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AN ECONOMIC ASSESSMENT OF DAMAGE CAPS IN MEDICAL MALPRACTICE LITIGATION IMPOSED BY STATE LAWS AND THE IMPLICATIONS FOR FEDERAL POLICY AND LAW

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INTRODUCTION

Many states have enacted laws that serve to limit non-economic damage awards for medical liability claims.¹ These laws were put into effect in the hope of controlling medical liability insurance costs, thereby reducing medical costs to consumers and preserving or increasing access to healthcare for individuals. There exists a large body of literature addressing the success or failure of these laws, the conclusions of which are somewhat contradictory.² The efficacy of these laws has important policy implications as the federal government seeks to impose nationwide tort-control laws including medical liability limits.

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¹ See, e.g., CAL. CIV. CODE § 3333.2 (Deering 2006) (limiting non-economic damages in medical liability claims to \$250,000); FLA. STAT. ANN. § 766.207(7)(b) (West 2006) (limiting non-economic damages to \$250,000).

² See generally Heidi Li Feldman, *The New Mexico Law Review Presents a Symposium on Civil Numbers: Examining the Spectrum of Noneconomic Harm*, 35 N.M. L. REV. 375 (2005) (calling the distinction between economic and non-economic damages “senseless”); and Victor E. Schwartz & Leah Lorber, *Twisting the Purpose of Pain and Suffering Awards: Turning Compensation into “Punishment”*, 54 S.C. L. REV. 47 (2002) (discussing how plaintiff’s attorneys can manipulate non-economic damages to increase their client’s award).

A. Brief Description of Limits on Medical Liability Claims

Three types of damages may flow from successful medical liability claims: (1) economic damages, (2) non-economic damages, and (3) punitive damages. *Economic damages* include past and future medical expenses, loss of past and future earnings, loss of property, costs of repair or replacement, and loss of employment or business opportunities.³ Economic damages are objective, verifiable, and measurable.⁴ *Non-economic damages* include pain, suffering, inconvenience, emotional distress, loss of society and companionship, loss of consortium, and loss of enjoyment of life.⁵ Non-economic damages are, by definition, subjective, and often difficult to verify and measure.⁶ *Punitive damages* are awarded to punish the defendant and deter future malpractice.⁷

One of the first attempts to address the issue of medical malpractice limits is California's 1975 Medical Injury Compensation Reform Act (MICRA).⁸ In 1985, after numerous legal challenges, the California Supreme Court upheld the constitutionality of MICRA:

[I]n enacting MICRA the Legislature was acting in a situation in which it had found that the rising cost of medical malpractice insurance was posing serious problems for the health care system in California, threatening to curtail the availability of medical care in some parts of the state and creating the very real possibility that many doctors would practice without insurance, leaving patients who might be injured by such doctors with the prospect of uncollectible judgments. In attempting to reduce the cost of medical malpractice insurance in MICRA, the Legislature enacted a variety of provisions affecting doctors, insurance companies and malpractice plaintiffs.

[The limitation on recoverable non-economic damages] is, of course, one of the provisions which made changes in existing tort rules in an attempt to reduce the cost of medical malpractice litigation, and thereby restrain the increase in medical malpractice insurance premiums. It appears obvious

³ See Cong. Budget Office, *Limiting Tort Liability for Medical Malpractice*, ECON. & BUDGET ISSUE BRIEF, Jan. 8, 2004, at 3.

⁴ See *id.*

⁵ See *id.*

⁶ See *id.*

⁷ See *id.*

⁸ CAL. CIV. CODE § 3333 (Deering 2006).

that this section – by placing a ceiling of \$250,000 on the recovery of noneconomic damages – is rationally related to the objective of reducing the costs of malpractice defendants and their insurers.⁹

MICRA made four important changes to the medical liability tort system: (1) it imposed a \$250,000 cap on awards for non-economic losses in medical malpractice lawsuits;¹⁰ (2) it allowed defendants to introduce evidence showing that a plaintiff had received compensation for a portion of his or her losses;¹¹ (3) it authorized trial courts to require periodic payments for future damages, in lieu of lump sum awards;¹² and (4) it imposed limits on the contingency fees that lawyers can charge their clients.¹³

As medical costs have dramatically increased over the past decade, the public's interest in the medical liability tort system has grown, and a number of scholarly studies of the system have appeared.¹⁴ There is a growing body of research that attempts to evaluate the effects of damage limits on the cost of both medical liability insurance and health care.¹⁵ Much of this research has focused on the efficacy of caps applied to non-economic damages.¹⁶ Recent research has also sought to determine the link between increases in health care costs and access to health care insurance.¹⁷ As a result, legislative bodies at both the federal and state levels are considering changes to the tort system.¹⁸

⁹ *Fein v. Permanente Med. Group*, 695 P.2d 665, 680 (Cal. 1985) (holding that “provisions of Medical Injury Compensation Reform Act which limit noneconomic damages in medical malpractice cases to \$250,000, and which modify traditional collateral source rule in litigation are not unconstitutional”).

¹⁰ CAL. CIV. CODE § 3333.2(b). California law defines non-economic losses as “pain, suffering, inconvenience, physical impairment, disfigurement and other nonpecuniary damage.” § 3333.2(a).

¹¹ § 3333.1.

¹² CAL. CIV. PROC. CODE § 667.7 (Deering 2006).

¹³ CAL. BUS. & PROF. CODE § 6146 (Deering 2006).

¹⁴ See generally NICHOLAS M. PACE ET AL., CAPPING NON-ECONOMIC AWARDS IN MEDICAL MALPRACTICE TRIALS: CALIFORNIA JURY VERDICTS UNDER MICRA (2004) [hereinafter RAND Report].

¹⁵ See generally *id.*

¹⁶ *Id.*

¹⁷ See Frank A. Sloan & Christopher J. Conover, *Effects of State Reforms on Health Insurance Coverage of Adults*, 35 INQUIRY 280, 280 (1998).

¹⁸ See, e.g., Help Efficient, Accessible, Low-cost, Timely Healthcare (HEALTH) Act of 2004, H.R. 4280, 108th Cong. § 1 (2004) (tabled and text appended to H.R. 4279 on May 13, 2004).

B. Recent Federal and State Legislative Efforts to Control Health Care Costs

Proponents of non-economic damage limits believe that unconstrained non-economic damage awards significantly increase the cost of, and access to, health care. This belief has prompted numerous efforts to reform the medical malpractice tort system on a national level. For example, H.R. 4280 provided for a \$250,000 cap on non-economic damages, which was pending before the U.S. House of Representatives during the 108th Congress:

Congress finds that our current civil justice system is adversely affecting patient access to health care services, better patient care, and cost-efficient health care, in that the health care liability system is a costly and ineffective mechanism for resolving claims of health care liability and compensating injured patients, and is a deterrent to the sharing of information among health care professionals which impedes efforts to improve patient safety and quality of care.¹⁹

In addition, a number of states, including Oregon (Ballot Measure 35, 2004, failed) and Nevada (Ballot Question 3, 2004, passed), have recently considered medical liability reforms that were intended to reduce the cost of, and improve access to, health care.²⁰

C. Summary of Findings

Widely accepted economic principles and the dominance of many medical malpractice insurance markets by non-profit carriers, together with the results of empirical research, indicate that caps on non-economic damage awards are effective in reducing medical liability insurance costs, thereby reducing health care costs. Limits on non-economic damage awards reduce the incentive to litigate weak claims and reduce the average size of malpractice awards (i.e., severity)—all important determinants of medical costs. By reducing the cost of medical services—and consequently making health insurance more affordable—such limits increase the public's access to health care.

¹⁹ H.R. 4280 § 2.

²⁰ See, e.g., David Steves, *Oregon Measure's Malpractice Awards Cap Sharply Divides Medical Professionals*, REGISTER-GUARD (Eugene, OR), Oct. 3, 2004; Mark Taylor, *No Clear Messages; On Ballot Initiatives, Voters Were All Over the Map*, MOD. HEALTHCARE, Nov. 29, 2004, at 30.

I. DAMAGE LIMITS REDUCE THE INCENTIVE TO LITIGATE THE WEAKEST CLAIMS

Economic theory holds that individuals tend to act in their self-interest, given the costs and benefits associated with the alternative courses of action available to them.²¹ Empirical research has validated the theory's applicability to many types of behavior, including the propensity to file lawsuits. Other things being equal, a higher expected payoff from filing a lawsuit will lead to more claims of alleged medical malpractice being pursued.

