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Medical Malpractice and Compensation in Global Perspective: How Does the U.S. Do It?

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MEDICAL MALPRACTICE AND COMPENSATION IN GLOBAL PERSPECTIVE: HOW DOES THE U.S. DO IT?

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INTRODUCTION

We face a daunting challenge: describe in limited space the manner in which the United States regulates medical practice by compensating patients harmed by medical treatments, and summarize the enormous empirical literature addressing these subjects. The task would be difficult even if the United States had a single system for handling these issues. In fact, it has a patchwork of arrangements that divide responsibility among diverse governments (federal and state), regulators (medical boards, insurance commissioners, and others), and private entities (including, but not limited to, hospitals, insurance carriers, physicians, and patients). The health care system in the U.S. is famously fragmented, making both regulation and summarization trying affairs.[1]

One level of complexity is the result of federalism: the United States has more than fifty distinct state-level regulatory and legal systems, each with its own variations and idiosyncrasies.[2] Consider a simple example: more than thirty states cap damages in medical malpractice cases. In states that limit damages, the details of the cap vary widely. A few states restrict total damages, but most limit only non-economic damages (i.e., pain and suffering). The caps are set at different levels, and only some adjust for inflation. Some caps vary depending on whether the plaintiff is deceased. Others are tied to the number of defendants. Some impose different caps

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1. Einer Elhauge, *Why We Should Care About Health Care Fragmentation and How To Fix It*, *in* THE FRAGMENTATION OF U.S. HEALTH CARE: CAUSES AND SOLUTIONS 1, 3 (Einer Elhauge ed., 2010).

2. Yes, we know how many states there are. But, when you include the District of Columbia and Puerto Rico (not to mention Guam and the other territories) there are more than fifty separate systems of malpractice law/entities with regulatory authority over the practice of medicine. Thus, there are fifty-six Medicaid program, even though there are only fifty states. U.S. DEP'T. OF HEALTH & HUMAN SERVS., MEDICAID PROGRAM OVERVIEW, A PROFILE OF MEDICAID, 6 (Sept. 2000), *available at* https://www.cms.gov/TheChartSeries/downloads/2Tchartbk.pdf.

depending on whether the defendant is a physician or an institutional defendant (i.e., a hospital or nursing home). Thus, there is substantial state-level variation in the amount of damages that may be awarded in medical malpractice cases even in states that cap damages—variation that naturally increases when states that do not cap damages are added to the mix.

Further complications result from the interaction of the state and federal systems. Although states possess primary regulatory authority over both the practice of medicine and civil and criminal litigation, the federal government plays an important role as a major purchaser of health care services: through Medicare, Medicaid, and SCHIP, and as a provider of health care services through the Veterans Administration and the Indian Health Service; through the U.S. Food & Drug Administration's exclusive licensing authority regarding the sale of pharmaceuticals and medical devices; through federal regulation of controlled substances (which influences pain management practices); and through federal regulation of billing practices (through the civil False Claims Act and criminal prohibitions on health care fraud and abuse). The federal government's role may also grow if it ends up operating the exchanges that are to be adopted pursuant to the Patient Protection and Affordable Care Act (PPACA).

To be sure, federal courts play a less significant role than state courts. Federal authority over malpractice is limited to cases brought under the Federal Tort Claims Act, and concurrent jurisdiction in cases involving citizens of different states where more than $75,000 is at issue.[3] But federal courts have played leading roles in high-profile lawsuits affecting health care policies, including cases in which physicians have challenged private payers' reimbursement practices, cases in which physicians, pharmacies, and nursing homes have sought to overturn reductions in Medicaid payments imposed by states, and cases in which states and private parties have argued that the PPACA is unconstitutional.

A final level of complexity results from the multiplicity of entities with implicit or explicit authority over the practice of medicine, including medical schools, residency programs, accrediting agencies, specialty boards, teaching and community hospitals, courts, and state licensing agencies. State and federal agencies also maintain registries or databases of adverse events, payouts in malpractice cases, infection rates, and mortality and morbidity rates for medical procedures. If one broadens the field to encompass insurers, there are public and private entities covering various sections of the population, whose purchasing and coverage rules can influ-

3. The Federal Tort Claims Act covers malpractice actions involving federal employees and volunteers at federally qualified health centers and free clinics.

ence the frequency of adverse medical events and the financial consequences for those who suffer a medical injury. Liability insurers, who absorb losses and sometimes refuse to continue coverage, may also influence treatment patterns.

There is one area marked by simplicity and clarity: apart from the population-specific coverage of Medicare (people who are sixty-five years and older and those in chronic renal failure), Medicaid (the poor), and SCHIP (children below a specified income level), the United States does not have a social insurance system. Thus, for a clear majority of the population, there is no occasion to describe the interaction between the social insurance and tort systems. Even for those who participate in these programs, there is little to discuss, since they have historically occupied different spheres. Administrators of the Medicare and Medicaid programs, for example, have long viewed their job as paying for the care received by their beneficiaries, and have not troubled themselves unduly about the quality and cost-effectiveness of that care. Until quite recently, when a Medicare or Medicaid beneficiary suffered a medical injury, both programs simply paid the resulting bills—creating exactly the wrong incentives. Neither program took steps to improve the way providers responded to malpractice claims. To the contrary, as things currently stand, both programs probably weaken the liability system's ability to police negligent practitioners. Because both programs pay for the bills that result from a medical injury, they have a statutory subrogation right that entitles them to share in any recovery. The amounts left over once Medicare and Medicaid have been repaid are often too small to motivate patients to sue—let alone to motivate a plaintiffs' attorney to take their cases.

Part I turns to a more detailed description of the details of the regulatory, liability, and compensation systems. Part II explores the literature on medical error/adverse events, and the performance of the liability system. Part III evaluates how ordinary citizens feel about the liability system. Part IV describes how incentives shape the performance of these interlocking systems. Part V offers a perspective from our work with closed malpractice claims from Texas. Part VI concludes.

I. DETAILS OF THE APPLICABLE REGULATORY AND LIABILITY/COMPENSATION SYSTEMS

A. Regulating the Delivery of Medical Care

To practice medicine, an individual must graduate from a medical school, complete an accredited residency, and obtain a license to practice

medicine from a state licensing board—with the requirements varying from state to state. Licenses do not typically differentiate based on medical specialty; both a pediatrician and a neurosurgeon secure an identical license to practice medicine from the issuing authority. All fifty states impose a requirement for Continuing Medical Education (CME) to maintain licensure.[4] However, no state requires malpractice/error-prone physicians to undergo more frequent CME, or take affirmative steps to reduce the frequency of these problems. A physician may obtain board certification in a particular specialty or specialties, but certification is voluntary. However, many boards require CME as a condition of continued board certification.

Once physicians are licensed, other entities can influence the scope of their practice. A physician who wishes to admit patients to a hospital must obtain "privileges" at that institution. Hospitals can condition the granting of privileges in various ways, and may limit the services that physicians may provide using hospital resources (i.e., a hospital is unlikely to allow a pediatrician to perform neurosurgery). Hospitals generally require physicians to maintain malpractice coverage in a specified amount, with the precise amount varying from hospital to hospital. Physicians may also become direct employees of a hospital or of a managed care plan, and those entities can also impose restrictions on the scope of practice.

Hospitals are accredited by private entities. These accrediting entities profoundly influence the behavior of hospitals, because loss of accreditation means that the hospital may not be paid for the services it provides (at least not by public payers).[5]

State medical boards are supposed to regulate the quality of health care provided by state-licensed physicians, but in practice these boards are lax. A 2011 report studied how state medical boards handled the cases of 10,672 physicians whose clinical privileges were revoked or restricted by a hospital.[6] They found that state medical boards had taken no action in over

4. *State Medical Licensure Requirements and Statistics 2010*, AMERICAN MEDICAL ASSOCIATION (2010), *available at* http://www.ama-assn.org/ama1/pub/upload/mm/40/table16.pdf.

5. The Joint Commission on Healthcare Organizations (JCAHO) has played a significant role in recent years in encouraging hospitals to adopt patient safety initiatives. Kelly J. Devers et al., *What Is Driving Hospitals' Patient-Safety Efforts?*, 23 HEALTH AFF. 103, 112–13 (2004). JCAHO has not always had this reputation, as an excerpt from an online posting by a hospital administrator indicates:

> We never worried about JCAHO until the three months prior and the two days of the inspection. In the three months prior we backdated all the documentation that we needed to get through the inspection, and in the two days they were there we spent telling them how focused we were on quality, etc. As long as the paperwork is in order, people can be dying in the halls and there could be guppies in the IV fluid; the JCAHO wouldn't notice.

MARK A. HALL ET AL., THE LAW OF HEALTH CARE FINANCE AND REGULATION 373 (1st ed. 2005).

6. *See generally* ALAN LEVINE ET AL., STATE MEDICAL BOARDS FAIL TO DISCIPLINE DOCTORS WITH HOSPITAL ACTIONS AGAINST THEM (2011), *available at* http://www.citizen.org/documents/1937.pdf.

half of these cases. Because hospitals generally restrict clinical privileges only in response to the worst cases, this study suggests that state medical boards are failing to address even the problems that are identified for them by others.

In reality, the most significant "regulator" of health care practice is the payment system. At least at the federal level, payment policy is health policy, and health policy is payment policy. In recent years, public and private payers have taken baby steps in the direction of using their payment systems to reward error-free care. These programs have been variously described as "value-based purchasing," "payment for performance," and nonpayment for "never events." Unfortunately, these efforts have not changed the core incentives created by the dominant encounter-based, quality-insensitive, fee-for-service payment system that otherwise rules the roost.

B. Liability/Compensation Systems

1. Fault-Based (Negligence)

In the United States, the determination of liability and compensation is almost entirely the province of the civil tort system. As detailed below, there are small pockets of no-fault liability, but negligence is the rule for most patients in most settings. Plaintiffs may not recover for injuries stemming from adverse events or errors unless a provider was negligent—and as outlined in Part III, most negligently injured patients do not recover, regardless.

Malpractice straddles the divide between contract and tort. Most lawsuits arise out of a consensual relationship between physician and patient, creating an implied duty to exercise reasonable care. States have struck down attempts to modify or eliminate this duty by contract, although many have allowed contracting over other terms (such as whether plaintiffs must arbitrate their claims). States have also experimented with a wide array of tort reforms, including a number of process-based reforms (e.g., screening panels, certificates of merit, and abbreviated statutes of limitation). Table 1 gives a sense of the range of tort reforms that jurisdictions have adopted.

TABLE 1. MALPRACTICE REFORMS

Insurance Market Reforms	Joint underwriting associations/patient compensation funds
	Prior approval of rate increases
	Mandatory reporting of closed claims
Medical Quality Reforms	Peer review protections
	Mandatory reporting of liability payouts and errors

	Requirement for continuing medical education
Tort Reforms	Aimed at the number of lawsuits
	Arbitration
	Attorney fee controls
	Certificates of merit
	Pretrial screening panels
	Aimed at the size of recoveries
	Damage caps (punitive, non-economic, and total damages)
	Abrogation of joint and several liability
	Offset for collateral source payments
	Aimed at plaintiffs' difficulty (or costs) of winning
	Expert witness requirements
	Informed consent limits
	Professional standard of care, and not ordinary negligence
	Aimed at functioning/cost of judicial process
	Mediation
	Notice of intent to sue
	Mandatory pretrial conferences
	Alternative Dispute Resolution

Source: *See* Randall R. Bovbjerg, Legislation on Medical Malpractice: Further Developments and a Preliminary Report Card, 22 U.C. DAVIS L. REV. 499 (1989).

