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# ***908** VALUING LIFE AND LIMB IN TORT: SCHEDULING "PAIN AND SUFFERING"

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Tort law's traditional methods of computing damages for personal injury and death are under attack--and understandably so. Legal reformers have long argued that present law, when combined with jury discretion, inflates damage awards and creates problematic outcome variability. [FN1] The open-ended and unpredictable nature of tort exposure has, in turn, threatened the liability insurance system that funds most tort compensation. Determination of awards on an ad hoc and unpredictable basis, especially for "non-economic" losses, [FN2] also tends to subvert the credibility of awards and hinder the efficient operation of the tort law's deterrence function. Moreover, award levels differ considerably by type of legal action, with claims sounding in medical malpractice and products liability theories resulting in greater compensation than claims arising from automobile accidents for similar injuries. [FN3]

Legislatures have characteristically responded by enacting tort reforms, initially limiting the scope to medical malpractice, where crisis first provoked reform in the mid-1970s, but more recently with the promulgation of "generic" reforms in the wake of the general liability crisis that arose in the 1980s. [FN4] Many of these reforms significantly curtail ***909** plaintiffs' prerogatives and limit juries' discretion to award damages, most notably for non-economic harm. [FN5] Some reformers, however, would go even further, barring pain and suffering altogether as an element of personal injury awards. [FN6] Nonetheless, empirical findings tend to support the importance of non-economic losses, even showing that prevailing damage valuations may in fact be too low. [FN7] When people contemplate taking a dangerous job or investing in safety precautions, they value their own lives and health well beyond the potential medical costs and loss of earnings that could be caused by an accident. Use of these findings as a new kind of evidence in liability cases might further unsettle the insurance markets by considerably increasing the size and variability of damage awards. [FN8]

This Article proposes three alternative frameworks to perfect the valuation of non-economic damages in the current liability system. Each of these proposed models would constrain the operation of vague and open-ended legal rules and the wide latitude of discretion heretofore given legal decisionmakers. Increasingly sophisticated knowledge about the values that people place on the nonpecuniary aspects of life offers a good opportunity to reconsider the ad hoc valuation methods of today's personal injury law.

By focusing on the issue of non-economic damages, this Article addresses the least well-defined and most variable component of damage awards. Suggestions are aimed at all cases of personal injury and death. Given that much past analysis and legislation have focused on medical malpractice litigation, though, our examples are often drawn from this area. We suggest a variety of methods that could be used to guide juries and trial judges in their valuations of injury. The main goals of our proposals are common to each of these methods, however: to improve the accuracy and fairness of awards for non-economic damages, and to control the rate of growth over time, thus making litigation over damages less expensive and more predictable. Clearer signals of likely outcomes should promote earlier settlement of cases, inspire greater confidence in the fairness and predictability of the tort recovery system (thereby helping to maintain the efficient operation of the deterrent

function of tort law), and make legal liability a more insurable event.

## I. REASONS TO REFORM THE VALUATION OF DAMAGES

### A. The Vagueness of the Law of Damages for Personal Injury

There is universal agreement that the compensatory goal of tort law ***910** requires making the successful plaintiff "whole," [FN9] a reasonably precise objective. The substantive law attempts to achieve this objective by compensating for many categories of economic expense and nonpecuniary loss. [FN10] When it comes to actually computing a damage award, however, the substantive law of personal injury gives only very general, qualitative guidelines, with no meaningful quantitative guidance. Hornbooks and jury instructions alike offer only generalities, [FN11] and some judges almost delight in opining that there are no objective standards. [FN12]

Computation of "special" damages--items of economic expense that plaintiffs must specifically plead and prove, like medical bills or wage loss--seems relatively straightforward and amenable to common-sense resolution without detailed jury instructions. At least this is generally ***911** the case for losses incurred up to the date of settlement. [FN13] For future losses, however, substantive law varies considerably. Although at one time many courts denied recovery for future losses on the grounds that such estimates were too speculative and uncertain, the general rule now is that "reasonable certainty" of loss is sufficient to support an award. [FN14] Still, no general agreement exists for discounting future losses to present values. [FN15] Experience shows that there can be enormous differences of opinion. [FN16] Future economic losses in death cases are subject to separate, more restrictive rules; the approach used most often permits recovery of lost future earnings only net of the decedent's own expected future consumption. [FN17]

"Pain and suffering" and other intangible or non-economic losses are even more problematic. Physical pain and attendant suffering have for centuries been recognized as legitimate elements of damages, [FN18] and "modern" tort law has seen a marked expansion of the rights to recover for forms of mental anguish. [FN19] Some courts have even permitted recovery for emotional trauma unaccompanied by physical injury, [FN20] including derivative losses stemming from injuries to family members. [FN21] The precise elements of compensable non-economic loss vary by jurisdiction. ***912** Pain and suffering may be used as a catch-all category for the jury's consideration of all nonpecuniary losses in a case of nonfatal injury, subsuming other qualitative categories, like mental anguish or humiliation. [FN22] More commonly, though, other non-economic elements--such as "loss of enjoyment of life"--are accorded independent standing and separate jury instructions. [FN23]

In cases of death, the common law completely denied the right to sue, and even under wrongful death and survival statutes, rules on non-pecuniary damages have traditionally been less generous than for injury cases. [FN24] Generally, a decedent's conscious pain and suffering are compensable, but not the loss of enjoyment of their foregone lifespan nor the mental anguish of survivors. [FN25] Nonpecuniary damages payable in death cases are more restricted than those in injury cases mainly on the theory that the decedent is beyond awareness of suffering and that any award for nonpecuniary losses would be an overcompensatory windfall to heirs or survivors. [FN26]

Whatever the categories of non-economic damages allowed in a given jurisdiction, the law provides no objective benchmarks for valuing them. As one commentator notes, "Courts have usually been content to say that pain and suffering damages should amount to 'fair compensation' or a 'reasonable amount,' without any more definite guide." [FN27] Jurors are not to apply a kind of compensatory "golden rule" and ask what ***913** they themselves would want in compensation if they were in the shoes of the plaintiff; [FN28] nor are they to measure what amount a volunteer might demand to undergo equivalent suffering, for there is no market in pain. [FN29] By contrast, recent empirical research forcefully concludes that intangible harms like the loss of enjoyment of life are economic losses, [FN30] and proponents apply a disarmingly straightforward calculus to compute the monetary value of such losses. [FN31] Courts also differ about such relatively objective matters as whether awards for future pain and suffering should be discounted to present value. [FN32] But for intangible losses as for overall damages, conventional wisdom seems almost to revel in the imprecision of valuation. [FN33] Appellate judges consequently struggle to supply some reasoned basis for their review of pain and suffering awards. [FN34] The law is imprecise even within a single jurisdiction; if one considers cross-jurisdictional variation, the discrepancies are substantially magnified. [FN35]

This imprecision in the substantive law forces the jury to rely on the ***914** presentations of the parties when computing losses. The parties are typically free to provide detailed evidence, not only on every possible facet of harm in the particular circumstances of an injury, but also in suggesting a theory of how the jury should compute the value of the losses. Each jury dealing with future losses, for instance, must separately determine many general issues, including the inflation rates expected in different sectors of the economy, the rates of productivity growth, and the applicable discount rate, if any.

With regard to economic damages, parties in each case are able to argue for and against various methods of projecting losses, and of discounting them to present value. [FN36] With regard to non-economic damages, it is commonplace for attorneys to present a variety of wholly subjective ways for juries to compute awards for pain and suffering. For example, some suggest that the jury award the plaintiff a small amount per period of time (such as a day); when this seemingly small amount is multiplied by the plaintiff's life expectancy, however, it results in a large total dollar award. [FN37] Under this "per diem" or "unit of time" approach to valuation, [FN38] seemingly inconsequential differences in values per unit of time lead to very large differences in awards.