A. Expected Return from Filing a Lawsuit

Three factors determine the size of the payoff expected from filing a lawsuit: (1) the probability of obtaining a favorable outcome, such as a verdict in the plaintiff's favor or a negotiated settlement (Pr), (2) the size of the expected award (A), and (3) the expected cost of litigating the claim (C). We can represent the interplay of these factors in determining the expected payoff from filing a lawsuit (E^*) as follows:

$$E^* = (Pr \times A) - (C)$$

B. The Probability of Obtaining a Favorable Outcome

The likelihood that an individual plaintiff will prevail in litigation depends primarily on the strength of his or her case, although the likelihood that a plaintiff will prevail may be increased by the degree to which the jury views the plaintiff as sympathetic. A sympathetic plaintiff with a weak case may be as successful in obtaining a favorable award as a less-sympathetic plaintiff with a stronger case.

C. The Size of the Expected Award

The size of the expected award is a function of two factors: (1) the magnitude of the alleged damages suffered by the plaintiff, and (2) any limiting or enhancing factors on the award. A limiting factor would be a cap on non-economic damages awards. An enhancing factor would be the availability of punitive damages.

²¹ ROBERT S. PINDYCK & DANIEL L. RUBINFELD, *MICROECONOMICS* 75-78 (6th ed. 2005).

D. The Cost of Medical Malpractice Litigation

It is costly to pursue damages claims, just as it is costly to defend against them. In 2003, legal defense costs, including benefits paid to third parties or their attorneys, claims handling, insurance company administrative costs, and other expenses related to medical malpractice liability, totaled approximately \$27 billion nationwide.²² This amount represents approximately \$91 per year, per person in the United States, or \$364 for a family of four. In addition to the out-of-pocket costs associated with litigation, lawsuits require a heavy investment of the plaintiff's (and defendant's) time. The time spent on a lawsuit cannot be spent on other activities.²³

The cost of pursuing litigation has both fixed (C_f) and variable (c_v) components. The variable component is a function of the amount potentially at stake. Other things being equal, a defendant will fight harder to avoid paying a larger award, and a plaintiff will make a greater effort to obtain such an award. The expected payoff formula can be refined to take account of the fixed and variable cost components, as follows:

$$E^* = (Pr \times A) - (C_f + c_v A)$$

This formula shows that the decision to pursue a malpractice claim is contingent on the probability of proving liability in court, and on the expected size of the settlement or award.²⁴ If the expected size of the settlement or award is sufficiently large, even plaintiffs with a relatively small probability of successfully proving liability will pursue awards.

²² TOWERS PERRIN: TILLINGHAST, U.S. TORT COSTS: 2004 UPDATE: TRENDS AND FINDINGS ON THE COST OF THE U.S. TORT SYSTEM, 2, 10 (2004), <http://www.towersperrin.com/tillinghast> (follow "Publications" hyperlink; then follow "U.S. and Canada" hyperlink).

²³ In economic terms, the time and money spent bringing or defending a lawsuit can be thought of as the opportunity cost of litigation—the value of the time and resources that could be spent elsewhere. Opportunity costs can be measured and expressed in dollar terms, although we do not do so here.

²⁴ See, e.g., Patricia M. Danzon & Lee A. Lillard, *Settlement Out of Court: The Disposition of Medical Malpractice Claims*, 12 J. LEGAL STUDIES 345, 356 (1983); Henry S. Farber & Michelle J. White, *Medical Malpractice: An Empirical Examination of the Litigation Process*, RAND J. ECON., Summer 1991, at 199.

E. The Propensity to Pursue Malpractice Claims

A meaningful cap²⁵ on non-economic damages limits the expected reward from filing a malpractice lawsuit. Accordingly, a cap (as well as other limitations on the size of awards) will reduce the incidence and cost of malpractice claims by discouraging the weakest claims, and by encouraging out-of-court settlements. We model the effects of having no cap, as well as caps of \$250,000, \$500,000 and \$900,000, on a claimant's incentive to file suit.

Consider a claim of alleged medical malpractice consisting of \$400,000 in economic damages and \$600,000 in non-economic damages. Assume that meritorious claims have an 80 percent probability of success and non-meritorious claims have a 20 percent probability of success. Further assume that the fixed costs of litigating the claim (C_f) amount to \$100,000, and the variable costs (c_v) amount to 5 percent of the maximum potential award. Table 1 shows the impact of various caps on meritorious and non-meritorious claimants.²⁶

Table 1: Impact of Caps on "Meritorious" and "Non-Meritorious" Claimants

Economic Damages	Non-Economic Damages	CAP	Prob. of win	Expected gross return	fixed cost of litigating	variable cost of litigating (as % of award)	variable cost of litigating (\$)	Expected Value
A	B	c	d	$e=d \cdot \{a+if, (c>0, \min(b,c), b)\}$	f	g	$h=g \cdot \{a+if, (c>0, \min(b,c), b)\}$	$g=e+f+h$
PANEL A: Weak Claimants								
\$400,000	\$600,000	No cap	20%	\$200,000	-\$100,000	5%	-\$50,000	\$50,000
\$400,000	\$600,000	\$250,000	20%	\$130,000	-\$100,000	5%	-\$32,500	-\$2,500
\$400,000	\$600,000	\$500,000	20%	\$180,000	-\$100,000	5%	-\$45,000	\$35,000
\$400,000	\$600,000	\$900,000	20%	\$200,000	-\$100,000	5%	-\$50,000	\$50,000
PANEL B: Strong Claimants								
\$400,000	\$600,000	No cap	80%	\$800,000	-\$100,000	5%	-\$50,000	\$650,000
\$400,000	\$600,000	\$250,000	80%	\$520,000	-\$100,000	5%	-\$32,500	\$387,500
\$400,000	\$600,000	\$500,000	80%	\$720,000	-\$100,000	5%	-\$45,000	\$575,000
\$400,000	\$600,000	\$900,000	80%	\$800,000	-\$100,000	5%	-\$50,000	\$650,000

²⁵ Not all caps on non-economic damages awards are meaningful. A high cap, or a cap with significant exceptions, will not materially alter the plaintiff's and defendant's assessment of the expected award's size, and therefore will not be effective in altering the economic incentives to pursue or defend medical malpractice claims.

²⁶ In this context, meritorious claims are assumed to have a higher probabil-

As Panel A indicates, a cap of \$250,000 discourages the weak claimant from filing a medical malpractice suit by changing the suit's expected payoff from positive (\$50,000) to negative (-\$2,500). The cap however would not discourage the strong claimant (see Panel B). Panel A also indicates that if caps are set at \$500,000 or \$900,000, the disincentive to litigate marginal claims is eliminated. In actuality, there would be a continuum of outcomes: as cap limits increase (i.e., are set at higher dollar values) additional claims become worth litigating. Panel B indicates that while a cap of \$250,000 discourages weak claimants from filing suits, the disincentive disappears when the cap is raised to either \$500,000 or \$900,000.

In sum, caps on non-economic damages decrease the number of malpractice lawsuits filed—primarily by making it less economically attractive for individuals with the weakest claims to file suit. The higher the cap, the less effective the disincentive for filing marginal claims.

II. CAPS DO NOT APPEAR TO REDUCE ACCESS TO THE COURT SYSTEM

Some opponents of caps have argued that these limitations reduce access to the court system by preventing injured plaintiffs from hiring attorneys, thereby discouraging them from filing lawsuits.²⁷

A. Damage Limits Do Not Significantly Reduce the Number of Lawsuits Filed

We have obtained data on the number of medical malpractice lawsuits filed in California, the results of which we posit can be generalized to other states. The empirical evidence provides no support for the hypothesis that the existence of damage caps in California has reduced access to the court system. Figure 1 shows estimated medical malpractice filings in California on a per-capita basis, for the period 1968–2003. As the figure makes clear, per-capita filings today are higher than they were in the late 1960s and early 1970s, before MICRA was enacted. While there has been a modest decline in per-capita filings since MICRA's constitutionality was upheld in 1985, the incidence of lawsuits has remained relatively high, and in some years has actually exceeded the number of lawsuits (on a per capita

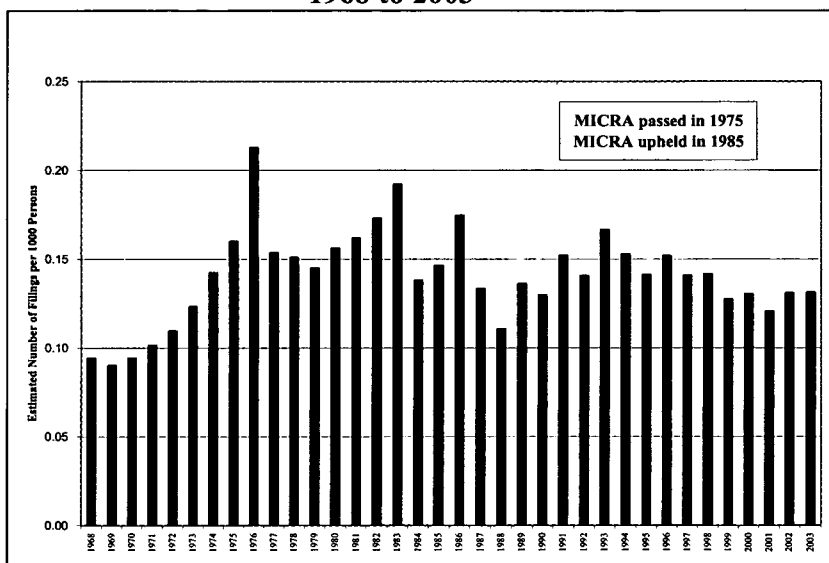
ity of "winning" (i.e., 80 percent).