The failure to exercise reasonable care is treated as a tort, and tort remedies are available for breach. For most specialties, states have largely abandoned the "locality rule" that treated compliance with local custom as a complete defense. However, legislatures have responded by imposing limitations on who can testify about the standard of care—effectively re-imposing a modified version of the locality rule while simultaneously increasing the costs of litigating such cases (since limiting the supply of experts effectively increases the fees that those experts can command).

In order to recover, plaintiffs must prove "negligence"—that their providers failed to exercise due care. As always, the plaintiff must establish the four elements of a tort lawsuit: (1) duty, (2) breach, (3) proximate cause, and (4) damages. "Duty" means that there was a relationship between patient and provider sufficient to trigger an obligation to exercise due care in the treatment of the patient. (Most of the time, duty is a non-issue, particularly if there is a pre-existing relationship between provider and patient.) "Breach" means that the provider failed to exercise the care expected of a reasonably skilled provider. Establishing breach requires expert testimony, since the touchstone for establishing liability is proof of a

deviation from the standard of care. (In some states, customary treatment is by definition not negligent, but most states have moved to a more demanding standard.)[7] "Proximate cause" means that the breach of the standard of care was the cause *in fact* of compensable injury. Thus, injuries that are too remotely related to the alleged cause cannot result in compensation.

Causation often involves complicated issues, which is part of the reason that malpractice litigation is expensive. Indeed, for most malpractice cases, causation is the primary issue in dispute. Many states allow for recovery of "lost chance," but there is variation in how large the chance must be. Similarly, although all states allow for recovery if the physician has not obtained informed consent, such cases are not usually sufficiently remunerative for them to be brought, barring exceptional circumstances.[8]

In all states, the plaintiff bears the burden of proof on all issues (i.e., they must prove their position is "more likely than not"). If the plaintiff is seeking punitive damages, many states impose a higher burden of proof ("clear and convincing evidence") and other procedural barriers. There are also constitutional limitations on the size of punitive damages (they must generally be less than ten times the compensatory damages) and the processes employed to determine whether such damages are appropriate.[9] To be sure, punitive damages are not that common in medical malpractice cases, occurring in fewer than 5 percent of tried and settled cases.[10]

Compensatory damages take two forms: economic (e.g., lost earnings and medical bills), and non-economic (e.g., pain and suffering). Proving damages is generally straightforward for economic losses, but can be difficult or contentious when parties disagree about patients' future earnings or the severity or likely duration of patients' disabilities. Non-economic damages are more speculative, but they are strongly correlated with economic damages.[11]

7. Philip G. Peters, *The Quiet Demise of Deference to Custom: Malpractice Law at the Millennium*, 57 WASH. & LEE L. REV. 163, 170, 188 (2000).

8. David M. Studdert et al., *Claims, Errors, and Compensation Payments in Medical Malpractice*, 354 NEW ENG. J. MED. 2024, 2026 (2006).

9. *See* State Farm Mut. Auto. Ins. Co. v. Campbell, 538 U.S. 408, 425 (2003); Nitin Sud, *Punitive Damages: Achieving Fairness and Consistency after* State Farm v. Campbell, 72 DEF. COUNS. J. 67, 77 (2005).

10. *See* THOMAS H. COHEN, U.S. DEP'T OF JUSTICE, NCJ NO. 203098, MEDICAL MALPRACTICE TRIALS AND VERDICTS IN LARGE COUNTIES, 2001 2 (2004), *available at* http://bjs.ojp.usdoj.gov/content/pub/pdf/mmtvlc01.pdf; Bernard Black et al., *Stability, Not Crisis: Medical Malpractice Claim Outcomes in Texas, 1988–2002*, 2 J. EMPIRICAL LEGAL STUD. 207, 213 (2005).

11. *Id.*

Criminal liability for malpractice is extraordinarily rare. (One of us referred to it elsewhere as "the unicorn" of malpractice policy).[12] The decision to initiate such cases lies with prosecutors at the county, state, and federal level, some of whom are elected. When such cases are brought, they are often the result of a highly visible death that resulted from egregious misconduct. For example, a pharmacist who diluted chemotherapy drugs was criminally prosecuted and sentenced to prison.[13] A less clear-cut scenario involves physicians who practice pain management, and were prosecuted for writing "excess" prescriptions after patients overdosed or were caught selling the pharmaceuticals.[14] Finally, nurses have been prosecuted for criminal negligence following the administration of an incorrect dose or the wrong medicine to a patient that subsequently died.[15]

In some instances, civil fraud claims are brought against physicians for conduct that could also be characterized as malpractice. Such claims are often initiated by whistle-blowers, who receive a share of any proceeds. For example, after two whistle-blowers filed complaints, the Department of Justice pursued False Claims Act litigation against two physicians and a hospital for performing unnecessary surgery. In this case, individual plaintiffs also brought malpractice claims against the physicians and hospital. Even though the facts were quite egregious, criminal charges were not brought, and there was a package settlement of the malpractice and civil False Claims Act claims.[16]

Dissatisfied patients have two primary means of complaining. They can contact the relevant state's licensing board, which may revoke or limit the licenses of physicians found to have acted improperly. The utility of this mechanism varies greatly from state to state—some are much more likely to initiate disciplinary proceedings against individual physicians than others—but speaking generally it seems that only the most egregious cases are likely to interest state medical boards.[17]

12. *See* David A. Hyman, *Collateral Damage*, 27 HEALTH AFF. 1476, 1477 (2008).

13. Pam Belluck, *Prosecutors Say Greed Drove Pharmacist to Dilute Drugs*, N.Y. TIMES, Aug. 18, 2001, *available at* http://www.nytimes.com/2001/08/18/us/prosecutors-say-greed-drove-pharmacist-to-dilute-drugs.html; *National Briefing | Midwest: Missouri: 30-Year Sentence For Druggist*, N.Y. TIMES, Dec. 6, 2002, *available at* http://www.nytimes.com/2002/12/06/us/national-briefing-midwest-missouri-30-year-sentence-for-druggist.html.

14. Marc Kaufman, *DEA Revises Rule on Prescribing Painkillers*, WASH. POST, Sept. 7, 2006, available at http://www.washingtonpost.com/wp-dyn/content/article/2006/09/06/AR2006090601756.html.

15. Rebecca Cady, *Criminal Prosecution for Nursing Errors*, 11 JONA's Healthcare Law, Ethics and Regulation 10 (Jan–Mar. 2009).

16. STEPHEN KLAIDMAN, CORONARY: A TRUE STORY OF MEDICINE GONE AWRY 261–81 (2007).

17. *See generally* LEVINE ET AL., *supra* note 6.

Dissatisfied patients can also sue, when they can find lawyers willing to represent them. Securing a recovery when liability is contested is all but impossible without help from a plaintiffs' lawyer.[18] Obtaining counsel is harder than one might imagine. Because plaintiffs' lawyers work on contingency, they screen cases carefully and decline most requests for representation. One study found that a plaintiffs' law firm declined twenty-nine of thirty requests for representation, a 97 percent rejection rate, and also paid independent physician-experts to review the cases it took.[19] Once cases are accepted, plaintiffs' lawyers research claims extensively using compulsory process, and they frequently drop cases when new information creates doubt about the merits.

In exchange for accepting a case, a plaintiffs' lawyer will typically demand a contingent fee of one-third or more of any proceeds plus any expenses incurred. If the case is unsuccessful, the plaintiff need not pay anything. Health insurers who paid for post-injury treatment are entitled to reimbursement out of the proceeds of any malpractice claim. In practice, this means that plaintiffs often walk away with less than half the amount recovered.

When there is a payment, it is most often the result of a voluntary settlement. Relatively few claims (5–10 percent) go to trial, and when the case is tried, defendant-physicians win 75–80 percent of the time. Although the physician is the named defendant, the real party in interest is almost always a private malpractice insurer (from whom the physician has purchased a policy). Physicians rarely use personal assets to satisfy malpractice claims.[20] As a practical matter, the stakes in malpractice suits are capped by the limits of physicians' insurance coverage, regardless of the severity of patients' injuries or the amounts that juries believe patients ought to receive.[21]

Federal law requires insurance companies and other entities to report payouts in malpractice cases to the National Practitioner Data Bank (NPDB). Although researchers use the NPDB to study trends in malprac-

18. Charles Silver & David A. Hyman, *Access to Justice in a World Without Lawyers: Evidence from Texas Bodily Injury Claims*, 37 FORDHAM URB. L. J. 357, 373–74 (2010).

19. LaRae I. Huycke & Mark M. Huycke, *Characteristics of Potential Plaintiffs in Malpractice Litigation*, 120 ANNALS INTERNAL MED. 792, 796 (1994).

20. Kathryn Zeiler et al., *Physicians' Insurance Limits and Malpractice Payments: Evidence from Texas Closed Claims 1990–2003*, 36 J. LEGAL STUD. 9, 11 (2007).

21. David A. Hyman et al., *Do Defendants Pay What Juries Award? Post-Verdict Haircuts in Texas Medical Malpractice Cases, 1988–2003*, 4 J. EMPIRICAL LEGAL STUD. 3, 53 (2007); Charles Silver et al., *Malpractice Payouts and Malpractice Insurance: Evidence from Texas Closed Claims, 1990–2003*, 33 THE GENEVA PAPERS ON RISK & INS.—ISSUES & PRACTICE 177, 188 (2008); Zeiler et al., *supra* note 20, at 10.

tice cases and other matters, neither providers nor regulators appear to use the information it contains to improve quality of care or reduce the frequency of medical errors. State laws require hospitals to report hospital-acquired conditions, including injuries patient suffer as a result of medical mistakes, but under-reporting is rampant. One report found the 90 percent of errors went unreported.[22]

In most states, clinical practice guidelines have not played a material role in malpractice litigation. Such guidelines can serve as either a sword (where deviation from the guideline is deemed to create a prima facie or per se case of malpractice) or a shield (where compliance with the guideline eliminates the possibility of liability). One scholar recently proposed that providers should be immune from civil liability when they comply with treatment guidelines promulgated by private entities, but the private entities would be liable if their guidelines were negligently constructed.[23]

2. No-Fault Liability (Strict Liability)

No-fault liability for medical error has proven far more popular with academics than with legislators. There are only a few pockets of strict-liability for medical malpractice in the United States. Qualifying birth injury cases in Virginia and Florida are excluded from the tort system, and are handled through an administrative system. Ironically, plaintiffs with strong cases prefer to litigate in the tort system, since they can recover a greater amount, while plaintiffs with weak cases prefer the no-fault system. Products liability cases involving medical devices (whether the plaintiff is alleging design or manufacturing defect) also qualify for strict liability treatment.

