WISCONSIN STATE LEGISLATURE
COMMITTEE HEARING RECORDS

2005-06
(session year)

Assembly
(Assembly, Senate or Joint)

Task Force on Medical Malpractice (ATF-MM)

Sample:

Record of Comm. Proceedings ... RCP
- 05hr_AC-Ed_RCP_pt01a
- 05hr_AC-Ed_RCP_pt01b
- 05hr_AC-Ed_RCP_pt02

- *Appointments* ... *Appt*
- **

- *Clearinghouse Rules* ... *CRule*
- **

- *Committee Hearings* ... *CH*
- **

- *Committee Reports* ... *CR*
- **

- *Executive Sessions* ... *ES*
- **

- *Hearing Records* ... *HR*
- **

- *Miscellaneous* ... *Misc*
- **05hr_ATF-MM_Misc_pt41**

- *Record of Comm. Proceedings* ... *RCP*
- **

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Are Damages Caps Regressive? A Study Of Malpractice Jury Verdicts In California

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HEADNOTE

Strong evidence that caps' fiscal impact on California verdicts is not distributed equitably across different types of injuries.

ABSTRACT: Caps on damages have emerged as the most controversial legislative response to the new malpractice crisis. We analyzed a sample of high-end jury verdicts in California that were subjected to the state's $250,000 cap on noneconomic damages. We found strong evidence that the cap's fiscal impact was distributed inequitably across different types of injuries. In absolute dollar terms, the reductions imposed on grave injury were seven times larger than those for minor injury; the largest proportional reductions were for injuries that centered on pain and disfigurement. Use of sliding scales of damages instead of or in conjunction with caps would mitigate their adverse impacts on fairness.

As A MEDICAL MALPRACTICE CRISIS spreads across the United States, policymakers are responding with reforms aimed at curbing the cost and frequency of litigation.1 Caps on damages have emerged as the most common legislative response; they are also the most controversial.

Twenty-one states already cap damages for noneconomic losses in medical malpractice cases, generally with ceilings in the range of $250,000-$750,000. Six states cap total damages. Most of these measures were introduced during earlier crises in the mid-1970s and mid-1980s. However, six states so far-Florida, Mississippi, Nevada, Ohio, Texas, and West Virginia-have enacted legislation on caps in response to the current crisis. Caps were also the centerpiece of the leading federal tort reform proposal to date. Both the Help Efficient, Accessible, Low-Cost, Timely Healthcare (HEALTH) Act (H.R. 5), which passed the House in 2002, and the Patients First Act of 2003, S. 11, which faltered in the Senate in July 2003, included a $250,000 cap on noneconomic damages. These bills sought to emulate California's Medical Injury Compensation Reform Act (MICRA) of 1975, one of the earliest and best-known state reforms.

Proponents of MICRA-style caps, including President George W. Bush and the American Medical Association, regard them as crucial in preventing excessive payouts in malpractice suits and stabilizing professional liability insurance premiums.2 Trial attorneys and consumer groups dispute their efficacy and also object to their "one-size-fits-all" nature on fairness grounds. They argue that caps place unacceptable restrictions on plaintiffs' rights to recovery, resulting in inadequate

compensation of severely injured patients.3 Opponents further claim that caps' bite is felt most sharply by lower wage earners, particularly women and the elderly, who rely heavily on the "pain and suffering" portion of damages awards to obtain adequate compensation.4 Several academic commentators have echoed these concerns, arguing that fixed-dollar caps are a blunt and regressive policy response because they disproportionately burden certain types of plaintiffs.5

There is reasonable evidence that damages caps control payouts in malpractice litigation.6 Caps' impact on liability insurance markets is less clear; there is some evidence to suggest that they help limit the growth of premiums in the medium term, but research findings present a mixed picture on this point.7 To the best of our knowledge, however, no data are available to support or refute the claims that caps are "regressive" in the sense that they disproportionately burden vulnerable subgroups of litigants.

