages<br>(excluding medical-malpractice lawsuits)           |                 |            |                 |            |
| <b>Substantive-Law Rules and Reforms</b>                                       |                 |            |                 |            |
| Class action   |                 |            |                 |            |
| Contingency attorney-fee limits<br>(excluding medical-malpractice lawsuits)    |                 |            |                 |            |
| Negligence standard  | -4.1            | -10        |                 |            |
| Joint and several liability  |                 |            | 3.1             |            |
| <b>Medical Malpractice</b>   |                 |            |                 |            |
| Attorney-fee limitations   |                 |            |                 |            |
| <b>Product Liability</b>   |                 |            |                 |            |
| Does the state provide civil-liability exemptions<br>for junk food or obesity? |                 |            |                 |            |
| <b>Procedural/Structural Rules and Reforms</b>                                 |                 |            |                 |            |
| Appointed or elected state supreme court justices                              |                 |            |                 |            |
| Attorney-retention sunshine  | -8.9            | -22        | -5.5            | -7         |
| Collateral-source rule   |                 |            |                 |            |
| Frivolous lawsuits   | -9.2            | -23        | -3.6            | -5         |
| Jury service   |                 |            | 2.9             |            |
| Number of jurors needed to reach a verdict                                     |                 |            | -6.2            | -8         |
| Venue  | 5.7             |            |                 |            |
| Standard for scientific review of evidence<br>by expert witnesses              |                 |            | 3.2             |            |
| <b>State Median</b>  | 39.7            |            | 76.4            |            |
| <b>Cumulative Effect</b>   | -16.5           | -42        | -10.2           | -13        |

\*Results for all coefficients in the model are provided in the appendix. Saving (%) is the percentage reduction in losses or premiums relative to the median value among the states.

Tables 7, 8, and 9 report the analyses for three categories of multiple peril liability losses and premiums: those of homeowners, commercial enterprises, and farmowners. Three reforms have very large impacts on homeowners' liability losses. For example, adopting sanctions on frivolous lawsuits cuts homeowners' liability losses nearly in half. Reforms appear to have a far

**TABLE 7. EFFECTS ON HOMEOWNERS' MULTIPLE PERIL [LIABILITY PORTION] LOSSES AND INSURANCE PREMIUMS\***

|  | Losses          |            | Premiums        |            |
|--|-----------------|------------|-----------------|------------|
|  | per Capita (\$) | Saving (%) | per Capita (\$) | Saving (%) |
| <b>Monetary Caps</b>   |                 |            |                 |            |
| Appeal-bond caps   |                 |            | 12.2            |            |
| Caps on non-economic damages<br>(excluding medical-malpractice lawsuits)       |                 |            | 15.6            |            |
| Caps on punitive damages<br>(excluding medical-malpractice lawsuits)           |                 |            |                 |            |
| <b>Substantive-Law Rules and Reforms</b>                                       |                 |            |                 |            |
| Class action   | 49.1            |            | -11.6           | -6         |
| Contingency attorney-fee limits<br>(excluding medical-malpractice lawsuits)    |                 |            | 20.5            |            |
| Negligence standard  |                 |            |                 |            |
| Joint and several liability  |                 |            | 11.3            |            |
| <b>Medical Malpractice</b>   |                 |            |                 |            |
| Attorney-fee limitations   |                 |            |                 |            |
| <b>Product Liability</b>   |                 |            |                 |            |
| Does the state provide civil-liability<br>exemptions for junk food or obesity? |                 |            |                 |            |
| <b>Procedural/Structural Rules and Reforms</b>                                 |                 |            |                 |            |
| Appointed or elected state supreme court justices                              | 36.9            |            | 11.0            |            |
| Attorney-retention sunshine  |                 |            | 9.3             |            |
| Collateral-source rule   |                 |            | -5.9            | -3         |
| Frivolous lawsuits   | -37.6           | -47        | -18.3           | -10        |
| Jury service   | -31.2           | -39        |                 |            |
| Number of jurors needed to reach a verdict                                     |                 |            |                 |            |
| Venue  |                 |            | 14.9            |            |
| Standard for scientific review of evidence<br>by expert witnesses              | -30.4           | -38        | -9.8            | -5         |
| <b>State Median</b>  | 79.4            |            | 180.1           |            |
| <b>Cumulative Effect</b>   | -13.2           | -17        | 49.2            | 27         |

\*Results for all coefficients in the model are provided in the appendix. Saving (%) is the percentage reduction in losses or premiums relative to the median value among the states.

smaller ability to reduce losses in the categories of commercial and farmowners' multiple peril liability. Regarding premiums, specific reforms seem to generate savings (as a percentage of the median premium), especially in the case of farmowners' multiple peril. For that category, contingency attorney-fee limits cut premiums by 22 percent, and stricter negligence standards cut premiums by 29 percent.

**TABLE 8. EFFECTS ON COMMERCIAL MULTIPLE PERIL (LIABILITY PORTION) LOSSES AND INSURANCE PREMIUMS\***

|  | Losses          |            | Premiums        |            |
|--|-----------------|------------|-----------------|------------|
|  | per Capita (\$) | Saving (%) | per Capita (\$) | Saving (%) |
| <b>Monetary Caps</b>   |                 |            |                 |            |
| Appeal-bond caps   | -4.7            | -24        | -2.9            | -6         |
| Caps on non-economic damages<br>(excluding medical-malpractice lawsuits)       |                 |            |                 |            |
| Caps on punitive damages<br>(excluding medical-malpractice lawsuits)           |                 |            |                 |            |
| <b>Substantive-Law Rules and Reforms</b>                                       |                 |            |                 |            |
| Class action   |                 |            |                 |            |
| Contingency attorney-fee limits<br>(excluding medical-malpractice lawsuits)    |                 |            |                 |            |
| Negligence standard  |                 |            |                 |            |
| Joint and several liability  | 2.2             |            |                 |            |
| <b>Medical Malpractice</b>   |                 |            |                 |            |
| Attorney-fee limitations   |                 |            |                 |            |
| <b>Product Liability</b>   |                 |            |                 |            |
| Does the state provide civil-liability<br>exemptions for junk food or obesity? |                 |            |                 |            |
| <b>Procedural/Structural Rules and Reforms</b>                                 |                 |            |                 |            |
| Appointed or elected state supreme court justices                              |                 |            |                 |            |
| Attorney-retention sunshine  |                 |            | 5.0             |            |
| Collateral-source rule   | 2.8             |            | 1.9             |            |
| Frivolous lawsuits   | 5.3             |            | 4.8             |            |
| Jury service   |                 |            | 1.8             |            |
| Number of jurors needed to reach a verdict                                     |                 |            | 3.4             |            |
| Venue  | 5.0             |            |                 |            |
| Standard for scientific review of evidence<br>by expert witnesses              | 3.2             |            |                 |            |
| <b>State Median</b>  | 19.5            |            | 47.6            |            |
| <b>Cumulative Effect</b>   | 13.9            | 71         | 14.0            | 29         |

\*Results for all coefficients in the model are provided in the appendix. Saving (%) is the percentage reduction in losses or premiums relative to the median value among the states.