Vaccine injury cases are handled by the U.S. Court of Federal Claims. The 1986 National Vaccine Injury Act created a no-fault system for handling such claims. Claimants must show that they experienced one of several enumerated adverse effects shortly after vaccination. The burden of proof is the same as in civil litigation—more likely than not. Compensation covers medical and legal expenses, loss of future earning capacity, and up to $250,000 for pain and suffering. There is also a death benefit of up to $250,000. Legal expenses may be compensated as well. The program is funded by an excise tax on every purchased dose of covered vaccine.[24]

22. David C. Classen et al., *"Global Trigger Tool" Shows That Adverse Events In Hospitals May Be Ten Times Greater Than Previously Measured*, 30 HEALTH AFF. 581, 586 (2011).

23. Ronen Avraham, *Private and Competitive Regulation of Medicine*, 6 THE ECONOMISTS' VOICE 2, 3–4 (2009), *available at* http://www.bepress.com/ev/vol6/iss8/art2.

24. *See* Stephen D. Sugarman, *Cases in Vaccine Court—Legal Battles over Vaccines and Autism*, 357 NEW ENGL. J. MED. 1275, 1276 (2007).

C. Limitations on Liability/Contracting out of Liability

As noted previously, many states cap liability exposure for either non-economic or total damages. Table 2 contains a list of these states, and outlines the details of the applicable caps. As Table 2 reflects, there is considerable variation in the design of these caps. We recently published a paper estimating the effect of each of these caps using a common set of cases, and found extraordinary variation in the likely impact.[25] Total damages caps had the largest impact, other design details (e.g., the level of the cap, and whether it scaled based on the number of defendants) mattered as well.

TABLE 2. STATE DAMAGES CAPS

STATE	CAP TYPE	CAP LEVEL
Louisiana	Total	$500,000 plus future medical expenses
New Mexico	Total	$600,000 plus future medical expenses
Colorado	Total, non-economic	$1 million total; $300,000 non-economic
Indiana	Total	$1.25 million
Massachusetts	Total (hospitals); non-economic (all)	$20,000 total (non-profit hospitals); $500,000 non-economic (all defendants)
Nebraska	Total	$1.75 million
Virginia*	Total	$1.95 million
California	Non-economic	$250,000
Idaho*	Non-economic	$250,000
Kansas	Non-economic	$250,000
Montana	Non-economic	$250,000
West Virginia*	Non-economic	$250,000, except $500,000 in death cases
Oklahoma*	Non-economic	$300,000
Texas	Non-economic	$250,000-$750,000, depending on number and type of defendants
Nevada	Non-economic	$350,000
Ohio	Non-economic	Greater of $250,000 or three times economic damages, up to $500,000
Hawaii	Non-economic	$375,000
Georgia	Non-economic	$350,000-$1.05 million, depending on number and type of defendants
South Carolina	Non-economic	$350,000-$1.05 million, depending on num-

25. David A. Hyman et al., *Estimating the Effect of Damage Caps in Medical Malpractice Cases: Evidence from Texas*, 1 J. LEGAL ANALYSIS 355, 405–06 (2009).

		ber and type of defendants
Alaska	Non-economic	$400,000
Utah	Non-economic	$409,000
Illinois	Non-economic	pitals
Mississippi	Non-economic	$500,000
North Dakota	Non-economic	$500,000
South Dakota	Non-economic	$500,000
Maryland*	Non-economic	$650,000
Missouri	Non-economic	$350,000
Florida	Non-economic	$500,000, except $1 million in death cases
Michigan*	Non-economic	$641,000
Wisconsin	Non-economic	$750,000

*Adjusted for inflation.

Source: *See* David A. Hyman et al., *Estimating the Effect of Damage Caps in Medical Malpractice Cases: Evidence from Texas*, 1 J. LEGAL ANALYSIS 355 (2009).

There has been considerable academic interest in contracting *out* of liability. Courts have proven considerably less enthusiastic about such contracts, striking them down on various grounds. However, many states allow contracting *into* arbitration, or some other form of alternative dispute resolution, as long as certain procedural protections are provided.

D. Immunity from Liability

Federal law eliminates liability for service providers who serve as volunteers in nonprofit institutions, including but not limited to free clinics, as long as the harm was not caused by willful or criminal misconduct, gross negligence, reckless misconduct, or a conscious, flagrant indifference to the rights or safety of the individual harmed by the volunteer. Historically, many states provided for absolute immunity of nonprofit hospitals ("charitable immunity"). Charitable immunity has been almost entirely abrogated, although Massachusetts retains a very low cap on damages in cases involving nonprofit hospitals.

Federal law also exempts doctors and nurses who treat military personnel at hospitals run by the Veterans Administration. Injured patients can receive compensations from the hospitals, however.

II. EMPIRICAL DATA ON MEDICAL ERRORS/ADVERSE EVENTS AND MALPRACTICE LITIGATION

The empirical literature on medical errors/adverse events and malpractice litigation is vast. We address each issue in turn.

A. How Common Are Medical Errors and Adverse Events?

In 2001, the Institute of Medicine made front-page news by estimating that medical errors kill 44,000 to 98,000 hospitalized patients annually and injure many more.[26] Recent studies put the number of deaths much higher.[27] One source, which studied Medicare patients treated in hospitals from 2000–2002, estimated that almost 195,000 deaths each year "were potentially attributable to . . . patient safety incident[s]."[28] Depending on the source, medical error is the eighth-, sixth-, or third-leading cause of death in the U.S.[29]

Fatal injuries are only the tip of the adverse event/medical error iceberg, since over a million people are injured by medical treatments annually in the U.S. One study concluded that medical errors and quality problems in outpatient care resulted in "116 million extra physician visits, 77 million extra prescriptions, 17 million emergency department visits, 8 million hospitalizations, 3 million long-term admissions [and] 199,000 additional deaths."[30] 1.7 million hospitalized patients acquire infections, many of which are preventable, each year. Researchers estimate that approximately 51 million prescriptions filled nationwide contained some type of error, including 3 million mistakes that were potentially harmful. Adverse drug events (ADEs) are estimated to result in more than 770,000 injuries and deaths each year. A study by the HHS Inspector General concluded that 13.5 percent of hospitalized Medicare beneficiaries experienced adverse events during their hospital stays, with 44 percent of these events

26. INST. OF MEDICINE, TO ERR IS HUMAN: BUILDING A SAFER HEALTH SYSTEM 31 (Linda T. Kohn et al. eds., 2000).

27. *See, e.g.*, Classen et al., *supra* note 22, at 586; HEALTHGRADES, PATIENT SAFETY IN AMERICAN HOSPITALS 1 (2004) (180,000 deaths at least partly attributable to health care), *available at* http://www.healthgrades.com/media/english/pdf/HG_ Patient_Safety_Study_Final.pdf.

28. Id.

29. David A. Hyman & Charles Silver, *The Poor State of Health Care Quality in the U.S.: Is Malpractice Liability Part of the Problem or Part of the Solution?*, 90 CORNELL L. REV. 893, 901 (2005).

30. Barbara Starfield, *Is US Health Really the Best in the World?*, 284 JAMA 483, 484 (2000).

"clearly or likely preventable."[31] The OIG estimated that these adverse events cost the Medicare program roughly $4.4 billion in 2008.

Articles published in a 2011 theme issue of Health Affairs provide a comprehensive portrait of medical injuries and their associated costs. One study finds that a commonly used approach for identifying mistakes captures only one-tenth of the serious adverse events that occurred in hospitals.[32] Using a new method, the Global Trigger Tool developed by the In-Institute for Healthcare Improvement, the authors found that adverse events occurred in a shocking 33.2 percent of hospital admissions.[33] A second study, which relied on claims data, found that medical errors generate over $17 billion in direct medical costs.[34] A third study attempted to quantify the total social cost of medical errors based on the amounts people are willing to pay to avoid risks to their health. It found that medical errors, which account for 187,000 deaths in hospitals and 6.1 million injuries, entail an annual social cost ranging from $393 billion to $958 billion.[35]

No matter how one slices the data, or where one looks, the evidence is clear that medical errors and adverse events are distressingly common in the U.S. Some of these incidents are attributable to incompetence/inattention by an individual named physician, but many more are the result of systems-level failings, whose frequency is elevated because of the fragmented nature of the U.S. health care system.

B. Malpractice Litigation

The malpractice system deals with medical errors/adverse events after they occur—although it is supposed to create an ex ante incentive to avoid such outcomes. There are many excellent literature reviews of the performance of the medical malpractice system, including several recent book-length treatments.[36] We focus here on the frequency of claiming; compen-

31. DEP'T. OF HEALTH & HUMAN SERVS., ADVERSE EVENTS IN HOSPITALS: NATIONAL INCIDENCE AMONG MEDICARE BENEFICIARIES 15, 22 (2010), *available at* http://oig.hhs.gov/oei/reports/oei-06-09-00090.pdf.

32. Classen et al., *supra* note 22, at 586.

33. Cheryl Clark, *1 in 3 Hospitalized Patients Suffers an Adverse Event*, HEALTHLEADERS MEDIA (Apr. 7, 2011), *available at* http://www.healthleadersmedia.com/print/QUA-264653/1-in-3-Hospitalized-Patients-Suffers-an-Adverse-Event.

34. Jill Van Den Bos et al., *The $17.1 Billion Problem: The Annual Cost Of Measurable Medical Errors*, 30 HEALTH AFF. 596, 602 (2011).

35. John C. Goodman et al., *The Social Cost Of Adverse Medical Events, And What We Can Do About It*, 30 HEALTH AFF. 590, 591, 593 (2011).

36. *See generally* TOM BAKER, THE MEDICAL MALPRACTICE MYTH (2005); *see also* FRANK A. SLOAN & LINDSEY M. CHEPKE, MEDICAL MALPRACTICE (2008).

sation patterns (including the efficiency with which the liability system sorts cases); and time trends in claiming and payouts.

1. Claiming Frequency (relative to rate of medical error/adverse events)

Although the conventional wisdom is that Americans are exceptionally litigious, there is evidence that "Americans are no more innately lawsuit prone than the Japanese, the supposed saints of non-litigiousness."[37] Studies of patients injured by medical malpractice indicate that "the great majority of patients who sustain a medical injury as a result of negligence do not sue."[38] One researcher estimates that ten to twenty claims are asserted for every 100 malpractice-related injuries.[39] Rather than show that Americans sue too often, "the medical setting has provided the strongest evidence that the real tort crisis may consist in *too few* claims."[40]

The first major study, which focused on patients hospitalized in California in 1974, estimated that negligent injuries exceeded malpractice claims by a factor of ten.[41] Later studies, which focused on patients hospitalized in New York and Colorado/Utah, found ratios of negligent injuries

37. Thomas F. Burke, LAWYERS, LAWSUITS, AND LEGAL RIGHTS: THE BATTLE OVER LITIGATION IN AMERICAN SOCIETY 3 (2002).

38. Studdert et al., *supra* note 8, at 2025.

39. Michael J. Saks, *Medical Malpractice . . . By the Numbers*, *in* LITIGATING MEDICAL MALPRACTICE CLAIMS 399, 401 (ALI-ABA, 2008).