Using a sample of jury verdicts from California, we analyzed awards before and after they were subjected to the MICRA cap. Our primary focus was fairness: Among verdicts subjected to the cap, to what extent was the burden of reductions distributed equitably across different types of injuries? We examined the size of reductions in absolute-dollar-value terms and proportionally, by considering them as a percentage of the overall award. We also tested whether the burden of the cap fell disproportionately on women and the elderly, as critics have claimed.

* Fairness in injury compensation. Among compensated plaintiffs, fairness can be conceptualized in two main ways. The most basic question is whether the absolute-dollar value of the compensation is appropriate. Do the total damages received by plaintiffs at each injury level meet (and not exceed) societal expectations about what constitutes reasonable compensation for that sort of injury? The conventional view is that tort damages should make negligently injured people "whole" for their losses. Hence, the question becomes how accurately compensation tracks the magnitude of the loss or injury.

But fairness also has an important relative dimension. Borrowing from taxation policy, this has been conceptualized in terms of "vertical" and "horizontal" equity.8 Principles of vertical equity dictate that more severe injuries should receive higher compensation than less severe ones, and vice versa; principles of horizontal equity call for similar levels of compensation for injuries of similar severity.

The malpractice system has drawn heavy criticism over its performance on both the absolute and relative dimensions of fairness.9 Many victims of negligence receive little or nothing.10 At the other end of the spectrum, some multimilliondollar "jackpot" awards appear to be disproportionate to the severity of the injuries they are compensating.11

Concerns about the latter problem and its impact on liability insurance markets are driving the current interest in caps. The noneconomic component of damages is the focal point. Noneconomic losses are inherently subjective, and juries are given little or no guidance in valuing them. Jury instructions in California, for example, simply ask jurors to "exercise calm and reasonable judgment in light of the evidence."12

The subjective nature of noneconomic losses imbues with controversy discussions of the reasonableness of absolute levels of compensation. It also sets the stage for perennial disagreement over what amount is an acceptable upper limit for a noneconomic damages cap. The concept of relative fairness, on the other hand, presents a more tractable problem. It is quite feasible to investigate the internal

consistency and coherence of awards. Previous studies partially challenge the popular view that jury awards fail to discriminate between severity levels of injuries. In their analysis of jury verdicts from Florida and Kansas City, Randall Bovbjerg and colleagues identified vertical equity in noneconomic damages but "enormous" problems with horizontal equity.13 These findings are supported by other research.14

* The MICRA cap. The cap established under MICRA pertains to noneconomic damages only.15 Any action for injury against a health care provider based on "professional negligence" is subject to the cap, regardless of the severity of injury, the plaintiff's age, or the magnitude of economic loss. Intentional torts, such as battery and sexual misconduct, are exempt.16

Several other features of the MICRA cap are noteworthy. First, the cap was fixed at $250,000 in 1975; unlike damages caps in some other states, it has never been adjusted for inflation. If adjusted for inflation, the cap would have reached $877,000 in 2002. Second, the cap is applied after juries have decided on damages. In other words, juries are theoretically "blinded" to the existence of the cap in reaching their verdict. Third, any modifications to awards based on comparative fault are made before the cap is applied.17 Fourth, in cases that involve ongoing or future losses, a present value is assigned to the compensation.18

Study Data And Methods

* Data and sample. We extracted data on jury verdicts from the California Jury Verdicts Weekly (CJVW). This publication covers cases statewide; it is one of the best-known jury verdict reporting services in the country and has been used in previous empirical studies of civil litigation. The reports are obtained through a combination of voluntary reporting by and CJVW solicitations to attorneys, with the latter based on information gathered by CJVW staff from court dockets and from news and wire reports. Attorneys involved in the litigation complete structured forms summarizing the details of the case. The summaries are then edited and facts are checked by forwarding the summaries to attorneys on both sides.