Table 10 shows the findings for other liability. For this category, three reforms have a substantial impact on losses. The adoption of an attorney-retention sunshine rule results in an 81-percent saving. Adoption of a stringent standard for scientific review of evidence by expert witnesses generates a saving of 44 percent, and jury-service reform generates a saving of

**TABLE 9. EFFECTS ON FARMOWNERS' MULTIPLE PERIL [LIABILITY PORTION] LOSSES AND INSURANCE PREMIUMS\***

|  | Losses<br>per Capita (\$) | Saving (%) | Premiums<br>per Capita (\$) | Saving (%) |
|--|---------------------------|------------|-----------------------------|------------|
| <b>Monetary Caps</b>   |                           |            |                             |            |
| Appeal-bond caps   |                           |            |                             |            |
| Caps on non-economic damages<br>(excluding medical-malpractice lawsuits)       |                           |            |                             |            |
| Caps on punitive damages<br>(excluding medical-malpractice lawsuits)           | -0.9                      | -25        |                             |            |
| <b>Substantive-Law Rules and Reforms</b>                                       |                           |            |                             |            |
| Class action   | 1.6                       |            |                             |            |
| Contingency attorney-fee limits<br>(excluding medical-malpractice lawsuits)    |                           |            | -1.6                        | -22        |
| Negligence standard  |                           |            | -2.1                        | -29        |
| Joint and several liability  |                           |            |                             |            |
| <b>Medical Malpractice</b>   |                           |            |                             |            |
| Attorney-fee limitations   |                           |            |                             |            |
| <b>Product Liability</b>   |                           |            |                             |            |
| Does the state provide civil-liability<br>exemptions for junk food or obesity? |                           |            |                             |            |
| <b>Procedural/Structural Rules and Reforms</b>                                 |                           |            |                             |            |
| Appointed or elected state supreme court justices                              |                           |            |                             |            |
| Attorney-retention sunshine  |                           |            | 2.6                         |            |
| Collateral-source rule   | 1.3                       |            |                             |            |
| Frivolous lawsuits   |                           |            |                             |            |
| Jury service   |                           |            |                             |            |
| Number of jurors needed to reach a verdict                                     |                           |            |                             |            |
| Venue  |                           |            |                             |            |
| Standard for scientific review of evidence<br>by expert witnesses              |                           |            |                             |            |
| <b>State Median</b>  | 3.7                       |            | 7.0                         |            |
| <b>Cumulative Effect</b>   | 2.0                       | 55         | -1.0                        | -14        |

\*Results for all coefficients in the model are provided in the appendix. Saving (%) is the percentage reduction in losses or premiums relative to the median value among the states.

30 percent. We note that the cumulative effect from all reforms in this tort category of \$97.80 is larger than the median losses in all states, \$77.30. The explanation is that losses in those states without tort reforms are typically larger than the 50-state median value. Four reforms cut premiums in this category, with a cumulative premium saving of 36 percent.

**TABLE 10. EFFECTS ON OTHER LIABILITY LOSSES AND INSURANCE PREMIUMS\***

|  | Losses          |            | Premiums        |            |
|--|-----------------|------------|-----------------|------------|
|  | per Capita (\$) | Saving (%) | per Capita (\$) | Saving (%) |
| <b>Monetary Caps</b>   |                 |            |                 |            |
| Appeal-bond caps   |                 |            |                 |            |
| Caps on non-economic damages<br>(excluding medical-malpractice lawsuits)       |                 |            | -10.3           | -7         |
| Caps on punitive damages<br>(excluding medical-malpractice lawsuits)           |                 |            |                 |            |
| <b>Substantive-Law Rules and Reforms</b>                                       |                 |            |                 |            |
| Class action   |                 |            | 13.0            |            |
| Contingency attorney-fee limits<br>(excluding medical-malpractice lawsuits)    |                 |            |                 |            |
| Negligence standard  |                 |            |                 |            |
| Joint and several liability  |                 |            | -12.1           | -9         |
| <b>Medical Malpractice</b>   |                 |            |                 |            |
| Attorney-fee limitations   |                 |            |                 |            |
| <b>Product Liability</b>   |                 |            |                 |            |
| Does the state provide civil-liability<br>exemptions for junk food or obesity? |                 |            |                 |            |
| <b>Procedural/Structural Rules and Reforms</b>                                 |                 |            |                 |            |
| Appointed or elected state supreme court justices                              |                 |            |                 |            |
| Attorney-retention sunshine  | -63.0           | -81        |                 |            |
| Collateral-source rule   |                 |            |                 |            |
| Frivolous lawsuits   |                 |            |                 |            |
| Jury service   | -22.9           | -30        |                 |            |
| Number of jurors needed to reach a verdict                                     | 21.9            |            |                 |            |
| Venue  |                 |            | -22.0           | -16        |
| Standard for scientific review of evidence<br>by expert witnesses              | -33.8           | -44        | -19.2           | -14        |
| <b>State Median</b>  | 77.3            |            | 141.1           |            |
| <b>Cumulative Effect</b>   | -97.8           | -126       | -50.6           | -36        |

\*Results for all coefficients in the model are provided in the appendix. Saving (%) is the percentage reduction in losses or premiums relative to the median value among the states.

The effects of reforms on medical-malpractice losses and insurance premiums are shown in table 11. The analysis reveals the potential for reforms to provide some reductions in losses in this category. As one might expect, caps on damage awards in medical-malpractice lawsuits has a large effect, cutting losses by 39 percent. As for other variables, the appeal-bond cap cuts losses by 48 percent, and a stricter standard for review of evidence by expert witnesses by 34 percent. The cumulative effect is somewhat puzzling. The large saving from these three reforms is offset by increases in medical-malpractice losses associated with reforms such as sanctions on frivolous lawsuits. Perhaps a secondary consequence of sanctions on frivolous lawsuits is law-firm substitution away from commercial and private automobile liability cases and toward medical-malpractice cases. The results also reveal the potential for reductions in medical-malpractice insurance premiums; the cumulative effect on premiums is a saving of 74 percent.

**TABLE 11. EFFECTS ON MEDICAL-MALPRACTICE LOSSES AND INSURANCE PREMIUMS\***

|   | Losses                   |            | Premiums        |            |
|---|--------------------------|------------|-----------------|------------|
|   | per Capita (\$)          | Saving (%) | per Capita (\$) | Saving (%) |
| <b>Monetary Caps</b>  |                          |            |                 |            |
| Appeal-bond caps  | -7.2                     | -48        |                 |            |
| Caps on damage awards in medical-malpractice lawsuits                       | -5.9                     | -39        | -4.5            | -13        |
| <b>Substantive-Law Rules and Reforms</b>                                    |                          |            |                 |            |
| Class action  |                          |            | -6.1            | -17        |
| Negligence standard   |                          |            | 5.1             |            |
| Joint and several liability   |                          |            | 2.8             |            |
| <b>Medical Malpractice</b>  |                          |            |                 |            |
| Attorney-fee limitations  |                          |            | -7.8            | -21        |
| <b>Product Liability</b>  |                          |            |                 |            |
| Does the state provide civil-liability exemptions for junk food or obesity? |                          |            |                 |            |
| <b>Procedural/Structural Rules and Reforms</b>                              |                          |            |                 |            |
| Appointed or elected state supreme court justices                           |                          |            |                 |            |
| Attorney-retention sunshine   |                          |            | -4.6            | -13        |
| Collateral-source rule  | 3.0                      |            | -3.9            | -11        |
| Frivolous lawsuits  | 9.0                      |            |                 |            |
| Jury service  | 3.7                      |            | 3.3             |            |
| Number of jurors needed to reach a verdict                                  | 3.3                      |            | -3.4            | -9         |
| Venue   |                          |            | -7.6            | -21        |
| Standard for scientific review of evidence by expert witnesses              | -3.7                     | -34        |                 |            |
|   | <b>State Median</b>      |            | 36.2            |            |
|   | <b>Cumulative Effect</b> | 3.3        | 15              | -26.7      |
|   |                          |            |                 | -74        |

\*Results for all coefficients in the model are provided in the appendix. Saving (%) is the percentage reduction in losses or premiums relative to the median value among the states.