²⁷ See, e.g., FOUND. FOR TAXPAYER & CONSUMER RIGHTS, HOW INSURANCE REFORM LOWERED DOCTORS' MEDICAL MALPRACTICE RATES IN CALIFORNIA: AND HOW MALPRACTICE CAPS FAILED (2003), available at <http://www.consumerwatchdog.org/malpractice/rp/1008.pdf>.

basis) reported for 1985. In short, Californians continue to have access to the court system, and attorneys continue to accept medical malpractice cases, notwithstanding the cap.

It is reasonable to infer that the relatively modest reduction in filings that may have occurred during MICRA's existence involves primarily the weakest claims—that is, the group of claims targeted by MICRA. As Table 1 demonstrates, the MICRA cap on non-economic damages discourages those with dubious claims from incurring the costs associated with a lawsuit, without removing the economic incentive for individuals with meritorious claims to hire attorneys and file suit.

Figure 1: Estimated Per Capita Medical Malpractice Filings in California, 1968 to 2003²⁸



In sum, the available evidence indicates that the cap has not reduced access to the court system to any significant degree, and any reduction that has occurred is almost certain to involve the weakest claims.²⁹

²⁸ California medical malpractice filings are estimated based on 1968-2004 "Los Angeles Superior Court Filings and Disposition Comparison" prepared by Los Angeles Superior Court Statistics Section. Population data was obtained from the California Department of Finance's Historical State Population Estimates, with Components of Change and Crude Rates. Cal. Dep't of Fin.: Demographic Research, <http://www.dof.ca.gov/html/Demograp/repndat.htm> (last visited Mar. 29, 2006).

²⁹ Figure 1 estimates medical malpractice claims in California *per capita*. Another important perspective on the incidence of such claims can be gained by comparing claims with the number of *physicians*. In 2003 an estimated 4,632 medical

B. Caps Do Not Significantly Reduce the Number of Claims Made Against Physicians

We have obtained complete data from one medical malpractice insurer showing both the number of physicians it insures and the number of claims made by its insureds during the period 1976 through 2004.³⁰ This data covers all fifty states, and we believe it provides a fair representation of frequency rates for other insurance companies.³¹

Table 2 shows the frequency rate on a state-by-state basis for the period 1976 through 2004. During the eight years prior to the California Supreme Court's action in upholding MICRA (1978–1985), claims frequency was approximately 23.4 percent.³² For the next nineteen years (1986–2004), the rate decreased slightly to 22.8 percent. This data indicates that caps in California do not have a significant impact on the rate at which medical malpractice lawsuits are filed. The slight decrease in claims frequency that has occurred since 1985 most likely reflects a reduction in the number of weak or marginal claims filed.

malpractice lawsuits were filed in California, which is home to 93,171 physicians. Thus, one suit was filed in this one year for every twenty doctors.

³⁰ Data provided by The Doctors Co. (on file with authors). Underlying exposures have not been adjusted to a base classification. The data does not reflect the claims-made experience of large medical groups or medical schools.

³¹ Different insurers (and self-insured entities) define "claim" and count "claim" in different ways. They include differentiating between a notice of claim, or potential claim reported by a physician vs. an actual lawsuit filed and served upon the physician. Some companies count claims by plaintiff, others by defendant, in other words if a plaintiff sues four doctors and a hospital, depending on how one counts that could be one, four or five claims. No single uniform standard for counting frequency of claims exists and consequently we are unable to aggregate historical data from multiple insurance firms. We therefore present data from a single large firm which underwrites in all fifty states—The Doctors Company—as being representative.

³² We do not include 1976–1977 in our sample as we do not believe the number of insured doctors outside California to be sufficient to provide a representative sample.

Table 2: CA vs. Non-CA Frequency Rates³³

Year	CALIFORNIA			NON-CALIFORNIA			(g)=[c]/[f]-1 Frequency Difference
	(a) Claims	(b) Insured Doctors	(c)=[a]/(b) Claim Frequency	(d) Claims	(e) Insured Doctors	(f)=[d]/(e) Claim Frequency	
1976	40	678	5.9%	0	na	0.00%	Na
1977	251	106	236.3%	0	na	0.00%	Na
1978	506	2691	18.8%	1	11	9.30%	102.2%
1979	640	3575	17.9%	12	94	12.80%	39.8%
1980	783	4399	17.8%	24	240	10.00%	78.0%
1981	1,075	5000	21.5%	73	313	23.30%	-7.7%
1982	1,171	5472	21.4%	112	378	29.60%	-27.7%
1983	1,464	5880	24.9%	140	484	28.90%	-13.8%
1984	1,561	5958	26.2%	164	653	25.10%	4.4%
1985	1,862	5783	32.2%	204	699	29.20%	10.3%
1986	1,705	5941	28.7%	249	865	28.80%	-0.3%
1987	1,744	6388	27.3%	367	1412	26.00%	5.0%
1988	1,781	6798	26.2%	624	2725	22.90%	14.4%
1989	1,487	6981	21.3%	636	3475	18.30%	16.4%
1990	1,522	7179	21.2%	633	4058	15.60%	35.9%
1991	1,591	7232	22.0%	690	4759	14.50%	51.7%
1992	1,844	6855	26.9%	877	5348	16.40%	64.0%
1993	1,736	7203	24.1%	1,077	5698	18.90%	27.5%
1994	1,798	7221	24.9%	1,141	6069	18.80%	32.4%
1995	1,653	7034	23.5%	1,202	6164	19.50%	20.5%
1996	1,668	6864	24.3%	1,219	6698	18.20%	33.5%
1997	1,590	6709	23.7%	1,060	6709	15.80%	50.0%
1998	1,473	6432	22.9%	1,188	7200	16.50%	38.8%
1999	1,313	6164	21.3%	926	6521	14.20%	50.0%
2000	1,297	6147	21.1%	927	6139	15.10%	39.7%
2001	1,287	6403	20.1%	1,121	7006	16.00%	25.6%
2002	1,403	6778	20.7%	1,378	8833	15.60%	32.7%
2003	1,471	7038	20.9%	1,455	9636	15.10%	38.4%
2004	1,161	7845	14.8%	899	9463	9.50%	55.8%
1994-2004	16,114	74,635	21.6%	12,516	80,439	15.6%	38.8%
1978-1985	9,062	38,758	23.4%	730	2,873	25.4%	-8.0%
1986-2004	29,524	129,213	22.8%	17,669	108,777	16.2%	40.7%

³³ Data provided by The Doctors Co. (on file with authors). Underlying exposures have not been adjusted to a base classification. The data does not reflect the claims-made experience of large medical groups or medical schools.

As Table 2 also shows, notwithstanding MICRA, claim frequency remains significantly higher in California than in the other forty-nine states (some of which have caps). During the period 1986–2004, frequency rates in California exceeded non-California rates, on average, by 40.7 percent. The Congressional Budget Office (CBO) reports that frequency rates average approximately 15 percent nationwide.³⁴

III. STATES WITH CAPS EXHIBIT SMALLER AVERAGE PER-CLAIM MALPRACTICE PAYMENTS

More than half of all states have enacted caps to restrain the rate of growth in health care costs and to preserve access to affordable health care.³⁵ Not all these caps, however, are equally affective. Some states, such as Hawaii, have adopted caps, but provide for exceptions that make it relatively easy to circumvent the cap.³⁶ Other states have set caps on non-economic damages at a relatively high level, thereby weakening or eliminating the disincentive to pursue non-meritorious claims.³⁷ Nevertheless, states with caps tend to report smaller average per-claim payments.

Table 3 shows average payments per malpractice claim, by state, for 2004.³⁸ Note that heavily populated, industrialized states *without* caps (e.g., New York - 44th and Illinois - 50th) ranked on average much lower (i.e., higher per-claim payments) than comparable states

³⁴ Cong. Budget Office, Limiting Tort Liability for Medical Malpractice (2004).