Other factors may also influence variation in awards. The same injury should, of course, be compensated differently when comparative negligence applies, [FN39] or when suit is brought against only one of multiple tortfeasors and that defendant is not jointly liable for the harm caused by the others. [FN40] Damage awards, however, are meant to compensate the plaintiff for harm suffered, and not to be influenced by the degree of culpability of a particular defendant (except in cases of comparative negligence). Defendant culpability is a matter for punitive awards. Nor are juries supposed to compromise damage awards to reflect uncertain liability, causation or credibility of proof. [FN41] Nonetheless, award variation ***915** predicated on such factors is nearly impossible to observe or control directly.

The wide latitude that the substantive law gives juries is matched by the procedural discretion also conferred, as juries have traditionally operated through general verdicts--single findings of liability with an associated award of all damages. Thus, the key decisionmakers need not explain their rationale or methods for arriving at a particular award figure, and their findings are difficult to review. [FN42] Judicial oversight only marginally curbs jury discretion. [FN43] Trial judges have long enjoyed the power to alter a jury verdict--by decreasing it (remittitur) or raising it (additur), by entering judgment notwithstanding the verdict, or by ordering a new trial (in the case of an obviously compromised verdict, for instance). [FN44] But such changes occur infrequently; the law disfavors judicial intervention and calls for change only in cases of egregious error. [FN45] Moreover, trial judges, like juries, lack objective standards for deciding when to apply these powers or what award levels to deem adequate and not excessively. [FN46] Appeals are commonly taken, adding another level of potential oversight; [FN47] but appellate judges are also required to defer to damage findings below [FN48] and lack objective standards for altering ***916** awards. [FN49] Most post- verdict changes in jury awards occur by virtue of settlement, just as far more cases are settled prior to verdict than are decided by a jury. [FN50]

Damage awards in tort cases thus emerge from an intensive investigation of very particularized circumstances--an investigation that is evaluated under only the most general of guidelines. Moreover, no reservoir of experience accumulates to guide juries and judges. There is simply no judicial analogue to the guidance of common law and the role of precedent when judges and juries turn to the quantification of damages; reported decisions discuss only general approaches. Not surprisingly, this system causes considerable variation in awards. Some experienced observers go so far as to characterize the entire legal process as a "lottery," which plaintiffs are enticed to play through the (uncertain) prospect of a "jackpot" recovery. [FN51] The general perception of what juries do and how awards are determined is very important; although most cases are settled through an insurance process, [FN52] the parties' predictions of a jury's decision influences their decisions about whether to drop a case, settle it (and for how much), or continue toward trial and verdict.

Why does the law countenance such imprecision? Lawyers, after all, generally pride themselves on promoting standards and accountability. For one thing, the current law of damages focuses on fairly resolving disputes between specific parties--not on achieving consistency across the vast spectrum of cases. [FN53] It seeks to achieve retail justice for the immediate parties, offering elaborate procedural fairness and minute investigation of the individual circumstances of an injury and the resulting economic and other losses. It virtually ignores larger questions of fairness in valuation [FN54] and the place of individual cases in a large liability ***917** and insurance system. [FN55] The fundamental, practical problem is that the law lacks objective standards to guide juries and to assess the reasonableness of their awards on review, whether by the trial judge or an appeal.

B. High Awards and Open-Ended Liability

One result of broad jury discretion and the absence of clear standards is freedom to make very large awards. It is frequently argued that the civil liability system is out of control, compensating claims far too generously, [FN56] especially given the increasing frequency of lawsuits for personal injury and death. [FN57] A particular focus of complaint is tort law's ever-increasing willingness to countenance "pain and suffering" and other such "intangible" or "non-economic" damages on an open-ended basis. There is virtually no upper bound to defendants' potential liability, while plaintiffs have an inherent and fixed lower bound of zero. [FN58]

More and more plaintiffs and their contingent fee attorneys are tempted to "hold out" for the chance of a "jackpot" recovery, according to this line of thinking. Moreover, even the slim possibility of an enormous verdict may lead defendants to settle non-meritorious cases. [FN59] ***918** Such attacks embody a common-sense judgment that jury awards, settlements in expectation of jury awards, and the resulting insurance premiums have simply grown "too high." [FN60] Some discussion harks back to the traditional reluctance to allow excessive recoveries, notably in death cases. [FN61] The "system gone bad" argument often proceeds on anecdotal grounds. [FN62] Past levels of recovery--which are said to have been lower--tend to be used as yardsticks for comparison. [FN63] The main spur to public action, however, has come not from consideration of damage awards, but rather from the recent "crises" in liability insurance, marked by steep rises in premiums and, sometimes, by the unavailability of coverage at any price. [FN64]

We do not purport in this Article to assess the appropriateness of present award levels in bodily injury and death cases. To do so correctly would require agreement on the appropriate standards of recovery (now lacking) and detailed examination of a large body of cases (information that is also lacking). Certainly, some awards are very high, especially jury verdicts (which are often publicized before reduction by remittitur ***919** or on appeal), [FN65] but some are extremely low as well. [FN66] Moreover, it is not clear whether-- and, if so, to what degree--damage awards have risen much faster than inflation, especially given the severity of claimed injuries. [FN67]

The "value of life" literature, which for death cases in particular urges considerably higher damage awards than those found in the tort and insurance system, provides an emerging "yardstick" for measuring the appropriateness of awards. [FN68] At root, one's attitude about the liability system generally, and damage awards specifically, seems to depend a great deal on one's attitude concerning non-economic damages, the main focus of this Article. Our view, discussed at greater length below, is that non-economic damages are real and compensable. It is true, better standards are needed to guide recovery. [FN69] But the problem of the absolute size of awards seems ambiguous and much less pressing than a somewhat different issue--the variability and unpredictability of awards, to which we turn next.

C. Variability and Unpredictability of Awards

Fortunately, more than anecdotal evidence is available on jury awards in personal injury cases [FN70] and insurance settlements in medical ***920** malpractice and product liability cases. [FN71] This Section presents data that our project compiled on jury findings in Florida and Kansas City personal injury cases from 1973-87. [FN72]

Jury findings of damage vary considerably. Nonetheless, some scenarios are more likely than others to yield high awards. The best available single predictor to award amount is the severity of injury, [FN73] as measured on the nine-point scale conventionally used for evaluating malpractice insurance cases. [FN74] Table 1 presents this ranking system, with level 1 (fright) indicating the least severe type of injury and level 9 (death) the most severe.

Boundaries between severity levels are relatively well-defined, with successively higher categories on the index indicating increasingly severe injuries. Death cases (level 9) are unambiguous, although the legal consequences may vary according to how many survivors, if any, bring suit in addition to the estate. Physical injuries (levels 2-8) are reasonably divided into groupings for temporary and permanent damage (levels 2-4 for temporary, 5- 8 for permanent). Further distinctions create gradations within the discrete subcategories. [FN75] These categories are intuitively appealing--with the possible exception of the "fright" or "emotional only" category (level 1) [FN76]--and the scale works well in practice. It has been adopted for official insurance reporting of closed malpractice claims in Florida and New York, and has been used as a tool for injury research. [FN77]

Table 2 shows a sample distribution of jury awards in personal injury cases by severity category. [FN78] These data area for verdicts only, and ***921** include any reported additur or remittitur, but not any changes on appeal.

TABLE 1

SEVERITY OF INJURY SCALE

| Severity of Injury | Examples |
|---|---|
| 1. Emotional only | Fright, no physical damage. |
| 2. Temporary insignificant | Lacerations, contusions, minor scars, rash. No delay. |
| 3. Temporary minor | Infections, misset fracture, fall in hospital. Recovery delayed. |
| 4. Temporary major | Burns, surgical material left, drug side-effect, brain damage. Recovery delayed. |
| 5. Permanent minor | Loss of fingers, loss or damage to organs. Include non-disabling injuries. |
| 6. Permanent significant | Deafness, loss of limb, loss of eye, loss of one kidney or lung. |
| 7. Permanent major | Paraplegia, blindness, loss of two limbs, brain damage. |
| 8. Permanent Grave | Quadriplegia, severe brain damage, lifelong care or fatal prognosis. |
| 9. Death | |

Source: National Association of Insurance Commissioners, supra note 69, at 10.

