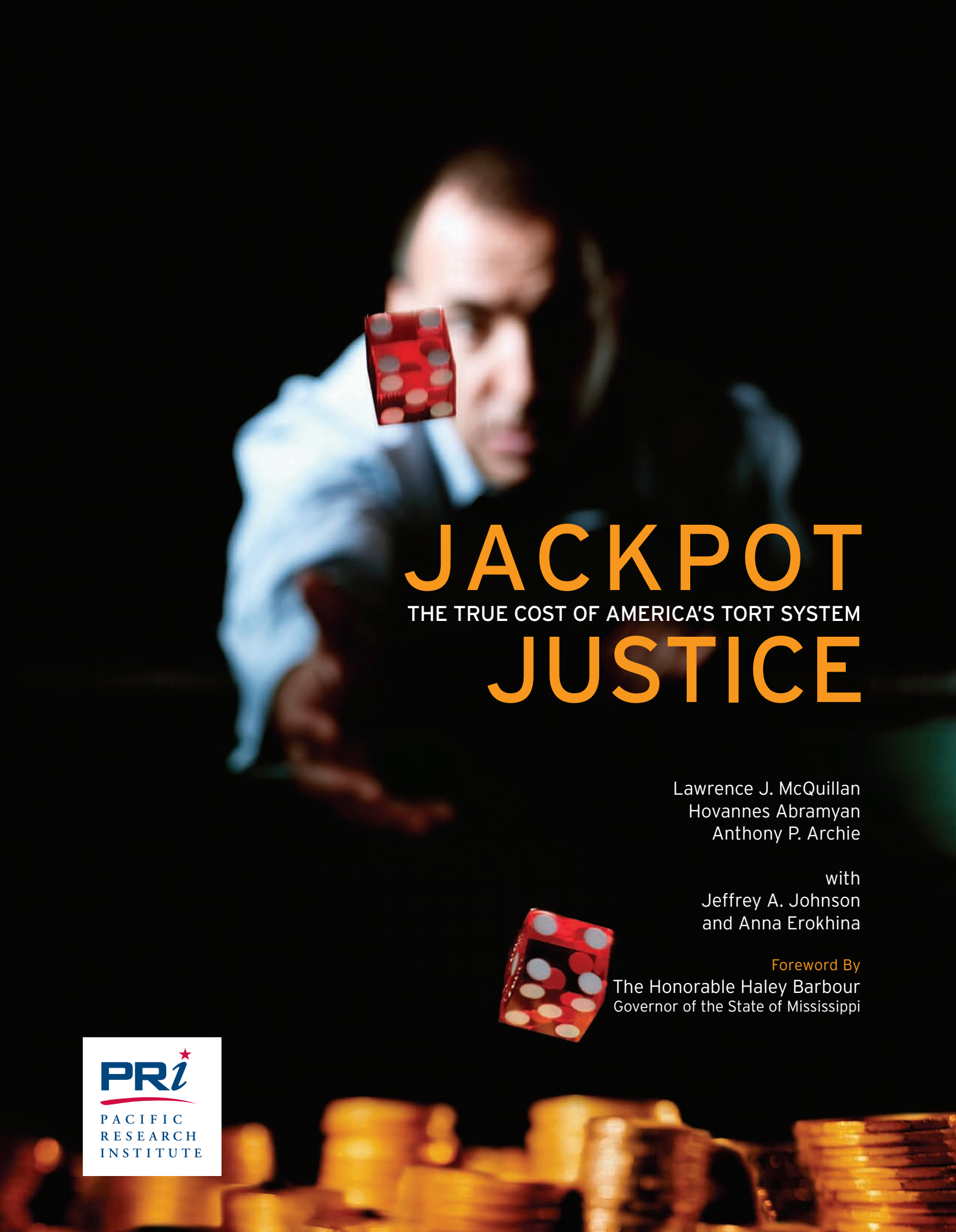

JACKPOT JUSTICE

THE TRUE COST OF AMERICA'S TORT SYSTEM

Lawrence J. McQuillan
Hovannes Abramyan
Anthony P. Archie

with
Jeffrey A. Johnson
and Anna Erokhina

Foreword By
The Honorable Haley Barbour
Governor of the State of Mississippi

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Pacific Research Institute
755 Sansome Street, Suite 450
San Francisco, CA 94111
Tel: 415-989-0833 / 800-276-7600
Fax: 415-989-2411
Email: info@pacificresearch.org
www.pacificresearch.org

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All things in excess
bring trouble to men.

Titus Maccius Plautus (254 BC–184 BC)
Playwright of Ancient Rome

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FOREWORD

America's state civil justice systems play an indispensable role in the success and prosperity of our country by serving as the primary forum in which disputes can be resolved fairly within the rule of law.

However, as this Pacific Research Institute (PRI) study points out, state civil justice systems create huge costs, many previously unexamined, that burden our state and national economies. The scope of these costs is so great that they threaten to undermine our future national prosperity and quality of life as we have known it.

Even without the specific dollar quantifications provided by PRI, many of us in leadership roles have known intuitively that state civil justice systems should not be allowed to unnecessarily burden economic growth. In Mississippi, we have enacted laws and implemented programs to strengthen our civil justice system. These initiatives have resulted in better financial and legal outcomes for both consumers and businesses.

Thanks to this in-depth economic analysis provided by PRI, everyone with a stake in state civil justice systems will now be able to consider more specifically what costs are generated by civil justice policies. These costs can now be viewed in light of their actual impact on state economic and social priorities including quality of medical care, availability of health insurance, consumer safety, job creation, and the attraction of investment capital.

As a nation, our goal should be to strengthen state civil justice systems to ensure they deliver fair and appropriate outcomes at a level of cost to plaintiffs, defendants, and taxpayers that is reasonable and sustainable over the long term. I hope that this PRI study will stimulate vigorous public discussion and debate as to the most appropriate ways to achieve this goal.

The Honorable Haley Barbour
Governor
State of Mississippi

PREFACE

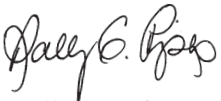
The California-based Pacific Research Institute develops and promotes public-policy solutions that empower individuals to solve problems through voluntary association and exchange in free markets. Through its research, commentary, and outreach, PRI educates the public on policy solutions that strengthen and preserve individual freedom.

Jackpot Justice: The True Cost of America's Tort System measures the direct and indirect costs to the economy of the U.S. tort system and determines how much of that total is excessive. This seminal report is an important tool, grounded in thought-provoking analysis and rigorous economic study, and a synthesis of PRI's mission to research and educate. By presenting the costs of America's tort system in terms that matter to individual consumers and families, *Jackpot Justice* encourages both public discussion and legislative debate over the preventable effects of a currently inefficient tort system.

As the report shows, the economic drag of the American tort system costs billions, lowering the standard of living for ordinary citizens nationwide. Meaningful reforms to the legal system would result in stronger economic growth, more affordable products and services, and higher personal income. Consumers would also benefit from a system that encourages innovation in safety and convenience. In the absence of such reform, costs will continue to be excessive and opportunities for growth will be lost.

I thank several people who made this report possible, beginning with the authors. Dr. Lawrence J. McQuillan, director of Business and Economic Studies at PRI, artfully guided every step of the project's research, organization, and writing. Hovannes Abramyan and Anthony P. Archie, public policy fellows in Business and Economic Studies at PRI, Jeffrey A. Johnson, graduate student at Claremont Graduate University, and Anna Erokhina, undergraduate student at the University of California at Berkeley, provided, among other things, outstanding library research, data collection, and writing.

With 28 years of leadership, advocacy, and groundbreaking research to its credit, PRI is more committed than ever to promoting a wide discussion of important policy issues. Greater knowledge, more analytic thinking, and a national debate will contribute to reasoned and informed policy decisions. PRI plays a prominent role in this process, and *Jackpot Justice* is an important contribution. It is a role we will continue to fill as long as America's founding principles of life, liberty, and the pursuit of happiness resonate in a single heart.



Sally C. Pipes
President and Chief Executive Officer
Pacific Research Institute

ACKNOWLEDGEMENTS

A project of this magnitude is never completely the work of the listed authors. Many others made important conceptual and concrete suggestions that improved the product.

Special thanks go to Michael L. Carpenter, partner with Carpenter Hawkins L.L.C., who first saw the need for a study of this kind and suggested several years ago to co-author Dr. Lawrence J. McQuillan that PRI conduct this analysis. Mike's foresight and insights were invaluable.