The potential for reforms to reduce losses and premiums in product-liability tort cases is similarly quite large, as shown in table 12. A state that adopted all four of the reforms that have proven effective would predictably have losses that are substantially below those in states without any of the reforms. The cumulative effect from all reforms in this tort category of \$7.80 is larger than the median losses in all states, \$5.40. The explanation is that product-liability losses in those states without tort reforms are typically larger than the 50-state median value, and that

**TABLE 12. EFFECTS ON PRODUCT-LIABILITY LOSSES AND INSURANCE PREMIUMS\***

|   | Losses<br>per Capita (\$) | Saving (%) | Premiums<br>per Capita (\$) | Saving (%) |
|---|---------------------------|------------|-----------------------------|------------|
| <b>Monetary Caps</b>  |                           |            |                             |            |
| Appeal-bond caps  |                           |            |                             |            |
| Caps on non-economic damages<br>(excluding medical-malpractice lawsuits)    |                           |            | -1.9                        | -16        |
| Caps on punitive damages<br>(excluding medical-malpractice lawsuits)        |                           |            |                             |            |
| Caps on damage awards in medical-malpractice lawsuits                       |                           |            |                             |            |
| <b>Substantive-Law Rules and Reforms</b>                                    |                           |            |                             |            |
| Class action  |                           |            | -1.3                        | -11        |
| Contingency attorney-fee limits<br>(excluding medical-malpractice lawsuits) |                           |            | -2.0                        | -17        |
| Negligence standard   |                           |            | 1.0                         |            |
| Joint and several liability   | 2.6                       |            | 2.4                         |            |
| <b>Medical Malpractice</b>  |                           |            |                             |            |
| Attorney-fee limitations  |                           |            |                             |            |
| <b>Product Liability</b>  |                           |            |                             |            |
| Does state provide civil-liability exemptions<br>for junk food or obesity?  | -2.3                      | -43        | -1.2                        | -10        |
| <b>Procedural/Structural Rules and Reforms</b>                              |                           |            |                             |            |
| Appointed or elected state supreme court justices                           | -3.4                      | -63        | -1.2                        | -10        |
| Attorney-retention sunshine   | -2.4                      | -44        | -2.4                        | -20        |
| Collateral-source rule  |                           |            | -0.9                        | -7         |
| Frivolous lawsuits  |                           |            |                             |            |
| Jury service  |                           |            | 2.1                         |            |
| Number of jurors needed to reach a verdict                                  | -2.3                      | -43        | -2.2                        | -18        |
| Venue   |                           |            |                             |            |
| Standard for scientific review of evidence<br>by expert witnesses           |                           |            |                             |            |
| <b>State Median</b>   | 5.4                       |            | 12.0                        |            |
| <b>Cumulative Effect</b>  | -7.8                      | -145       | -7.6                        | -63        |

\*Results for all coefficients in the model are provided in the appendix. Saving (%) is the percentage reduction in losses or premiums relative to the median value among the states.

product-liability losses in states with reforms are typically smaller than the 50-state median value. Premiums for product-liability coverage in states that have adopted eight effective reforms are predictably 63 percent below those in states without any of the reforms.

The effects of tort reforms on personal self-insured losses are shown in table 13. The cumulative effect is a 9-percent saving, driven by four reforms: appeal-bond caps, negligence standard, collateral-source rule, and frivolous lawsuits.

**TABLE 13. EFFECTS ON PERSONAL SELF-INSURED LOSSES\***

|   | Losses<br>per Capita (\$) | Saving (%) |
|---|---------------------------|------------|
| <b>Monetary Caps</b>  |                           |            |
| Appeal-bond caps  | -0.4                      | -4         |
| Caps on non-economic damages<br>(excluding medical-malpractice lawsuits)    |                           |            |
| Caps on punitive damages<br>(excluding medical-malpractice lawsuits)        |                           |            |
| Caps on damage awards in medical-malpractice lawsuits                       |                           |            |
| <b>Substantive-Law Rules and Reforms</b>                                    |                           |            |
| Class action  |                           |            |
| Contingency attorney-fee limits<br>(excluding medical-malpractice lawsuits) | 0.5                       |            |
| Negligence standard   | -0.4                      | -4         |
| Joint and several liability   |                           |            |
| <b>Medical Malpractice</b>  |                           |            |
| Attorney-fee limitations  |                           |            |
| <b>Product Liability</b>  |                           |            |
| Does the state provide civil-liability exemptions for junk food or obesity? |                           |            |
| <b>Procedural/Structural Rules and Reforms</b>                              |                           |            |
| Appointed or elected state supreme court justices                           |                           |            |
| Attorney-retention sunshine   |                           |            |
| Collateral-source rule  | -0.4                      | -4         |
| Frivolous lawsuits  | -0.7                      | -7         |
| Jury service  | 0.5                       |            |
| Number of jurors needed to reach a verdict                                  |                           |            |
| Venue   |                           |            |
| Standard for scientific review of evidence by expert witnesses              |                           |            |
| <b>State Median</b>   | 10.3                      |            |
| <b>Cumulative Effect</b>  | -0.9                      | -9         |

\*Results for all coefficients in the model are provided in the appendix. Saving (%) is the percentage reduction in losses relative to the median value among the states.

## 5. TORT REFORM WORKS: SUMMARY AND CONCLUSION

This study examines 25 reforms adopted by American states in an effort to control tort lawsuit losses and tort insurance premiums. These reforms were mostly introduced beginning in the mid- to late 1990s, and the analysis examines whether, and by how much, specific reforms reduced tort losses and tort insurance premiums. We measure the effects of reforms on losses and premiums in specific categories such as medical malpractice and commercial self-insurance.

The analysis of the loss and premium data from 1996 through 2006 reveals potentially large savings from 18 of the 25 reforms. These findings provide strong evidence that tort reforms can and do work, contrary to the public relations campaign of the personal-injury plaintiffs' trial bar. For some categories of tort cases, specific reforms cut payouts more than 50 percent. The cumulative effect of reforms across all categories of tort liability is a 47-percent reduction in losses and a 16-percent reduction in insurance premiums for consumers. That is, these are the estimated savings if a state implemented all of the reforms that are effective. Some tort reforms are highly effective at reducing costs in certain tort categories, but are ineffective in other tort categories.

✦  
These findings provide strong  
evidence that tort reforms can and do  
work, contrary to the public relations  
campaign of the personal-injury  
plaintiffs' trial bar.

✦

If we order the tort reforms according to each reform's ability to reduce aggregate tort losses, the top seven reforms are: attorney-retention sunshine (12 percent), *Daubert/Frye* (10 percent), frivolous lawsuits (7 percent), jury service (6 percent), appeal-bond caps (4 percent), negligence standard (3 percent), and non-economic-damage caps (2 percent). The evidence reveals that states should generally be hesitant to restrict contingency attorney fees since contingency tends to screen cases efficiently. These restrictions—effectively price controls—also abridge the economic freedom of the right to contract between an attorney and his client (class actions are the notable exception).