Two phenomena are most striking in Table 2. First, severity directly influences the level of damages, as one would expect. In general, more severe injuries result in larger recoveries, and there is an upward progression as severity increases, at least within the categories of physical injury. [FN79] The median value (50th percentile) rises steadily from $7,000 for level 2 injuries to $4.2 million for level 8 injuries; not surprisingly, the values jump greatly at the level of permanent significant injuries (four times higher for level 6 than for level 5), but fall for death cases (level 9) ***923** to "only" $620,000 for the median case. The pattern for the mean (arithmetic average) is similar, but with higher dollar values for each level of severity. All the information in Table 2 comes from simple tabulation of data coded directly from the reporters (with correction for

comparative negligence); no allowances are made for other factors that may influence particular awards. [FN80] We have also used multiple regression analysis to examine the influence of other factors than one would logically expect to affect jury awards. All together, observed factors explain about three-fifths of the aggregate variation in jury valuations. [FN81] Severity of injury alone explains about two-fifths of the variation.

[Note: The following TABLE/FORM is too wide to be displayed on one screen. You must print it for a meaningful review of its contents. The table has been divided into multiple pieces with each piece containing information to help you assemble a printout of the table. The information for each piece includes: (1) a three line message preceding the tabular data showing by line # and character # the position of the upper left-hand corner of the piece and the position of the piece within the entire table; and (2) a numeric scale following the tabular data displaying the character positions.]

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TABLE 2

JURY VALUATIONS [FNA] OF PERSONAL INJURY VARY WIDELY: DISTRIBUTION BY
(in thousands of 1987 dollars)

| Severity Level | Number of Cases [FNc] | 2.5% Critical Value | 25th Percentile | Median | Mean | 75th Percentile |
|---|---|---|---|---|---|---|
| 1...+...10....+...20....+...30....+...40....+...50....+...60....+...70....+ | | | | | | |

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*******************************************************************************
******* This is piece 2. -- It begins at character 76 of table line 1. ********
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 SEVERITY OF INJURY

---------------------------
     97.5%      Standard
    Critical    Deviation
     Value