³⁵ See, e.g., ALASKA STAT. § 9.17.010 (2006); COLO. REV. STAT. § 13-21-102.5 (2006); FLA. STAT. ANN. § 766.118 (West 2006); HAW. REV. STAT. § 663-8.7 (2006); IDAHO CODE ANN. § 6-1603 (2006); KAN. STAT. ANN. § 60-19a01 (2006); LA. REV. STAT. ANN. § 40:1299.42 (2006); MD. CODE ANN., CTS. & JUD. PROC. § 11-108 (LexisNexis 2006); MASS. GEN. LAWS ch. 231, § 60H (2006); MICH. COMP. LAWS § 600.1483 (2006); MO. REV. STAT. § 538.210 (2006); N.M. STAT. ANN. § 41-5-6 (West 2006); N.D. CENT. CODE § 32-42-02 (2003); TEX. CIV. PRAC. & REM. CODE ANN. § 74.301 (Vernon 2004); UTAH CODE ANN. § 78-147.1 (2006).

³⁶ HAW. REV. STAT. § 663-8.7.

³⁷ See, e.g., VA. CODE ANN. § 8.01-581.15 (2006) (capping total damage at \$1.5 million); IND. CODE § 34-18-14-3 (2006) (capping total damage at \$1.25 million).

³⁸ Data was obtained through the Nat'l Practitioner Data Bank [hereinafter NPDB], and is current through March 2004 (data on file with authors). The reader should note that the NPDB's rules require the reporting only of doctors named in final malpractice settlements, so a payment does not have to be reported when a doctor's name is removed from the claim. Consequently, the NPDB is missing information on some malpractice payments. It is not clear what effect the missing data might have. See, e.g., Joseph T. Hallinan, *Doctor Is Out: Attempt to Track Malpractice Cases Is Often Thwarted*, WALL ST. J., Aug. 27, 2004, at A1.

with caps. Overall, states with caps held the four lowest spots (Michigan, Louisiana, California and Utah) and six of the eight lowest (Kansas and South Dakota).

**Table 3: 2004 Average Payment Per Malpractice Claim
(Ranked From Lowest to Highest)³⁹**

40 State	Average Payment	Rank	CAP	State	Average Payment	Rank	CAP
Michigan	\$124,747	1	Yes	Missouri	\$256,790	27	Yes
Louisiana	\$129,941	2	Yes	North Dakota	\$257,478	28	Yes
California	\$132,696	3	Yes	Mississippi	\$261,163	29	Yes
Utah	\$133,917	4	Yes	Ohio	\$273,675	30	Yes
Wyoming	\$140,850	5		Indiana	\$277,769	31	Yes
Nebraska	\$178,311	6		Georgia	\$278,575	32	
Kansas	\$181,550	7	Yes	Oklahoma	\$280,888	33	Yes
South Dakota	\$191,738	8	Yes	Montana	\$291,000	34	Yes
Kentucky	\$191,852	9		Arizona	\$304,307	35	
Washington	\$196,295	10		New Jersey	\$312,665	36	
Nevada	\$198,175	11	Yes	Idaho	\$320,130	37	Yes
Tennessee	\$199,456	12		Maryland	\$320,347	38	Yes
Texas	\$205,812	13	Yes	Maine	\$320,637	39	
New Mexico	\$206,309	14	Yes	Minnesota	\$328,401	40	
Vermont	\$210,341	15		Pennsylvania	\$329,689	41	
Alabama	\$216,200	16		Rhode Island	\$329,994	42	
Alaska	\$217,397	17	Yes	Connecticut	\$338,238	43	
West Virginia	\$218,233	18	Yes	New York	\$360,754	44	
South Carolina	\$218,884	19		North Carolina	\$364,729	45	
Florida	\$221,293	20	Yes	Massachu- setts	\$368,260	46	Yes
Colorado	\$222,083	21	Yes	Iowa	\$386,197	47	
Virginia	\$234,371	22	Yes	District of Columbia	\$388,125	48	

³⁹ Data was obtained through NPDB and is current through March 2004.(data on file with authors).

⁴⁰ Includes District of Columbia. Data for American Samoa, Puerto Rico, Virgin Island, Armed Forces Europe, Northern Marianas, Guam, and Armed Forces Pacific not reported.

**Table 3: 2004 Average Payment Per Malpractice Claim
(Ranked From Lowest to Highest) (Con't)**

Average				Average			
State	Payment	Rank	CAP	State	Payment	Rank	CAP
Arkansas	\$239,962	23		Hawaii	\$393,589	49	Yes
Wisconsin	\$242,131	24	Yes	Illinois	\$455,420	50	
Oregon	\$248,685	25		Delaware	\$655,767	51	
New Hampshire	\$253,016	26					

In 2004, states with caps (Alaska, California, Colorado, Florida, Hawaii, Idaho, Indiana, Kansas, Louisiana, Maryland, Massachusetts, Michigan, Mississippi, Missouri, Montana, Nevada, New Mexico, North Dakota, Ohio, Oklahoma, South Dakota, Texas, Utah, Virginia, West Virginia, and Wisconsin) averaged \$234,136 per claim payment, with an average ranking of 21. In contrast, states without caps averaged \$295,910 per payment, with an average ranking of 30—a significant difference.

IV. IMPLEMENTING CAPS IN STATES WHERE NONE CURRENTLY EXIST, CAN REDUCE PAID LOSSES BY AS MUCH AS 30 PERCENT

Having no cap in place essentially enables a relatively small number of plaintiffs to secure very large awards, thereby increasing the size of the average claim paid. For a specific sample of malpractice claims, RAND has measured payments under a system with and without caps.⁴¹ They show that removing the cap (but leaving the fee limits in place; in effect measuring just the effect of the cap) would raise recoveries by 43.75 percent.⁴² Conversely, this implies a 30.43 percent reduction in claim payments should caps be imposed where none previously existed. Applying this percentage to total loss payments in 2004 (as reported by the National Practitioner Data Bank (NPDB)) for all states that currently have caps, indicates that removing the cap would have increased loss payments by approximately \$206 million.⁴³ Conversely, imposing caps on the states which currently do not have them would have reduced loss payments in 2004 by approximately

⁴¹ See RAND Report, *supra* note 14, at 11.

⁴² See *id.* at 38.

⁴³ See *infra* Table 4. This calculation assumes that the sample is representative of the larger NPDB population. For additional details on the RAND sample, see RAND Report, *supra* note 14, at 14-15. According to RAND, there is evidence that smaller-value awards may be underreported in their sample. *Id.* at 13.

\$251 million.⁴⁴ This reduction in loss payments would have been reflected in reduced medical liability insurance premiums and, eventually, in reduced consumer costs.

Table 4: NPDB Reported Paid Losses, and Effect of Eliminating Caps on States that Have Them, and Effect of Imposing Caps on States that Do Not Have Them

States with Caps		2004	States without Caps		2004
Alaska	\$	1,661,500	Alabama	\$	3,112,500
California	\$	57,330,050	Arizona	\$	22,414,000
Colorado	\$	12,103,750	Arkansas	\$	3,135,000
Florida	\$	81,343,750	Connecticut	\$	22,666,500
Hawaii	\$	7,130,250	DC	\$	9,070,000
Idaho	\$	3,007,250	Delaware	\$	5,724,000
Indiana	\$	32,090,250	Georgia	\$	35,946,000
Kansas	\$	5,973,500	Illinois	\$	72,305,250
Louisiana	\$	8,838,250	Iowa	\$	4,547,550
Maryland	\$	23,546,000	Kentucky	\$	10,985,500
Massachusetts	\$	24,225,750	Maine	\$	4,250,000
Michigan	\$	29,703,000	Minnesota	\$	9,815,000
Mississippi	\$	4,024,800	Nebraska	\$	3,655,500
Missouri	\$	14,673,750	New Hampshire	\$	4,042,000
Montana	\$	3,697,500	New Jersey	\$	67,858,250
Nevada	\$	8,414,500	New York	\$	189,875,750
New Mexico	\$	3,496,250	North Carolina	\$	42,087,250
North Dakota	\$	2,170,750	Oregon	\$	10,115,750
Ohio	\$	46,192,500	Pennsylvania	\$	273,515,500
Oklahoma	\$	8,651,250	Rhode Island	\$	895,000
South Dakota	\$	3,240,000	South Carolina	\$	12,600,250
Texas	\$	64,034,550	Tennessee	\$	8,495,750
Utah	\$	4,078,250	Vermont	\$	355,000
Virginia	\$	10,738,750	Washington	\$	8,138,200
West Virginia	\$	5,396,000	Wyoming	\$	372,000
Wisconsin	\$	6,036,750			
Total	\$	471,798,900	Total	\$	825,977,500
Increase 43.75%	\$	678,210,919	Reduce 30.43%		574,593,043
Change	\$	206,412,019	Change	\$	(251,384,457)

⁴⁴ See *infra* Table 4.