To many readers, a surprising result is that caps on punitive damages seldom reduce tort losses and premiums in any meaningful way.<sup>72</sup> But our result is consistent with the findings of W. Kip Viscusi, and it likely reflects the rare and random nature of punitive awards; thus, on average, punitive-damage caps do not systematically lower tort losses or tort insurance premiums.<sup>73</sup>

Another explanation for the general ineffectiveness of state punitive-damage caps is recent U.S. Supreme Court decisions that have set limits on punitive damages independent of state caps. See, in particular, *State Farm v. Campbell* (538 U.S. 408, 2003) and *Exxon Shipping v. Baker* (554 U.S., 2008). Our results indicate, however, that caps on non-economic damages are extremely effective, as are medical-malpractice damage caps.

Our findings on the reductions in tort losses and tort insurance premiums provide support for studies that indicate adverse consequences of the current tort system, and the benefits of reform. For example, Paul H. Rubin and Joanna M. Shepherd found that state tort reforms reduce accidental-death rates.<sup>74</sup> They attribute this reduction to the possibility that tort reforms lower expected liability costs, and that these savings, in turn, are passed on in the form of lower prices. Lower prices enable consumers to buy more risk-reducing products such as medicines, safety equipment, and medical devices, and could result in consumers increasing precautions to avoid accidents. Our results provide direct evidence on the extent to which tort reforms cut losses and premiums and thereby lower expected tort-liability costs.

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At one level, payouts for tort liability represent income transfers that redistribute wealth from one group to another. The size of these transfers by the tort-liability system determines the liability costs for providing goods and services. Some of the costs are legitimate, but many costs are excessive because of lawsuit abuse. These liability costs have large consequences for the real economy and a healthy society.

The *Wall Street Journal* recently observed: “After 20 years of state and federal efforts to reform a runaway legal system, the trial bar is reviving the monster. . . . Tort reformers will have to push back.”<sup>75</sup> This study provides much needed evidence on which reforms are worth pushing, enacting, and defending.

**APPENDIX. DETAILED STATISTICAL TABLES**

**TABLE A1. SUMMARY STATISTICS FOR LOSSES**

|  | mean | median | SD  |
|--|------|--------|-----|
| Aggregate Losses                                 | 684  | 632    | 167 |
| Commercial Automobile Liability                  | 43   | 40     | 15  |
| Farmowners' Multiple Peril [Liability Portion]   | 7    | 4      | 9   |
| Commercial Multiple Peril (Liability Portion)    | 21   | 19     | 9   |
| Other Liability Insurance Loss                   | 95   | 77     | 61  |
| Homeowners' Multiple Peril [Liability Portion]   | 96   | 79     | 80  |
| Medical Malpractice Private Passenger Automobile | 19   | 15     | 14  |
| Product Liability                                | 188  | 180    | 49  |
| Personal Self                                    | 7    | 5      | 8   |
| Commercial Self                                  | 11   | 10     | 2   |
| Aggregate Losses 1996                            | 197  | 187    | 47  |
|  | 478  | 458    | 110 |

**TABLE A2. SUMMARY STATISTICS FOR PREMIUMS**

|  | mean | median | SD  |
|--|------|--------|-----|
| Aggregate Premiums   | 867  | 819    | 147 |
| Aggregate Premiums 1996  | 710  | 663    | 134 |
| Commercial Automobile Liability Farmowners' Multiple Peril [Liability Portion] | 78   | 76     | 13  |
| Commercial Multiple Peril (Liability Portion)                                  | 14   | 7      | 18  |
| Other Liability Insurance Loss   | 47   | 48     | 12  |
| Homeowners' Multiple Peril [Liability Portion]                                 | 159  | 141    | 60  |
| Medical Malpractice  | 186  | 180    | 34  |
| Private Passenger Automobile Product Liability                                 | 37   | 36     | 13  |
|  | 311  | 297    | 67  |
|  | 13   | 12     | 4   |

**TABLE A3. REGRESSION RESULTS FOR TORT LOSSES BY CATEGORY**

|  | Commercial<br>Self-Insured | Private<br>Passenger<br>Automobile | Commercial<br>Automobile<br>Liability | Homeowners'<br>Multiple<br>Peril [Liability<br>Portion] | Commercial<br>Multiple<br>Peril (Liability<br>Portion) | Farmowners'<br>Multiple<br>Peril [Liability<br>Portion] |
|--|----------------------------|------------------------------------|---------------------------------------|---|--|---|
| appeal_bond_caps                       |                            | -15.47<br>(2.07)*                  |                                       |   | -4.68<br>(3.71)**                                      |   |
| noneconomic_damages_caps               | -10.16<br>(2.17)*          |                                    |                                       |   |  |   |
| punitive_damages_caps                  |                            |                                    |                                       |   |  | -0.92<br>(1.59)   |
| caps_on_damage_awards_in_medical       |                            |                                    |                                       |   |  |   |
| class_action                           |                            |                                    |                                       | 49.06<br>(2.01)*  |  | 1.62<br>(2.21)*   |
| contingency_attorney_fee_limits        |                            |                                    |                                       |   |  |   |
| negligence_standard                    | 6.45<br>(1.40)             | -23.70<br>(2.70)**                 | -4.15<br>(1.56)                       |   |  |   |
| joint_and_several_liability            |                            |                                    |                                       |   | 2.20<br>(1.71)   |   |
| are_state_supreme_court_justices       |                            | -16.01<br>(1.94)                   |                                       | 36.90<br>(2.04)*  |  |   |
| attorney_retention_sunshine            |                            |                                    | -8.87<br>(2.43)*                      |   |  |   |
| collateral_source_rule                 |                            | -12.98<br>(1.80)                   |                                       |   | 2.84<br>(2.30)*  | 1.33<br>(2.57)*   |
| frivolous_lawsuits                     |                            | -14.03<br>(1.31)                   | -9.18<br>(2.48)*                      | -37.59<br>(1.5)   | 5.30<br>(3.07)**                                       |   |
| jury_service                           | 9.59<br>(2.05)*            |                                    |                                       | -31.23<br>(1.39)  |  |   |
| venue_reform                           | -13.85<br>(2.60)**         |                                    | 5.71<br>(1.61)                        |   | 5.04<br>(2.83)**                                       |   |
| standard_for_evidence_review           | -11.67<br>(2.56)**         | 17.33<br>(1.90)                    |                                       | -30.37<br>(1.65)  | 3.21<br>(2.43)*  |   |
| yr_dum_o6                              | -14.77<br>(4.06)**         | -4.99<br>(0.73)                    | -7.60<br>(3.39)**                     | 2.16<br>(0.14)  | -4.40<br>(4.15)**                                      | 0.45<br>(0.89)  |
| gsp_pc                                 | 0.001<br>(0.38)            | 0.001<br>(1.72)                    | 0.001<br>(2.40)*                      | -0.002<br>(1.40)  | 0.001<br>(4.42)**                                      | 0.001<br>(3.43)**                                       |
| metro_pop                              | -0.58<br>(2.63)*           | -0.45<br>(0.96)                    | -0.58<br>(4.34)**                     | 1.09<br>(1.15)  | 0.04<br>(0.55)   | 0.05<br>(1.40)  |
| pop_age_gt_65                          | 25.2<br>(0.18)             | 42.0<br>(0.18)                     | -124.3<br>(1.68)                      | 871.3<br>(1.58)   | 129.1<br>(3.59)**                                      | -2.37<br>(0.14)   |
| construct_shr_gsp                      | 445<br>(2.67)**            | 709<br>(2.27)*                     | 149<br>(1.45)                         | 476<br>(0.68)   | 202<br>(3.94)**  | -10<br>(0.47)   |
| Losses per capita 1996 (this category) | 1.26<br>(14.02)            | 0.53<br>(5.96)**                   | 0.65<br>(5.33)**                      | 0.13<br>(0.59)  | 0.49<br>(5.71)**                                       | 0.79<br>(24.47)**                                       |
| Constant                               | 44<br>(1.34)               | 64<br>(0.93)                       | 62<br>(3.09)**                        | -18<br>(0.12)   | -50<br>(4.55)**  | 2.4<br>(0.58)   |
| Observations                           | 100                        | 100                                | 100                                   | 100   | 100  | 100   |
| Adjusted R-squared                     | 0.86                       | 0.53                               | 0.45                                  | 0.11  | 0.66   | 0.92  |