Lexis-Nexis catalogues CJVW reports electronically. Our search of malpractice verdicts from the period 1985-2002 yielded 486 unique verdicts decided in favor of the plaintiff. We eliminated plaintiff verdicts that did not relate to medical malpractice (63), involved out-of-court settlements (58) or arbitration decisions (42) rather than an actual jury verdict, alleged sexual battery or other offences not subject to the MICRA cap (7), or did not clearly separate economic and noneconomic award components (18). This left 298 verdicts. In 152 (51 percent) of them, the jury returned a noneconomic damages award in excess of $250,000, and the court applied the cap. These 152 cases made up the study sample.

* Verdict review. We abstracted details of the plaintiff (age and sex), type of claim, injury, and monetary aspects of the verdict (economic, noneconomic, and any other damages). A surgeon and an internist, both with experience assessing injury types in malpractice litigation, independently scored the severity of each injury using the National Association of Insurance Commissioners (NAIC) nine-point scale.19 The scale ranges from emotional injury only (1) to death (9). The physicians' scores were concordant in 66 percent of cases, differed by one point in 24 percent, and differed by two points in 10 percent (weighted kappa = .8). Disagreements were discussed to reach consensus. To ensure sufficient sample size for analyses, the nine levels of injury were collapsed into six categories: temporary injury and five levels of permanent injury (minor, significant, major, grave, death).

* Data analyses. After describing the characteristics of plaintiffs, claims, injuries, and verdicts, we analyzed, in absolute and proportional terms, the size of the reductions effected by the cap. Proportional reductions are expressed as percentages and were calculated by dividing the reduction by the total pre-cap award; this measure is a useful addition to the absolute reduction because it is sensitive to the respective contributions of economic and noneconomic damages to the original award. We quantified variation in both types of reductions across levels of severity and types of injury. Statistically significant differences were identified using t-tests.

Finally, we used multivariate linear regression analysis to explore the relationship between the size of the reduction and plaintiffs' sex, age, and injury severity. To account for the differences in the timing of verdicts, we converted the dollar values of awards to 2002 dollars using the Consumer Price Index (CPI).

Study Results

* Sample characteristics. The most common types of events leading to claims in our sample were surgical errors, obstetrical errors, missed or delayed diagnoses, and drug errors (Exhibit 1). Fifty-three percent of the plaintiffs were female, and the mean plaintiff age was thirty-seven years.

In 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. Besides death, loss of ambulatory capacity and severe neurological impairment among infants and adults were the most common types of injury.

Verdicts in the sample totaled nearly $390 million, with a mean award of $2.5 million and a median award of $1.3 million (Exhibit 2). The $250,000 cap lowered the total by 34 percent, to $253 million. For noneconomic compensation specifically, it lowered the total by 73 percent.

* Awards of noneconomic damages across injury types. The box-and-whisker plots in Exhibit 3 show the distribution of the original noneconomic damages component of the awards by severity of injury. Several points are noteworthy. First, the long upper whiskers highlight a large right tail to the distribution.20 The skew was especially pronounced among the most severe nonfatal injuries. Second, there was wide variation in noneconomic damages awarded within each severity category; the variation again was particularly large among the most severe injuries.

Third, the mean value of noneconomic damages within injury severity categories increased with severity (excluding death). There were no statistically significant differences across neighboring categories, with the exception of the gravecleath comparison, although there was a statistically significant jump between the means for the bottom three and top three severity categories ($755,861 versus $1,427,733, $p < .001$). Fourth, the probability of a multimillion-dollar verdict for noneconomic damages increased with severity. The seventy-fifth percentiles of the distributions shown in Exhibit 3 rise sharply across severity categories, peaking with grave injuries and dropping off for deaths.21

* Absolute reductions in noneconomic damages under the cap. Exhibit 4 illustrates both the magnitude of reductions and the variation across injuries. 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. Again, deaths disrupt the direction of the relationship between size of reduction and injury severity.