40. PAUL C. WEILER ET AL., A MEASURE OF MALPRACTICE: MEDICAL INJURY, MALPRACTICE LITIGATION, AND PATIENT COMPENSATION 62 (1993) (reporting results of an extensive study of malpractice in New York hospitals); *see also* Lori B. Andrews, *Studying Medical Error in Situ: Implications for Malpractice Law and Policy*, 54 DEPAUL L. REV. 357, 370 (2005).

41. Don Harper Mills, *Medical Insurance Feasibility Study—A Technical Summary*, 128 WEST. J. MED. 360, 362–64 (1978); *see also* CALIFORNIA MED. ASS'N & CALIFORNIA HOSP. ASS'N, REPORT ON THE MEDICAL INSURANCE FEASIBILITY STUDY (Don H. Mills ed., 1977); PATRICIA M. DANZON, MEDICAL MALPRACTICE: THEORY, EVIDENCE AND PUBLIC POLICY 66 (1985).

to lawsuits roughly in the range of 5–7:1.[42] Other sources also find that injuries greatly outnumber lawsuits.[43]

Looking outside of peer-reviewed journals, one finds ample evidence that the frequency of errors greatly exceeds the number of claims. At the national level, in 2000 there were roughly 87,000 medical malpractice lawsuits filed—but that figure is less than the IOM's upper-end estimate of a modest subset of medical errors (i.e., those that result in death).[44] At the state level, in 2009, a Florida agency received reports of 4,137 injury incidents from medical facilities but the number of new malpractice claims was only 855.[45] The same pattern is replicated in earlier years.[46] Finally, a study of 1,047 patients at a Chicago hospital found that although 17.7 percent experienced "one or more errors with a serious injury," only thirty nine (3.7 percent) requested their medical records, only five (<0.5 percent) sent letters of complaint, and only thirteen (1.2 percent) brought a claim.[47]

2. Compensation Patterns and Time Trends

Empirical studies of those who initiate malpractice claims show that injuries tend to be severe, that the size of payouts correlates with injury severity (other than a "death-discount"), that patients are undercompensated, and that the patients who suffer the worst injuries recover the

42. On New York, *see* PAUL C. WEILER, MEDICAL MALPRACTICE ON TRIAL 12 (1991); WEILER ET AL., *supra* note 40; Troyen A. Brennan et al., *Incidence of Adverse Events and Negligence in Hospitalized Patients. Results of the Harvard Medical Practice Study I*, 324 NEW. ENG. J. MED. 370 (1991); Lucian L. Leape et al., *The Nature of Adverse Events in Hospitalized Patients. Results of the Harvard Medical Practice Study II*, 324 NEW ENG. J. MED. 377 (1991); A. Russell Localio et al., *Relation Between Malpractice Claims and Adverse Events Due to Negligence. Results of the Harvard Medical Practice Study III.*, 325 NEW ENG. J MED. 245 (1991). On Colorado and Utah, *see* David M. Studdert et al., *Beyond Dead Reckoning: Measures of Medical Injury Burden, Malpractice Litigation, and Alternative Compensation Models from Utah and Colorado*, 33 IND. L. REV. 1643, 1664 (2000); Eric J. Thomas et al., *Costs of Medical Injuries in Utah and Colorado*, 36 INQUIRY 255 (1999); Eric J. Thomas et al., *Incidence and Types of Adverse Events and Negligent Care in Utah and Colorado*, 38 MED. CARE 261 (2000).

43. Frank A. Sloan & Chee Ruey Hsieh, *Injury, Liability and the Decision to File a Medical Malpractice Claim*, 29 L. & SOC. REV. 413, 414 (1995); Lori B. Andrews et al., *An Alternative Strategy for Studying Adverse Events in Medical Care*, 349 LANCET 309, 312 (1997).

44. NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS, STATISTICAL COMPILATION OF ANNUAL STATEMENT INFORMATION FOR PROPERTY/CASUALTY INSURANCE COMPANIES (2001).

45. FLORIDA AGENCY FOR HEALTH CARE ADMINISTRATION, 2009 MALPRACTICE STATEWIDE (2009), *available at* http://www.fdhc.state.fl.us/SCHS/risk/documents/2009/2009MalpracticeStatewide.pdf.

46. FLORIDA AGENCY FOR HEALTH CARE ADMINISTRATION, REPORTED MALPRACTICE CLAIMS STATEWIDE COMPARED TO REPORTED ADVERSE INCIDENTS 2006 (2006), *available at* http://www.fdhc.state.fl.us/SCHS/risk/documents/2006RepMalpClaimsStateWideComptoAnnualRepIncidents.pdf.

47. Andrews, *supra* note 40, at 370; *see also* Andrews et al., *supra* note 43, at 311–12.

smallest portions of their losses.[48] Comparing plaintiffs' economic losses—mainly, their past and future medical costs and their lost wages or expected income—to the amounts they received, one study found that malpractice victims "tended to be under-compensated, and [that] the fraction of loss recovered tended to be less for the most severe injuries and for deaths, in particular for infants."[49]

Injury severity is often ranked on a 9-level scale developed by the National Association of Insurance Commissioners (NAIC). The lowest rankings, 1–4, are for less serious injuries from which people usually recover, such as burns, infections, scars, and emotional harms. Levels 5–8 are for permanent injuries, which range from minor (loss of fingers or other non-disabling injuries) to grave (quadriplegia, severe brain damage, or fatal prognosis). The highest ranking, 9, is used when the victim died.[50]

Malpractice actions tend to involve injuries with high NAIC scores. Table 3 compares the distribution of injuries in closed malpractice claim databases maintained by Florida, Illinois, and Missouri, and the payouts for injuries with the specified NAIC scores.[51]

TABLE 3. NUMBER AND MEDIAN PAYOUT OF MEDICAL MALPRACTICE INSURANCE CLAIMS, BY SEVERITY OF INJURY, FROM 2000–2004

NAIC Scale	NAIC Description		Florida		Illinois		Missouri	
	Duration	Severity	Number	Median Payout	Number	Median Payout	Number	Median Payout
1		Emotional	206	$25k	48	$26k	17	$33k
2	Temporary	Slight	369	$16k	86	$5k	25	$16k
3		Minor	1,371	$50k	452	$25k	130	$64k
4		Major	842	$79k	308	$48k	207	$210k
5	Permanent	Minor	1,406	$108k	346	$83k	259	$220k
6		Significant	860	$250k	255	$210k	243	$400k

48. David A. Hyman & Charles Silver, *Medical Malpractice Litigation and Tort Reform: It's the Incentives, Stupid*, 59 VAND. L. REV. 1085, 1104–05 (2006).

49. Frank A. Sloan, *Policy Implications*, *in* SUING FOR MEDICAL MALPRACTICE 211, 220 (Frank A. Sloan et al. eds., 1993).

50. Whether the NAIC scale accurately tracks human assessments of injury severity is unclear. Injuries classified as minor or temporary on the NAIC's 9-level scale may seem serious when examined closely. *See* Allen J. Hart et al., *Multidimensional Perceptions of Illness and Injury*, 2 CURRENT RES. SOC. PSYCHOL. 30 (Sept. 11, 1997), *available at* http://www.uiowa.edu/~grpproc/crisp/crisp.2.4.htm.

51. THOMAS H. COHEN & KRISTEN A. HUGHES U.S. DEP'T OF JUSTICE BUREAU OF JUSTICE STATISTICS, MEDICAL MALPRACTICE INSURANCE CLAIMS IN SEVEN STATES, 2000–2004 6 (2007).

7		Major	591	$321k	193	$350k	225	$618k
8		Grave	424	$278k	99	$333k	152	$989k
9		Death	2,450	$216k	811	$172k	687	$457k
All Temporary Non-fatal Injuries			2,582	$50k	846k	$28k	362	$124k
All Permanent Non-fatal Injuries			3,281	$210k	893k	$193k	879	$420k
Total			8519	$133k	2,598	$107k	1945	$350k

Insurance payouts were adjusted for inflation using the consumer Price Index (CPI) in 2004 dollars. *See Consumer Price Index*, BUREAU OF LABOR STATISTICS, http://www.bls.gov/cpi/ (last visited Oct. 5, 2011).

Death cases account for roughly one-third of the claims in each state. In combination, death cases and cases with permanent non-fatal injuries constitute 66–80 percent of each dataset. The closed claim database assembled for the 2006 Harvard study had a similar injury distribution.[52]

Table 3 shows that payouts increase as injuries become more severe. In all three states, the median payouts for claims with temporary injuries are considerably smaller than those for permanent injuries. The relationship is not linear within the permanent injury category. Injuries with lower NAIC rankings sometimes have higher median payouts than more serious injuries. In all three states, injuries with NAIC rankings of 6–8 also generate higher median payouts than death cases. A study of paid claims by children against emergency department physicians found the same pattern: payments increased with injury severity until the injury was death, at which point payouts declined.[53] These results are not surprising. The liability system compensates proven economic and non-economic damages, subject to any caps the state may impose. Injury severity and damages do not always correlate. For example, death is at the high end of severity, but not of damages. Injuries with long-term consequences, such as ongoing needs for health care services, entail higher costs and generate higher payouts.

Studies of tried malpractice cases turn up the same patterns: serious injuries predominate and verdicts generally track injury severity. Using a sample of medical malpractice trials drawn from large counties nationwide, the Bureau of Justice Statistics found that 90 percent of medical malprac-

52. Studdert et al., *supra* note 8, at 2026 ("Eighty percent of claims involved injuries that caused significant or major disability (39 percent and 15 percent, respectively) or death (26 percent).").

53. Steven M. Selbst et al., *Epidemiology and Etiology of Malpractice Lawsuits Involving Children in US Emergency Departments and Urgent Care Centers*, 21 PEDIATRIC EMERGENCY CARE 165, 165–69 (2005).

tice trials involved plaintiffs who claimed malpractice had caused death or permanent injury.[54] The BJS also quantified how injury severity affected damages awards: "Median award amounts for medical malpractice trials arising from death claims ($837k) and permanent injuries ($412k) were higher than the median awards for medical malpractice trials that stemmed from temporary injuries ($77k)."[55] "[N]o patient with a temporary injury received an award exceeding $1 million from a jury."[56]

A study of California jury verdicts with large non-economic awards also reported that serious injuries predominated and that verdicts varied with injury severity: "[I]n general, plaintiffs' injuries were severe: Approximately half resulted in death, grave injury, or major injury. No claims involved emotional or insignificant injury exclusively, and only 3 percent involved temporary minor injury."[57] Non-economic damages and the chance of a multi-million dollar verdict correlated strongly with injury severity.