The changes shown in Table 4 only reflect the direct costs of the medical malpractice tort system. They do not reflect the costs of defensive medicine and other indirect costs that vary with limitations on awards. Table 4 also does not reflect the costs resulting from the additional claims that would have been filed in the absence of the cap.⁴⁵

V. CAPS REDUCE MEDICAL LIABILITY INSURANCE PREMIUMS BY AS MUCH AS 43 PERCENT

Medical liability insurance premiums, like all insurance premiums, are primarily determined by the insurer's cost of providing insurance and paying claims. Over time, increases in these costs must be passed along to policyholders in the form of higher insurance premiums. The evidence shows that by reducing the cost of the medical malpractice tort system, caps significantly reduce malpractice insurance premiums.

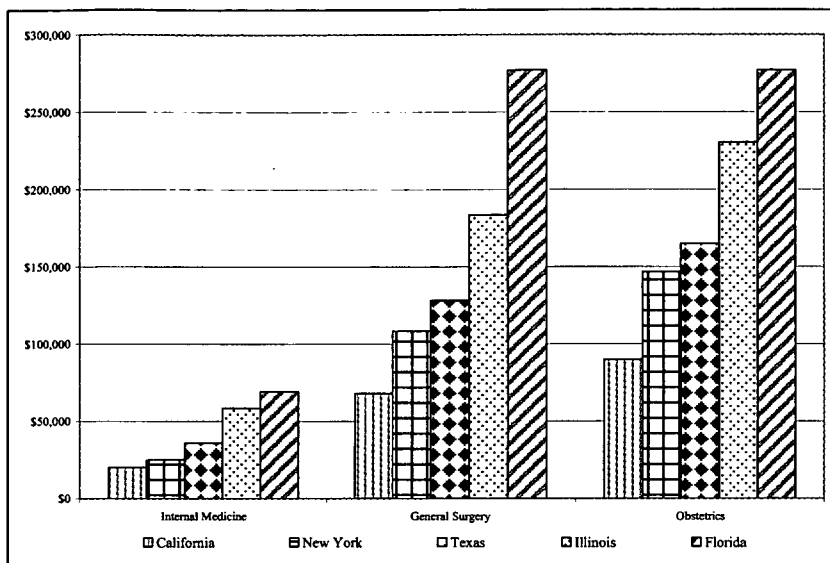
A. States with Caps Benefit from Lower Medical Liability Premiums

In addition to observing the correlation between loss costs and premiums, we compare medical liability insurance premiums in states with and without caps. Not surprisingly, insurance premiums in states without caps are significantly higher. Figure 2 shows medical liability insurance premiums for the five states with the largest share of the insurance market.⁴⁶

⁴⁵ See *supra* Table 1.

⁴⁶ Data represents manual rates for specific mature claims-made specialties with limits of \$1 million/\$3 million. Rates reported should not be interpreted as the actual premiums an individual physician pays for coverage. They do not reflect credits, debits, dividends or other factors that may reduce or increase premiums. These five states represent almost 40 percent of the physician liability insurance market. Data shown represents the highest rate (by county and provider) in each state. For comparison, average rates for internal medicine (across all counties and providers) are \$12,017 and \$41,999 for California and Florida respectively; a difference of 250 percent.

Figure 2: 2004 Liability Insurance Premiums, by State and Specialty⁴⁷



As Figure 2 shows, medical liability premiums are significantly lower in California than in the other four states, each of which (until recently) lacked strong liability reforms.⁴⁸ For example, in Florida, internists pay approximately \$49,000 (242 percent) more per year than their counterparts in California; General Surgeons pay approximately \$209,000 (308 percent) more per year; and Obstetricians pay approximately \$187,000 (208 percent) more per year. This comparison provides strong evidence that limits on non-economic damages hold down medical liability insurance premiums.

B. Legislative Changes in the State of Oregon—Where Limits Were Imposed and Subsequently Removed—Provide Strong Evidence of Non-Economic Damage Limits' Efficacy

In 1987, the Oregon legislature passed medical liability reforms that imposed a cap of \$500,000 on non-economic damages.⁴⁹ Twelve

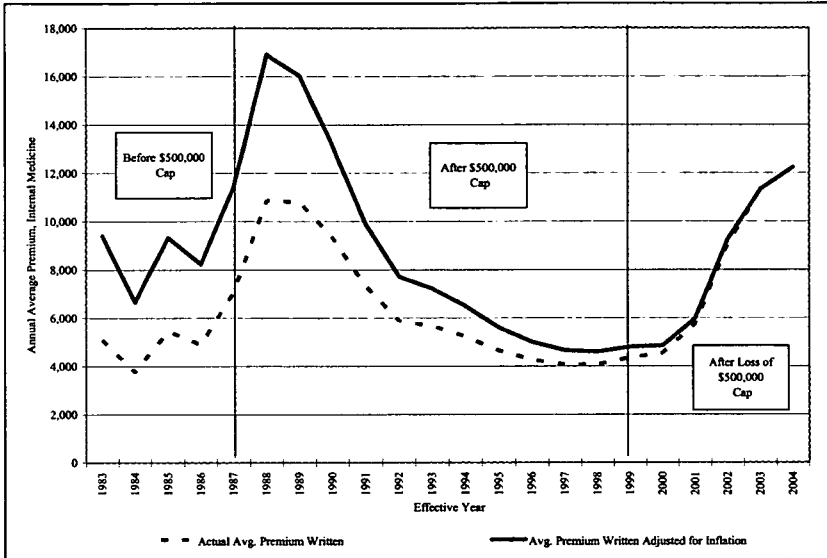
⁴⁷ Sarah Dore, *2004 Rate Survey Indicates Rate Increases May Be Leveling but Triple-Digit Hikes Not Over*, MED. LIABILITY MONITOR, Oct. 2004, at 2.

⁴⁸ The Texas Legislature adopted a cap in 2003. TEX. CIV. PRAC. & REM. § 74.302 (Vernon 2003).

⁴⁹ The Oregon legislature has established a \$500,000 cap on damages for non-economic loss in bodily injury and death cases, OR. REV. STAT. § 18.560 (2006).

years later, in 1999, the Oregon Supreme Court removed the cap.⁵⁰ Figure 3 shows the premiums paid by internal medicine specialists both before, during, and after the cap was in effect.

Figure 3: Impact of Non-Economic Damages Caps on Medical Liability Insurance Premiums in Oregon⁵¹



In 1999, the inflation-adjusted average premium for internal medicine was \$4,808. By 2004, the premium had risen to \$12,247, an increase of 155 percent.

C. Limits on Non-Economic Damages Imposed at the Federal Level Would Cause Medical Malpractice Premiums to Fall by 25–30 Percent

Several studies have attempted to estimate the effect of removing or implementing a cap on non-economic damages. One study finds that premiums in states that cap awards are approximately 17 percent lower than they are in states that have no cap.⁵² These results suggest

⁵⁰ Oregon Supreme Court ruled it to be unconstitutional under most circumstances. It held that the damage cap violates the right to a jury trial provided by the state constitution whenever the cap is applied to a claim for which, under common law, a jury trial was customary in 1857. *Lakin v. Senco Products, Inc.*, 987 P.2d 463 (Or. 1999).

⁵¹ Data provided by Nw. Physician Mut. Ins. Co. (on file with authors).

⁵² Kenneth E. Thorpe, *The Medical Malpractice 'Crisis': Recent Trends and the Impact of State Tort Reforms*, HEALTH AFFAIRS, Jan. 21, 2004, at W4-20, avail-

that removing caps in states that have them would cause an increase in medical liability premiums ranging from 15 to 30 percent.⁵³ The CBO estimates that if caps (and other reforms) were imposed at the federal level, medical malpractice premiums ultimately would average 25–30 percent less than under current law.⁵⁴ These estimates indicate that removal of a cap from a state that already has one would bring about an *increase* in medical liability insurance premiums of 33 percent to 43 percent.

VI. CAPS DO NOT GENERATE EXCESS PROFITS FOR INSURERS OR PHYSICIANS

Some opponents of caps contend that the reduction in loss payments resulting from caps do not produce savings for consumers. They argue that the benefits have gone to medical liability insurance underwriters or physicians, enabling them to make supra-competitive profits.⁵⁵ We can find no reliable evidence to support this argument.