Many people gave us suggestions for studies to read, helped us locate studies, data, or people, answered questions on their research study, or gave us conceptual ideas. These people included Sam Ackerman, summer policy intern, PRI; Kristin Armshaw, director of the Civil Justice Task Force, American Legislative Exchange Council (ALEC); Sarah Baker and Cindy Snyder, reference librarians, Claremont Colleges; Nichole Batts, telesales supervisor, Insurance Services Office; Michael F. Blake, data specialist, A. M. Best Company; Tom Campbell, dean, Haas School of Business, University of California at Berkeley; Dan Cole, director of research, Judy Diamond/FreeERISA.com; Vincent Conti, customer-service representative, Insurance Services Office; Carl D. Densing, University of California at Berkeley; John R. Graham, director of Health Care Studies, and Diana Ernst, policy fellow in Health Care Studies, PRI; Peter Gregory, research assistant, Institute for Justice; Dr. Robert Hartwig, chief economist and senior vice president, Insurance Information Institute; Michael Hawkins, partner, Carpenter Hawkins L.L.C.; Paul Hinton, vice president, NERA Economic Consulting; Robert B. Dorigo Jones, president, Michigan Lawsuit Abuse Watch (M-LAW); Damien Josefiak, senior writer in public affairs, American Insurance Association; Dr. Daniel P. Kessler, senior fellow, Hoover Institution, Stanford University; Dr. Michael J. Moore, visiting professor, University of Virginia, and principal, Chicago Partners, L.L.C.; Michelle Muccio, research assistant for the federal budget, Thomas A. Roe Institute for Economic Policy Studies, Heritage Foundation; Jonathan Orszag, managing director, and Peter Orszag, senior director, Sebago Associates; reference librarians at Boalt Hall School of Law library, University of California at Berkeley; Jack Rogers, managing director, Health Policy Economics, PriceWaterhouseCoopers; Kristyn Shayon, director of communications services, American Justice Partnership (AJP); Dr. George B. Shepherd, professor of law, Emory University; Dr. Joseph E. Stiglitz, professor of economics, Columbia University; Frederick T. Stocker, vice president and counsel, Manufacturers Alliance; Dave Unnewehr, vice president of policy development and research, American Insurance Association; Marc Vinyard, reference librarian, Pepperdine University; Dr. W. Kip Viscusi, professor of law, economics, and management, Vanderbilt University; and Michael Warner, vice president of marketing, Conning Research and Consulting. We are grateful for their generous assistance.

Co-author Jeffrey A. Johnson's work on this project was underwritten by the Charles G. Koch Summer Fellowship Program at the Institute for Humane Studies at George Mason University in Fairfax, Virginia. Jeffrey thanks Justine Lam, director of the Charles G. Koch Summer Fellowship Program, and Debi Chakrabarty, office manager at the Institute for Humane Studies.

Many other people helped in the study's design and marketing. These people included Steven B. Hantler, assistant general counsel at the DaimlerChrysler Corporation and chairman of AJP; Stephen E. Nowlan, managing partner of Agincourt; Kristyn Shayon, director of communications services, AJP; Rowena Itchon, vice president of marketing at PRI; Susan Martin, marketing manager at PRI; and Denise Tsui, graphic design manager at PRI.

Special thanks go to Joshua S. Treviño, vice president of public policy at PRI, and to Sally C. Pipes, president and chief executive officer at PRI. Each helped at critical moments, from inception to completion, particularly in the areas of communication, networking, and fundraising, to make this report a reality and make it a better product. Their counsel and assistance were invaluable and greatly appreciated.

Although it would be convenient to blame potential sins of commission and omission on others, good parenting will not allow this abridgement of responsibility. The project is ours, and nothing of this kind is ever perfect. We invite comment and criticism so that we can continually improve it.

Our goal is enlightenment, which we think comes from dedication and hard work based on sound principles. We tried at every turn to prevent subjectivity and bias from entering the analysis and, instead, to let the objective data do the talking. No one is likely to agree, or disagree, with all we have done. But in the end, we trust the market and its accumulation of knowledge, and so we pause now to let others digest our work.

Lawrence J. McQuillan
Hovannes Abramyan
Anthony P. Archie
Jeffrey A. Johnson
Anna Erokhina

EXECUTIVE SUMMARY

What is tort law?

A tort, French for "wrong," is best defined as wrongful conduct by one individual that results in injury to another. A tort has been committed when someone has suffered injury caused by the failure of another person to exercise a required duty of care. The actor is to blame and the injured party is entitled to recover damages. The function of tort law is to provide the injured party with a remedy, not to punish the actor. Chapter 1 defines tort law. The study covers torts, including medical malpractice, products liability, and class actions. It does not cover other areas of civil law such as employment law, securities law, the Americans with Disabilities Act (ADA), family law, or contract law.

Tort law is enforced through civil litigation. Chapter 2 explains how the civil-litigation process works from beginning to end and depicts the lawsuit industry as a probability game of gambles and payoffs.

What is the goal of the study? What do we hope to accomplish?

The goal of *Jackpot Justice* is to arrive at a fuller accounting of the true cost of the U.S. tort liability system. The study provides a conservative first approximation of the total costs, both direct and indirect, and the total excess cost of the U.S. tort system.

Our study starts where others, notably Tillinghast-Towers Perrin, end. We used Tillinghast's information as our starting point, then extended its analysis to look at the effect that tort litigation has on areas such as health care expenditures, innovation, and stockholder wealth, to name a few.

We look at the negative spillover effects — the ripple effects — that tort litigation imposes on the economy to arrive at a fuller cost calculation of the U.S. tort liability system. To our knowledge, no one has collected these cost data within one cover before.

Why should people care about tort liability or this study?

A thriving free-enterprise economy depends on an efficient tort system that provides proper incentives to businesses to produce safe products in a safe environment and ensures that truly injured people are fully compensated for their injuries. An efficient tort system produces greater trust among market participants through the fair and systematic resolution of disputes, thereby encouraging more production and exchange, creating a higher standard of living for individuals within a society.

A poor tort system, however, acts as a burdensome tax that weighs down the standard of living for ordinary citizens. Everyone pays for an excessively costly tort system through lower wages and less productivity, lost jobs in certain sectors of the economy (see the asbestos section in Chapter 5), fewer innovations and new products, higher prices, and a lower standard of living for everyone. These costs are not obvious or transparent.

Excessive tort costs act as a drag on the U.S. economy and make it harder for American businesses to compete in global markets. We all pay the price for excessive tort litigation. *Jackpot Justice* rings up the true cost of the U.S. tort liability system.

How did we calculate the cost of the U.S. tort liability system?

At its core, the tort system is a massive transfer system, taking resources from those judged to have caused harm and transferring the resources to those judged to have been harmed. The rent-seeking theory of transfers from economic science can be used to measure the cost of the tort transfer system.

Rent-seeking theory is often applied to taxation, tariffs, monopolies, and government spending. In this study, we apply it to torts. We also include dynamic elements in our analysis to develop a fuller accounting of the true cost of the tort system. Chapter 3 explains fully the conceptual framework.

Our cost calculation relies on the best available scholarly studies by top economists and legal scholars. Whenever possible, the studies reflect the "consensus view" among those who have studied these factors. When selecting which study to rely on, our first choice was to base our calculations on statistically significant results in the most prestigious academic publications. We gave preference to more recent studies over older studies whenever possible, since recent studies tend to use more up-to-date data and more advanced statistical techniques.

What is the general outcome of the study?

The table below itemizes the annual costs of the U.S. tort liability system. Chapter 3 explains fully each cost component.

Cost Category		Amount (billions of 2006 dollars)			
Deadweight Costs			36		
Rent-Seeking and Rent-Avoidance Costs:			164		
	Administrative Costs	59			
	Claimants' Attorney Fees	53			
	First-Party Defense Costs	39			
	Miscellaneous	13			
Total Rent-Seeking and Rent-Avoidance Costs		164			
Static Social Cost			**200**	200	200
Tort Transfer Costs			128		128
Static Accounting Cost			**328**		
Dynamic Costs:					
	Accidental Deaths	7.51			
	Health Care Expenditures	124.00			
	Reduced Access to Health Care	38.78			
	Lost Sales of New Products from Less Innovation	367.08			
Total Dynamic Costs		537.37		537.37	537.37
Total Annual Social Cost				**737.37**	
Total Annual Accounting Cost					**865.37**

Source: Pacific Research Institute

The dynamic costs are $537.37 billion. Adding this amount to the static social cost of $200 billion yields a total annual social cost of $737.37 billion. Adding in the compensatory tort transfers, as done by Tillinghast, results in a total accounting cost of $865.37 billion. Comparing "apples to apples," the true annual cost of America's tort system is more than three times the estimate by Tillinghast of $279 billion. Tillinghast underestimates the true cost of America's tort system because it does not include deadweight costs, all transition costs, or negative-spillover costs; but to be fair, this wasn't Tillinghast's objective.

To put the annual social cost of the U.S. tort system into perspective, it is equivalent to an eight-percent tax on consumption, a 13-percent tax on wages, the combined annual output of all six New England states (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont), or the total annual sales of the U.S. restaurant industry. The annual price tag, or "tort tax," for a family of four in terms of costs and forgone benefits is $9,827.