How are payouts changing over time? One often hears that payments on malpractice claims have skyrocketed. This assertion is sometimes supported by unrepresentative anecdotes or by industry-supported studies that use unpublished data and that fail to adjust for inflation or changes in the mix of injuries. Better studies find that payments are stable or declining. For example, the Missouri Department of Insurance examined 6,694 malpractice claims that closed with payments from 1990–2001. Using a time series regression model that controlled for health care inflation, real wages, and injury severity, the model showed that Missouri's liability system became *stingier* over time. "Without increases in health care costs and average wages, and if injury severities remained constant, average payments would have decreased fairly significantly during the 1990s."[58] A subsequent study of claims closed 1990–2006 revealed that claim frequency was

54. COHEN, *supra* note 9; THOMAS H. COHEN, U.S. DEP'T OF JUSTICE, NCJ NO. 206240, TORT TRIALS AND VERDICTS IN LARGE COUNTIES, 2001 5 (2004). The BJS data includes separate variables for permanence of injury and seriousness of injury. *See* Catherine M. Sharkey, *Unintended Consequences of Medical Malpractice Damages Caps*, 80 N.Y.U. L. REV. 391, 505 n.456 (2005).

55. COHEN, *supra* note 10, at 2.

56. *Id.*

57. David M. Studdert et al., *Are Damages Caps Regressive? A Study of Malpractice Jury Verdicts in California*, 23 HEALTH AFF. 54, 57 (2004).

58. MISSOURI DEPARTMENT OF INSURANCE, MEDICAL MALPRACTICE INSURANCE IN MISSOURI: THE CURRENT DIFFICULTIES IN PERSPECTIVE 18 (2003), *available at* http://www.citizen.org/documents/Missouri%20Report%20from%20D.%20of%20Insurance%202-7-03.pdf.

also stable or declining.[59] The study did not control for increases in the volume of health care services delivered—even though from 1991–2004, total health care spending almost doubled.

A study of Florida closed claims found that claim frequency held level from 1990–1997, averaging about 2,600 claims per year.[60] Paid claims, however, grew in number from 1990–2003, roughly in line with Florida's rising population but more slowly than Florida's supply of physicians. Paid claims per 100 doctors fell from 3.98 in 1990 to 3.33 in 2002; mean and median payments for claims with a positive payout increased substantially. The number of $1 million payments also increased. The authors attributed the increase in payment size to a significant increase in the severity of the injuries, and to larger awards within injury severity categories, possibly driven by the growing cost of health care.

Another team of authors evaluated trends in claims and payments by drawing on reports of malpractice settlements filed with the National Practitioner Databank (NPDB) between 1991 and 2003.[61] Their sample contained 184,506 reports concerning physicians in all fifty states. They found that the frequency of paid claims was stable. The number of payments per 100k persons fell slightly, from 5.2 to 5.0. Real payout increased 52 percent, an average of 4 percent per year. Most of the growth was concentrated in claims with payments below the top 10 percent of the distribution.

Another set of authors studied payments on malpractice claims involving urologists in New York State.[62] They examined 469 claims closed from 1985–2004. The number of files averaged twenty-two per year and showed no time trend, but the inflation-adjusted average indemnity payment increased by 191 percent over the period they studied. Because the sample included only claims against urologists practicing in New York State, it seems unlikely that changes in the case mix account for the increase. However, results controlling for case characteristics were not reported.

Finally, another team of authors calculated physician malpractice liability per $1k in health care expenditures (measured two ways), and showed that the ratio changed little over time. The stability of the ratio led

59. MISSOURI DEPARTMENT OF INSURANCE, FINANCIAL INSTITUTIONS, AND PROFESSIONAL REGISTRATION, MEDICAL PROFESSIONAL LIABILITY INSURANCE CLAIM REPORT (2006), *available at* http://www.insurance.mo.gov/industry/forms/375-0304.pdf.

60. Neil Vidmar et al, *Uncovering the "Invisible" Profile of Medical Malpractice Litigation: Insights from Florida*, 54 DEPAUL L. REV. 315, 332, 336, 348 (2005).

61. Amitabh Chandra et al., *The Growth of Physician Medical Malpractice Payments: Evidence from the National Practitioner Data Bank*, HEALTH AFF. W5-240, 243 (2005) (web exclusive) *available at* http://content.healthaffairs.org/content/early/2005/05/31/hlthaff.w5.240.citation.

62. Michael Perrotti et al., *Medical Malpractice in Urology, 1985 to 2004: 469 Consecutive Cases Closed with Indemnity Payment*, 176 J. UROLOGY 2154, 54–57 (2006).

them to conclude that "rising medical costs, which contribute to the size of compensatory awards, may explain a sizable portion of payment growth, consistent with other findings."[63]

What of jury verdicts? Although one often hears that jury verdicts have skyrocketed and vary irrationally, "[s]cholarly work on trends in jury verdict awards . . . generally finds little support for the more pessimistic view of runaway juries and increasingly generous awards."[64] The research is well known and has been summarized many times.[65] We focus on the most recent studies.

In 2004, the Institute for Civil Justice at RAND released an impressive study of jury verdicts in tort cases.[66] The authors compiled a database of jury verdicts covering a span of forty years (1960–1999) from state courts in San Francisco County, California and Cook County, Illinois. Their sources were jury verdict reporters in both states. The dataset included "all medical malpractice, other professional malpractice, product liability, automobile, common carrier, and premises liability verdicts, as well as other tort cases such as civil rights cases and intentional torts."[67] Looking at only trials with verdicts for plaintiffs, the RAND study found a substantial increase in the real average award and a smaller increase in the real median award. However, "case characteristics, claimed nonmedical economic losses, and claimed medical losses account[ed] for essentially *all* the observed growth in average tort awards in San Francisco County and Cook County over this time period."[68]

This study did not distinguish verdicts from payments. Yet, when jurors award plaintiffs large amounts of money, defendants rarely pay the full amount. Verdicts are often adjusted downwards because of judicial remittitur, private pre-judgment contracts between the parties (called "high/low

63. Chandra et al., *supra* note 61, at 247.

64. Seth A. Seabury et al., *Forty Years of Civil Jury Verdicts*, 1 J. OF EMPIRICAL LEG. STUD. 1, 2 (2004); *see also* Philip G. Peters Jr., *Health Courts*, 88 B.U. L. Rev. 227, 38–41 (2008).

65. The seminal writings on jury verdicts in malpractice cases include publications by Neil Vidmar, Stephen Daniels, Joanne Martin, and Thomas Metzloff. NEIL VIDMAR, MEDICAL MALPRACTICE AND THE AMERICAN JURY: CONFRONTING THE MYTHS ABOUT JURY INCOMPETENCE, DEEP POCKETS, AND OUTRAGEOUS DAMAGE AWARDS (1995); Neil Vidmar, *Empirical Evidence on the Deep Pockets Hypothesis: Jury Awards for Pain and Suffering in Medical Malpractice Cases*, 43 DUKE L.J. 217, 254–55 (1993); Neil Vidmar, Felicia Gross & Mary Rose, *Jury Awards for Medical Malpractice and Post-verdict Adjustments of Those Awards*, 48 DEPAUL L. REV. 265, 280, 298 (1998); *see also* STEPHEN DANIELS & JOANNE MARTIN, CIVIL JURIES AND THE POLITICS OF REFORM (1995); Thomas B. Metzloff, *Resolving Malpractice Disputes: Imaging the Jury's Shadow*, 54 LAW & CONTEMP. PROBS. 43, 74–75, 83 n.126 (1991). For a recent review, *see generally* Shari Seidman Diamond, *Beyond Fantasy and Nightmare: A Portrait of the Jury*, 54 BUFF. L. REV. 717 (2006).

66. Seabury et al., *supra* note 64, at 2.

67. *Id.* at 4.

68. *Id.* at 20.

agreements," which may sometimes increase payments as well), as part of settlement negotiations to avoid an appeal, or simply because defendants have limited insurance, and it isn't worth pursuing "blood money." As verdict size increases, downward post-verdict adjustments become both more likely and bigger. The first studies comparing verdicts and payments appeared in the 1990s.[69] These studies found that large verdicts were reduced substantially, with defendants often paying but a small fraction of jury awards. More recently, Vidmar has produced single-state reports covering Florida, Illinois, and Pennsylvania.[70] These reports find that defendants usually paid much less than juries awarded when verdicts exceeded $1 million.

Research on closed malpractice claims in Texas also finds that plaintiffs discount verdicts significantly when settling, and that plaintiffs with the largest verdicts incur the largest reductions, in both percentage terms and absolute dollars.[71] Seventy-five percent of plaintiffs received payouts below their verdicts (adjusted for pre- and post-judgment interest). The mean (median) discount per case was 29 percent (19 percent), and the aggregate reduction for all plaintiffs who won at trial was 56 percent.

3. Impact of Caps on Non-Economic Damages

A sizeable empirical literature studies the impact of non-economic caps on verdicts, claim frequency, malpractice insurance payouts, malpractice premiums, defensive medicine, physician supply, overall health insurance premiums, mortality rates, and more. Some studies are peer reviewed, but many findings appear in government reports, non-peer reviewed journals, and policy papers. Recent reviews of this literature are easily found.[72] This discussion therefore focuses on the small number of peer-reviewed studies of caps of all types that is based on case- or claim-level data. These

69. Vidmar, Gross & Rose, *supra* note 65, at 280, 298.

70. Neil Vidmar et al., *Million Dollar Medical Malpractice Cases in Florida: Post-Verdict and Pre-Suit Settlements*, 59 VAND. L. REV. 1343 (2006); NEIL VIDMAR, MEDICAL MALPRACTICE LITIGATION IN PENNSYLVANIA (2006), *available at* http://www.pabar.org/pdf/PBAMedMalweb061406.pdf; NEIL VIDMAR, MEDICAL MALPRACTICE AND THE TORT SYSTEM IN ILLINOIS (2005), *available at* webarchives.isba.org/medicalmalpracticestudy.pdf.

71. David A. Hyman et al., *Estimating The Effect of Damages Caps in Medical Malpractice Cases: Evidence from Texas*, 1 J. LEGAL ANALYSIS 355, 384–85 (2009).

72. *See* Leonard J. Nelson III et al., *Medical Malpractice Reform in Three Southern States*, J. OF HEALTH & BIOMEDICAL L. 69 (2008); Leonard J. Nelson III et al., *Damages Caps in Medical Malpractice Cases*, 85 MILBANK Q. 259 (2007); John J. Donohue III & Daniel E. Ho, *The Impact of Damage Caps on Malpractice Claims: Randomization Inference with Difference-in-Differences*, 4 J. EMPIRICAL LEGAL STUD. 69 (2007); MICHELLE M. MELLO, MEDICAL MALPRACTICE: IMPACT OF THE CRISIS AND EFFECT OF STATE TORT REFORMS (2006), *available at* http://rwjf.org/pr/product.jsp?id=15168; Geoffrey Christopher Rapp, *Doctors, Duties, Death and Data: A Critical Review of the Empirical Literature on Medical Malpractice and Tort Reform*, 26 N. ILL. U. L. REV. 439 (2006).

studies find that caps have the effect one would predict: they cut deeply into verdicts with sizeable awards of non-economic damages.