A. Medical Liability Insurance Companies Face Strong Market Competition

Economic theory holds that in competitive markets, prices must be high enough to enable firms to cover their costs and earn a competitive rate of return.⁵⁶ If market conditions temporarily allow firms to earn returns exceeding their costs (including the cost of capital), new firms will enter the market or existing firms will expand, driving down prices and eliminating any excess profits. Similarly, if competition pushes prices below the point where firms are able to earn a reasonable return on their capital, some firms will leave the market, causing prices to rise. Thus, the competitive process tends to force prices to the level where firms are able to cover their costs and earn a competitive return, but not an excessive return.

Medical liability insurance companies are not exempt from the competitive forces that keep prices and profits in check elsewhere in the economy. To the contrary, the evidence indicates that competition within the insurance industry is vigorous. As the U.S. General

able at <http://content.healthaffairs.org/cgi/reprint/hlthaff.w4.20v1>.

⁵³ *Id.*

⁵⁴ CONG. BUDGET OFFICE, COST ESTIMATE: H.R. 5: HELP EFFICIENT, ACCESSIBLE, LOW-COST, TIMELY HEALTHCARE (HEALTH) ACT OF 2003 4 (2003) (as ordered reported by the H. Comm. on the Judiciary on March 5, 2003).

⁵⁵ “Supra-competitive profits” are defined here as profits superior to those that would exist under a state of unregulated or unhindered competition.

⁵⁶ PINDYCK & RUBINFELD, *supra* note 21, at 261–97.

Accounting Office (GAO) found, "competition among insurers can put downward pressure on premium rates, even to the point at which the rates may, in hindsight, become inadequate to keep an insurer solvent."⁵⁷

B. Physician-Owned Medical Liability Insurance Companies Have No Incentive to Retain Excess Profits

Many physician medical liability insurance companies are physician-owned, nonprofit mutual insurance companies (e.g., Medical Insurance Exchange of California, NORCAL Mutual Insurance Company, and The Doctors Company⁵⁸). As mutually-owned companies, these insurers retain some of their earnings in order to increase the company's capital base and protect its long-term solvency from unforeseen future risks. When they enjoy strong profit years, these companies distribute dividends to their shareholders or premium rebates to their policyholders.

Because physicians are both the shareholders and the customers of these mutual insurance companies, the companies have a built-in incentive to return the savings resulting from caps to physicians.⁵⁹ Therefore, even if these companies had the market power to raise premiums above competitive levels, they would have no incentive to do so.

C. Medical Liability Insurers in States That Have Non-Economic Damage Limits Do Not Make Excessive Profits

One way to determine if caps enable medical liability insurers to earn supra-competitive profits is to examine the companies' return on equity. Again, California serves as a good testing base from which to examine this issue.

Table 5 shows that, as measured by return on equity, medical liability insurers in California, where a cap is in effect, are not earning excess profits. During the 1990–2003 period, annual nominal returns ranged from –13.6 percent to +13.5 percent, with an average return of +3.16 percent. By comparison, the risk-free return (e.g., the constant maturity return on one year U.S. Treasury Bonds) during this same

⁵⁷ U.S. GEN. ACCT. OFFICE, PUBL'N NO. GAO-03-702, *MEDICAL MALPRACTICE INSURANCE: MULTIPLE FACTORS HAVE CONTRIBUTED TO INCREASED PREMIUM RATES* 35 (2003).

⁵⁸ Some carriers, such as CAP-MPT, are required by law to operate at a break-even level. *See, e.g.*, CAL. INS. CODE § 1280.7 (Deering 2006).

⁵⁹ The competitive market ensures that the savings passed on to physicians are in turn passed on to consumers.

period averaged +4.75 percent. In other words, between 1990 and 2003, medical liability insurance companies earned less than the risk-free rate (i.e., negative risk-adjusted returns). Thus, medical liability providers are not only failing to earn excess profits; in an economic sense they are not earning profits at all.

Table 5: Return on Equity for California Medical Liability Insurance Providers⁶⁰

Year	Total Shareholder Equity	Net Income after rebates and tax	Return on equity	Return on Constant maturity one year U.S. T-Bond
1990	\$ 258,675,160	\$ 14,042,355	5.43%	7.89%
1991	\$ 294,281,331	\$ 22,453,900	7.63%	5.86%
1992	\$ 329,931,078	\$ 23,305,219	7.06%	3.89%
1993	\$ 355,890,808	\$ 19,715,366	5.54%	3.43%
1994	\$ 388,624,908	\$ 52,597,994	13.53%	5.32%
1995	\$ 456,368,809	\$ 35,283,277	7.73%	5.94%
1996	\$ 489,534,893	\$ 16,282,051	3.33%	5.52%
1997	\$ 811,915,697	\$ 69,822,289	8.60%	5.63%
1998	\$ 851,928,288	\$ 66,324,728	7.79%	5.05%
1999	\$ 841,356,537	\$ 55,348,931	6.58%	5.08%
2000	\$ 839,121,338	\$ 52,342,106	6.24%	6.11%
2001	\$ 777,665,995	\$ (74,585,008)	-9.59%	3.49%
2002	\$ 742,336,385	\$ (100,801,838)	-13.58%	2.00%
2003	\$ 729,665,066	\$ (87,656,969)	-12.01%	1.24%

Medical liability insurance companies whose first state of business is California (i.e., the majority of their revenue is generated in California) typically exhibit financial performance that is similar to firms doing most of their business in other states. In cases where significant differences do exist, California companies appear to *underperform* their peers in other states.

Table 6 shows the average net income, average policyholder's surplus, average loss reserves, and average net underwriting income for companies whose primary line of business is medical liability insurance. Data is grouped by state and represents equally weighted averages.⁶¹ States that do not have an insurance company with medi-

⁶⁰ Figures are in the aggregate from data provided by the following companies: Coop. of Am. Physicians/Mut. Prot. Trust (CAP/MPT); Med. Ins. Exch. of Cal. (MIEC); NORCAL Mut. Ins. Co.; Am. Healthcare Indem. Co.; SCPIE Indem. Co.; and The Doctor's Co. (all data on file with authors).

⁶¹ Equally weighted average means the relative sizes of the companies within

cal malpractice as its primary line of business and that generates most of its revenues in that state are not included in the table. This selection process allows us to present operating results that primarily reflect the unique operating conditions prevailing in each state.

Table 6: Medical Liability Insurance Firms' 2003 Average Net Income, Policyholder's Surplus, Loss Reserves, and Underwriting Income⁶²

State ⁶³	Average of Net Income (\$000)	Rank Max= 30	Average of Policyholders' Surplus (\$000)	Rank Max= 30	Average of Loss Reserves (%)	Rank Max= 30	Average of Net Underwriting Income (\$000)	Rank Max= 30
AZ ⁶⁴	\$1,739	9	\$127,250	8	69%	13	(\$13,067)	18
CA	(\$5,170)	27	\$119,572	9	64%	18	(\$18,561)	22
CO	(\$274)	22	\$84,608	14	44%	28	(\$4,564)	7
CT	\$345	19	\$67,689	17	87%	2	(\$14,993)	20
DC	(\$4,900)	26	\$70,372	16	64%	16	(\$13,899)	19
FL	\$1,021	15	\$75,532	15	62%	22	(\$7,685)	12
GA	\$52	20	\$177,177	4	64%	17	(\$25,744)	25
IA	(\$332)	23	\$14,286	27	12%	30	(\$860)	4
IL	\$2,537	8	\$172,211	5	76%	9	(\$58,746)	28
LA	\$2,588	6	\$62,120	18	75%	10	(\$4,896)	10
MA	\$13,229	2	\$230,000	3	78%	6	(\$63,658)	29
MD	\$1,258	14	\$113,427	11	68%	14	(\$25,478)	24
ME	(\$6,364)	29	\$48,407	21	63%	20	(\$9,094)	14
MI	\$9,615	3	\$170,915	6	76%	7	(\$12,077)	17
MN	\$4,273	4	\$118,158	10	80%	4	(\$8,206)	13
MO	(\$2,159)	25	\$29,145	26	61%	25	(\$2,805)	6
MS	\$999	16	\$60,244	19	83%	3	(\$10,617)	16
NC	\$2,553	7	\$35,084	24	63%	21	\$462	1

each state is not factored into the calculation of mean.

⁶² A.M. BEST CO., BEST'S KEY RATING GUIDE, LIFE-HEALTH, (88th ed. 2004). Data represents all insurance companies where medical malpractice was listed as the first line of business (i.e., majority of business generated from medical malpractice insurance). Total states represented equals thirty.

⁶³ State indicates first state of business (i.e., majority of revenue generated in indicated state).