The above totals for social costs and accounting costs represent only one year. But these costs will occur every year in perpetuity in the absence of further tort reform. If we assume that the yearly social and accounting costs will remain constant, the long-term social cost is $14.2 trillion and long-term accounting cost is $16.6 trillion.

Chapter 5 shows that the total annual wealth loss to U.S. stockholders from tort lawsuits is $684 billion. To put this into perspective using output terms, stockholder loss is equivalent to losing all U.S. supermarket sales for an entire year or the output of Florida each year. Or the equivalent of losing the combined output of 15 smaller states: Alaska, Delaware, Hawaii, Idaho, Maine, Montana, Nebraska, New Hampshire, New Mexico, North Dakota, Rhode Island, South Dakota, Vermont, West Virginia, and Wyoming. If tort filings against publicly traded companies continue at the present rate and the equity loss per filing remains constant into perpetuity, the long-term wealth loss to U.S. stockholders will be $13.2 trillion. This number is likely an underestimate since both filings and losses per filing are trending upwards.

How did we measure "excess" tort costs? How much of the total U.S. tort costs are excessive?

Not all tort costs are "excessive" or "wasteful." Some tort costs are necessary as part of a thriving free-enterprise economy operating under the rule of law. To determine the percentage of U.S. tort costs that are excessive, we compared the percentage of gross domestic product (GDP) that is consumed by the tort system in the United States to the percentage of GDP consumed by tort systems in other industrialized countries.

The United States spends 2.2 percent of GDP on direct tort costs. Other advanced countries spend an average of 0.9 percent of GDP on direct tort costs. The difference of 1.3 percentage points is the best estimate of the excessive costs of the U.S. tort system; it measures how much more expensive the U.S. tort system is relative to the tort systems in comparable countries. This comparative international approach yields the result that 59 percent of U.S. direct tort costs are excessive (1.3 percent of the 2.2 percent is excessive).

If we apply this percentage to the appropriate tort costs and add the figures (chapter 4 explains fully the process), the results show that America wastes $589 billion each year from excessive tort litigation. This is roughly equivalent to losing the entire annual output of the state of Illinois. It is equivalent to a seven-percent tax on consumption or a 10-percent tax on wages. The annual price tag, or "excess tort tax," for a family of four in terms of costs and forgone benefits is $7,848. The capitalized value of the waste, assuming it continues at its current level into perpetuity, is $11.32 trillion. America cannot waste this huge amount of resources and expect to remain competitive with other countries.

How can excess tort costs be reduced? How would the United States benefit from tort reforms?

Tort reforms can reduce and eliminate excess U.S. tort costs. The *U.S. Tort Liability Index: 2006 Report*, coauthored by Dr. Lawrence J. McQuillan and Hovannes Abramyan of the Pacific Research

Institute, lists more than two dozen tort reforms that states have adopted, or have at their disposal, to reduce direct tort costs. The *U.S. Tort Liability Index* also summarizes scholarly studies that have quantified the secondary or spillover benefits of tort reform such as increased productivity, better state economic performance, greater innovation, higher national output and personal income, and saved lives. Given these profound and sweeping benefits, ordinary citizens and state lawmakers would be wise to promote and enact legal reforms that curb excessive tort costs.

If tort reforms that eliminate waste are enacted in the United States, the U.S. economy will approach its full productive potential. Today, resources are spent on the unnecessary and unproductive redistribution of wealth through excessive litigation, making society poorer in the process.

If reforms are enacted that eliminate waste, these freed resources would enable the creation of new productive companies, new productive jobs, new capital investments, and new innovative products. U.S. businesses would be better able to compete in global markets. The standard of living for ordinary Americans would rise more rapidly.

How could this study be improved in the future?

Our results reflect a preliminary accounting based on the best research and evidence available today. As more data and studies emerge, results will be refined in future editions. We encourage readers to tell us about new data and studies as they are released.

1 | CIVIL JUSTICE AND TORTS

[Lawsuits] often have their greatest effect on people who are neither parties to the litigation nor even aware that it Is going on.

Derek Bok
President Emeritus of Harvard University and former law school dean

A thriving free-enterprise economy depends on an efficient tort system that provides proper incentives to businesses to produce safe products in a safe environment and ensures that truly injured people are fully compensated for their injuries. Tort law has the goal of efficiently deterring wrongdoers and fully compensating unjustly injured victims. When this goal is achieved, meritless litigation and excessive awards are eliminated.

An efficient tort system produces greater trust among market participants through the fair and systematic resolution of disputes, thereby encouraging more production and exchange, creating a higher standard of living for individuals within a society.

A poor tort system, on the other hand, acts as a burdensome tax that weighs down the standard of living for ordinary citizens. In fact, the President's Council of Economic Advisers has applied the conceptual framework of taxation to examine the tort system.[1] We likewise apply this framework in our study.

At its core, the tort system is a massive transfer system that takes resources from those judged to have caused harm and transfers the resources to those judged to have been harmed. We apply the rent-seeking theory of transfers from economic science to measure the cost of this tort transfer system. Rent-seeking theory is often applied to taxation, tariffs, monopolies, and government spending. In this study, we apply it to torts. We also include dynamic elements in our analysis to develop a fuller accounting of the true cost of the tort system.

What the Study Measures and Does Not Measure

The goal of *Jackpot Justice* is to arrive at a fuller accounting of the true cost of the U.S. tort liability system. The study provides a conservative first approximation of the total costs, both direct and indirect, and the total excess costs of the U.S. tort system.

Our study starts where others end; specifically, Tillinghast-Towers Perrin tracks annual direct U.S. tort costs for judgments, settlements, attorney fees, and administrative expenses.[2]

The goal of *Jackpot Justice* is to arrive at a fuller accounting of the true cost of the U.S. tort liability system.

We used this information as our starting point, then extended its analysis to look at the effect that tort litigation has on areas such as health care expenditures, innovation, and stockholder wealth, to name a few. We look at the negative spillover effects — the ripple effects — that tort litigation imposes on the economy to arrive at a fuller cost calculation of the U.S. tort liability system. To our knowledge, nobody has collected these cost data within one cover before. To be fair, Tillinghast acknowledges that it does not track these costs nor is it the objective of its study to do so.

Our cost calculation relies on the best available scholarly studies by top economists and legal scholars. Whenever possible, the studies reflect the "consensus view" among those who have studied these factors. When selecting which study to rely on, our first choice was to base our calculations on statistically significant results in the most prestigious academic publications. We gave preference to more recent studies over older studies whenever possible, since recent studies tend to use more up-to-date data and more advanced statistical techniques.

All dollar amounts are expressed in constant 2006 dollars unless otherwise noted; therefore, we often had to update a study's calculations or conclusions in order to express the cost in 2006 dollars. All of our calculations are explained either in the text or in the endnotes. Because all costs are in 2006 dollars, unless otherwise noted, they might not equal the costs reported in the original studies we used.

Our results reflect a preliminary accounting based on the best research and evidence available today. As more data and studies emerge, results will be refined in future editions. Our report quantifies the costs of America's tort system; we do not explore the benefits, of which there are many.

We begin by defining the scope of the study, specifically the boundaries of civil law and tort law.

Criminal Law versus Civil Law

Criminal law relates to a wrong committed against society as a whole. Local, state, and federal governments proscribe criminal acts by ordinances, statutes, and administrative-agency regulations. Governments prosecute and punish the criminal.

Civil law spells out duties that exist between individuals. Contract law, for example, covers mutual promises and their enforcement and is part of civil law. Tort law, which covers the infringement by one person of the legally recognized rights of another, is also part of civil law.

What Is Tort Law?

A tort, French for "wrong," is best defined as wrongful conduct by one individual that results in injury to another. A tort has been committed when someone has suffered injury caused by the failure of another person to exercise a required duty of care. The actor is to blame and the injured party is entitled to recover damages. The function of tort law is to provide the injured party with a remedy, not to punish the actor.

Part of doing business today, and indeed part of everyday life, is the risk of being sued. Liability insurance to protect against lawsuit costs is an ever-increasing operating expense for businesses. An employee, allegedly injured on the job, sues his or her employer for having an unsafe working environment. A consumer, allegedly injured while using a product, sues the product manufacturer for making a defective product. A patient who allegedly received negligent treatment sues the physician. The issue at the core of all of these cases is the alleged wrongful conduct by one person that injures another. The law of torts covers such wrongful conduct.

American tort law originated in early English common law, also known as case law or judge-made law. The history and circumstances of the U.S. states differ, producing differences in the common law in each state. Even today, when most areas of the law have been codified in statutes such as the Uniform Commercial Code, tort law is found primarily in court opinions. Torts are constantly changing and evolving with society through the common law. There are three major categories of torts.