*Absolute value of t-statistics in parentheses*

*\* indicates significance at the 5 percent level*

*\*\* indicates significance at the 1 percent level*

**TABLE A3. REGRESSION RESULTS FOR TORT LOSSES BY CATEGORY (CONTINUED)**

|  | Other Liability<br>Insurance Loss | Medical<br>Malpractice | Product<br>Liability | Personal Self-<br>Insured |
|--|-----------------------------------|------------------------|----------------------|---------------------------|
| appeal_bond_caps                       |                                   | -7.21<br>(3.03)**      |                      | -0.42<br>(1.84)           |
| noneconomic_damages_caps               |                                   |                        |                      |                           |
| punitive_damages_caps                  |                                   |                        |                      |                           |
| caps_on_damage_awards_in_medical       |                                   | -5.92<br>(2.29)*       |                      |                           |
| contingency_attorney_fee_limits        |                                   |                        |                      | 0.51<br>(1.47)            |
| negligence_standard                    |                                   |                        |                      | -0.44<br>(1.77)           |
| joint_and_several_liability            |                                   |                        | 2.59<br>(1.70)       |                           |
| does_the_state_provide_civil_lia       |                                   |                        | -2.30<br>(1.66)      |                           |
| are_state_supreme_court_justices       |                                   |                        | -3.40<br>(2.60)*     |                           |
| attorney_retention_sunshine            | -62.95<br>(4.72)**                |                        | -2.39<br>(1.29)      |                           |
| collateral_source_rule                 |                                   | 2.97<br>(1.36)         |                      | -0.37<br>(1.65)           |
| frivolous_lawsuits                     |                                   | 8.65<br>(2.71)**       |                      | -0.73<br>(2.16)*          |
| jury_service                           | -22.95<br>(1.98)                  | 3.70<br>(1.32)         |                      |                           |
| size_of_juries_in_general_jurisd       | 21.9<br>(2.23)*                   | 3.25<br>(1.30)         | -2.33<br>(1.70)      |                           |
| venue_reform                           |                                   |                        |                      | 0.522<br>-1.45            |
| standard_for_evidence_review           | -33.79<br>(3.07)**                | -3.67<br>(1.39)        |                      |                           |
| yr_dum_o6                              | -28.45<br>(3.36)**                | -8.52<br>(4.32)**      | -8.72<br>(7.27)**    | -0.20<br>(0.96)           |
| gsp_pc                                 | 0.002<br>(2.07)*                  | 0.001<br>(3.80)**      | 0.001<br>(3.49)**    | 0.001<br>(1.40)           |
| metro_pop                              | -1.14<br>(2.11)*                  | 0.02<br>(0.13)         | 0.14<br>(1.90)       | -0.04<br>(2.84)**         |
| pop_age_gt_65                          | -298<br>(1.00)                    | 190<br>(2.46)*         | 19.70<br>(0.51)      | 10.5<br>(1.43)            |
| Construct_shr_gsp                      | 317<br>(0.83)                     | -33<br>(0.34)          | 40<br>(0.73)         | 20<br>(1.91)              |
| Losses per capita 1996 (this category) | 1.16<br>(7.06)**                  | 0.38<br>(3.07)**       | 0.07<br>-0.76        | 0.71<br>(7.80)**          |
| Constant                               | 119.8<br>(1.55)                   | -48.88<br>(2.25)*      | -21.50<br>(2.09)*    | 4.90<br>(2.25)*           |
| Observations                           | 100                               | 100                    | 100                  | 100                       |
| Adjusted R-squared                     | 0.53                              | 0.59                   | 0.44                 | 0.67                      |

*Absolute value of t-statistics in parentheses*

*\* indicates significance at the 5 percent level*

*\*\* indicates significance at the 1 percent level*

**TABLE A4. REGRESSION RESULTS FOR TORT INSURANCE PREMIUMS BY CATEGORY**

|  | Private<br>Passenger<br>Automobile | Commercial<br>Automobile<br>Liability | Homeowners'<br>Multiple Peril<br>[Liability Portion] | Commercial<br>Multiple Peril<br>(Liability Portion) |
|--|------------------------------------|---------------------------------------|--|---|
| appeal_bond_caps                         | -30.33<br>(3.20)**                 | -4.06<br>(2.82)**                     | 12.23<br>(2.48)*                                     | -2.91<br>(2.31)*                                    |
| noneconomic_damages_caps                 | -20.74<br>(1.94)                   | -4.64<br>(2.93)**                     | 15.58<br>(3.12)**                                    |   |
| class_action                             | 21.08<br>(1.65)                    | 4.52<br>(2.12)*                       | -11.59<br>(1.69)                                     |   |
| contingency_attorney_fee_limits          |                                    |                                       | 20.51<br>(3.30)**                                    |   |
| negligence_standard                      | -21.32<br>(2.05)*                  |                                       |  |   |
| joint_and_several_liability              |                                    | 3.11<br>(2.27)*                       | 11.27<br>(2.45)*                                     |   |
| are_state_supreme_court_justices         |                                    | 11.00                                 | (2.56)*  |   |
| attorney_retention_sunshine              |                                    | -5.49<br>(2.71)**                     | 9.29<br>(1.43)                                       | 4.99<br>(3.20)**                                    |
| collateral_source_rule                   |                                    |                                       | -5.90<br>(1.45)                                      | 1.88<br>(1.79)                                      |
| frivolous_lawsuits                       |                                    | -3.57<br>(1.77)                       | -18.31<br>(2.77)**                                   | 4.78<br>(3.21)**                                    |
| jury_service                             |                                    | 2.91<br>(1.86)                        |  | 1.80<br>(1.51)                                      |
| size_of_juries_in_general_jurisd         |                                    | -6.15<br>(4.59)**                     |  | 3.45<br>(3.14)**                                    |
| venue_reform                             |                                    |                                       | 14.93<br>(2.27)*                                     |   |
| standard_for_evidence_review             | 24.55<br>(2.27)*                   | 3.17<br>(2.03)*                       | -9.82<br>(2.23)*                                     |   |
| yr_dum_o6                                | 10.88<br>(1.36)                    | -4.45<br>(3.94)**                     | 9.98<br>(2.87)**                                     | 1.06<br>(1.17)                                      |
| gsp_pc                                   | 0.001<br>(1.18)                    | 0.001<br>(5.21)**                     | 0.001<br>(1.07)                                      | 0.001<br>(2.94)**                                   |
| metro_pop                                | -1.15<br>(1.90)                    | -0.53<br>(7.21)**                     | -0.20<br>(0.84)                                      | -0.31<br>(5.32)**                                   |
| pop_age_gt_65                            | 191<br>(0.66)                      | 88<br>(2.02)*                         | 514<br>(3.96)**                                      | 170<br>(5.58)**                                     |
| construct_shr_gsp                        | 594.0<br>(1.54)                    | 180.8<br>(3.51)**                     | 382.7<br>(2.21)*                                     | 17.3<br>(0.38)                                      |
| Premiums per cap in 1996 (this category) | 0.63<br>(6.89)**                   | 0.75<br>(13.05)**                     | 1.07<br>(9.10)**                                     | 0.81<br>(13.22)**                                   |
| Constant                                 | 119<br>(1.44)                      | 32<br>(2.76)**                        | -38<br>(0.95)  | -4.5<br>(0.57)                                      |
| Observations                             | 100                                | 100                                   | 100  | 100   |
| Adjusted R-squared                       | 0.66                               | 0.83                                  | 0.75   | 0.87  |