---------------------------
76.......+...90....+....0.
```

**********
******* This is piece 3. -- It begins at character 1 of table line 10. ********
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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| a | (emot.) | 1 | -- | -- | 37 | 37 | -- |
| 2 | | 113 | 1 | 3 | 7 | 22 | 24 |
| 3 | (temp.) | 221 | 1 | 8 | 26 | 69 | 95 |
| 4 | | 48 | 3 | 42 | 82 | 204 | 263 |
| 5 | | 283 | 3 | 35 | 106 | 245 | 250 |
| 6 | | 67 | 13 | 156 | 438 | 639 | 985 |
| 7 | (perm.) | 45 | 31 | 523 | 1,422 | 2,0-87 | 2,732 |
| 8 | | 16 | 147 [FNd] | 2,118 | 4,214 | 5,0-68 | 6,611 |
| 9 | (death) | 95 | 19 | 239 | 622 | 1,2-24 | 1,422 |
| | Total | 898 | 1 | 17 | 82 | 490 | 328 |

Source: Calculated from unpublished jury verdict data, 1973-87, compiled by Urban Institute/Vanderbilt University project.

FNNotes:

FNa. Valuation = amount of jury award, adjusted for comparative negligence, if any.

FNb. See Table 1 for severity levels.

FNc. Nine cases for which no indication of severity was available are included in the total; all verdicts finding no liability are omitted from the table.

FNd. Because category has fewer than 40 observations, the critical values are the minimum and the maximum.

1...+...10....+...20....+...30....+...40....+...50....+...60....+...70....+....

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 ********************************************************************************
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        --            --
 -----------------------
       104            46

       320            98

       971           362

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     1,296           427

     2,022           652

     8,827         2,174


    18,106         4,503

     [FNd]
-----------------------
     7,777         1,879


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     3,750         1,317

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 80..+...90....+....0..
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Second, the table reveals that the variation in awards is enormous. [FN82] Within an individual severity level, the highest valuation can be scores of times larger than the lowest. Awards for the most serious permanent injuries (level 8, the most costly injury) range in value from a low of $147,000 to a high of $18,100,000. Even considering only the spread between the top and bottom quartiles, the range is great. All the awards in the top 25% of level 6 cases, for example, are at least six times larger than any of the bottom 25%; the ranges are even larger for lower severity cases. Very large awards are also disproportionately present; the distributions skew to the high end of values, as mean values always far exceed the medians. [FN83] Much of this variation may legitimately reflect claimants' precise individual circumstances, as the tort system intends. Table 2 does not, for instance, control for the age of the claimant, a factor that strongly influences duration of permanent injury. Nor does it control for pre-injury earnings, or the amount of medical care received. Including many other factors in a multiple regression analysis in addition to severity as valuation predictors helps explain some of the differences in awards within individual severity categories. It is not possible to fully and objectively adjust for other circumstances that plausibly influence a jury's valuation, ***924** such as the subjective nature of how an injury occurred. [FN84] No amount of adjusting, however, is likely to fully account for the extreme values. For example, a range of $147,000 to $18,100,000 for awards in compensation for quadriplegia and other injuries requiring lifelong care (level 8 injuries) is inexplicably wide by any standard. [FN85]

Table 2 documents that the current system works rationally and fairly in an aggregate sense. "Vertical" equity, the fairness between separate categories of injury, is rather good. The main problem is the absence of "horizontal" equity--the extent of variation within a single category. Although the median, and even mean, awards in a given category may be considered relatively reasonable, the seemingly uncontrolled variability of awards is cause for concern--similar to anxiety about drowning in a pool averaging only two feet in depth.

### D. Resulting Problems of Variability

Why is variability a problem? There are important values served by improving the accuracy and predictability of damage awards. First, fundamental fairness requires similarly situated parties to be treated in a similar fashion by the legal system. It comforts parties little that jury valuations are reasonable in the aggregate when the award in their particular case varies greatly from the norm for the type and severity of the injury suffered. Rather, they are left to accept on faith alone that the discrepancy is warranted. [FN86]

Second, the inability to achieve sufficiently similar results in similar cases tends to erode general confidence in justice and the integrity of what has become a very large system for personal injury compensation. Harmonizing results across cases, is important as individual tort actions, especially ***925** in the aggregate, have great social impact (e.g., on insurance, product costs, availability of medical care). Similar concerns about variations in criminal sentencing, a process once left almost wholly to the discretion of trial judges, have led to mandatory minimum sentences and sentencing guidelines to assure comparable results by category. [FN87]

Third, highly variable, unpredictable valuations undercut the deterrence function of tort law. Where liability costs are relatively predictable, they can be avoided (where it is efficient to do so) or "built in" to the costs of goods and services. This is how deterrence is supposed to make the world safer. [FN88] But errors in valuation may cause overdeterrence --the taking of too many costly precautions, or withdrawal from risky activity altogether. [FN89] For example, during the liability insurance crisis of the 1980s, many obstetricians reportedly stopped delivering babies, [FN90] and some manufacturers ceased development or production of certain drugs and goods. [FN91] Systematic "risk management" of personal injuries is implausible when potential defendants lack confidence in the predictability and stability of awards. To send more effective--and efficient --deterrent signals to defendants, the system should focus primarily on consistency, predictability, and prompt settlement.

Fourth, today's very particularized (yet standardless) system of valuation is very expensive to run. Each case must start "from scratch" with a fresh and uninitiated jury having no awareness of prior awards. Parties find it more difficult to reach settlement where results at trial are unpredictable. [FN92] The "handling" expense of delivering compensation through ***926** the liability system is high, amounting to about fifty cents on the dollar, [FN93] far more than that of many other systems. [FN94] Some of this administrative expense derives from having to make difficult liability decisions, but some also arises

from the difficulty inherent in the present method of determining damages. Any reduction in this latter difficulty would lower such expenses by reducing the needlessly spent time of judges and jurors, and by prodding parties toward earlier settlement.

Finally, payment high variability, especially at the upper end of the scale, together with the prospect of further unpredictable changes over time, may affect the very availability of liability insurance. Without the liability insurance system, tort law could not effectively function as a compensation and deterrence system. [FN95] Recent developments in damage awards have made the insurance markets extremely "skittish." [FN96] The few very large cases that account for a very large proportion of total dollars involved [FN97] are a special cause for concern. [FN98] Insurers normally ***927** make risk predictable by diversification--that is, by pooling together large numbers of similar insureds so that unexpected losses are offset by unexpected gains. [FN99] Non-random fluctuation, however, cannot be diversified away, and the possibility that the tort system will convulsively increase available damages is not a random risk. Rather, such a systematic increase in available awards would affect the coverage of all the insureds of a liability insurer, thus threatening another liability crisis.

### E. Timely Reform and the Potential Impact of "Value of Life" Findings

Given these problems, reform seems desirable, especially reform undertaken in a measured, principled fashion, before the political maelstrom of the next liability insurance crisis. Early action might also help forestall a further unpredictable jump in the level of awards and a widening in the variance among awards that could well follow the entry of "value of life" testimony into courtrooms. [FN100]

Evidence on the "value of life" comes from accumulating findings about how people value risks of injury and death, both on the job and at home. [FN101] Several studies justify a very expansive approach to valuing life, including its positive, intangible aspects like the pleasure of living, sometimes called the "hedonic" value of life. [FN102] Such studies are already an established part of regulatory decisionmaking, and they could soon influence everyday suits for tortious injury and death because of the methodological and regulatory foundation laid. Testimony on the "hedonic" value of life has already been heard in some cases, [FN103] although it has been rejected in others. [FN104] The most obvious application of this expertise is in lawsuits for wrongful death and survival actions, but it would also be relevant to pain and suffering, loss of pleasure of life, and other new notions of intangible loss in personal injury cases. These losses would be newly supportable as "economic" elements of loss, and would ***928** have corresponding and specific dollar values, not merely vague verbal descriptions.

The "value of life" studies suggest that a typical life is worth one to three million dollars [FN105]--an amount above the average recovery for death cases shown in Table 2, and well above the median. [FN106] This body of work documents the financial value of "intangible" losses, further justifying their inclusion in tort law. It also promises to substantially increase damage awards, at least for death cases, and, if applied in an ad hoc fashion by various juries, would greatly exacerbate the problem of award variability. Such developments would further threaten the viability of liability insurance and undermine the interest of fairness.

Now is a good time to seek fundamental reform of the way the liability system computes damages for personal injury and death. Other tort reforms are already widespread, and political willingness to consider change remains high. [FN107] So the precedent exists for legislative action to curb jury discretion and modify judicial practice, and improvements in the valuation of damages seem quite timely and valuable.

## II. THE LURE OF COMPREHENSIVE "SCHEDULING" FOR DAMAGE AWARDS

### A. A New Liability System with Comprehensive Scheduling

Having identified the problems of variability and high cost in the existing liability system, it is tempting to replace the present system and "schedule" all tort damages--economic and non-economic--to make determinations simpler, less expensive and more predictable. [FN108] A similar approach is taken by workers' compensation programs and disability plans, which make

award determinations in an administrative or insurance forum and pay only limited wage losses and medical benefits. [FN109] But these approaches are mainly calculated to change the forum of claim resolution and to de-emphasize non-economic damages, not to codify or simplify damage law.

Many observers would prefer a uniform compensation system for all ***929** accidents. Such a system could be achieved through a strict or enterprise liability regime, [FN110] financed by third-party liability insurance. Alternatively, a no-fault compensation system could operate through mandatory first-party coverage (like no-fault auto insurance), [FN111] or a social insurance scheme (like New Zealand's). [FN112] These comprehensive systems have attractive characteristics. They reduce compensation per paid claim and make administration less expensive per dollar delivered, but increase the total number of claims compensated. [FN113] Such systems also offer far more compensation in total than today's fault-based regime, and may even maintain an element of deterrence (for instance, through experience rating [FN114] of premiums). Given the number of reasonable alternatives to the existing tort liability scheme, a legislature or study commission charged with making a social accommodation could readily do so, so long as there was sufficient political will supporting change.

We do not, however, recommend that the existing tort recovery system be completely scrapped and replaced with a new system of comprehensive and uniform scheduling. First, the creation of a system that essentially expands social funding seems politically--and perhaps economically--infeasible at this time. Such a system would expand the amount of total compensation paid and thus would be very expensive because many claims would be filed that are not now brought, at least among easily identified injuries. Second, current understanding of award variability is inadequate. Some of the variation we are unable to explain may be legitimate, particularly in economic damages, so the elimination of the compensation system's responsiveness to real differences between claimants would be unsound. Third, some types of injury may not be readily identified as compensable. Mass toxic torts and medical care mistakes, for example, would be much more difficult to discover and compensate without the inducement of large recoveries (and corresponding attorneys' fees) to reward those ferret out the source of harm. [FN115]

### ***930** B. The Current Liability System with Comprehensive Scheduling

Other observers advocate comprehensive scheduling of all damage awards even within the fault-based liability system, [FN116] perhaps with a change in forum. [FN117] We disagree. Such scheduling would cut payment levels (especially for intangible damages), and thus undercut the deterrence function of the present fault-based system. Society already accepts considerable limits on injured parties' right to recover damages (for example, liability rules, burdens of proof, and the high cost of prosecuting claims) in order to promote the appropriate (i.e., efficient) level of precaution. Effective deterrence, in turn, demands a level of awards that recognizes the full range of socially- incurred losses, not merely those losses that are insurable. A reduction in total awards to injured parties would promote under-precaution by potential tortfeasors, since the costs of protecting against nonpecuniary injuries might well exceed the costs of compensating injured parties under the schedule. Essentially, the argument turns on one's opinion of the validity and fairness of non-economic damages, a fundamental topic warranting longer discussion below. [FN118]

Another reason for not adopting comprehensive scheduling for all damages is that many elements of damage--for example, economic loss (especially past economic loss)--are very idiosyncratic and relatively easy to observe and tabulate. A schedule or formula for total awards could only very roughly match payments to need, and a "one size fits all" damage schedule would inevitably be unfair both to claimants having greater pecuniary losses and defendants causing lesser pecuniary harm. Overall, the performance of the existing tort liability system in matching damages to severity of injury is much better than its reputation. [FN119] We conclude that the system's central tendencies are reasonable and should be reinforced through reforms, rather than repudiated by a damage matrix or algorithm for calculating total awards.

## ***931** III. THE CASE FOR IMPROVING, NOT ABANDONING, NON-ECONOMIC DAMAGES

### A. The Arguments Against Awards for Pain, Suffering and Other Intangible Damages

Many legal commentators and some courts have cited shortcomings in the law of non-economic damages. As one court put it:

Thoughtful jurists and legal scholars have for some time raised serious questions as to the wisdom of awarding damages for pain and suffering in any negligence case, noting, inter alia, the inherent difficulties in placing a monetary value on such losses, the fact that money damages are at best only imperfect compensation for such intangible injuries and that such damages are generally passed on to, and borne by, innocent consumers. [FN120]

Some legal commentators have accordingly called for the abolition of recovery for non-economic damages, [FN121] often in exchange for easing recovery of other damages, by law [FN122] or by contract. [FN123]

Some economists have likewise argued for limiting non-economic damages, albeit from a different perspective. [FN124] Their main argument is that neither private health or life insurance nor public programs that pay ***932** for disability and loss of life countenance awards for pain and suffering. [FN125] Thus, if people do not choose to purchase such compensatory policies on their own or through social programs, they should not be forced to "buy" these elements of damage through the liability system. [FN126]

Economic theory is also cited to explain why a fully informed individual may not purchase insurance for pain and suffering. [FN127] Insurance functions to transfer resources from the healthy to the injured state. [FN128] Money cannot directly replace nonpecuniary loss resulting from injury. According to the theory used by economists to analyze uncertain situations, in deciding how much insurance coverage to purchase, the individual compares the marginal utility of wealth in the healthy state with the marginal utility of wealth in the injured state. [FN129] Coverage will exceed pecuniary loss if, after replacing pecuniary loss, the marginal utility of wealth is increased by the accident (that is, coverage for non-economic loss will be bought); conversely, if the marginal utility of wealth falls after an accident, optimal coverage will be less than pecuniary loss. One recent empirical study found that injury reduces the marginal utility of wealth. [FN130]

B. The Validity of Pain, Suffering and Other Intangible Damages

In the final analysis, the case against non-economic damages is ***933** weak. First, it does not follow that the private market's failure to provide insurance coverage for pain and suffering means that the tort system should not pay for intangible losses either. There are good reasons for buyers not to buy and sellers not to sell such insurance--other than its allegedly low value.

From the potential buyers' perspective, informed consumers know that pain and suffering is compensable in tort cases; they are already covered when someone else is to blame for their injury. Given that they thus have a limited need for such coverage, its absence is not proof of its lack of value. Moreover, potential victims of negligence may feel that, ethically, it is not their responsibility to pay for pain and suffering inflicted upon them by others. All that can be legitimately inferred from the seeming lack of demand for pain and suffering coverage is that people seem willing to assume the risk of such losses where others are not legally responsible. This is not evidence that pain and suffering lack importance in the context of tortious injury.

From the potential sellers' perspective, offering coverage for intangible losses is a practical impossibility. Any insurance company that offered more than economic damages under a disability or injury policy would suffer significant "adverse selection"--that is, the policy would disproportionately attract people having a higher risk of loss and slower rate of recovery. [FN131] Similarly, policies covering non-economic loss would face significant "moral hazard"--that is, the natural tendency of policy-holders to overstate their losses and seek higher recoveries than they would if they had to pay out of their own pocket. [FN132] In the case of coverage for non- economic loss, the insured harms of pain, suffering, and other intangibles would be extremely difficult to monitor. If insurers attempted to control for such moral hazard while paying for non-economic damages, they would face the same problems that a court does in the liability context--how to determine precisely what non-economic damages are appropriate and what constitutes undue reward for malingering and fraud. This would at a minimum increase the administrative cost of first-party insurance, driving it to levels similar to that third-party liability coverage. [FN133] Insurers almost uniformly respond to moral hazard ***934** problems by paying less than full economic damages, [FN134] and sometimes imposing waiting periods prior to payment. In short, a private insurance market for pain and suffering probably cannot function. Presently, injured persons should consider themselves lucky to recover even most of their economic damages from private insurance. Publicly administered social disability and life insurance programs are even less generous than their private counterparts, [FN135] as taxpayer reluctance to redistribute resources adds to the fear of moral hazard as a constraint.

Second, the practice of private and public compensatory programs should not necessarily govern tort law, in which a key goal is deterrence, and even a modicum of vengeance to inhibit private efforts at self-help. [FN136] If the legal and liability insurance systems acted as merely compensation systems like first-party insurance, we would have junked them long ago. [FN137] Tort law does not seek to compensate all injuries; rather, it focuses on those injuries caused through the fault of others or otherwise judged worthy and capable of being deterred. From this perspective, it makes theoretical and practical sense to assess liability for more than economic loss, so that careless behavior is sufficiently deterred. [FN138] To consider only economic loss places at particular risk persons with little or no earnings, such as homemakers, children, and retirees. [FN139]

Not only is the case against awarding damages for intangible losses weak, but strong arguments exist in favor of such awards. First, from an economic perspective, there is good evidence that people value their own lives and health at considerably higher levels than is reflected by merely measuring "pure" economic loss. [FN140] People place value on the loss of life and limb in addition to the compensation they know they will receive through such programs as workers' compensation and health, life and ***935** disability insurance. The observed values, then, are even farther above economic loss than first appears. The "value of life" work and other studies using different methodologies [FN141] document the economic value of "intangible" losses, further justifying their inclusion in tort law.

Second, from a legal perspective, intangible damages have clearly won a place in legal theory and practice. Modern jurisprudence has generally expanded the recovery for non-economic damages in tort. [FN142] The common law tradition and the increasing willingness of legislatures to waive sovereign immunity indicate a social desire for at least some non-economic damages to be considered "real" and compensable in cases of faulty injury. Moreover, as a practical matter, it can also be remarked ***936** that the considerable expense of individually adjudicating liability and determining damages must somehow be paid. A tacit role of awards for non-economic damages is to help pay a plaintiff's legal expenses without cutting into the economic recovery needed to meet actual, out-of-pocket losses caused by the injury. [FN143] The problem with non-economic damages is, in sum, not that they are inappropriate or unreal, but rather that they are extremely difficult to consistently monetize in the absence of quantitative standards. This difficulty is, of course, exacerbated by a sort of sympathetic moral hazard that juries face when making awards on an ad hoc basis and spending money that is not their own.

### C. The Need to Reform the Law of Non-Economic Damages

Although non-economic damages are real and should be compensable in a fault-based system, this conclusion does not support totally unstructured decisionmaking about the appropriate levels of awards. All of the previously reviewed arguments concerning vague legal standards and the resulting variability, unfairness, and high expense still hold. In fact, as one might expect of the least well-specified of all elements of damage, non-pecuniary awards show an even greater variability than do total valuations. Table 3 presents the range of values for awards for pain and suffering. [FN144] Table 3 is based on empirical analysis of the same Florida and Kansas City jury verdicts used to describe total valuations in Table 2 above, [FN145] but with fewer observations included. [FN146] The distribution of awards for non-economic loss shows even wider dispersion than the distribution for total awards shown in Table 2. Additionally, the award levels for extreme outliers [FN147] exceed the means by even more when analysis is restricted to the non-economic component of awards. Thus, awards ***938** for pain and suffering and other intangible losses may be unreasonably inconsistent within the relatively discrete and unambiguous categories for injury severity.

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[Note:  The following TABLE/FORM is too wide to be displayed on one screen.
You must print it for a meaningful review of its contents.  The table has been
divided into multiple pieces with each piece containing information to help you
assemble a printout of the table.  The information for each piece includes: (1)
a three line message preceding the tabular data showing by line # and
character # the position of the upper left-hand corner of the piece and the
position of the piece within the entire table; and (2) a numeric scale
following the tabular data displaying the character positions.]
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********************************************************************************
 ******** This is piece 1. -- It begins at character 1 of table line 1. ********
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TABLE 3

JURY VALUATIONS [FNA] OF NON-ECONOMIC LOSS [FNB] VARY EVEN MORE WIDELY:

(in thousands of 1987 dollars)