Intentional torts include assault, battery, false imprisonment, infliction of mental distress, defamation, misrepresentation, invasion of right to privacy, trespass against land and personal property, conversion, nuisance, and infringement on trademarks, patents, and copyrights.

Negligence torts are best thought of as a way of committing a tort — through negligence — rather than a distinct category of torts. In such cases, a person's conduct created a foreseeable risk of consequences that resulted in the injury of another person. Medical-malpractice lawsuits often allege a negligent act on the part of a physician or a hospital.

The third category of torts is strict liability or liability without fault. Workers' compensation and areas of products liability apply the principle of strict liability.

This study covers torts, including medical malpractice, products liability, and class actions. It does not cover other areas of civil law such as employment law, securities law, the Americans with Disabilities Act (ADA), family law, or contract law.

The Goal of Tort Law

The common-law goal of tort law is to efficiently deter wrongdoers and fully compensate unjustly injured victims. The injury loss is calculated in court, and compensation is awarded through

A Litigation Nightmare

In 1971, hard-working Mitchell Bankston accomplished his dream of building and operating a pharmacy in Fayette, Mississippi. At the time, his store, Bankston Drugstore, was the only pharmacy in Jefferson County. For years, Mitchell and his wife, Hilda, provided their patients with honest service, treating each with caution and care.

Then, in 1999, Bankston Drugstore was named as a defendant in a national class-action lawsuit against the manufacturer of Fen-Phen, a Food and Drug Administration – approved drug for weight loss. At that point, the small pharmacy went from serving its community's needs to becoming prey to money-driven litigants and the attorneys representing them. Though the drugmaker was based in New Jersey, the plaintiffs' attorneys named the Bankstons in the lawsuits so the case could be kept in Jefferson County — a known plaintiff-friendly jurisdiction that, between 1995 and 2000, had twice the number of plaintiffs as actual residents. The Bankstons' offense? Filling a legal prescription for the drug.

Three weeks after being informed of the lawsuit, the previously healthy Mitchell Bankston died of what his wife described as a massive heart attack. Mrs. Bankston was left to untangle the twisted knot of paperwork, records, and testimonies — only to be forced to sell the pharmacy a year later. The only drugstore in the community, and the business that the Bankston family had put its life's work into, was sold.

In the end, the Bankstons were sued more than one hundred times for actions most would consider no fault of their own. The lawsuits undoubtedly made a pretty penny for the attorneys involved, but it also tore apart a family and hurt a community.

The common-law goal of tort law is to efficiently deter wrongdoers and fully compensate unjustly injured victims.

economic and noneconomic compensatory damages equal to the actual loss incurred by the individual.

Increasingly, however, civil law has moved beyond this goal to award punitive damages that are meant to punish rather than compensate. Civil courts also give awards to individuals who have not suffered actual injuries and are thus not deserving of compensation.[3] Also, awards — whether for legitimate injuries or not — vary unpredictably from jurisdiction to jurisdiction. The same set of circumstances often yields different verdicts and vastly dissimilar awards depending on the venue. These courtroom outcomes ultimately ripple outward to shape settlements.

These changes to tort systems have produced outcomes that many states and the federal government determined to be intolerable: meritless litigation, excessive awards and settlements, and unpredictable verdicts. In an effort to restore balance and predictability to their tort systems, many states and the federal government have enacted reforms targeted at fixing the problems they believe have created the excesses.[4]

Tort law is enforced through civil litigation. Chapter 2 explains how the civil-litigation process works from beginning to end and depicts the lawsuit industry as a probability game of gambles and payoffs. The lawsuit industry generates costs, which are measured in Chapters 3, 4, and 5.

2 | THE CIVIL-LITIGATION PROCESS

Litigation is the basic legal right that guarantees every corporation its decade in court.

David Porter (1813–1891)
American naval officer

The American system of civil justice is adversarial, pitting plaintiffs against defendants in a legal process that is often very costly in terms of time and money. Chapter 2 explains how the civil-litigation process works from beginning to end and depicts the lawsuit industry as a probability game of gambles and payoffs. The lawsuit industry generates the costs that we measure in later chapters.

Civil-Case Procedure Before Trial[5]

A lawsuit begins when a plaintiff files a complaint with the proper court. The complaint identifies all parties involved in the case and describes, in short and plain sentences, the nature of the grievance and the remedy sought. A copy of the complaint is served to each of the defendants along with a summons. The summons states that the defendant must respond to the complaint in a given number of days.

The defendant responds to the complaint by filing an answer in the same court within the required time period. The defendant must either admit or deny the allegations in the complaint, or state that he has insufficient knowledge to admit or deny them. If no answer or other responsive pleading is filed within the time allowed by law, the court may enter a default judgment in favor of the plaintiff.

The next stage in a civil case is discovery, allowing all parties to inform themselves fully of the relevant facts in the lawsuit. Typical discovery includes obtaining information from party and non-party witnesses through written questions (interrogatories) or through oral questions under oath (depositions), and reviewing documents obtained by subpoena or by a request for production of documents.

Interrogatories are used to get information about the theories of the opponent's claims and/or defenses, and to discover potential witnesses and documents. The opposing party, under oath, must answer them within a set number of days.

Approximately 95 percent of civil cases do not go to trial.

Depositions are oral interrogatories — questions asked in person of individuals who might know something about the subject matter of the lawsuit. Depositions are generally taken under oath before a certified court reporter. The deposition is the sworn testimony of the deponent and may be used in court.

After a plaintiff files a complaint, the defendant may, instead of filing an answer, file pretrial motions, which are responses to the complaint but do not constitute an answer. Many of these responsive motions must either be filed before the answer or be included within the answer, or they are waived.

The plaintiff and the defendant may reach a settlement without going to trial, or reach a settlement at any time before the verdict. Approximately 95 percent of civil cases do not go to trial. If all issues in a lawsuit have not been resolved either by settlement or by motion, and have not been dropped, the remaining issues must be decided by trial.

Civil-Case Trial Procedure

Depending on the type of action, a case may be tried before a judge (bench trial) or before a jury with a judge presiding. Whether a judge or a jury tries the case, the procedure is essentially the same.

At the trial's beginning, the clerk calls a panel of prospective jurors. The judge, or in some cases the lawyers, asks the potential jurors questions about their background and general beliefs to determine any biases or prejudices. This process is called *voir dire*. If any attorney or judge feels that a juror is not qualified for the case, the juror is excused "for cause." There is no limit to a party's challenges for cause. Both sides are also entitled to a limited number of "peremptory challenges," which means they may excuse some prospective jurors without stating any reasons (unless the motive appears racial).

When the jury has been impaneled, attorneys for each side make opening statements to inform the court and jurors of the nature of the case, the evidence they will present, and the facts they expect to prove. The defense may choose to wait to make an opening statement until after the plaintiff has rested his or her case, or it may choose not to make an opening statement at all.

Each side makes its case based on testimony from witnesses and physical evidence. The plaintiff calls his witnesses for direct examination to state what they know about the alleged injury. The defense may ask questions of the same witnesses (cross-examination). Then the plaintiff may re-examine those witnesses (redirect). Physical evidence such as documents, pictures, and other exhibits is introduced at this time.

The civil-litigation process…can also be viewed as a probability game.

After the plaintiff has rested his case, the defense may call witnesses to give testimony to disprove the plaintiff's case and to establish the defendant's case. The plaintiff may cross-examine the witnesses. The defense may then re-examine those witnesses.

When the defense has presented all its witnesses, the plaintiff may again call witnesses to rebut any new information introduced by defense witnesses. The judge may allow surrebuttal (a rebuttal to the rebuttal) by the defense.

Before closing arguments, the judge instructs jurors carefully as to what law they are to follow. In civil cases, the jury must determine that a preponderance of the evidence favors one party — unlike criminal cases where the defendant must be found guilty beyond a reasonable doubt to be convicted.

After jury instructions are given, both attorneys summarize the evidence and testimony in an effort to persuade the judge or jury to decide the case in favor of their client. The plaintiff makes his closing argument first, then the defense, and then the plaintiff responds to the defense's closing argument. Either side may waive closing arguments. After closing arguments, the court orders the jury to retire to the jury room for deliberations.

A verdict is reached if a certain percentage of the jurors agree to a verdict. In criminal trials, the verdict must be unanimous, but in civil trials, the verdict can be less than unanimous, depending on the rules in each jurisdiction. The number of jurors needed to reach a verdict and the jury size vary depending on the state. If the jury cannot reach a verdict, the judge may declare a "hung" jury and declare a mistrial. In civil cases, two types of verdicts are rendered: general and special. In general verdicts, the jury decides the case in favor of either the defendant or the plaintiff. In special verdicts, a general decision is not announced. Rather, the jury answers certain factual questions, leaving the "total" decision up to the judge.