* Proportional reductions in noneconomic damages under the cap. Exam ining reductions imposed by the cap in terms of the percentage decrease in the plaintiffs' original award, rather than in absolute terms, we found huge variations across verdicts. Reductions ranged from 2 percent to 82 percent (mean = 37 percent, standard deviation, ±20 percent) for nonfatal injuries and from 6 percent to 88 percent (mean = 47 percent, SD, ±24 percent) for fatal injuries.

Exhibit 5 describes nonfatal injuries at both ends of the spectrum-those for which the proportional reduction was smallest (< or =8 percent) and largest (> or =70 percent). Severe neurological injuries to newborns were common in the first group, accounting for nine of the twenty verdicts with the smallest percentage reductions. Injuries that caused pain or disfigurement but not significant loss of physical functioning dominated the second group: Twelve of the twenty verdicts with the largest reductions fit this profile. In addition, seven of the twenty largest reductions involved unnecessary or repeated surgical procedures, and four involved injuries to the female breast.

Exhibit 5 also illustrates how the types of injuries described above come to bear such different burdens under the MICRA cap. The balance between economic and noneconomic components of the award is critical. Noneconomic damages constitute 10 percent or less of the overall award in verdicts with proportionally small reductions, but they account for the vast majority of awards with the largest reductions. 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.

* Female and elderly plaintiffs. In unadjusted analyses, we found no significant differences in the percentage reductions experienced by female and male litigants after application of the MICRA cap (41 percent versus 38 percent reductions, respectively; $t = -0.9$, $p = .4$).22 To focus this comparison on the class of plaintiffs at highest risk of exhibiting sex disparities, we excluded newborns and the elderly from comparison; there still was no significant difference. The size of reductions among elderly and nonelderly litigants was virtually identical (39 percent; $t = 0.1$, $p = .9$). In multivariate analyses that adjusted simultaneously for the effects of sex, age, and severity, women's reductions were slightly larger than men's (4 percent), but this difference was not statistically significant. There were no significant differences between elderly and nonelderly plaintiffs in the multivariate analyses.

Adjusted analyses also provided an opportunity to test whether the relationship between injury severity and absolute-dollar reductions in the award persisted after sex and age were controlled for.23 We observed a strong effect. When death was excluded and severity was categorized in the same way as shown in Exhibits 3 and 4, an incremental increase severity score was associated with a 33 percent greater reduction in the size of damages ($p = .001$).

Discussion

* Impact of caps on vertical equity. We found strong evidence that caps' fiscal impact on verdicts was distributed inequitably across different types of injuries. Characterization of the injury types that carry the heaviest "burden" under caps depends on the approach used to measure reductions. Analysis of absolute reductions shows that the burden essentially climbs with severity.

Imposition of greater reductions on more severe injuries may be justified if compensation for this particular group of injuries were especially prone to excess.

In fact, available evidence suggests that the reverse is true: Plaintiffs with the most severe injuries appear to be at highest risk for inadequate compensation.24 Hence, the worst-off may suffer a kind of "double jeopardy" under caps.

Analysis of proportional reductions shows that the burden of caps tends to fall on injuries that cause chronic pain and disfigurement but do not lead to declines in physical functioning that would generate lost work time or high health care costs. The large percentage reductions for these injuries can be explained by the high ratio of noneconomic to economic losses involved. Notwithstanding their limited economic impact, the injuries involved are by no means trivial (Exhibit 5).

* Impact of caps on horizontal equity. In literal terms, caps advance the horizontal equity of compensation; they completely eliminate dispersion of awards above the limit of the cap. However, they achieve this result in a procrustean manner-essentially, by prescribing a single level of noneconomic compensation for severe injuries. Gains in horizontal equity under caps are thus in direct tension with goals of vertical equity and absolute fairness.

Also relevant to the issue of horizontal equity is how plaintiffs of different socioclemographic groups fare under caps. Our findings suggest that the two groups that have attracted the most attention-women and the elderly-are no more heavily burdened by caps than their male and younger counterparts, even when the reductions are examined in proportional terms. However, an important caveat to this finding relates to our focus on receivers rather than seekers of compensation. In theory, caps may influence attorneys' willingness to take cases that involve paltry economic losses. We cannot tell from our analysis whether such screening activity occurs or, if it does occur, the degree to which it adversely affects women and the elderly.