California's Medical Injury Compensation Reform Act (MICRA) statute capped non-economic damages at $250,000 in 1975. However, because the allowed amount is not adjusted for inflation, the MICRA cap is much less generous now than when it was imposed. Two studies have examined the impact of the MICRA cap on verdicts. Using the *California Jury Verdicts Weekly,* one set of authors gathered data on 152 malpractice cases tried from 1985 to 2002, in which the jury's award of non-economic damages was both ascertainable and in excess of the cap.[73] Across the entire sample, the non-econ cap reduced the aggregated total verdict by 34 percent, from $390 million to $253 million. Considering only the portion of verdicts directed to non-economic damages, the aggregate reduction was 73 percent. Non-economic damage awards correlated positively with injury severity as measured on the NAIC scale, except when the injury was death. For this reason, the MICRA cap hit plaintiffs with severe injuries especially hard: "The mean reductions for grave injury were seven times larger than those for minor injury; the differences in medians for these two levels of injury differed by a factor of three."[74] Plaintiffs with pain or disfigurement experienced the largest reductions in their verdicts. As the authors noted, "because verdicts for injuries such as deafness, numbness, disfigurement, and chronic pain attracted relatively small economic damages awards, imposition of the cap eliminated most of the award" in cases with these injuries.[75] No evidence indicated that the MICRA cap affected female or elderly plaintiffs more than others.

Another study examined 257 California jury verdicts decided from 1995–1999, also using *California Jury Verdicts Weekly* as its data source.[76] It found that the non-economic cap applied in 45 percent of cases and reduced the aggregate jury award 30 percent, from $421 million to $295 million. The cap affected death cases more often than cases with non-fatal injuries (58 percent versus 41 percent):

> The median reduction in capped-death cases was $459,000, compared with $286,000 for injury cases, and the median percentage reduction in total awards when the cap was imposed was 49 percent, compared with 28 percent in injury cases. The reason for these deep percentage cuts in total award size for death cases is that, on average, death cases receive

73. *See* Studdert et al., *supra* note 57, at 54–67.

74. *Id.* at 60.

75. *Id.* at 62.

76. NICHOLAS M. PACE ET AL., CAPPING NON-ECONOMIC AWARDS IN MEDICAL MALPRACTICE TRIALS: CALIFORNIA JURY VERDICTS UNDER MICRA xix (2004), *available at* http://rand.org/pubs/monographs/MG234/.

> relatively low awards for economic damages compared with the awards originally granted by juries for non-economic damages.[77]

This study also found that the MICRA cap affected some types of plaintiffs more than others. The MICRA cap reduced verdicts in 71 percent of cases with verdicts in favor of infants, and the median reduction for this group was $1.5 million, "far more than the median for individual plaintiffs with injury claims ($268,000)."[78] As a percentage of total awards, however, infants fared better than others—22 percent versus 32 percent for all plaintiffs—because infants' economic awards were relatively large. Awards were reduced for 67 percent of plaintiffs aged sixty-five years or older, but the plaintiffs had the smallest median dollar reduction. Females suffered larger median reductions than males—34 percent versus 25 percent.

Another study focused on a nationwide sample of 322 jury verdict cases decided from 1984–2005 involving urologists that appeared in an online database.[79] Jurors found for the defendant in slightly over half the cases, a far higher plaintiff success rate than is found in malpractice trials more generally. The authors adjusted the gross verdicts to reflect the degree of negligence attributed to the urologist so as to take account of the influence of comparative negligence statutes on defendants' financial responsibility. The states covered by the sample included some that enacted or repealed caps during the period. The authors controlled for whether a cap was in effect when a trial occurred. The findings were mixed:

> [s]tates with caps had lower median verdict or settlement amounts compared to states without caps ($350,000 vs $491,500), suggesting that limits on noneconomic damages may have had an impact. However, in the 12 states that did and did not have caps during the study period the median verdict or settlement during the time without limits on damages was only $150,000, suggesting that the implementation of caps did not decrease median awards.[80]

The authors do not indicate whether they adjusted verdicts or settlements for inflation, and it appears that the numbers reported were based on jury verdicts—not on actual payments. (This is a significant weakness: as dscribed above and below, defendants and their insurers often pay plaintiffs much less than juries award.) Determining whether particular cases are subject to a damages cap is difficult, because the effective date of the stat-

77. *Id.* at xxi.

78. *Id.* at xxiii.

79. Michael H. Hsieh et. al., *Medical Malpractice in American Urology: 22-Year National Review of the Impact of Caps and Implications for Contemporary Practice*, 179 J. UROLOGY 1944, 1944 (2008).

80. *Id.* at 1945.

ute is usually tied to filing date, and not the date a trial occurred.[81] Finally, the unusually high plaintiff win rate suggests that defense victories were under-reported, a problem that affects jury verdict reporters in general.

4. Accuracy of the Liability System

Health care providers and other critics of the tort system contend that it allocates payments haphazardly—like a policeman handing out more tickets to those who comply with the traffic laws than to those who run red lights.[82] However, the weight of the evidence suggests that the system distinguishes between valid and invalid claims reasonably well, but is far from perfect.[83] Indeed, "over the past several years, a consensus has emerged among academic observers that the medical malpractice system operates, overall, in a rational and predictable way. There is a clear connection between the quality of the case, expressed in terms of likely liability, and compensation."[84] At least in the U.S., the largest problem appears to be the frequency with which the tort system *denies* compensation to patients with *valid* claims.

One recent study assessed accuracy by obtaining insurer's assessments of care quality for malpractice claims filed in North Carolina courts after the underlying cases had been resolved. "Money was paid in 78% of cases that were evaluated as having probable liability, in 73.7% of cases in which liability was assessed as uncertain, and in 33.3% of cases in which liability was viewed as unlikely."[85] Concordance between the evaluations of the plaintiff's attorney and the defense attorney also correlated with the likelihood of payment.

81. *See* RONEN AVRAHAM, DATABASE OF STATE TORT REFORMS (2011), *available at* http://ssrn.com/abstract=902711.

82. Troyen A. Brennan & Philip K. Howard, *Heal the Law, Then Health Care*, WASH. POST, Jan. 25, 2004, at B07; William R. Brody, President, The Johns Hopkins University, Is the Legal System Killing Healthcare?, address at the Manhattan Institute for Policy Research Luncheon (Feb. 25, 2003), *available at* web.jhu.edu/old/president/speeches/2003/legalsys.html; William R. Brody, *Dispelling Malpractice Myths*, WASH. POST, Nov. 14, 2004, at B07; Florida Stop Lawsuit Abuse, Watchdog Says Floridians are Fed Up with Lawsuit Abuse as South Florida Courts again Top List of "Judicial Hellholes" (Dec. 17, 2008), http://www.floridastoplawsuitabuse.com/newsroom_121608.html; PHYSICIAN INSURERS ASSOCIATION OF AMERICA, http://www.piaa.us/ (last visited March 13, 2009); Darien Cohen et al., *Malpractice Claims on Emergency Physicians: Time and Money*, J. EMERGENCY MED. (Epub ahead of print, 2008).

83. *See* BAKER, *supra* note 36; Hyman & Silver, *supra* note 48, at 1087; SLOAN & CHEPKE, *supra* note 36.

84. Catherine T. Harris et al., *Does Being a Repeat Player Make a Difference? The Impact of Attorney Experience and Case-Picking on the Outcome of Medical Malpractice Lawsuits*, 8 YALE J. HEALTH POL'Y L. & ETHICS 253, 261 (2008).

85. *Id.* at 272.

Two studies examined the quality of care and the resolutions of forty-two closed malpractice claims against neurologists, all of which were covered by the same insurer.[86] The first study focused on "whether the neurologist committed harmful, preventable errors"; the second focused on whether errors occurred that were harmful and negligent. The neurologist-authors reviewed all the information in the insurer's files to make these determinations. The authors then compared their assessments of the neurological services to the outcome, framed as whether a payment on behalf of the neurologist was made. Table 4 displays the results of both studies.

TABLE 4. ACCURACY OF OUTCOMES

	Payment (N (%))	No Payment (N (%))	Totals
Harmful substandard care	6 (82%)	13 (68%)	19
Appropriate care	1 (4%)	22 (96%)	23
Totals	7	35	42

Note: p=0.034 (two-tailed Fisher's exact test).

Of the nineteen claims found to have harmful substandard care, only a minority (32 percent) closed with payments; the plaintiffs in the remaining cases received no compensation from the culpable neurologists. Accuracy was significantly better for claims with appropriate care. Of these twenty-three claims, 96 percent closed without payments on behalf of the treating neurologists. As the authors summarized their findings, "a plaintiff was eight times more likely to receive payment if the defendant had rendered substandard care than if the defendant had not (32 percent vs. 4 percent)."[87]

In 2006, researchers affiliated with Harvard University School of Public Health studied the malpractice system's accuracy using a random sample of 1,452 closed claim files from a geographically diverse group of five insurance carriers.[88] The files contained all materials available to the insurers, including litigation-related materials like expert witnesses' opinions, and were supplemented with medical records obtained from the insureds. The researchers then assigned physicians trained in the relevant specialty to review the files. The reviewers determined whether an injury occurred, how severe it was, and whether a treatment error caused it. They also gauged the strength of the evidence showing that an error occurred on a 6-

86. Lee D. Cranberg et al., *Do the Claims Hold Up? A Study of Medical Negligence Claims Against Neurologists*, 4 J. EMPIRICAL LEGAL STUD. 155, 155 (2007); Thomas H. Glick et al., *Neurologic Patient Safety: An In-Depth Study of Malpractice Claims*, 65 NEUROLOGY 1284, 1284 (2005).

87. Cranberg et al., *supra* note 86, at 160.

88. Studdert et al., *supra* note 8, at 2025.

level scale ranging from "virtually certain evidence" (6) to "little or no evidence" (1).

According to the reviewers, nearly all the claims in the sample involved treatment-related injuries. Ninety percent of the injuries were physical, and most were severe. In 26 percent of the cases, the patient died. The correlation between errors and payments was strong. The "right" result (error/payment or no error/no payment) occurred about 73 percent of the time. Error claims predominated in the sample, accounting for 64 percent of all claims and 84 percent of all indemnity payments. The strength of the evidence of error mattered as well: "The probability of payment increased monotonically with reviewers' confidence that an error had occurred."[89]

The system's biggest failings were: (1) its tendency to withhold payments from deserving claimants, (2) the time it took to resolve claims, and (3) the loading costs it entailed. For example, "[o]ne in six claims involved errors and received no payment"—with false negatives (error/no payment) 1.6 times more likely than false positives (no error/payment).

A follow-up study used multivariate regression to identify factors that were associated with false negatives and false positives.[90] For false negatives (unpaid error claims), trials were the most important predictor. For false positives (paid non-error claims), the best predictors were infant patients and institutional defendants (e.g., hospitals). Clarity of evidence also mattered. Both types of error were less common when insurers and reviewers were confident in their assessments of the quality of care.

5. Frivolous Lawsuits

Reform advocates have attacked the malpractice liability system on the grounds that the way in which plaintiffs lawyers are compensated (i.e., with fees contingent on recovery) encourages them to bring frivolous lawsuits in the hopes of winning the "litigation lottery." These frivolous lawsuits reportedly drive up health care costs and discourage health care providers.[91] As we have observed elsewhere, the argument that frivolous lawsuits are common, or represent a viable business strategy for plaintiffs' attorneys, is problematic. Malpractice carriers know how to evaluate

89. *Id.* at 2028.

90. David M. Studdert & Michelle M. Mello, *When Tort Resolutions are "Wrong": Predictors of Discordant Outcomes in Medical Malpractice Litigation*, 36 J. LEGAL STUD. 547, 547 (2007).