After the verdict, or after the court has decided the facts in a bench trial, a judgment is rendered. If it is in favor of the plaintiff, the court will award money damages or injunctive relief. Appellate and supreme courts may review trial-court judgments. The civil-litigation process described above can also be viewed as a probability game.

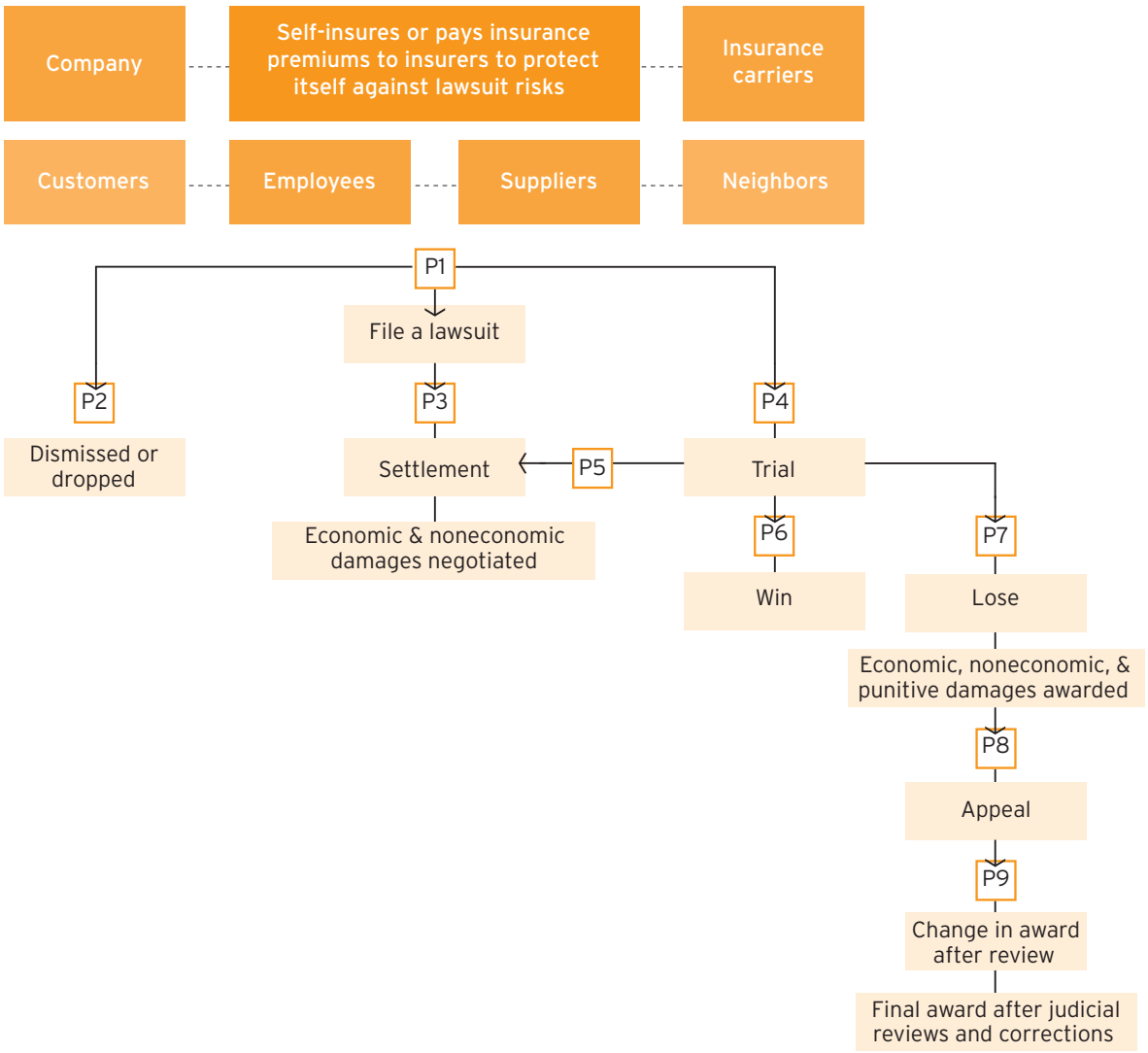
The Lawsuit Industry as a Probability Game

Figure 1 depicts the lawsuit industry as a probability game. A company is shown at the top of the diagram. The company can either self-insure or purchase insurance to protect itself against the risk

of various liabilities and lawsuits. For example, it could have workers' compensation insurance, products liability insurance, general liability insurance for such things as "slip and fall," and automobile insurance.

Next in Figure 1 is the pool of potential plaintiffs. This pool includes customers, employees, suppliers, and neighbors. **P1** is the probability that one of these individuals will file a lawsuit. If a lawsuit is filed, there are three possible outcomes. Either the lawsuit is dismissed or dropped, a settlement is negotiated before the case goes to trial, or the case goes to trial. There is a probability, **P2** through **P4**, respectively, associated with each possibility.

Figure 1. The Lawsuit Industry



Source: Pacific Research Institute

If the case is settled before trial, a remedy is negotiated between the plaintiff and the defendant (company) that might include the defendant paying the plaintiff economic and noneconomic damages. If the case proceeds to trial, one of three outcomes is possible.

Either the case is settled before a verdict is reached (**P5**), the defendant wins in a jury or judge trial or the case is dropped (**P6**), or the defendant loses in a trial (**P7**) and the plaintiff is awarded economic, noneconomic, and, possibly, punitive damages.

If the company loses, there is a probability (**P8**) that it will appeal the verdict. If appellate courts review the case, there is a possibility (**P9**) that the verdict or award will be overturned or modified, ultimately affecting the final award after all judicial reviews and corrections. This is the lawsuit industry in a nutshell depicted as a probability game of gambles and payoffs.

Each of the probabilities, **P1** through **P9**, is affected by the legal rights, legal procedures, monetary gains, and legal costs that determine the costs and benefits (incentives) of moving from one stage in the lawsuit to the next. The lawsuit industry generates direct and indirect tort costs, which are measured in Chapter 3.

Decades of Litigation Based on Bad Science

In 1943, Dow Corning was formally established as a joint ownership of Dow Chemical Company and Corning, Inc., with the purpose of exploring the capabilities of silicone. The company developed revolutionary technologies, including silicone grease that allowed for high-altitude aviation and silicone rubbers that advanced electrical operations. But another product of Dow Corning, silicone breast implants, brought the company to its knees after decades of litigation based on poor science.

The first lawsuit against Dow Corning for its silicone implants garnered a $170,000 settlement in 1977 when a Cleveland woman claimed ruptured implants and corrective operations caused her pain and suffering. Through the 1980s and 1990s, tens of thousands of lawsuits were filed against the company, claiming that the breast implants it manufactured led to the development of autoimmune diseases, neurological issues, and sometimes even breast cancer. Though a number of courts found in favor of the plaintiffs, ordering Dow Corning to pay millions in compensation and punitive damages, study after study found no link between the silicone breast implants and the alleged health complications.

In June 1994, a Mayo Clinic study, published in the *New England Journal of Medicine,* found that silicone implants caused no increased risk of connective-tissue disease or a number of other issues alleged by plaintiffs. The following year, the American College of Rheumatology issued a statement saying that available evidence suggested the absence of a link between silicone implants and autoimmune disease. In June 1995, the Harvard Nurses Epidemiology Study was published in the *New England Journal of Medicine* with a finding of no increased risk of connective-tissue disease or other alleged issues in women with silicone breast implants. By year's end, more than 20 studies had been released, all showing no connection between the implants and autoimmune disease.

Despite the fact that study showed no link between Dow Corning's silicone breast implants and the alleged health problems, on the basis of this evidence, did not prevent the company from going bankrupt in May 1995 as a result of litigation. The company lost billions of dollars on the basis of bad science, and still faced thousands of pending lawsuits at the time of its bankruptcy.

3 | U.S. TORT COSTS

Transfers themselves cost society nothing, but for the people engaging in them, they are just like any other activity, and this means that large resources may be invested in attempting to make or prevent transfers.

Gordon Tullock
Professor of Law and Economics
George Mason University

At its core, the tort system is a massive transfer system, taking resources from those judged to have caused harm and transferring the resources to those judged to have been harmed. There are two conceptual approaches to measuring the total costs associated with this system.

One approach would be to measure each cost directly, item by item, and total the costs. Unfortunately, this approach is not possible because there are not sufficient resources to measure each item separately. For example, court administrative expenses for tort cases are paid through federal, state, and county budgets. The computational costs to collect this cost information from all jurisdictions and allocate the budgeted dollars between tort caseloads and criminal caseloads would be prohibitive. Fortunately, there is another approach used by economists to measure the costs associated with transfers when these costs are unobservable.