* Study limitations. Our study findings should be interpreted in light of several other limitations. First, we do not observe the universe of plaintiff verdicts in California. Previous attempts to measure the proportion of verdicts captured by verdict reporting services have yielded estimates ranging from 75 percent to 95 percent.25 The CJVW's data collection methodology probably biases reports toward larger verdicts. This may increase the frequency of awards in higher severity categories, but it should have little impact on the mean and median reductions we calculated within severity categories.

Second, our analysis does not control for the underlying merits of claims. This omission may bother those drawn to caps by their promise of curbing unjust awards. Previous studies suggest that juries actually do a reasonable job of deciding negligence.26 Regardless, caps are a clumsy solution to this perceived problem.

Third, the frame of the analysis is the upper level of the "dispute pyramid"namely, plaintiffs who obtained compensation through verdicts. This frame excludes both injured patients who never sought compensation and plaintiffs whose claims were not resolved by verdict. There is every reason to expect the "shadow" of the impacts of caps we identified to fall across settlements. Litigants' expectations about potential returns in court exert a powerful influence over settlement negotiations, establishing the parameters for both liability questions and valuations of damages.27

Fourth, our analysis assumes that juries are ignorant of the cap. Although California courts have frowned upon disclosure of caps to juries, in some cases this standard may be infringed, or jury members may learn about the cap from other sources, which may influence juries' valuations of damages. One potential behavioral response would be to inflate the economic component of the award as a

way of offsetting the impending reduction in noneconomic damages under the cap. The only substantial implication of such behavior for our findings would be to render the percentage reductions shown in Exhibit 5 underestimates of the "true" proportional reduction attributable to the cap.

* A scaled approach to noneconomic damages. Interest in caps stems in part from concerns about the opaque and haphazard nature of noneconomic damages determinations; it may also be traced to a degree of ambivalence, fuelled by skepticism among some economists, about whether this type of loss should be compensated at all.28 Regardless, the tort system does and will continue to recognize noneconomic losses. The critical policy question thus becomes how to compensate them appropriately and fairly.

Our study illustrates the threat to fairness posed by flat caps, especially in the area of vertical equity. One option for addressing this problem is use of a schedule, or sliding scale, for noneconomic damages. Schedules have long been advocated by academic commentators and recently received the endorsement of the institute of Medicine.29 Using a schedule permits the noneconomic component to vary by severity of injury and possibly also by the plaintiff's age.30 The maximum award in each severity bracket would be capped, but at a level more commensurate with the severity of the injury than a flat cap permits.31

Schedules would also advance goals of horizontal equity, by reducing the large variation in noneconomic damages awarded by juries for ostensibly similar levels of harm, a "spread" that was highly visible in our sample among injuries with higher severity. Caps also control this dispersion-in fact, they eliminate it altogether for awards that reach the cap-but it is a Pyrrhic victory, won completely at the expense of vertical equity. Using a sliding scale avoids this trade-off; it could be structured to simultaneously respect principles of vertical and horizontal equity in compensation.

A schedule along these lines would be feasible to develop and implement. The design calls for a two-step process, beginning with formulation of the severity tiers. One option for this formulation would be to use an existing injury severity scale, such as that used by the NAIC; better still, it should be relatively straightforward to design a scale to differentiate among levels of noneconomic injury (as opposed to injury generally). The next step, assignment of dollar values or ranges to each tier, defines the compensation gradient across ascending severity levels. This involves a much more politically charged set of decisions. Vertical equity would dictate only that the slope of the gradient be positive, at least up to cases involving death. The actual dollar values that define the slope could be assigned through deliberation about what constitutes reasonable compensation for the various levels of noneconomic loss. Bovbjerg and colleagues have proposed using median jury awards from past verdicts in the state.32