91. Warren Vieth, *Bush Hammers Medical Malpractice Suits*, L.A. TIMES, Jan. 6, 2005, at A17; Peter Baker, *Bush Campaigns to Curb Lawsuits: President Says 'Junk' Litigation is Driving Small-Town Doctors out of Business*, WASH. POST, Jan. 6, 2005, at A06.

claims, and they only pay claims they think have merit.[92] Knowing this, plaintiff's lawyers have little incentive to take weak cases—and they quickly drop such cases once it becomes apparent they are weak.[93] Nor can patients sue successfully without a lawyer's help. In Texas, for example, few-fewer than 1 percent of paid malpractice claims involved pro se litigants who filed complaints on their own.[94]

To be sure, most claims turn out to lack merit, if one judges solely by whether compensation is paid. But, it follows neither that these claims were frivolous nor that payment was properly denied. Since non-negligent treatment is the rule, even a small error rate in screening will result in a substantial number of cases that lack merit being initiated, and subsequently dropped. Further, many cases involve judgment and "close calls." These factors suggest we should be cautious in ascribing frivolity to the observed patterns.

6. Cost of Medical Errors/Adverse Events

Estimates of the aggregate cost of medical errors and adverse events are impressively high, although there is inevitably some "squishiness" in the estimates. In its 1999 report, the Institute of Medicine estimated that medical errors cost the U.S. between $17 and $29 billion per year.[95] In 2008, the Agency for Health Care Research and Quality estimated that surgical errors cost nearly $1.5 billion per year.[96] In 2006, drug-related errors were estimated to cost as much as $3.5 billion per year.[97] A 2008 study by a health care consulting firm put the cost of all adverse events at $19.5 billion,[98] while a 2003 study by AHRQ pegged the cost of avoidable

92. Ralph Peeples et al., *The Process of Managing Medical Malpractice Cases: The Role of Standard of Care*, 37 WAKE FOREST L. REV. 877, 885 (2002); Catherine T. Harris et al., *Who are Those Guys? An Empirical Examination of Medical Malpractice Plaintiffs' Attorneys*, 58 SMU L. Rev. 225, 245–47 (2005).

93. Henry S. Farber & Michelle J. White, *Medical Malpractice: An Empirical Examination of the Litigation Process*, 22 RAND J. ECONOMICS 199, 200 (1991); Herbert M. Kritzer, *Contingency Fee Lawyers as Gatekeepers in the Civil Justice System*, 81 JUDICATURE 22, 22 (1997); Huycke & Huycke, *supra* note 19, at 797.

94. Silver & Hyman, *supra* note 18, at 377.

95. INST. OF MEDICINE, *supra* note 26.

96. U.S. DEP'T OF HEALTH & HUMAN SERVS., NEW AHRQ STUDY FINDS SURGICAL ERRORS COST NEARLY $1.5 BILLION ANNUALLY (July 28, 2008) (press release), *available at* http://www.ahrq.gov/news/press/pr2008/surgerrpr.htm.

97. NAT'L ACADEMIES, MEDICATION ERRORS INJURE 1.5 MILLION PEOPLE AND COST BILLIONS OF DOLLARS ANNUALLY (July 20, 2006) (press release), *available at* http://www8.nationalacademies.org/onpinews/newsitem.aspx?recordid=11623.

98. JON SHREVE ET AL., THE ECONOMIC MEASUREMENT OF MEDICAL ERRORS 5 (2010).

adverse events in the hospital at $4.6 billion per year.[99] The aggregate social cost of these medical errors has been estimated to range up to $958 billion per year.[100]

Who bears the cost of these medical errors and adverse events? One study of inpatients in Colorado and Utah found that "[o]n average, hospitals externalized 78 percent of the costs of all injuries and 70 percent of the costs of negligent injuries."[101] An earlier study found that hospitals internalized roughly two-thirds of the cost of negligent treatment, but that study focused only on the costs of inpatient treatment, and excluded other costs, such as lost earnings and non-economic damages.[102]

7. Cost of the Liability System

The direct costs of the malpractice liability system are widely estimated to be on the order of $20–$30 billion per year. What about the indirect costs (principally defensive medicine)? Tort reform advocates claim that defensive medicine costs $100–$300 billion per year, but empirical studies put the cost much lower.

Kessler and McClellan performed the first rigorous studies of the impact of tort reforms on health care spending.[103] Using longitudinal data on Medicare beneficiaries who received cardiac treatments in hospitals in three years (1984, 1987, and 1990), they found that damages caps and other reforms that limited liability directly reduced post-treatment medical spending by 5–9 percent, without adverse health effects. Other tort reforms did not produce statistically significant spending reductions. Kessler and McClellan subsequently reanalyzed their data while controlling for managed care penetration, and found smaller but still significant results.[104]

In their original article, Kessler and McClellan observed that "if our results are generalizable to other medical expenditures outside the hospital, to other illnesses, and to younger patients, then direct [tort] reforms could

99. Chunliu Zhan & Marlene R. Miller, *Excess Length of Stay, Charges, and Mortality Attributable to Medical Injuries During Hospitalization*, 290 JAMA 1868, 1872 (2003).

100. John C. Goodman et al., *The Social Cost of Adverse Medical Events, and What We Can Do About It*, 30 Health Aff. 490 (Apr. 2011).

101. Michelle M. Mello et al., *Who Pays for Medical Errors? An Analysis of Adverse Event Costs, the Medical Liability System, and Incentives for Patient Safety Improvement*, 4 J. EMPIRICAL LEGAL. STUD. 835, 850 (2007).

102. Chunliu Zhan et al., *Medicare Payment for Selected Adverse Events: Building the Business Case for Investing in Patient Safety*, 25 HEALTH AFF. 1386, 1390–1391 (2006).

103. Daniel P. Kessler & Mark B. McClellan, *Do Doctors Practice Defensive Medicine?*, 111 Q. J. ECON. 353, 353 (1996).

104. *See* Daniel P. Kessler & Mark B. McClellan, *How Liability Law Affects Medical Productivity*, 21 J. HEALTH ECON. 931, 949 (2002).

lead to expenditure reductions of well over $50 billion per year without serious adverse consequences for health outcomes."[105] Tort reform advocates played up Kessler and McClellan's number and played down their qualification. One stated flatly that nationwide tort reform would save "well over $50 billion a year."[106] In 2002, the Department of Health & Human Services issued a report that relied on Kessler and McClellan, and concluded that tort reform "would save $70–$126 billion in health care costs per year."[107]

Recent studies have suggested the cost of defensive medicine is far lower. In 2004, the Congressional Budget Office reported that when it applied Kessler and McClellan's methods to a broader range of medical conditions, "it found no evidence that restrictions on tort liability reduce medical spending."[108] A study by Sloan and Shadle that covered more conditions and a longer span of years also produced insignificant results.[109] A recent study's findings are summed up by its title: there are "low costs" associated with defensive medicine, and "small savings from tort reform."[110] Other studies have found stronger evidence of defensive medicine. One recent study found that health care spending was 3–4 percent lower in states that had adopted tort reform,[111] and another review put the cost of defensive medicine at $45.6 billion, while acknowledging the poor quality of the evidence supporting this figure.[112]

Using Medicare data, we are currently analyzing the relationship between claim rates, tort reform, and health care spending in Texas. Our results indicate that malpractice risk does not significantly affect health care spending.[113]

105. Kessler & McClellan, *supra* note 103, at 387–388.

106. Peter Huber, Rx: Radical Lawyerectomy, Forbes, Jan. 27, 1997, at 112, available at http://www.forbes.com/forbes/1997/0127/5902112a.html.

107. U.S. DEP'T OF HEALTH & HUMAN SERVS., ADDRESSING THE NEW HEALTH CARE CRISIS 11 (2003) *available at* http://aspe.hhs.gov/daltcp/reports/medliab.htm.

108. CONG. BUDGET OFFICE, LIMITING TORT LIABILITY FOR MEDICAL MALPRACTICE 6 (2004) *available at* http://www.cbo.gov/ftpdocs/49xx/doc4968/01-08-MedicalMalpractice.pdf.

109. Frank A. Sloan & John H. Shadle, *Is There Empirical Evidence for "Defensive Medicine": A Reassessment*, 28 J. HEALTH ECON. 481, 486 (2009).

110. J. William Thomas, Erika C. Ziller & Deborah A. Thayer, *Low Costs Of Defensive Medicine, Small Savings From Tort Reform*, 29 HEALTH AFF. 1578, 1578 (2010).

111. Fred J. Hellinger & William E. Encinosa, *The Impact of State Laws Limiting Malpractice Damage Awards on Health Care Expenditures*, 96 AM. J. PUB. HEALTH 1375, 1375 (2006).

112. Michelle M. Mello, Amitabh Chandra, Atul A. Gawande & David M. Studdert, *National Costs Of The Medical Liability System*, 29 HEALTH AFF. 1569, 1574 (2010).

113. MYUNGHO M. PAIK ET AL., HOW DO THE ELDERLY FARE IN MEDICAL MALPRACTICE LITIGATION, BEFORE AND AFTER TORT REFORM? EVIDENCE FROM TEXAS, 1988–2009 (2011), *available at* http://ssrn.comWe/abstract=1605331.

III. ATTITUDES AND CONCERNS ABOUT THE LIABILITY AND COMPENSATION SYSTEMS

In the United States, trial lawyers and the tort system are exceedingly unpopular. There is certainly plenty of room for improvement in the tort system, but the degree of unpopularity probably has something to do with the existence of a determined, decades-long campaign framing the issues around depictions of greedy and predatory trial lawyers, frivolous lawsuits, and biased judges. The American Tort Reform Association serves as an umbrella organization, and annually designates several locations as "judicial hellholes."[114] The U.S. Chamber of Commerce has an Institute for Legal Reform that funds a wide range of initiatives and lobbies heavily for tort reform.[115] The Manhattan Institute has a Center for Legal Policy that issues periodic reports on such subjects as "Trial Lawyers, Inc."[116] Multiple states have similar entities that focus on the specific issues within their state (e.g., the Illinois Lawsuit Abuse Watch).[117] And there are a host of smaller organizations (e.g., Citizens Against Lawsuit Abuse, Stop Lawsuit Abuse, and People for a FAIR Legal System). These groups have used a wide array of strategies to get their message out, including lobbying, advertisements, starting their own newspapers, distributing plush toys at state fairs, and multiple other modes of communication.[118]

Polling data indicates these efforts have been quite successful. A poll conducted in November 2010 by the U.S. Chamber of Commerce, found that 88 percent of those polled (1,000 voters who cast ballots in the 2010 mid-term election) "believe[d] there [were] too many 'meritless' lawsuits, while eight out of ten want[ed] the next Congress to continue reforming the legal system."[119] It is no accident that the Association of Trial Lawyers of America (ATLA) changed its name in 2006 to the American Association for Justice. A contemporaneous article stated "the switch was viewed as an

114. AM. TORT REFORM ASS'N, *JUDICIAL HELLHOLES*, http://www.judicialhellholes.org/about/ (last visited Sept. 1, 2011).

115. INST. FOR LEGAL REFORM, http://www.instituteforlegalreform.com/about-ilr.html (last visited Sept. 1, 2011).

116. ,MANHATTAN INST. FOR POLICY RESEARCH, *About the Center for Legal Policy*, http://www.manhattan-institute.org/html/clp.htm (last visited Sept. 1, 2011).