*Absolute value of t-statistics in parentheses*

*\* indicates significance at the 5 percent level*

*\*\* indicates significance at the 1 percent level*

**TABLE A4. REGRESSION RESULTS FOR TORT INSURANCE PREMIUMS BY CATEGORY (CONTINUED)**

|  | Farmowners'<br>Multiple Peril<br>[Liability Portion] | Other Liability<br>Insurance<br>Loss | Medical<br>Malpractice | Product Liability  |
|--|--|--------------------------------------|------------------------|--------------------|
| noneconomic_damages_caps                 |  | -10.28<br>(1.46)                     |                        | -1.89<br>(3.32)**  |
| caps_on_damage_awards_in_medical         |  |                                      | -4.55<br>(2.79)**      |                    |
| class_action                             |  | 12.96<br>(1.47)                      | -6.13<br>(2.65)**      | -1.31<br>(1.79)    |
| contingency_attorney_fee_limits          | -1.56<br>(1.46)                                      |                                      |                        | -2.02<br>(2.96)**  |
| negligence_standard                      | -2.05<br>(2.68)**                                    |                                      | 5.13<br>(3.15)**       | 1.03<br>(2.04)*    |
| joint_and_several_liability              |  | -12.14<br>(1.85)                     | 2.85<br>(1.82)         | 2.42<br>(4.68)**   |
| attorney_fee_limitations                 |  |                                      | -7.78<br>(4.11)**      |                    |
| does_the_state_provide_civil_lia         |  |                                      |                        | -1.18<br>(2.47)*   |
| are_state_supreme_court_justices         |  |                                      |                        | -1.24<br>(2.70)**  |
| attorney_retention_sunshine              | 2.64<br>(2.56)*                                      |                                      | -4.64<br>(2.09)*       | -2.41<br>(3.59)**  |
| collateral_source_rule                   |  |                                      | -3.91<br>(2.58)*       | -0.89<br>(1.82)    |
| jury_service                             |  |                                      | 3.31<br>(1.77)         | 2.11<br>(3.54)**   |
| size_of_juries_in_general_jurisd         |  |                                      | -3.40<br>(1.91)        | -2.19<br>(4.45)**  |
| venue_reform                             |  | -22.00<br>(2.35)*                    | -7.61<br>(3.46)**      |                    |
| standard_for_evidence_review             |  | -19.18<br>(2.90)**                   |                        |                    |
| yr_dum_o6                                | -0.29<br>(0.45)                                      | -0.69<br>(0.12)                      | 0.05<br>(0.04)         | -1.17<br>(3.07)**  |
| gsp_pc                                   | 0.001<br>(1.69)                                      | -0.001<br>(0.86)                     | 0.001<br>(0.32)        | 0.001<br>(8.41)**  |
| Metro_pop                                | -0.094<br>(1.96)                                     | -0.036<br>(0.11)                     | 0.24<br>(2.85)**       | -0.04<br>(1.30)    |
| pop_age_gt_65                            | 49<br>(2.39)*  | -275<br>(1.40)                       | 39<br>(0.85)           | 26<br>(1.91)       |
| construct_shr_gsp                        | 5.28<br>(0.19)                                       | 931<br>(3.65)**                      | -241<br>(3.85)**       | 153<br>(8.36)**    |
| Premiums per cap in 1996 (this category) | 1.40<br>(38.44)**                                    | 1.54<br>(11.85)**                    | 1.02<br>(13.41)**      | 0.92<br>(8.59)**   |
| Constant                                 | -1.43<br>(0.26)                                      | 55.1<br>(0.98)                       | 5.93<br>(0.47)         | -17.92<br>(4.91)** |
| Observations                             | 100  | 100                                  | 100                    | 100                |
| Adjusted R-squared                       | 0.97   | 0.80                                 | 0.79                   | 0.78               |

*Absolute value of t-statistics in parentheses*

*\* indicates significance at the 5 percent level*

*\*\* indicates significance at the 1 percent level*



## NOTES

- <sup>1</sup> National Center for State Courts, Court Statistics Project, *Examining the Work of State Courts*, 2006. A thorough description of the sources of tort data and their limitations is provided in Eric Helland, Jonathan Klick, and Alexander Tabarrok, “Data Watch: Tort-uring the Data,” *Journal of Economic Perspectives* 19 (spring 2005), pp. 207–220.
- <sup>2</sup> Lawrence J. McQuillan and Hovannes Abramyan, *U.S. Tort Liability Index: 2006 Report* and *U.S. Tort Liability Index: 2008 Report* (San Francisco: Pacific Research Institute, 2006 and 2008). In an effort to discredit the 2008 *U.S. Tort Liability Index*, some personal injury lawyers and trial bar organizations have said that the input rankings and the output rankings have a low correlation. For the reasons that the authors of the 2008 report discussed—specifically, time lags, the degree of implementation of the reforms in each state, and other confounding affects—the authors did not conduct such a correlation analysis on their own because this is an inappropriate and unscientific use of the report’s data. The proper and correct approach to examining the link between tort inputs and tort outputs is undertaken in this study. We also note that another data set on tort reform is available from Ronen Avraham, *Database of State Tort Law Reforms*, November 2006, Northwestern Law and Economics Research Paper No. 06-08, [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=902711](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=902711).
- <sup>3</sup> In insurance-industry parlance, the sum of judgments, settlements, attorney fees, and administrative expenses for tort claims is called “tort losses” or “direct tort costs.” We use the term “tort losses” to represent this sum, which measures payouts by injurers or their insurance companies. We recognize that tort losses do not measure the actual costs of all tort accidents because, for example, some true victims are uncompensated, for a variety of reasons, under any set of tort rules and in any system of dispute resolution.
- <sup>4</sup> Authors’ calculations using data from A. M. Best Company. We adjusted for inflation using the CPI-U index from the Bureau of Labor Statistics, U.S. Department of Labor.
- <sup>5</sup> “Trial Lawyers Say Recent Study Proves Tort Reform Doesn’t Work,” *Insurance Journal*, March 25, 2008.
- <sup>6</sup> A recent study uses a similar methodology to examine the impact of state tort reforms on accidental death rates. See Paul H. Rubin and Joanna M. Shepherd, “Tort Reform and Accidental Deaths,” *Journal of Law and Economics* 50 (May 2007), pp. 221–238. A related empirical study examines the impact of tort reforms on the number of medical doctors within states. See Jonathan Klick and Thomas Stratmann, “Medical Malpractice Reform and Physicians in High-Risk Specialties,” *Journal of Legal Studies* 36 (June 2007), pp. S121–S142.
- <sup>7</sup> In American state courts, contract cases account for the largest share of general civil caseloads, or roughly half of civil cases (National Center for State Courts, Court Statistics Project, *Examining the Work of State Courts*, 2006).
- <sup>8</sup> See Christine Varney, “Arbitration Works Better than Lawsuits,” *Wall Street Journal*, July 14, 2008.
- <sup>9</sup> Tillinghast–Towers Perrin, *U.S. Tort Costs and Cross-Border Perspectives: 2005 Update* (New York: Tillinghast–Towers Perrin, 2006).
- <sup>10</sup> Insurers put aside money, called “reserves,” to make future payments.
- <sup>11</sup> American Tort Reform Association (ATRA), *Tort Reform Record*, [http://www.atra.org/files.cgi/7927\\_Record7-05.pdf](http://www.atra.org/files.cgi/7927_Record7-05.pdf).