```
 ------------------------------------------------------------------------
 1...+...10....+...20....+...30....+...40....+...50....+...60....+...70.
```

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**************************************************************************
******* This is piece 2. -- It begins at character 72 of table line 1. ********
**************************************************************************

 DISTRIBUTION BY SEVERITY OF INJURY

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72.....80....+...90....+....0....+...10...
```

********** This is piece 3. -- It begins at character 1 of table line 5. **********

| Severity Level [FNc] | Number of Cases [FNd] | 2.5% Critical Value [FNe] | 25th Percentile | Median | Mean |
|---|---|---|---|---|---|
| 1 | (emot.) 1 | --D | -- | 25 | 25 |
| 2 | 69 | 0 | 0 | 2 | 10 |
| 3 | (temp.)106 | 0 | 0 | 9 | 53 | 56 |
| 4 | 16 | 0 | 4 | 36 | 62 |
| 5 | 104 | 0 | 3 | 46 | 160 |
| 6 | 29 | 0 | 9 | 292 | 386 |
| 7 | (perm.) 15 | 0 | 336 | 1,642 | 2,309 |
| 8 | 5 | 0 | 778 | 1,832 | 4,252 |
| 9 | (death) 15 | 0 | 260 | 545 | 1,242 |
| | To-t-a-l 366 | | 0 | 1 | 21 |

Source: Calculated from unpublished jury verdict data, 1973-87, compiled by Urban Institute/Vanderbilt University project.