Whether such a sliding scale would reduce the overall costs of litigation more or less than a flat cap does depends on the dollar values chosen for each tier and, of course, the spillover effects on decisions about pressing litigation. Savings in administrative costs that stem from the increased predictability of damages under the schedule should also be taken into consideration. One likely outcome is that the sliding scale would result in systematically lower awards in cases involving temporary or minor injury than under flat caps, and higher awards for significant and grave injury. Savings at the low end may not offset more generous compensation at the high end. But the legitimate societal interest in fairly compensating the severely injured may justify some modest increase in the overall cost of awards.

As THE MALPRACTICE CRISIS gathers momentum, so will interest in caps on damages.

Decisions to implement them should be made with an awareness that they are likely to exacerbate existing problems of fairness in compensation. A decision to limit damages awards represents a social judgment that stabilizing the liability insurance market must be prioritized over allowing juries to determine levels of compensation for medical injuries. In the current environment, such a trade-off may well be justified. But from an ethical perspective, care should be taken to choose that policy option that infringes least on the interest of patients and society in fair compensation. Use of a sliding scale of damages represents a more rational balancing of interests.

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SIDEBAR

"Our study illustrates the threat to fairness posed by flat caps, especially in the area of vertical eauity."

FOOTNOTE

NOTES

1. U.S. General Accounting Office, Medical Malpractice Insurance: Multiple Factors Have Contributed to Increased Premium Rates, Pub. no. GAO-03-702 (Washington: GAO, 2003); and M.M. Mello, D.M. Studdert, and T.A. Brennan, "The New Medical Malpractice Crisis," New England Journal of Medicine 348, no. 23 (2003): 22812284.

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4. Harvey Rosenfield, Foundation for Taxpayer and Consumer Rights, testimony before the House Energy and Commerce Committee (Pennsylvania), 10 February 2003, www.consumerwatchdog.org/healthcare/ rp/rp003105.pdf (13 May 2004); M.J. Mehlman, "Resolving the Medical Malpractice Crisis: Fairness Considerations," June 2003,.medliabilitypa.org/research/melilman0603/ (14 August 2003); and T. Koenig and M. Rustad, "His and Her Tort Reform: Gender Injustice in Disguise," Washington Law Review 70, no. 1 (1995): 1-90.

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6. For an overview of the leading studies of the effectiveness of caps, see D.M. Studdert, M.M. Mello, and TA. Brennan, "Medical Malpractice," New England Journal of Medicine 350, no. 3 (2004): 283-292. The following study should be added to that group: K.E. Thorpe, "The Medical Malpractice 'Crisis': Recent Trends and the Impact of State Reforms," Health Affairs, 21 January 2004, content.healthaffairs.org/cgi/content/ abstract/hlthaff.w4.20 (8 April 2004).

7. Studdert et al., "Medical Malpractice."

8. R.R. Bovbjerg et al., "Valuing Life and Limb: Scheduling 'Pain and Suffering,' " Northwestern University Law Review 83, no. 4 (1989): 908-976.

9. Mehlman, "Resolving the Medical Malpractice Crisis."

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11. Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, Addressing the New Health Care Crisis: Reforming the Medical Litigation System to Improve Quality of Health Care, 3 March 2003, aspe.hhs.gov/daltcp/reports/medliab.htm (25 August 2003).

12. California Civil Jury Instructions, No. 14.13.

13. Bovbjerg et al, "Valuing Life and Limb."

14. WK. Viscusi, "Pain and Suffering in Product Liability Cases: Systematic Compensation or Capricious Awards?" International Review of Law and Economics 8, no. 2 (1988): 203-220; and WK. Viscusi, Reforming Products Liability (Cambridge, Mass.: Harvard University Press, 1991).