- <sup>12</sup> “Too Costly an Appeal,” editorial, *New York Times*, April 4, 2003.
- <sup>13</sup> These strange dollar amounts result from an indexing formula.
- <sup>14</sup> ATRA, *Tort Reform Record*, [http://www.atra.org/files.cgi/7927\\_Record7-05.pdf](http://www.atra.org/files.cgi/7927_Record7-05.pdf); and National Association of Mutual Insurance Companies (NAMIC), “Noneconomic Damage Reform,” <http://www.namic.org/reports/tortReform/NoneconomicDamage.asp>.
- <sup>15</sup> W. Kip Viscusi and Patricia H. Born, “Damage Caps, Insurability, and the Performance of Medical Malpractice Insurance,” *Journal of Risk and Insurance* 72, no. 1 (2005), pp. 23–43.
- <sup>16</sup> Mark J. Browne and Robert Puelz, “The Effect of Legal Rules on the Value of Economic and Non-Economic Damages and the Decision to File,” *Journal of Risk and Uncertainty* 18, no. 2 (1999), pp. 189–213.
- <sup>17</sup> ATRA, *Tort Reform Record*, [http://www.atra.org/files.cgi/7927\\_Record7-05.pdf](http://www.atra.org/files.cgi/7927_Record7-05.pdf); NAMIC, *Punitive Damage Review 2004 Edition*, <http://www.namic.org/reports/tortReform/PunitiveDamages.asp>; and Wilson, Elser, Moskowitz, Edelman, and Dicker, LLP, *Punitive Damages Review: 2004*.
- <sup>18</sup> Albert Yoon, “Damage Caps and Civil Litigation: An Empirical Study of Medical Malpractice in the South,” *American Law and Economics Review* 3, no. 2 (2001), pp. 199–227.
- <sup>19</sup> Kenneth E. Thorpe, “The Medical Malpractice ‘Crisis’: Trends and the Impact of State Tort Reforms,” *Health Affairs* Web Exclusive (January 21, 2004), pp. 20–30.
- <sup>20</sup> ATRA, *Tort Reform Record*, [http://www.atra.org/files.cgi/7927\\_Record7-05.pdf](http://www.atra.org/files.cgi/7927_Record7-05.pdf); NAMIC, *Tort Reform Overview*; National Conference of State Legislatures (NCSL), <http://www.ncsl.org>; and Wilson, Elser, Moskowitz, Edelman, and Dicker, LLP, *Punitive Damages Review: 2004*.
- <sup>21</sup> Daniel P. Kessler and Mark McClellan, “Do Doctors Practice Defensive Medicine?” *Quarterly Journal of Economics* 111, no. 2 (1996), pp. 353–390.
- <sup>22</sup> ATRA, *Tort Reform Record*, [http://www.atra.org/files.cgi/7927\\_Record7-05.pdf](http://www.atra.org/files.cgi/7927_Record7-05.pdf).
- <sup>23</sup> George L. Priest, “What We Know and What We Don’t Know About Modern Class Actions: A Review of the Eisenberg-Miller Study,” *Civil Justice Report*, no. 9 (2005).
- <sup>24</sup> ATRA, <http://www.atra.org>.
- <sup>25</sup> Lester Brickman, “Effective Hourly Rates of Contingency-Fee Lawyers: Competing Data and Non-Competitive Fees,” *Washington University Law Quarterly* 81, no. 3 (2003), pp. 653–736.
- <sup>26</sup> Walter K. Olson, *The Litigation Explosion: What Happened when America Unleashed the Lawsuit* (New York: Dutton, 1991).
- <sup>27</sup> Matthiesen, Wickert & Lehrer, <http://www.mwl-law.com>.
- <sup>28</sup> Daniel P. Kessler, “Fault, Settlement, and Negligence Law,” *RAND Journal of Economics* 26 (summer 1995), pp. 296–313.
- <sup>29</sup> Thomas J. Campbell, Daniel P. Kessler, and George B. Shepherd, “The Link between Liability Reforms and Productivity: Some Empirical Evidence,” in *Brookings Papers on Economic Activity: Microeconomics* 1998, Clifford Winston, Martin N. Baily, and Peter C. Reiss, eds. (Washington, D.C.: Brookings Institution Press, 1999), pp. 107–148.
- <sup>30</sup> ATRA, *Tort Reform Record*, [http://www.atra.org/files.cgi/7927\\_Record7-05.pdf](http://www.atra.org/files.cgi/7927_Record7-05.pdf) and American Lawyer Media, [http://www.law.com/special/professionals/nlj/2003/joint\\_several\\_liability.shtml](http://www.law.com/special/professionals/nlj/2003/joint_several_liability.shtml).
- <sup>31</sup> James Boyd and Daniel E. Ingberman, “The Search for Deep Pockets: Is ‘Extended Liability’ Expensive Liability?” *Journal of Law, Economics, and Organization* 13, no. 1 (1997), pp. 232–258.
- <sup>32</sup> ATRA, <http://www.atra.org>; and NCSL, <http://www.ncsl.org>.
- <sup>33</sup> Daniel P. Kessler, William M. Sage, and David J. Becker, “Impact of Malpractice Reforms on the Supply of Physician Services,” *Journal of the American Medical Association* 293, no. 21 (2005), pp. 2618–2625.