The rent-seeking theory of transfers from economic science can be used to measure the cost of the tort transfer system. Rent-seeking theory is applied to taxation, tariffs, monopolies, and government spending. In this study, we apply it to torts. We also include dynamic elements in our analysis to develop a fuller accounting of the true cost of the tort system. The President's Council of Economic Advisers has applied the conceptual framework of taxation to examine the tort system.[6] We apply this framework in our study.

The rent-seeking theory of taxation translates well to tort litigation. The tort system is intended to be a vast transfer system. The transfers are supposed to fully compensate truly injured individuals for their losses. Taxes are also a transfer mechanism; thus, economic models of taxation translate well to torts.

Most torts also arise during the course of the trading process, whether the stage is production, distribution, consumption, or investment. The more economic activity or output, the more torts. Conceptually, for each unit of output, a certain amount of money must be set aside, or reserved, to pay for tort costs; this is the per-unit "tort tax." The "tort tax revenue" is then transferred to plaintiffs, ideally full compensation for true injuries. As is the case with taxes, ultimately a tort judgment or settlement can be enforced using the coercive police powers of the state. The rent-seeking theory of excise taxation, therefore, translates well to tort litigation.

Every product we sold – for example, lawn mowers, ladders, hammers – there's a dollar amount built into those products from the manufacturers [to pay for liability and legal costs].

Bernie Marcus
Co-founder of The Home Depot

The Social Cost of Taxation: The Static Conceptual Framework

Figure 2 illustrates the standard supply-and-demand analysis of imposing a tax on each unit of a product sold in the marketplace. Economists call this analysis "static" because we assume the supply and the demand curves are stationary or static in their current positions. Before the tax, the market-clearing equilibrium price is P_1, with Q_1 being produced by suppliers and bought by consumers.

Taxes act as a wedge between the price paid by consumers and the price received by suppliers, and taxes change production and consumption decisions. The imposition of a tax per unit equal to "**t**" will reduce quantity demanded from the original market equilibrium quantity Q_1 to the post-tax quantity Q_2. After the tax, suppliers produce fewer products and consumers buy fewer products. The price that buyers pay increases from P_1 to P_3, and the price that sellers receive falls from P_1 to P_2. The difference between P_3 and P_2 is the amount of the per-unit tax **t**.

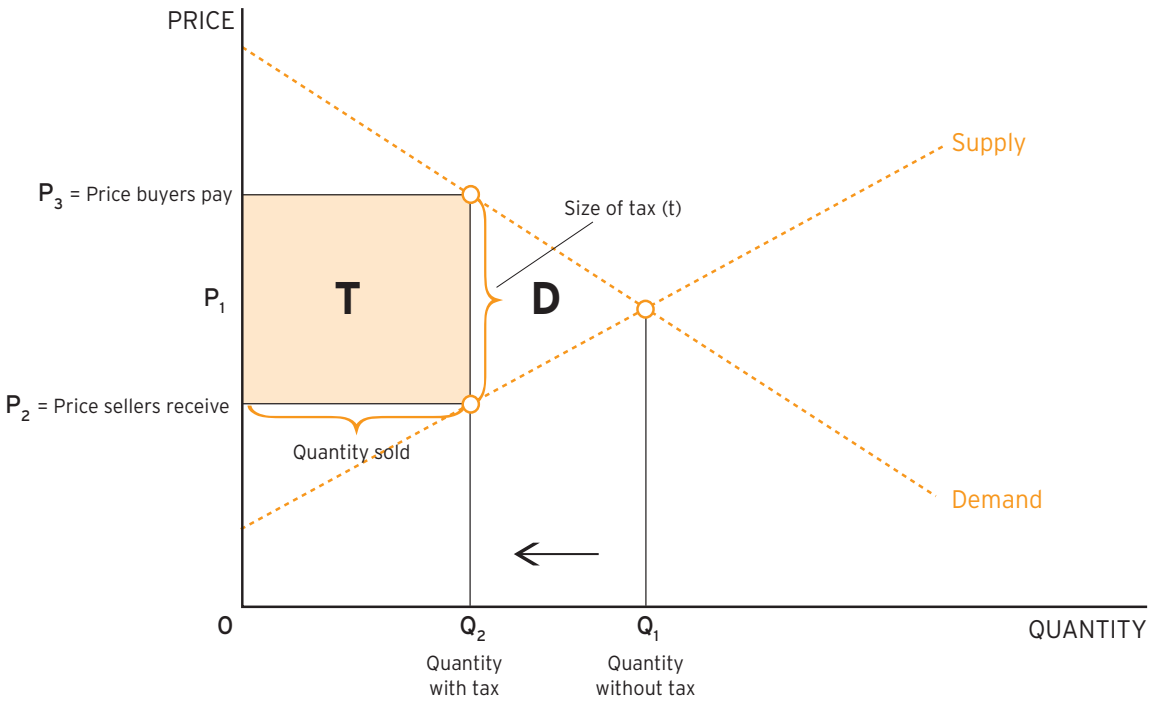
A per-unit tax of **t** raises tax revenue equal to the amount represented by rectangle **T**, which is the amount of money transferred to the government in tax revenue. The government then redistributes **T** throughout society using various government programs.

The "deadweight loss" of the tax is represented by the triangle **D**, which represents a loss to society in the form of reduced consumer and producer surplus due to fewer trades. The amount **D** is also known as "allocative inefficiency."

The first attempt to measure the deadweight-loss triangle was conducted by University of Chicago economics professor Arnold C. Harberger in 1954.[7] It has since become known as the Harberger triangle. The static social cost of taxation, however, does not stop at area **D**.

In 1967, University of Virginia economics professor Gordon Tullock concluded that area **D** underestimates the true static social cost of taxation.[8] If the government raises revenues of **T** and redistributes this money to others throughout society, individuals will spend money both to capture the transfer, being its beneficiary, and to avoid being the victim of the transfer. Economists call these expenditures rent-seeking costs and rent-avoidance costs. These costs are largely unobservable by an outsider. To use a tort example, if you see two people having lunch, you don't know if they are old friends catching up or a lobbyist and a politician hammering out a new law that will make it easier to file class-action lawsuits. Because of this lack of transparency and observability, economists use an indirect method of measuring these rent-seeking and rent-avoidance costs.

Figure 2. The Costs of Taxation



The standard assumption is that individuals will spend **T** collectively to capture a transfer equal to **T**. This is called "perfect rent dissipation." Resources dissipated in quest of the transfer are equal to the value of the transfer.[9] In other words, if two people are competing for a transfer of $100 (**T**), each person will spend $50 trying to influence the decision-makers to transfer the $100 to himself or herself. Therefore, $100 is spent to capture $100 of transfers. **T** is spent to capture **T** — complete rent dissipation.[10]

Studies have also shown that consumers and producers will spend money to prevent **D** from being taken away from them. They will spend **D** to lobby government not to impose the tax and to avoid being a victim of the tax. **D** is spent to preserve **D**.

All told, the static social cost of taxation equals **(T+D)+D**, the total amount spent in rent seeking and rent avoidance plus the deadweight loss — in total, an amount greater than the transfer itself. Again, as noted in Chapter 1, we do not examine the benefit side. An additional **T** is transferred to the government in tax revenues and redistributed throughout society in various programs. This redistribution of **T** is technically not a social cost.[11] This framework for measuring the static social cost of taxation can be applied to the U.S. tort system.

The U.S. tort system returns less than 50 cents of every tort-cost dollar to injured claimants, those it was designed to help.

The Annual Static Social Cost of the U.S. Tort System

We can calculate the annual static social cost of the U.S. tort system by applying the rent-seeking theory of transfers to the available data. Again, all costs are in 2006 dollars, unless otherwise noted, and thus might not equal the costs reported in the original studies we used. For convenience, Table 4 provides a breakdown of the tort costs tallied here, which might provide further clarity.

According to Tillinghast-Towers Perrin, which compiles the most frequently cited study on tort costs, direct U.S. tort costs were $260 billion in 2004 ($279 billion in 2006 dollars).[12] Tillinghast's measure of direct U.S. tort costs includes three components.

The first component is insurance costs consisting of: (1) benefits paid to third parties or their attorneys alleging injury or damages caused by insured persons or companies, excluding medical malpractice; (2) benefits paid to first-party insureds in the form of claims-handling and legal-defense costs; and (3) insurance company administrative costs.

The second component is self-insured costs, excluding medical malpractice. Some individuals and companies choose to self-insure rather than purchase insurance from an insurance company. When tort costs are paid by self-insurance, these individuals and companies engage in some form of internal forecasting and reserving to pay their tort expenses.