⁶⁴ Includes data provided by the following companies: Everest Indem. Ins. Co, Claremont Liab. Ins. Co., Am. Healthcare Indem. Co., SCPIE Cos., SCPIE Indem. Co., Doctors Co. Ins. Group, Dentist's Ins. Co., MIEC Group, Med. Ins. Exch. of Cal., Doctors Co. Interins. Exch., Cal. Healthcare Ins., RRG; NORCAL Group, NORCAL Mut. Ins. Co., Prof'l Underwriting Liab, Health Providers Ins. Recip. RRG, Podiatry Ins. Co, Am. Mut. Co, MedAm. Mut. RRG Inc., Underwriter for Professions, NCMIC Group, and NCMIC Ins. Co. (all data on file with authors).

Table 6: Medical Liability Insurance Firms' 2003 Average Net Income, Policyholder's Surplus, Loss Reserves, and Underwriting Income (Con't)

State	Average of Net Income (\$000)	Rank Max=30	Average of Policyholders' Surplus (\$000)	Rank Max=30	Average of Loss Reserves (%)	Rank Max=30	Average of Net Underwriting Income (\$000)	Rank Max=30
NJ	(\$2,051)	24	\$45,952	22	48%	27	(\$15,767)	21
NY	(\$89,150)	30	\$266,391	2	80%	5	(\$153,829)	30
OH	(\$6,208)	28	\$145,653	7	72%	12	(\$25,833)	26
OR	\$834	17	\$9,756	30	61%	24	\$133	2
PA	\$1,738	10	\$106,716	12	88%	1	(\$19,290)	23
TN	\$1,738	10	\$85,442	13	60%	26	(\$9,461)	15
TX	\$19,154	1	\$357,760	1	74%	11	(\$26,660)	27
UT	\$1,457	13	\$36,428	23	76%	8	(\$4,715)	9
VA	\$665	18	\$10,284	28	61%	23	(\$983)	5
WA	\$2,909	5	\$30,442	25	63%	19	(\$4,675)	8
WI	\$1,587	12	\$54,048	20	67%	15	(\$5,819)	11
WV	(\$42)	21	\$10,202	29	34%	29	(\$71)	3
Mean	(\$1,545)		\$97,842		66%		(\$18,715)	
Max	\$19,154		\$357,760		88%		\$462	
Min	(\$89,150)		\$9,756		12%		(\$153,829)	

As Table 6 indicates, the performance of medical liability insurance companies operating in California, as measured by net income and net underwriting income, is significantly below-average. California companies rank 27 and 22, respectively, out of 30 states for which data is available. This comparison provides additional evidence that California insurance companies are not earning supra-competitive profits, and, in fact, are relatively *less* profitable than their counterparts in other states. As measured by average net income, California medical liability insurance companies rank 27th out of 30 states, besting only New York, Ohio and Maine—none of which have caps.

In summary, medical liability insurance companies writing policies in California are not charging, and do not have either the incentive or ability to charge, excessively high premiums. Nor are these companies earning excessive rates of return. Even if California's malpractice doctor-owned insurance companies were inclined to seek excess profits, the unity of ownership and customer base would thwart or render harmless such efforts. Thus, both economic analysis and empirical research support the conclusion that the savings from reduced liability insurance premiums are passed through to consumers.

VII. POTENTIAL BENEFITS FROM A FEDERAL CAP

The decrease in medical liability costs resulting from a cap on non-economic damages generates significant savings for states' health care systems, both directly and indirectly. Initially, the additional savings accrue to health care providers, but because the health care system is both interconnected and highly competitive, savings generated in one segment of the system are eventually transmitted to the remaining segments. Thus, when health care providers pay less for malpractice insurance, these savings are ultimately passed along to the payers—employers providing health insurance, workers, consumers and taxpayers as shown in Figure 4.⁶⁵

Figure 4: Who Benefits from the Implementation of Caps?

SAVINGS FROM:	ACCRUE TO:	AND ARE PASSED ON TO:
Decreased loss costs	Medical liability insurers	Insured providers
	Self-insured providers	Government programs
		Healthcare insurers Uninsured consumers
Lower medical liability insurance premiums	Insured providers	Healthcare insurers Uninsured consumers Government programs
Decreased cost of defensive medicine	Healthcare insurers	Employers Insured consumers
	Uninsured consumers	
	Government programs	Taxpayers
Decreased health insurance premiums	Employers	Workers
Decreased cost of government programs	Insured consumers	
	Federal, state & county agencies	Taxpayers

⁶⁵ The GAO found that "hospitals and physicians incur and pass on to consumers additional expenses that directly or indirectly relate to medical liability. Therefore, estimates of malpractice premiums—taken by themselves—understate the total effect of medical liability costs on national health care expenditures." U.S. GEN. ACCT. OFFICE, PUBL'N NO. GAO/AIMD-95-169, MEDICAL LIABILITY: IMPACT ON HOSPITAL AND PHYSICIAN COSTS EXTENDS BEYOND INSURANCE 1 (1995).

A. A Federal Cap Leading to a Decrease in the Cost of Health Care Insurance Would Increase Health Insurance Coverage

A fundamental tenet of economics is that, for most goods and services, a decrease in price causes an increase in the quantity demanded. Consequently, we can be certain that decreases in health insurance premiums resulting from the implementation of caps lead to a decrease in the number of individuals electing to go without coverage.

B. A Federal Cap Leading to a Decrease in the Cost of Providing Health Insurance Will Cause Some Businesses to Increase Coverage of Their Employees

Empirical evidence shows that employers continually evaluate whether to offer health insurance coverage to their employees, even when the economy is robust.⁶⁶ Research published by the U.S. Department of Labor has shown that a decrease in the cost of premiums increases the likelihood that a firm will offer health insurance.⁶⁷

C. A Federal Cap Leading to a Decrease in Health Insurance Costs Will Increase Participation in Health Insurance Programs, Particularly by Low-Income Workers

If employees are charged less for health insurance, more will choose to buy coverage. A growing body of research tests the sensitivity of employee behavior to health insurance costs.⁶⁸ Studies have shown that health insurance price elasticity ranges from minus 0.1 to minus 0.4.⁶⁹ These findings can be interpreted to mean that a 10 percent decrease in the price of health insurance will lead to a 1–4 percent increase in the number of people who choose to purchase health

⁶⁶ Arleen Leibowitz & Michael Chernow, *The Firm's Demand for Health Insurance*, in HEALTH BENEFITS & THE WORKFORCE 80 (U.S. Dep't of Labor, Pension & Welfare Benefits Admin. ed., 1992).

⁶⁷ *Id.*

⁶⁸ See, e.g., M. Susan Marquis & Stephen H. Long, *Worker Demand for Health Insurance in the Non-Group Market*, 14 J. HEALTH ECON. 47 (1995) (discussing the tendencies of workers not covered by employment-based insurance to purchase insurance); JOHN SHEILS ET AL., THE LEWIN GROUP, HEALTH INSURANCE AND TAXES: THE IMPACT OF PROPOSED CHANGES IN CURRENT FEDERAL POLICY A15 (1999) (discussing health insurance premiums and how federal legislation will affect them); JEANNE S. RINGEL ET AL., RAND NAT'L DEF. RES. INST., THE ELASTICITY OF DEMAND FOR HEALTH CARE: A REVIEW OF THE LITERATURE AND ITS APPLICATION TO THE MILITARY HEALTH SYSTEM (2002).

⁶⁹ RINGEL ET AL., *supra* note 68, at 21 tbl.3.1.

insurance.⁷⁰ These numbers can be substantial when measured against the total population of the United States (or more specifically in states that currently do not have caps).

D. A Federal Cap Will Allow Physicians to Establish Practices in States Where Liability Costs Are Currently Too Severe

Physician supply in any location and in any specialty depends, in part, on physicians' expected income. If one state has higher medical liability insurance costs than other states, and providers are temporarily unsuccessful in passing along the additional costs to consumers, the expected incomes of providers in that state will fall. Over time, the income disparity will reduce the number of physicians that choose to work in the state with higher malpractice costs.⁷¹ New York provides a compelling example of this problem:

The cost of medical malpractice insurance in New York City, Westchester County and on Long Island has risen by nearly 150 percent since 1999, creating severe financial strains that have limited patients' access to such specialties as obstetrics and gynecology and made New York a "crisis state" for doctors, according to a report released yesterday by a hospital trade group.⁷²

E. A Federal Cap Will Enable More Physicians to Set Up Their Practices in Low-Income Rural or Inner-City Areas

While lower medical liability premiums as a result of a federal cap would affect all health care providers, physicians in rural and inner-city areas would benefit the most because their ability to pass on costs is more limited than their suburban counterparts. According to the GAO:

Actions taken by health care providers in response to rising malpractice premiums have contributed to reduced access to specific services on a localized basis in the five states re-

⁷⁰ See, e.g., Marquis & Long, *supra* note 68; SHEILS ET AL., *supra* note 68; RINGEL ET AL., *supra* note 68.