FNNotes:
1...+...10....+...20....+...30....+...40....+...50....+...60....+...7

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 ********************************************************************************
 ******* This is piece 4. -- It begins at character 70 of table line 5. ********
 ********************************************************************************
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| 75th Percentile | 97.5% Critical Value [FNe] | Standard Deviation | |
|---|---|---|---|
| -- | -- | -- | |
| 7 | 93 | 37 | |
| 403 | 98 | | |
| 60 | 284 | 85 | |
| 152 | 1,507 | 345 | |
| 598 | 1,564 | 467 | |
| 3,466 | 8,970 | 2,429 | |
| 8,936 | 14,207 | 5,715 | |
| 1,247 | 10,759 | 2,668 | |
| 301 | 135 | 1,642 | 1,171 |

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 70..+...80....+...90....+....0....+...10....
```

```
 ********************************************************************************
 ******* This is piece 5. -- It begins at character 1 of table line 34. ********
 ********************************************************************************
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FNa. Valuation = amount of jury award, adjusted for comparative negligence, if any.

FNb. Non-economic loss calculated as valuation less reported economic loss; negative values are reported as zero.

FNc. See Table 1 for severity levels.

FNd. Six cases missing data on severity are included in the total; cases of no liability and those missing data on economic loss are omitted from the table.