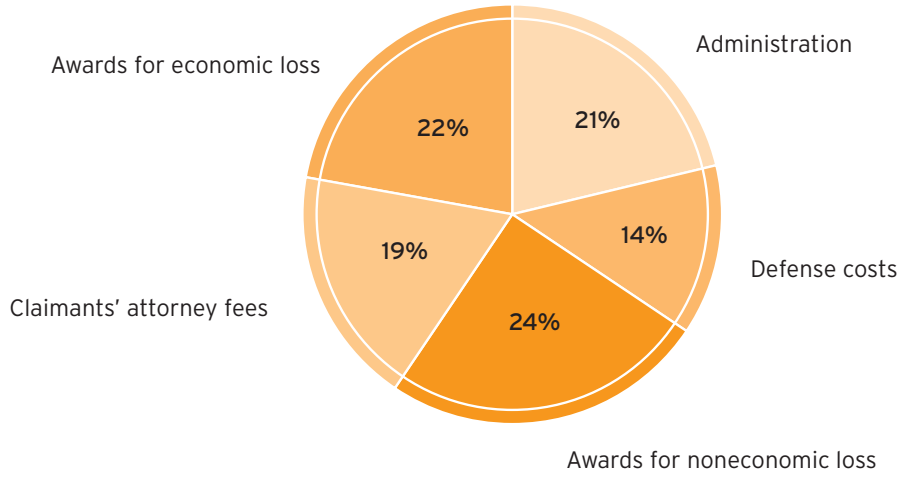
Finally, the third component of Tillinghast's direct U.S. tort costs is medical-malpractice costs, both insured and self-insured.

Tort Transfer Costs

Table 1 shows the cost breakdown. Only 22 cents of every tort-cost dollar go to injured parties to compensate them for actual economic losses. Twenty-four cents go to noneconomic payments, including punitive damages. The U.S. tort system returns less than 50 cents of every tort-cost dollar to injured claimants, those it was designed to help. If every time you pumped gas, half of it spilled to the ground, you would demand a better system for pumping gas. Nevertheless, this is how inefficiently the tort system works in America today.

Fourteen cents of every tort-cost dollar pay for the defense costs of first-party insureds. Nineteen cents pay for plaintiffs' or claimants' attorney fees. And 21 cents go to administrative costs.

Table 1. Where Tort Costs Go



Source: Tillinghast-Towers Perrin, *U.S. Tort Costs: 2003 Update* (New York: Tillinghast-Towers Perrin, 2004)

Using this breakdown, the total amount of tort transfers (area **T** in Figure 2) is 46 percent of $279 billion, or $128 billion.

Deadweight Costs

To determine the deadweight cost (area **D** in Figure 2), we relied on recent estimates by Professor Dale Jorgenson of Harvard University.[13] The President's Council of Economic Advisers also relied on the Jorgenson study.[14] Dr. Jorgenson found that when the government increases the corporate income tax rate proportionally, the burden to the economy in excess of the tax revenue is 27.9 cents per dollar of extra tax revenue. The deadweight cost **D**, therefore, is 27.9 percent of the transfer **T**. Applying this formula to the data, the deadweight cost of the tort-transfer system is 27.9 percent of $128 billion, or $36 billion.

Rent-Seeking and Rent-Avoidance Costs

We know from the analysis that rent-seeking and rent-avoidance costs equal **T+D**, or $164 billion. Using the Tillinghast tort-cost breakdown, we can calculate that of this $164 billion, $59 billion is for administrative costs, $53 billion is for claimants' attorney fees, and $39 billion is for first-party

defense costs, and these are all pure transaction costs of moving resources, or attempting to move resources, from defendants to plaintiffs.

The remaining $13 billion pays for the tort-specific costs associated with judges, juries, and court systems; lobbyists to help change tort laws; campaigns to elect specific politicians and judges deemed favorable; and reorganizing operations to avoid tort lawsuits such as changing production processes, product designs, or product labeling.[15]

The Static Social Cost and Static Accounting Cost

The annual static social cost of the U.S. tort system is the deadweight cost plus the rent-seeking and rent-avoidance costs **(D+(T+D))**, or $200 billion. If we include the compensatory tort transfers themselves as a "cost," as Tillinghast does, we arrive at an annual static accounting cost of $328 billion per year, which is significantly greater than Tillinghast's figure of $279 billion. Focusing only on the static analysis and comparing "apples to apples," Tillinghast underestimates the cost of America's tort system. The underestimate is greater after factoring in dynamic negative spillover effects, which we examine next.

Adding Dynamic Elements to the Static Framework

The conceptual framework developed in Figure 2 is a "static" analysis, meaning the demand and supply curves are assumed to be stationary or static. But some effects of litigation and tort liability actually shift the position of the demand and supply curves from where they would have been in the absence of tort-liability effects. These shifts introduce dynamic elements into the analysis. We examined some of the larger effects for which solid scholarly research exists.

Both the supply curve and the demand curve are susceptible to changes. Changes in labor supply shift the supply curve. For example, reductions in the supply of labor shift the supply curve to the left, resulting in less output. Less research and development keeps new demand curves (new products) from emerging, resulting in less output and consumer satisfaction. Changes in preferences shift the demand curve. For example, an increased preference by physicians for tests and procedures shifts the demand curve to the right. Below we look at the effect of tort liability on factors that have shifted the curves.

Accidental Deaths

A 2006 study by Paul H. Rubin and Joanna M. Shepherd demonstrated that tort reforms passed in the states between 1981 and 2000 prevented approximately 22,000 net accidental deaths from occurring during that time frame.[16] The researchers argued that an overly expensive liability

Tort reforms passed in the states between 1981 and 2000 prevented approximately 22,000 net accidental deaths from occurring.

system increases the cost of many risk-reducing products and services, making them less accessible, and in some cases unavailable, to consumers. Because many states reformed their tort systems to rein in liability costs, these reforms allowed consumers to reduce the risk of accidental death and were responsible for saving, on net, 22,000 lives between 1981 and 2000.

Using data from the Rubin and Shepherd study regarding the average number of lives saved annually in each state from each of several reforms, we were able to construct a "ghost workforce" — a population that would have been alive and working as of 2004, but was not, due to inefficiencies in the tort system that discouraged or prevented risk-reducing behavior. Taking into consideration the size of this ghost workforce, we were also able to estimate the value of output lost because of the reduced number of employees in the workforce.

First, it was necessary to calculate the number of net accidental deaths that tort reforms could have prevented nationwide had they been enacted as of 2004. This was done by determining whether a state had a particular reform on the books as of 2004. The reforms that we considered were those that resulted in a statistically significant change in the number of lives saved in the Rubin and Shepherd study. These calculations concluded that, on net, 2,700 accidental deaths were not prevented in 2004 due to a failure to enact reforms. We then repeated the process for the year 2000, finding that 2,867 accidental deaths were not prevented due to an absence of certain tort reforms in that year. Notice that the 2004 number is lower than the 2000 number — this is to be expected since more lives were saved as more states adopted reforms.

The average annual rate of change in accidental deaths that were not prevented each year during the five-year span of 2000 to 2004 was approximately 1.51 percent.[17] The rate is positive, showing that the number of accidental deaths not prevented increases each year going backwards. We used this rate to calculate accidental deaths that were not prevented annually back to 1981, the first year Rubin and Shepherd tracked data.[18] This assumes that reforms were passed at a constant rate from 1981 to 2004. The annual "ghost workforce" figures were added together to produce a total ghost workforce of 77,419 individuals.

The ghost workforce that we calculate is more likely an underestimate than an overestimate. Our figure takes into account accidental deaths that occurred only within the 24-year period of 1981 to 2004. An individual who needlessly died in 1975 at the age of 20, for example, would still likely have been in the workforce in 2004. But we do not take these earlier years into consideration in our estimate. We believe that limiting our data period to exclude accidental deaths before 1981 eliminates the likelihood of overestimation from our other assumption — that all lives saved are employees in the workforce as of 2004.

Medical-liability concerns have prompted health care providers to order more tests, referrals, and procedures than they would have done otherwise.

The U.S. Bureau of Economic Analysis reports that the value of output per employee in 2004 was $90,236.[19] Applying this average to the 77,419 ghost workers yields forgone output equal to $6.99 billion in 2004 dollars ($7.51 billion in 2006 dollars) — an additional tort cost to society.

Health Care Expenditures

Medical-liability concerns have prompted health care providers to order more tests, referrals, and procedures than they would have done otherwise. The U.S. tort liability system has shifted physician demand curves for health care output to the right. This is the finding of Daniel Kessler and Mark McClellan in a study published in the *Quarterly Journal of Economics*.[20]

Kessler and McClellan looked at how much hospital expenditures decreased for elderly patients hospitalized with serious heart disease following medical-malpractice tort reforms that cut liability risks. They found that hospital expenditures fell between five and nine percent in response to lower liability risks. In other words, liability concerns had prompted additional hospital costs of five to nine percent.

PriceWaterhouseCoopers generalized the Kessler and McClellan findings beyond hospital costs to all personal health care costs.[21] When this was done, medical-liability concerns increased personal health care expenditures by $115 billion in 2004 ($124 billion in 2006 dollars).