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- <sup>37</sup> Claudia E. Lavenant, Craig L. Hayward, and Paul Jesilow, "Tort Reform and Physician Sanctioning," *Law & Policy* 24, no. 1 (2002), pp. 1–15.
- <sup>38</sup> ATRA, <http://www.atra.org>; and NCSL, <http://www.ncsl.org>.
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- <sup>40</sup> ATRA, <http://www.atra.org>.
- <sup>41</sup> Stephen J. Carroll, Deborah R. Hensler, Jennifer Gross, Elizabeth M. Sloss, Matthias Schonlau, Allan Abrahamse, and J. Scott Ashwood, *Asbestos Litigation* (Santa Monica, Calif.: RAND Corporation, 2005).
- <sup>42</sup> Michael J. McCabe, "Is Now the Time for Tort Reform?" *Risk Management* 52, no. 4 (2005), pp. 40–46.
- <sup>43</sup> A statute of repose sets a time limit after which a manufacturer is not liable for a product failure or malfunction. It is slightly different from a statute of limitations, which is a time limit for a person to file a case. A statute of repose implies that after a certain period, a product will naturally degrade in quality, and it is no longer the manufacturer's fault if it stops working as it did when new.
- <sup>44</sup> ATRA, <http://www.atra.org>.
- <sup>45</sup> Emmet Pierce, "Condo bill goes for vote today; Governor's support for measure called uncertain," *San Diego Union-Tribune*, August 31, 2002, sec. C.
- <sup>46</sup> ATRA, <http://www.atra.org>; and NCSL, <http://www.ncsl.org>.
- <sup>47</sup> James A. Henderson Jr and Aaron D. Twerski, "Drug Designs Are Different," *Yale Law Journal* 111, no. 1 (2001), pp. 151–181.
- <sup>48</sup> ATRA, <http://www.atra.org>.
- <sup>49</sup> Richard J. Mahoney and Stephen E. Littlejohn, "Innovation on Trial: Punitive Damages versus New Products," *Science* 246, no. 4936 (1989), pp. 1395–1399.
- <sup>50</sup> National Restaurant Association, <http://www.restaurant.org>.
- <sup>51</sup> Robert P. Hartwig and Claire Wilkinson, *Obesity, Liability, and Insurance*, White Paper 18, no. 1 (New York: Insurance Information Institute, 2004).
- <sup>52</sup> Justice at Stake Campaign, <http://www.justiceatstake.org>.
- <sup>53</sup> Alexander Tabarrok and Eric Helland, "Court Politics: The Political Economy of Tort Awards," *Journal of Law and Economics* 42, no. 1 (1999), pp. 157–188.
- <sup>54</sup> ATRA, <http://www.atra.org>; and NAMIC, <http://www.namic.org>.
- <sup>55</sup> Victor E. Schwartz, "Trial Lawyers Unleashed," *Washington Post*, May 10, 2000, final edition.
- <sup>56</sup> ATRA, <http://www.atra.org>; and NAMIC, <http://www.namic.org>.
- <sup>57</sup> Campbell, Kessler, and Shepherd, "The Link between Liability Reforms and Productivity."
- <sup>58</sup> E-mail correspondence between Lawrence J. McQuillan and Fred H. Smith of the Georgia Civil Justice Foundation.
- <sup>59</sup> Browne and Puelz, "The Effect of Legal Rules."
- <sup>60</sup> ATRA, <http://www.atra.org>; and NAMIC, <http://www.namic.org>.
- <sup>61</sup> Harry F. Mooney, William Chen, and Spencer J. Kraik, "A Jury of Our Peers: Is That Right?" *Defense Counsel Journal* 71, no. 2 (2004), pp. 106–135.
- <sup>62</sup> Thomas H. Cohen and Steven K. Smith, *Civil Trial Cases and Verdicts in Large Counties, 2001* (Washington, D.C.: U.S. Department of Justice, Bureau of Justice Statistics, April 2004). For states that permit juries of different sizes with accompanying different majority percentages, we calculated an average number using all the permitted size/percentage combinations in the state.

- <sup>63</sup> Terry Carter, "The Verdict on Juries: More States Are Adopting Jury Reforms, Freeing Jurors to Take Notes and Ask Questions. But Some Judges Are Slow to Embrace the Changes," *American Bar Association Journal* 91, no. 4 (2005).
- <sup>64</sup> ATRA, <http://www.atra.org>.
- <sup>65</sup> Susan Kostal, "Asbestos They Can? Forging a Congressional Trust Fund Is as Complex as, Well, Asbestos Litigation Itself," *American Bar Association Journal* 91, no. 6 (2005).
- <sup>66</sup> Eric Helland and Alexander Tabarrok, *Judge and Jury: American Tort Law on Trial* (Oakland: Independent Institute, 2006).
- <sup>67</sup> Product Liability Advisory Council, *Standards for the Admissibility of Expert Evidence in the 50 States*; and Merrick L. Gross and Jason Kellogg, "Fifty-State and Federal Court Survey of the Standards Governing the Admissibility of Expert Testimony," paper presented at the annual meeting of the American Bar Association, Chicago, Illinois, August 4-7, 2005.
- <sup>68</sup> Jeffrey S. Parker, "Daubert's Debut: The Supreme Court, the Economics of Scientific Evidence, and the Adversarial System," *Supreme Court Economic Review* 4 (1995), pp. 1-56.
- <sup>69</sup> We did not use "panel data," i.e., multiple insurance and self-insurance line data and tort-law data over multiple years, because of the high computational cost that would have been incurred to create the tort-law data set for years going backward in time.
- <sup>70</sup> We also estimated the regression model on the aggregated data and separately for the total losses and total premiums. In other words, in table 3, we estimated the effects for the 10 categories and summed the statistically significant coefficients, whereas in other models (not reported) we aggregated the cost data and then estimated the coefficients on the aggregated data. The coefficients reported in table 3 are generally smaller than the coefficients estimated from the aggregated data.
- <sup>71</sup> We reiterate that we use the 80-percent level of confidence as a critical value in this analysis.
- <sup>72</sup> Surveys tend to favor punitive-damage caps, for example, *Lawsuit Climate 2008: Ranking the States* (Washington, D.C.: U.S. Chamber Institute for Legal Reform, 2008), p. 8.
- <sup>73</sup> W. Kip Viscusi, "The Social Costs of Punitive Damages against Corporations in Environmental and Safety Torts," *Georgetown Law Journal* 87 (November 1998), pp. 285-345.
- <sup>74</sup> See Rubin and Shepherd, "Tort Reform and Accidental Deaths"; and Klick and Stratmann, "Medical Malpractice Reform and Physicians in High-Risk Specialties."
- <sup>75</sup> "The Tort Bar's Comeback," editorial, *Wall Street Journal*, September 16, 2008, p. A24.

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McQuillan speaks regularly to civic and policy groups across the country and with the national news media. His television appearances include FOX, NBC news, CNBC, and CNNfn. YouTube hosts some of his interviews. He is a frequent guest on nationally syndicated radio talk shows including the *Ron Insana Show*, *Roger Hedgecock Show*, and *Jerry Doyle Show*. He counsels governors, legislators, and advocacy groups across the country; provides legislative testimony; and was a member of Governor Arnold Schwarzenegger’s task force on a constitutional spending limit for California.

McQuillan has more than 125 articles in such outlets as the *Wall Street Journal*, *USA Today*, *Forbes*, *Investor’s Business Daily*, *National Review Online*, *Los Angeles Times*, *New York Times*, *San Francisco Chronicle*, *Washington Times*, and *Weekly Standard*. He has written on such topics as tax and spending limits, lawsuit abuse, pensions, workers’ compensation, the housing crisis, and economic freedom. His recent writings include “Ambulance Chasers Bad for Our Health,” “Make a Bad Mortgage: Take the Hit,” and “Live Free or Move.”

McQuillan created the quarterly *California Golden Fleece Awards*, exposing fraud and abuse in California government. Cited in *The Nation* and the *Los Angeles Times*, these awards led to the overhaul of the California Victim Compensation Program and helped reform California's workers' compensation system in 2003 and 2004.

From 1998 until 2001, McQuillan was a research fellow at the Hoover Institution, Stanford University, where he specialized in international economics. He edited the book *The International Monetary Fund—Financial Medic to the World?* (translated into Japanese) and wrote the study *The Case against the International Monetary Fund*, which Nobel laureate Milton Friedman reviewed as “excellent.”

From 1993 until 1997, McQuillan was the founding publisher and contributing editor of *Economic Issues*, a national subscription newsletter based in Chapel Hill, North Carolina, that reviewed economic journal articles relevant to current public-policy issues.

While in graduate school at George Mason University in Fairfax, Virginia, where he earned a M.A. and Ph.D. in economics, McQuillan was a research assistant for Nobel laureate James M. Buchanan and received the H. B. Earhart Fellowship for research excellence. Trinity University in San Antonio, Texas, awarded him a B.A. in economics and business administration.



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