FNe. For severities with fewer than 40 observations, the 2.5% critical value (or 97.5% critical value) is equivalent to the minimum (or maximum) value.

```
1...+...10....+...20....+...30....+...40....+...50....+...60....+...70....+....
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Nonetheless, just as for total valuations, both legitimate and illegitimate factors may help explain the variations. Moreover, as for awards in general, although individual cases vary enormously, the medians and means show an upward progression across severity levels that one would expect, again with a drop-off for death cases. Reform is therefore in order--but to improve, rather than abandon, the tort liability system.

## IV. THREE TYPES OF SCHEDULING REFORMS FOR NON-ECONOMIC DAMAGES

This Section proposes three alternative ways to "schedule" amounts allowable for pain and suffering and other non-economic damages. Scheduling can provide rational standards--heretofore unavailable--for valuation, thus improving the tort system's current approach, rather than abolishing or arbitrarily limiting nonpecuniary damages. We propose that these models be legislatively implemented, [FN148] although some change might be accomplished by the judiciary alone, perhaps through a state's judicial conference. Dollar values for the schedules could be based on past jury awards, or possibly on findings of the "value of life" research, with legislative or judicial adjustments to either.

The three scheduling models discussed here are designed for ordinary cases of bodily harm and mental distress. [FN149] The first reform model [FN150] creates a matrix of values that would award fixed damage amounts according to the severity of injury and age of the injured party. However contructed, the matrix's values would be binding of jury findings of nonpecuniary damages, although the possibility of unusually severe or minor cases may call for ranges of values within the matrix, or some other provision permitting special attention to "outliers." The second proposal [FN151] also gives juries systematic information on appropriate awards based on past experience. However, rather than a binding matrix of awards, it provides a small set of paradigmatic injury "scenarios," with associated dollar values. These values would serve as nonbinding benchmarks for assessing the case at trial. A jury would be free to award any amount, but the benchmarks would serve to guide their award and ***939** review by trial and appellate judges. The third approach [FN152] mandates fixed limits on awards of non-economic damages, as many state legislatures have already done. But we suggest replacing today's dominant approach of placing a single arbitrary cap on all non-pecuniary awards with a system of flexible floors and ceilings that vary with injury severity and victim age. [FN153] Table 4 summarizes the three approaches and the choices that must be made to implement any of them.

### A. Creating an Award Matrix for Non-Economic Damages

We suggest developing a relatively simple matrix for juries to compute non- economic loss, using the severity of injury and age of the injured person as objective, classifying factors for determining damage awards. It is important that classification be objective so that the system can achieve similar results in similar cases and be seen clearly to do so. We prefer that valuations for the scheduling matrix be based on past jury verdicts, although we also believe that the "value of life" research could serve as a supplementary source. In either case, constructing a matrix requires policymakers to decide the categories of injury to use, the "worth" of the categories relative to one another, and the general dollar level of recoveries desirable.

1. The Basic Matrix Approach.--Award levels should be based on objective factors reasonably related to non-economic loss. The most appealing three measures now obtainable for classifying purposes are the severity of injury, the injured person's age, and the body part affected. The resulting categories can then be arrayed in a matrix with values given to each cell of that matrix.

With regard to severity of injury, intuition suggests that higher severity should mean higher non-economic damages, although awards would not necessarily progress upward in a linear fashion. Permanent injuries are bound to cause greater pain and suffering than temporary ones; similarly, major injuries are expected to cause greater emotional trauma than ***941** minor ones. Age is another objective indicator, and one expects different age groups to react differently to injury. For temporary injuries, a younger person should recover more quickly from psychic harm than an older one, just as their bodies recover

more quickly from physical injury. For permanent injuries, however, a younger person can be expected to endure the attendant intangible effects across a greater life expectancy. [FN154] One would also expect to find a relationship between the body part injured and the level of nonpecuniary harm. [FN155]

TABLE 4: THREE WAYS TO SCHEDULE NON-ECONOMIC LOSSES: MATRIX,SCENARIOS, AND RANGES

| Reform Model | Basic Approach | Main Source of Scale, Values | Model-Specific Choices of Implementation | General Implementation Choices [applicable to all models] |
|---|---|---|---|---|
| A. Award Matrix Relative value scale, plus dollar numeraire | 1. Past awards, scaled by severity of injury & age of injured person or | 2. Value of life findings, plus relative injury scales (in either approach, dollar values modified during impl-ementation) Suggest using 9 severity | Suggest special verdicts in all cases (could be left to general verdicts) Suggest 'point value' for each cell of matrix (could be range) Suggest establishment of 'outlier' system for small number of cases Suggest applying to both injuries | Need ultimately to consider how to treat derivative claims--could be kept within schedules or handled outside scheduled amounts |

| | | | | |
|---|---|---|---|---|
| | | levels, 6 age groupings (could be more or fewer) Suggest new reporting system for awards as source of benchmarks Suggest values be binding on fact finder (could be advisory) | and deaths (could leave out deaths, now subject to different valuation rules) Suggest that all valuations be made by jury Suggest using past awards to guide most values, value of life findings for death cases | |
| B. Injury Scenarios Listing of prototypical injuries and approved accompanying values Descriptions | Suggest p-roviding small number of scen-arios (each r-epresen-ting a | Suggest that all values be based on past experience, but adjusted by legislative judgment, | Suggest scenarios be binding only as boundary lines, so awards can be at any dollar level, yet reviewable for reasonableness | Suggest that all personal injuries be included(not malpractice only) |

| | | | | |
|---|---|---|---|---|
| of cases from legislature or judiciary, values from past awards, as judgmentally adjusted | paradigm case) for each of 6 age groups of injured persons (could use fewer s-cenarios for all ages, or let judge select) | with judicial input (could be mechanis-tically calculated, without change) | | |
| C. Flexible Ranges of Awards | Caps and floors on awards by severity level | Value of limits set to exclude extreme outliers (e.g., top and bottom 5%, outside two standard deviations) | Suggest mandatory application (could be voluntary, e.g., standards for additur and remittitur by trial judge) | Suggest that all values be increased for inflation annually, periodically recalibrated as to relativities |

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We investigated the influence of these and other factors empirically for their influence on past patterns of awards for non-economic loss. The influence of severity alone, uncontrolled for other factors, was presented in Table 3. Our findings are based on regression analysis that controls for the influence of various factors, including jurisdiction. [FN156] This analysis shows that the severity of injury is the strongest correlate of amount, with the age of the victim next. Body part alone is not as predictive of non- economic damages as injury severity. Moreover, it is not possible to use body part in the same regression as severity because it is to closely correlated with the nine-point severity scale. [FN157]

We are thus encouraged to use age and severity as the classifying variables; beyond their statistical suitability, they are also objective measures easily applied in practice. Using nine injury-severity classifications ***942** and six age groups yields a matrix of fifty-four cells. [FN158] This would allow a wide range of specific values and considerable differentiation by type of case without becoming unmanageably complex. Moreover, boundary disputes should be uncommon. Age is, of course, completely objective. The nine severity categories are also relatively objective and mutually exclusive, thus permitting little upward "creep" into higher severity levels, despite claimant motivation to seek higher rankings once severity categories are linked to payment amounts. With regard to duration of injury, one might like to better adjust for the precise length of suffering, but the severity categories already do that in a rough way (temporary versus permanent), [FN159] and greater precision would perhaps create considerable moral hazard.

2. Sample Matrix with Values Based on Past Awards.--We suggest basing matrix values on the awards for nonpecuniary injury of past juries, preferably as adjusted by the trial and appellate courts. This Section presents a sample matrix and explains its development and proposed use. We offer this matrix solely as an example and to begin serious debate on this type of reform. We do not suggest that these particular values are somehow "correct" for all injuries, in all jurisdictions, or that it is ready for implementation. Better reporting of damage awards [FN160] and a review of past experience within each jurisdiction [FN161] are needed before any reform is implemented.

Table 5 presents the sample award matrix for non-economic damages that results from our empirically based estimates of jury valuations for one important jurisdiction, the state of Florida, for which we have analyzed considerable data. [FN162] Recall that award levels vary considerably ***943** across jurisdictions, [FN163] and that these values are derived from estimates of juries' nonpecuniary awards at verdict, not at final settlement or after judgment on appeal. Our nine categories of injury severity are collapsed into seven in the sample matrix because two categories had too few observations involving non-economic damages; a more complete data set would allow the full nine severity categories. We grouped victim ages into six discrete categories. Table 5 is a good sample of what is possible using analytic techniques, even without the support of a fully reliable underlying data system.

The values in Table 5 consist of relative weightings, not absolute dollar amounts. A value of 100 is assigned to the amount of non-economic harm caused by the death of a statistically average person aged 65 or over. The other values are set relative to this standard amount, in each case using regression analysis to hold more tangential factors constant. The result is a "relative value" matrix similar to the relative value scales used for pricing of such diverse items as physicians' services and auto repairs. The matrix amounts must be multiplied by a dollar "numeraire" to derive the actual dollar amounts that would be awarded under the matrix. [FN164]

Table 5 simply charts the past central tendencies of jury valuations, with no "second guessing" of the rules of law that were applied or the correctness of outcomes. Results from all types of past lawsuits are averaged together on the assumption that the law of damages is the same for all, although evidence reveals that recoveries presently differ by case type. Injuries resulting from medical malpractice are "worth" the most, and those due to auto accidents the least, controlling for age, severity, and other observed factors known to influence recoveries. [FN165] Depending on one's view of the reasons for past differences in result, it may not be appropriate to treat all awards as if they were founded on the same legal theory and otherwise the same. [FN166] Blending the award experience of all ***944** types of cases into a single matrix has the practical effect of raising awards in auto cases somewhat, and considerably lowering those for malpractice and products liability. Note also that all personal characteristics of plaintiffs (other than age) and defendants are irrelevant to levels of non-economic damage under the matrix; sex, race, occupation, and income are ignored as classifying factors regardless of their current impact in the "real world." [FN167]

TABLE 5

A POTENTIAL INJURY MATRIX FOR NON-ECONOMIC LOSS:

ONE JURISDICTION'S RELATIVE VALUES

BY AGE AND SEVERITY OF INJURY [FNa]
(using age 65 and over and death = 100)

| Severity Level | | Age in Years: 10& under | 11-17 | 18-35 | 35-50 | 51-64 | 65 & over |
|---|---|---|---|---|---|---|---|
| 1,2 [FNb] | | 2 | 4 | 5 | 3 | 6 | 2 |
| 3 | (temp.) | 4 | 9 | 10 | 7 | 12 | 5 |
| 4 | | 5 | 9 | 11 | 7 | 13 | 5 |
| 5 | | 7 | 14 | 16 | 11 | 20 | 8 |
| 6 | (perm.) | 30 | 61 | 68 | 48 | 88 | 35 |
| 7,8 [FNb] | | 199 | 401 | 448 | 317 | 574 | 228 |
| 9 | (death) | 87 | 176 | 197 | 139 | 252 | 100 |

Source: Calculated from unpublished jury verdict data, 1973-87, compiled by Urban Institute/ Vanderbilt University project.

FNNotes:

FNa. This index is based on regression results with positive non-economic loss only; observations =2840. See also notes to Tables 2 and 3.

FNb. Categories combined because of low number of valuations.

The matrix gives a single, fixed, "relative value" for each possible combination of age and injury severity. Thus, a permanent, significant injury (level 6) to a 30-year-old plaintiff would result in an award roughly two- thirds the size of that awarded for the death of a plaintiff aged 65 or older. In general, as noted previously, higher injury severities have higher values, with a major jump from level 5 to level 6 and from level 6 to levels 7 and 8. [FN168] Deaths, however, are valued at relatively lesser amounts, reflecting not only common sensibilities that some fates are worse that death, but also relatively restrictive legal rules regarding non-economic losses in death cases. [FN169] Nonetheless, the derived values for ***945** non- economic damages in death cases are higher than one might expect, given that the main recovery in a survival action is probably for conscious pain and suffering prior to death. Values might be considerably lower in jurisdictions with less generous juries or