15. Cal. Civ. Code, sec. 3333.2.

16. Perry v. Shaw, 88 Cal. App. 4th 658 (2001).

17. McAdory v. Rogers, 215 Cal. App. 3d 1273 (1989, 2d Dist).

18. Salgado v. County of Los Angeles, 19 Cal. 4th 629 (1998).

19. M. Sowka, ed., Malpractice Claims: Final Compilation (Brookfield, Wis.: National Association of Insurance Commissioners, 1980).

20. The aggregate verdict totals exhibited this same skew, as is evident in the consistently larger mean than median values noted in the discussion of data presented in Exhibit 2.

21. The four statistical properties of noneconomic damages reported in this subsection arc consistent with the results from Bovbjerg and colleagues' study of jury verdicts from Florida and Missouri. See Bovbjerg et al., "Valuing Life and Limb."

22. For this calculation, proportional reduction is the appropriate specification of the change-in-award variable because it is sensitive to underlying mix of economic and noneconomic damages. There is no strong reason why the absolute-dollar

value of noneconomic damages should be less for women or the elderly. Rather, the argument is that reductions to this component of the award have a greater effect on these plaintiffs because of the prominence of noneconomic damages in the overall award.

23. For this calculation, the absolute reduction in the size of the verdict is the appropriate specification of the change-in-award variable. We took a natural logarithm of the dollar reduction to normalize the distribution. Hence, the association between severity and reductions is expressed in terms of percentage change in the award for successive levels of severity.

24. F.A. Sloan and C.R. Hsieh, "Variability in Medical Malpractice Payments: Is the Compensation Fair?" Law and Society Review 24, no. 4 (1990): 601-650; K.S. Abraham, R.L. Rabin, and P.C. Weiler, "Enterprise Responsibility for Personal Injury: Further Reflections," San Diego Law Review (Spring 1993): 333-364; and Geistfeld, "Placing a Price on Pain and Suffering."

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26. Studdert et al., "Medical Malpractice."

27. H.M. Kritzer, Let's Make a Deal: Understanding the Negotiation Process in Ordinary Litigation (Madison: University of Wisconsin Press, 1991); and R.H. Mnookin and L. Kornhauser, "Bargaining in the Shadow of the Law: The Case of Divorce," Yale Law Journal 88, no. 5 (1979): 950-997.

28. A. Schwartz, "Proposals for Product Liability Reform: Theoretical Synthesis," Yale Law Journal 97, no. 3 (1988): 353-419; and S. Shavell, Economic Analysis of Accident Law (Cambridge, Mass.: Harvard University Press, 1987).

29. Bovbjerg et al., "Valuing Life and Limb"; J.M. Corrigan, A. Greiner, and S.M. Erickson, eds., Fostering Rapid Advances in Health Care: Learning from System Demonstrations (Washington: National Academies Press, 2002); P.C. Weiler, "Fixing the Tail: The Place of Malpractice in Health Care Reform," Rutgers Law Review 47, no. 3 (1995): 1157-1193; and M.M. Mello and TA. Brennan, "Deterrence of Medical Errors: Theory and Evidence for Malpractice Reform," Texas Law Review 80, no. 7 (2002): 1595-1637.

30. Age is a reasonably well-established predictor of noneconomic damages. See Bovbjerg et al, "Valuing Life and Limb."

31. A couple of states already employ a sliding-scale approach to setting the level of the cap. For example, Alaska's cap limits noneconomic damages to $400,000, or $8,000 times the years of the plaintiff's life expectancy, whichever is greater (Alaska Stat. Sec. 09.17.010); in cases of severe and permanent impairment or severe disfigurement, the limit is the greater of $1 million or $25,000 times the years of the plaintiff's life expectancy. Ohio's recently enacted cap is set at the greater of $250,000 or three times the plaintiff's economic loss up to a maximum of $350,000 (Ohio S.B. 281). Although innovative, these approaches only partially embrace the logic of a sliding scale because they are tethered to factors-life expectancy and economic damages-that may have a weak relationship to the actual severity of the noneconomic loss.

32. Bovbjerg et al., "Valuing Life and Limb."

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---- INDEX REFERENCES ----

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