⁷¹ Cf. Mark A. Satterthwaite, *Competition and Equilibrium as a Driving Force in the Health Services Sector*, in MANAGING THE SERVICE ECONOMY: PROSPECTS AND PROBLEMS 239 (Robert P. Inman ed., 1985) (concluding that physicians will work where their profits can be maximized).

⁷² Thomas J. Lueck, *Malpractice Costs Up 150% Since 1999, Hospitals Say*, N.Y. TIMES, Jan. 6, 2005, at B2.

viewed with reported problems. We confirmed instances where physician actions in response to malpractice pressures have resulted in decreased access to services affecting emergency surgery and newborn deliveries in scattered, often rural areas. . . .⁷³

Many rural and inner-city areas are medically under-served because these communities have higher costs in relation to revenues than do other communities. To the extent that physicians are unable to pass along the cost of malpractice premiums to lower-income families, a federal cap on non-economic damages awards would help alleviate the provider shortage in rural and inner city areas.

F. A Federal Cap Will Encourage Physicians to Enter High-Risk Specialties

High malpractice premiums translate into higher costs for physicians, especially for those specializing in obstetrics and other high-risk specialties. Medical liability premiums are disproportionately high among obstetricians and family practitioners who deliver babies.⁷⁴ These high premiums and correspondingly higher costs discourage physicians and medical students from specializing in obstetrics or other high-risk specialties, a fact borne out by recent press reports:

Medical malpractice is having a profoundly detrimental effect on health care in the United States. Women are having difficulty obtaining obstetrical care, trauma surgery is difficult to obtain in some areas, and physicians in many states are finding the rising cost and availability of professional liability insurance an impediment to continuing their practices.⁷⁵

Mothers-to-be may have to go elsewhere to deliver their babies after July 1 because physicians here say they can no longer afford the skyrocketing cost of malpractice insurance premiums. Dr. Steve Toadvine stopped working in the obstetrics unit at Knox County Hospital last year because of the es-

⁷³ U.S. Gen. Acct. Office, Publ'n No. GAO-03-836, *Medical Malpractice: Implications of Rising Premiums on Access to Health Care* 12 (2003) (examining Florida Nevada, Pennsylvania, Mississippi and West Virginia).

⁷⁴ See Stephen A. Norton, *The Malpractice Premium Costs of Obstetrics*, 34 INQUIRY 62 (1997) (finding that obstetrics considerably raised medical malpractice costs).

⁷⁵ Barry M. Manuel, *Fix Our Malpractice System Now*, BOSTON GLOBE, Feb. 1, 2003, at A15.

calating premiums. Four of his colleagues plan to follow suit in less than two months. The hospital would be the second in eastern Kentucky at which physicians stopped delivering babies this year because of the escalating costs of malpractice insurance. Our Lady of Bellefonte Hospital in Russell closed its obstetrics unit in January. 'We did not anticipate making this decision,' said Dr. Steve Sartori, one of a group of nine physicians who deliver babies in Barbourville and Corbin. 'This was driven by a rate increase on our liability insurance contract.'⁷⁶

Obstetrical services, such as prenatal care, are among the most cost-effective forms of preventive medical care available. Any improvement in infant health outcomes provides benefits during the individual's entire lifetime. Obstetricians, however, have a significant exposure to malpractice lawsuits, as is indicated by the relatively high level of their malpractice insurance premiums. Table 7 shows the premiums paid by practitioners in Los Angeles, Dade County (Miami), Long Island, and Wayne County (Detroit).

Table 7: 2004 Malpractice Premiums by Specialty⁷⁷

Specialty	Los Angeles, CA	Los Angeles Rank	Dade County, FL	Long Island, NY	Wayne County, MI
Allergy	\$7,632	1	\$33,460	\$6,511	\$18,016
Psychiatry (Non-Shock)	\$7,632	1	\$33,460	\$6,511	\$19,410
Pathology	\$11,988	3	\$83,651	\$15,682	\$24,607
Anesthesiology	\$13,808	4	\$71,700	\$22,650	\$45,567
Family Practice (Non-Surgical)	\$13,808	4	\$62,140	\$16,130	\$40,430
Internal Medicine (Non-Invasive)	\$13,808	4	\$83,651	\$28,635	\$37,346
Radiology (Non-Invasive)	\$15,704	7	\$131,451	\$35,494	\$51,891
Cardiology (Invasive)	\$17,616	8	\$131,451	\$28,635	\$78,958
Pediatrics (Non-Surgical)	\$17,616	8	\$47,800	\$16,130	\$35,764
Ophthalmology	\$21,888	10	\$69,310	\$21,916	\$40,440
Urology	\$21,888	10	\$83,651	\$38,663	\$63,096
Dermatology (Lipo/Cosmetic)	\$24,272	12	\$83,651	\$22,122	\$26,974

⁷⁶ Roger Alford, *Malpractice Crisis Stops Births at Another Eastern Kentucky Hospital*, ASSOC. PRESS, May 23, 2003

⁷⁷ Comparison reflects mature annual premium costs for \$1 million maximum per case/\$3 million maximum for all cases in a given year. Data was provided by the following companies: SCPIE Indem. Co. (Los Angeles, CA); Fla. Physicians Ins. Co. (Dade County, FL); Prof'l Liab. Mut. Ins. Co. (Long Island, NY) (policy year ending June 30, 2004); Am. Physicians Assurance (Wayne County, MI).

Table 7: 2004 Malpractice Premiums by Specialty (Con't)

Specialty	Los Angeles, CA	Los Angeles Rank	Dade County, FL	Long Island, NY	Wayne County, MI
Emergency Medicine	\$33,772	13	\$131,451	\$34,257	\$92,826
Otolaryngology (Cosmetic)	\$33,772	13	\$83,651	\$68,448	\$86,897
Proctology	\$33,772	13	\$95,601	\$38,663	\$36,148
General Surgery	\$40,436	16	\$277,242	\$70,677	\$144,188
Thoracic Surgery	\$40,436	16	\$239,002	\$68,448	\$165,839
Cardiovascular Surgery	\$46,128	18	\$239,002	\$68,448	\$191,965
Orthopaedics	\$46,128	18	\$215,101	\$87,866	\$173,476
Plastic Surgery	\$58,492	20	\$131,451	\$68,448	\$97,561
OB/GYN	\$66,100	21	\$277,242	\$117,956	\$164,934
Neurosurgery	\$74,660	22	\$344,162	\$193,502	\$226,545
Average - All Specialties	\$30,062	na	\$134,058	\$48,900	\$84,676

The differences in malpractice premiums are particularly striking when viewed in terms of the number of procedures that must be performed to fund the premiums. Physicians in Los Angeles are reimbursed \$4,763 by Medicaid for vaginal delivery, antepartum, and postpartum care (2004).⁷⁸ Given the \$66,100 premium charged OB/GYN specialists, these practitioners must, ignoring all other costs, perform approximately 13.88 deliveries simply to cover the malpractice premium. In Florida, where the reimbursement is \$4,545, the physician must perform approximately 61 deliveries to cover the \$277,242 premium.

Parents whose infants have imperfect birth outcomes are relatively likely to file a malpractice lawsuit, and juries are highly sympathetic to claims involving infants. High malpractice insurance premiums can serve as a powerful deterrent to obstetrical practice, particularly in areas where reimbursement rates are low. These areas typically include rural areas with lower patient density, as well as low-income areas where many patients do not have health insurance and births are more likely to have medical complications. Consequently, the implementation of caps and attending reduction in liability premiums for high-risk and general practitioners would promote increased access to health care.

⁷⁸ Including Obstetrical care 1; Obstetrical care 2; Obstetrical care 3; Antepartum manipulation; Deliver placenta; Antepartum care only; Antepartum care only 2; and Care after delivery.

G. A Federal Cap Will Allow Physicians to Provide Treatments that Carry Relatively High Risks

When a provider agrees to perform a high-risk procedure on a patient, the provider's exposure to a medical liability lawsuit increases sharply. High-risk procedures, by definition, often result in poor outcomes. Consequently, a provider can minimize his or her exposure to litigation by refusing to perform such procedures. In some cases, however, high-risk procedures may be the patient's best—or only—hope.

CONCLUSION

We have analyzed the effects of limits on medical malpractice awards, and the consequent effects on insurance premiums, health care costs, and access to health care. We find that caps on medical malpractice damage awards unambiguously improve access to health care and reduce medical expense costs across all levels of the health care system.

Figure 5 summarizes the effects described in sections II–VII of this Article. It illustrates how the different elements of the medical health system are interrelated and interdependent. One can easily see how decreased costs at one end, as a result of the implementation of caps, result in decreased costs throughout the system.

Figure 5: Effects of Implementing Caps on Non-Economic Damages