117. ILL. LAWSUIT ABUSE WATCH, http://www.illawsuitabusewatch.org/about.html (last visited Sept. 1, 2011).

118. Jeffrey H. Birnbaum, *A Quiet Revolution In Business Lobbying*, WASH. POST, Feb. 5, 2005, at A01, *available at* http://www.washingtonpost.com/wp-dyn/articles/A64725-2005Feb4.html; Jeffrey H. Birnbaum, *Advocacy Groups Blur Media Lines*, WASH POST, Dec. 6, 2004, at A01, *available at* http://www.washingtonpost.com/wp-dyn/articles/A38184-2004Dec5.html.

119. INST. FOR LEGAL RESEARCH, NINE OUT OF TEN VOTERS SAY "MERITLESS" LAWSUITS ARE A SERIOUS PROBLEM, SUPPORT CONTINUED LEGAL REFORMS (Nov. 4, 2010) (press release), *available at* http://www.instituteforlegalreform.com/component/ilr_media/30/pressrelease/2010/520.htm.

acknowledgment that trial lawyers are unpopular and losing the public relations battle."[120]

Plaintiffs' lawyers are exceedingly unpopular, and so is the tort system—and there are plenty of reasons for dissatisfaction with the performance of the tort system. Unfortunately, it does not follow that the reforms that are enacted will actually address the known pathologies of the tort system. For several decades, the field of play has been frozen in a debate over the desirability of caps on non-economic damages—which are, at best, a partial solution to a relatively minor problem. Even if damages caps were a perfect solution to all the problems of the tort system (which even proponents do not claim), it appears that most of the states that are likely to adopt damages caps have already done so.

IV. WHY DO THINGS LOOK THE WAY THEY DO?

As we have written previously, one can explain many of the features of the U.S. medical error/adverse event/malpractice landscape by focusing on the applicable incentives that result from the institutional choices imbedded in the U.S. health care financing/delivery and litigation systems.[121] For example, injured patients rarely sue because some medical errors are hard to spot, and because most errors inflict harms that are small or temporary. By contrast, those who file lawsuits are seriously injured, and the severity skew appears to be increasing over time (as tort reform makes cases involving less severe injuries nonviable). Given the costs and delays of litigation, patients with lesser injuries are usually better off letting the matter drop ("lumping it"), complaining, changing providers, or seeking assistance from regulators.[122]

Financial need is also an important motivating factor for patients. Because first-party health insurance generally covers treatment costs, the desire to sue is often weak. As noted previously, first-party insurance also makes litigation less profitable for claimants because first-party carriers are entitled to recoup the amounts they have advanced through subrogation.[123]

120. Debra C. Weiss, *Acronym Soup Suit*, A.B.A. J. (Nov. 30, 2007), http://www.abajournal.com/news/article/acronym_soup_suit_aaj_formerly_atla_sues_theatla/.

121. Hyman & Silver, *supra* note 48.

122. Marlynn L. May & Daniel B. Stengel, *Who Sues Their Doctors? How Patients Handle Medical Grievances*, 24 LAW & SOC'Y. REV. 105, 117 (1990).

123. Deborah R. Hensler et al., COMPENSATION FOR ACCIDENTAL INJURIES IN THE UNITED STATES 17–18 (The Inst. For Civil Justice ed. 1991); William G. Johnson et al., *The Economic Consequences of Medical Injuries: Implications for a No-Fault Insurance Plan*, 267 JAMA 2487, 2491 (1992); BAKER, *supra* note 36.

V. WHAT HAVE WE LEARNED BY STUDYING TEXAS?

Over the past decade, along with several co-authors, we have used an enormous database of closed claims to assess the performance of the malpractice liability system in Texas. In this section, we will highlight a selection of our findings that that shed light on the issues discussed in this article.

A. Who Decides Malpractice Cases?

Physicians hate and fear juries, and doubt their competence to decide complex malpractice cases. This is true even though many studies find that physicians win most malpractice trials[124] and despite the fact that trials are comparatively rare. Most malpractices cases are either dropped by plaintiffs or resolved with voluntary payments before trial. Settlements occurred in 97.5 percent of the Texas malpractice claims that closed with payments from 1988–2002. Settlements also accounted for 95 percent of the total dollars paid.[125]

B. Does it Matter How Much the Jury Awards in a Malpractice Case?

Providers and their insurers often contend that jury awards are rising quickly and driving up costs. In Texas, we found no time trend in jury awards after adjusting for general inflation.[126] We also learned that the absolute amount a jury awards a plaintiff matters a lot less than one might think because awards are routinely discounted in settlement negotiations. In other words, defendants and their insurers usually pay much less than juries award. Over the dataset as a whole, they paid less than half the amount that was awarded (including pre-judgment interest).

As noted previously, awards are discounted for several reasons, including appellate reversals and reductions required by statutory damages caps. But the biggest factor was that voluntary settlements occur in the shadow of providers' policy limits. If the policy limits are $500,000, it doesn't matter whether the jury awards $1 million, $5 million, or $50 million. The plaintiff is likely to recover at most $500,000. The rest of the award will be written off. In practical effect, policy limits cap recoveries.

124. *See, e.g.*, COHEN, *supra* note 10, at 2 (reporting that the plaintiffs won only 27 percent of malpractice trials).

125. Black et al., *supra* note 10, at X.

126. *Id.* at 251.

Because large jury verdicts are more likely to exceed providers' insurance limits, they are discounted the most substantially in settlement negotiations. The size of the discount, which we refer to as a "haircut," increases in both percentage terms and absolute dollars as the size of the award rises. The plaintiffs who won the largest jury awards (and who presumably had the most severe injuries and the greatest needs) sacrificed the most when settling their claims. In the small fraction of cases with payments exceeding the primary policy limits, the payments usually come from insurers, not providers. Providers have little to fear in the way of personal liability from jury awards, at least in Texas medical malpractice cases.

C. How Much Coverage Do Physicians Have?

Because injured patients recover almost exclusively from providers' insurance, it is important to know how much insurance providers maintain and whether the size of their policies has changed over time. Texas does not regulate the amount of coverage doctors must obtain. Consequently, doctors may carry as much or as little insurance as they want.

The conventional wisdom is that providers carry policies with occurrence and aggregate annual limits of $1 million and $3 million, respectively, but this is not true in Texas. Considering only providers with paid claims—the most important group from the perspective of injured patients and physicians—the median policy limit across all years was $500,000 (nominal). Only 37 percent of providers with paid claims had insurance policies with per occurrence limits of $1 million or more (nominal). Thirty-two percent carried $200,000 or less (nominal) in coverage. Physicians whose paid claims concerned the treatment of newborn infants carried less insurance than others, but had a higher risk of making an out-of-pocket payment.

The real amount of insurance available to cover patients' losses also declined dramatically over time. From 1988–1999, the policy years in the dataset for which the collection of claims was likely to be complete, the real mean and median limits for physicians fell by about 30 percent. The decline would be even larger if discounted to reflect the real increase in medical costs. Texas appears to be rapidly reaching a point at which undercompensation of claimants will be unavoidable because doctors carry insufficient insurance.

D. Do Changes in the Tort System (i.e., increases in the number of claims, or payouts per claim) Help Explain the Malpractice Crises that Hit the United States in 2000–2003?

Every decade or so, the price of malpractice insurance spikes. When this happens, providers and their insurers routinely blame the legal system, contending that claim rates and jury awards are shooting skyward. Because our Texas data starts in 1988, we cannot say anything useful about the malpractice crises that occurred in the 1970s and 1980s. We can say, however, that the insurance crisis that hit Texas in 2000–2003 was driven by forces operating outside the liability system. During the years immediately preceding this crisis and throughout the crisis years themselves, the number of claims (controlling for population) and the dollars paid per claim (controlling for inflation) held steady or declined. Defense costs rose at a healthy clip, but they did not constitute a sufficiently large share of total payouts to drive a malpractice crisis. They also rose steadily, rather than suddenly, making them poor candidates to explain insurance price spikes. Thus, insurance-side dynamics provide the most likely explanation for the premium spikes that occurred in 2000–2003.

E. Impact of Tort Reforms on Claim Frequency and Payouts

If the object of tort reform is to reduce the amount of money that flows through the liability system, the package of lawsuit restrictions Texas adopted in 2003 was a spectacular success. After being fairly stable for the preceding decade, the number of paid claims per 100,000 Texas residents fell by 57 percent from 2004–2008. The decline was not evenly spread across age categories, however. The frequency of claims involving babies and children declined by 41 percent, while the number of claims involving non-elderly and elderly adults fell by roughly 65 percent. Over the same period, claim severity, defined as the payout per capita for all claims with payouts exceeding $25,000 (in 1988 dollars), dropped by 29 percent for non-elderly claimants and 33 percent for elderly claimants.[127] Combined, these findings imply a 75 percent drop in total payouts.

Anecdotal evidence also reflects the strong impact of the 2003 tort reform legislation. In 2009, claims intake at the Texas Medical Liability Trust (TMLT), the state's largest malpractice carrier, was "approximately half of the amount [TMLT] experienced in the years prior to tort reform,"

127. PAIK ET AL., *supra* note 113, at 13.

even though the number of insured physicians increased.[128] In 2009, TMLT's "[t]otal trial losses . . . amounted to less than $1 million, one of the lowest trial loss years ever recorded."[129] All told, TMLT attributes a 50 percent decline in the cost of medical liability insurance to the 2003 reforms.[130] Other medical malpractice carriers have also reduced prices substantially.

CONCLUSION

Readers should now understand that the manner in which the United States seeks to protect patients from avoidable harms is dysfunctional. Although the rhetoric of patient safety is heard everywhere, the fragmentation of the health care delivery system reduces accountability, and the predominant "encounter-based, quality-insensitive, fee-for-service" payment system fails to incentivize providers to deliver error-free care. To the contrary, customary payment arrangements, which compensate providers for the additional services injured patients require, make medical errors profitable and discourage providers from making desirable improvements.

The system for compensating injured patients is also nothing to brag about. Because it is expensive and slow, it is only a viable option for patients with severe injuries and large damages. These are also the only patients that can find plaintiffs' attorneys—since their cases are the only ones with damages large enough to justify acceptance by a plaintiff's attorney who is working on contingency. Small claims have too little profit potential to support a credible threat of going to trial, and without that threat, a plaintiffs' attorney cannot force an insurer to pay. The result is dramatic underclaiming—which makes it difficult for the liability system to play a substantial role in quality improvement.

In the words that concluded the Harry and Louise commercial that helped sink the Clinton health reform bill in 1994, "there's got to be a better way." To date, the United States has not yet found it.

128. TEXAS MEDICAL LIABILITY TRUST, 2009 ANNUAL REPORT 6 (2009). This is in nominal dollars; the decline would be larger if adjusted for inflation.

129. *Id.* at 4.

130. *Id.*