We are not prepared to say the entire $124 billion is "waste." A portion of these additional expenditures may have yielded valuable diagnostic information or treatment protocols that proved beneficial. Even two of the most popular definitions of "defensive medicine" — a phrase often used to describe the increased use of tests, referrals, and procedures — leave open the possibility that a portion of the additional spending might be beneficial. For example, the U.S. Office of Technology Assessment defined defensive medicine as occurring when "doctors order tests, procedures, or visits, or avoid high-risk patients or procedures, primarily (*but not necessarily solely*) to reduce their exposure to malpractice liability" (emphasis added).[22] Likewise, Kessler and McClellan defined defensive medicine as administering "precautionary treatments with *minimal expected medical benefit* out of fear of legal liability" (emphasis added).[23] Notice that the expected medical benefit need not be zero for the treatments to be considered defensive.

Rising health care costs attributable to liability-driven medical expenditures have contributed to the increase in the number of uninsured Americans.

For our purposes, it is not necessary to know what, if any, factors other than liability entered into the decision to order the extra tests or, after the fact, how often something beneficial resulted from them. The scholarly studies show that $124 billion in health care expenditures was initially and primarily driven by medical-liability concerns. This is in addition to the direct tort costs for medical malpractice of $28.7 billion in 2004 reported by Tillinghast.[24]

Reduced Access to Health Care

The link between rising health care costs and the decline in insurance coverage is well established.[25] As the cost of care increases, insurance premiums also increase. If the growth rate of insurance premiums exceeds the growth rate of income, fewer individuals will be able to afford insurance. For this reason, it is no surprise that the poor and the near-poor are at greatest risk of being, and becoming, uninsured.[26] Rising health care costs attributable to liability-driven medical expenditures have contributed to the increase in the number of uninsured Americans.

Compared to the insured, the uninsured tend to have higher mortality rates due to a lack of, or reduced rate of, certain types of care. According to a 2004 report by the Kaiser Commission on Medicaid and the Uninsured, the uninsured generally receive "less preventative care, are diagnosed at more advanced disease states, and once diagnosed, tend to receive less therapeutic care."[27] As a consequence, the uninsured are more likely to die prematurely due to untreated illnesses. They also are less productive members of the workforce due to "absenteeism" — fewer or shorter paid workdays — and "presenteeism" — reduced productivity at work attributable to poorer health.

Table 2 shows that in 2004, when health expenditures in the United States were 16 percent of GDP, there were 45.8 million uninsured Americans. If we subtract the additional costs to health care associated with liability concerns ($115 billion in 2004 dollars), health expenditures would be a full percentage point less when compared to GDP. The difference in the total number of uninsured when health costs were 15 percent of GDP, as opposed to 16 percent of GDP, is 3.4 million. The increase in health expenditures due to liability concerns, therefore, has added 3.4 million Americans to the rolls of the uninsured.[28] This figure is supported by an estimate by the U.S. Department of Health and Human Services that savings from the elimination of defensive medicine would allow an additional 2.4 million to 4.3 million Americans to obtain health insurance.[29]

Table 2. U.S. Health Expenditures and the Uninsured, 2000-2004

	2000	2001	(middle)	2002	2003	2004
U.S. health expenditures as a percentage of GDP	13.8	14.6	15	15.4	15.9	16
Uninsured (in millions)	39.8	41.2	42.4	43.6	45	45.8

Sources: Centers for Medicare and Medicaid Services, U.S. Department of Health and Human Services, http://www.cms.hhs.gov/NationalHealthExpendData/01_Overview.asp; and U.S. Bureau of the Census, http://www.census.gov/population/pop-profile/dynamic/HealthInsurance.pdf

As with accidental deaths discussed earlier, premature deaths due to lack of health coverage eliminate individuals from the workforce and result in less overall economic output. The Institute of Medicine estimates that 18,000 uninsured individuals between the ages of 25 and 64 die prematurely each year, based on data on the uninsured in 2000.[30] This translates to one premature death of a working-age individual for every 2,211 uninsured each year. Applying this ratio to the 3.4 million uninsured due to liability-driven expenditures in 2004 results in 1,538 premature deaths each year that can be attributed to liability concerns.

Creating a "ghost workforce," as we did earlier for accidental deaths, made up of these individuals who would have been alive and working in 2004, yields 36,912 ghost workers. Had these individuals been alive, they would have produced annual output equal to $3.58 billion.[31]

The value of forgone output by working uninsured individuals due to "absenteeism" and "presenteeism" is almost 10 times greater than forgone output from premature deaths. Individuals without health insurance are much more likely to suffer from a number of acute and chronic diseases and conditions, and are more likely to leave these untreated.[32] A 2005 report on the effects of chronic health conditions estimated that the cost of poor health was a 10.7-percent reduction in worker productivity.[33] Multiplying 10.7 percent of the average employee output (or $9,655) by 3.4 million people — the number of Americans who are without health insurance due to additional health care expenditures from liability concerns — yields lost output totaling $32.8 billion in 2004 ($35.2 billion in 2006 dollars). Adding together the costs of premature deaths and lost productivity due to reduced access to health care from liability-driven rising health care expenditures yields total costs of $38.78 billion.

Innovation

W. Kip Viscusi and Michael J. Moore examined the effects of product-liability costs on product and process research and development (R&D) and new-product introductions by manufacturing companies.[34] Liability costs have two competing effects.

Doctors on Defense

On November 28, 2005, *The Olympian* newspaper in Washington State featured an op-ed by an emergency-room doctor describing the department's bout with the widespread practice of defensive medicine.

According to the doctor, one afternoon the department received a patient who had fallen off a construction-site scaffolding and suffered a broken jaw. Despite clear initial findings that the young man had suffered only a broken jaw and a mildly tender upper back and shoulder, various medically unnecessary tests were performed. These included a CAT scan of the head, neck, and abdomen. The surgeons and specialists involved in making the decision to perform these excess tests admitted their reasoning: If they missed something, they were certain they would get sued. All test results, as expected, came back normal.

Before allowing the practice to go any further — allowing a spine specialist to perform an MRI of the neck to detect a potentially rare ligament injury — the ER doctor stepped in and assumed full liability for the patient. This act immediately halted all suggestions of excess tests, and the patient was discharged with only the care he needed.

The cost of the additional tests this patient received was estimated to be about $20,000. According to the doctor, hospitals all over the country are being strangled in a similar fashion by a fear of litigation.

First, products liability ideally should promote efficient levels of product safety by inducing companies to internalize the external costs imposed on people harmed using their products. This will spur producers to invest more in safety-related product improvements and introduce new products with safer technologies. This response increases R&D.

On the other hand, misdirected or excessive liability costs cause companies to spend resources on lawsuit settlements, damage awards, insurance, lawyers, and legal-defense costs that would have been spent on product and process improvements. It also causes companies to withdraw or withhold products from the market because of a lack of resources or a fear of lawsuits. These effects decrease R&D. Viscusi and Moore looked at these two competing responses using data on manufacturers.

Writing in the *Journal of Political Economy*, the researchers reported the results of their statistical analysis: "At very low liability-cost levels, firms have incentives to invest in product-safety research in order to reduce these costs, yet still introduce the product to the market."[35] When businesses operate in a low-liability-cost environment, they respond to increased liability burdens by investing in product-safety improvements and new technologies that will lessen their exposure to safety-related lawsuits. This response increases R&D.

In contrast, when businesses operate in a high-liability-risk environment, they respond to increased liability burdens by eliminating investments in product novelty because novel products have more uncertain safety characteristics. Think of it this way: In high-liability-risk environments, businesses are already doing all they can to produce inherently risk-free products to shield themselves from safety-related lawsuits — it would be irrational to act otherwise. If liability burdens increase, their only option at this point is to withdraw products from the market or not introduce new products and spend yet more resources on legal defense. These responses decrease R&D, so there is a tipping point at which greater liability burdens result in less, not more, innovation.

Viscusi and Moore's econometric results demonstrate that, on average, product R&D is maximized when bodily-injury premiums equal five percent of sales or when bodily-injury losses equal six percent of sales. Process R&D is maximized when bodily-injury premiums equal 35 percent of sales or when bodily-injury losses equal four percent of sales. Beyond these tipping-point percentages, R&D investments begin to fall.

Table 3, Column 1, lists the 13 industries that exceeded the tipping point in 1984. In other words, these are the industries where the liability burdens reduced innovation.[36] Our objective in this section is to calculate annual lost sales of new products due to decreased product R&D and decreased process R&D resulting from excessive liability.

First, because of the lack of current premium and loss data broken down by industry, we assumed that the industries beyond the tipping point in 1984 are the same industries beyond the tipping point today.[37] These industries are listed in the first column of Table 3. There are two factors that strongly support this assumption.