more restrictive legal rules.

Importantly, in states that now award relatively lower amounts in death cases, it might be inappropriate to scale the award matrix around death cases. It is better to choose an intermediate value around which to scale the others-- that is, to fix as 100 on the matrix. If possible, the chosen intermediate value should be in a particularly clear and discrete category in order to anchor the matrix and facilitate policy discussion of the values.

Valuations in Table 5 also rise with age, and more smoothly than for severity, although with an odd dip for the 35-50 category and an expected drop for those aged 65 and over. Given this matrix of values, the lowest awards for nonpecuniary harm would be for insignificant-temporary injuries to children under 10; the highest awards would go to 51-64 year olds with major and grave permanent injuries.

The final step in creating this type of schedule is to choose a particular "numeraire," or dollar multiplier, to use with the relative value matrix. This fixed value numeraire is multiplied by the relative value indicated by the matrix for the victim's age and injury severity to calculate the actual award for non-economic damages in a given case. The observed numeraire from the statistical analysis of Florida cases was almost $6,500 (in 1987 dollars), so that the death of a 65-year-old--the anchor category in the sample matrix--was "worth" about $650,000 as a jury finding of non-economic damages. Other jurisdictions would differ; additionally, the use of an even more complete data set might well change results. Like the accompanying relative values, the dollar multiplier simply embodies the central tendencies of past jury valuations without considering the post-trial adjustments. [FN170] Before embracing any such statistically calculated valuation, policymakers should decide whether the derived dollar amounts are in some sense "too much" (or "too little"), thereby fine tuning the matrix to conform with ideas of fairness and political judgment.

3. Implementation and Outliers.--The sample matrix presented by Table 5 offers sufficient complexity to reflect a wide range of pain, suffering, loss of enjoyment, and other elements of non-economic loss in individual circumstances, but is sufficiently simple to understand and administer that it should result in greater predictability and cost-savings in dispute resolution. Severity and age as classifying measures are intuitively ***946** and empirically related to the subjective assessments of the extent of pain and suffering likely to have been experienced, yet they are sufficiently objective to facilitate their application in particular cases and to avoid "gaming" by the parties.

Given these attributes, the matrix's fixed values as adopted by any jurisdiction would be mandatorily applied. Juries would be instructed that, given liability, they should award exactly the indicated amount, adjusted only for comparative negligence. [FN171] Before verdict or on appeal, parties would be free to compromise on different amounts, just as now. Juries, however, would not have the freedom to compromise awards, something that is theoretically prohibited, but not practically enforceable. [FN172] Under a scheduling approach, non-economic awards should be based on a relatively small set of objective standards that accomplish much greater predictability and consistency--and at a lower cost, so that jury discretion should be correspondingly limited. Additionally, a mandatory matrix gives the parties specific guidance for settlement negotiation; a looser or more discretionary matrix would not have similar effects. [FN173]

One complaint concerning matrices like that in Table 5--that is, ones comprised of discrete "point values"--is predictable: despite a large number of valuation "cells," there will remain legitimate variation in nonpecuniary injuries within each of the proposed categories that fixed values suppress, along with illegitimate variation. For example, one may contend that the pain and suffering attending deaths of people aged 65 and over vary too much to limit awards to a single amount; rather, even more individualized processes and rules are needed. [FN174] It is a truism that ***947** not all cases, even within a narrow category, can be "average"; there is inevitably variation.

One response to allegations that the two-variable matrix is too imprecise, is that accepting some imprecision in some individual cases is the cost of achieving greater precision across cases, of simplifying litigation, and of assuring all litigants that their awards are relatively fair compared with others similarly situated. Moreover, it can be seen as a strength, not a weakness, that the matrix mandates similar awards regardless of many factors that might influence a jury--including the race, sex, and social status of the litigants. Additionally, any unacceptable imprecision in the two-variable matrix can be perhaps remedied by including more classifying factors to reflect other legitimate sources of variation. Proponents of greater precision should indicate the additional objective factors that should be considered (e.g., body part affected and duration of

injury). [FN175] At some point, however, it should be realized that a multivariable classifying scheme becomes too complex to be administrable and credible.

A second level of complaint is that some relevant factors are inherently subjective and cannot be objectified or quantified in advance. [FN176] One example of such a subjective factor might be protracted agony at the time an injury is incurred. [FN177] Likewise, plaintiffs claiming unusual sensitivity to pain or humiliation (a claim that, of course, can be raised by anyone after the fact) might argue that the two-variable, point-value matrix fails to appreciate their peculiar circumstances.

Such subjective and case-specific matters cannot be accommodated within a point-value matrix, which accepts some degree of "leveling" of potentially legitimate variation in order to achieve simplicity, ease of administration, and consistency of results. Moreover, the present system-- with ad hoc decisionmaking and unpredictable results--makes no promises of accurately reflecting legitimate variation across cases. The enormous range of awards within categories that is found in our data suggests that current results include both overcompensation and undercompensation. A point-value matrix eliminates the extremes and implicitly ensures that the ordinary victim [FN178] is appropriately compensated for such factors as agony and sensitivity to pain. Ultimately, however, the extent to which nonpecuniary damages should attempt to individualize ***948** valuations according to wholly subjective factors is a matter of judgment.

For those states that like the matrix approach, but still want to allow more flexibility to accommodate unusual subjective factors, we briefly outline two alternatives. The first modifies the matrix by adopting ranges of values, rather than point values, for each cell. Within each range, juries would retain their traditional discretion to individualize nonpecuniary awards. Under this approach, Table 5's cells would each contain two values--a low end and a high end. [FN179] The point value now shown in each cell would be the center of a range, with boundaries between adjacent cells in a row being set a some point between the two center values. [FN180] Consider the top line of Table 5--the category combining severity level 1 and 2 injuries. As shown, the age 11-17 group is allotted a relative value of 4. As a range, this could be set as 3 to 4.5-- exactly halfway toward its neighboring cells on either side. These values, again, are given merely as examples. [FN181]

A second way to change the matrix approach is to create a separate, post- trial administrative process for considering unusual, outlier cases. A plaintiff dissatisfied with the amount awarded through application of the matrix would be permitted to apply to a single statewide agency empowered to make supplementary awards. [FN182] A single reviewer for each state would maintain consistency of approach and result. We suggest an administrative agency because the courts have not normally played such a role; an administrative approach also seems appropriate where funds must be managed and disbursed across multiple cases.

If this modification to the pure matrix approach is made, an annual or biannual amount of money should be designated as available for additional distribution of outlier plaintiffs. Such funds could be accumulated by withholding a certain percentage of each court-ordered judgment in personal injury cases. [FN183] This fund would then be used to pay successful ***949** applicants during the budgeted period. The agency would have to make preliminary findings throughout the period, then make end-of-period adjustments if funds were insufficient, potentially seeking new and higher funding for future periods. Some method is also needed to discourage most litigants from seeking extra awards, as the matrix is designed to fairly compensate the ordinary range of cases. Losing applicants could, for example, be assessed the agency's (and perhaps the defendants') costs. A complete proposal would, of course, need to cover this and other details of operation.

4. Judgmental Adjustments and Other Policy Choices.--A scheduling matrix similar to Table 5 could be constructed for any jurisdiction or combination of jurisdictions for any time period, given sufficient data. [FN184] Award levels can be adjusted over time to reflect changing legal rules, economic conditions, social attitudes and other factors. The matrix values could be computed mechanistically, with each category assigned the precise relative value indicated by analysis of past awards, including post-trial modifications.

Nonetheless, we recommend critical review by policymakers prior to final implementation. [FN185] Matrix values derived directly from statistics may be deemed arbitrary or otherwise "wrong." It is not obvious, for example, that the law should accept the lower values for the 35-50 age category that Table 5 shows. The set of relative values generated statistically should be tempered in accordance with common sense notions of reasonableness to eliminate or moderate incongruities.

Moreover, before accepting any statistically calculated amount, legislators or judges need to decide whether that value is in some sense "too much" or "too little." Common sense, interest group presentations, and possibly new research might also guide such normative choices. Policymakers might decide to skew matrix-based awards toward the low or high end of present awards, rather than toward today's average awards (represented in Table 5), for example. General issues that concern this and the other possible scheduling approaches are discussed in more detail below. [FN186]

5. The Relevance of "Value of Life" Research.--Ted Miller argues that value of life findings can help guide the determination of damage awards, especially for nonpecuniary elements of loss. [FN187] His findings are highly relevant to the law's substantive approach to damages in death ***950** cases and form a very instructive adjunct to the scheduling approaches discussed in this Article. However, such research fails to create a practicable schedule for non- economic damages. From a scheduling perspective, the key problems are that there is no consensus on the best estimate of the basic value of a lost life (or life year) [FN188] and that relevant factors needed to individualize values are insufficiently objective.

a. Death Values and Legal Rules.--The traditional law of wrongful death and survival tends to undervalue death losses from the perspective of deterrence. [FN189] Legal commentators have long noted the irony that tortfeasors could be better off killing people than injuring them, [FN190] controverting common-sense intuitions that death is usually a less desirable result than injury. In particular, the absence of nonpecuniary damages in a death case greatly undervalues the actual loss from deaths, as the value of life research confirms. The creation of a schedule for nonpecuniary damages offers an opportunity to expand recoverability in death cases. Such an extension of the law would not only benefit decedents' survivors, but also promote more efficient deterrence. Whereas the adoption of any matrix would lead to more consistent calculation of nonpecuniary damages, use of a schedule for these purposes would effect a substantive legal change.

Much of the traditional reluctance to allow higher recoveries in death cases comes from fear of unlimited awards and a sense that paying for non-economic loss cannot compensate the decedent, but rather constitutes a pure windfall to survivors or heirs. [FN191] Scheduling, however, controls the overall size of death awards, preventing defendants from facing open-ended liability. Moreover, a recovery model can be designed to avoid unjust windfalls without fully barring assessments for very real nonpecuniary losses. For example, tortfeasors could be required to pay the full non-economic loss indicated by the schedule, but not pay the full amount to survivors and heirs. Instead, a large share (perhaps, fifty percent) of the non-economic component of awards in death cases. (net of lawyers' fees) could be placed in a public fund of some kind.

Of course, some reasonable share must go to plaintiffs, or there will be too little incentive to bring suit--and thereby promote deterrence. [FN192] ***951** Evenly splitting the award balances the need for appropriate deterrence with the need to avoid windfalls. Courts could administer the fund, using proceeds to pay for the data reporting system proposed here. [FN193] Alternatively, the money could be used to pay for unusually high,. outlier cases that exceed matrix-based amounts. [FN194] The substantive and procedural change in the law of death damages is also appealing from the perspective of blunting political and constitutional challenge; unlike most past "tort reform," it gives a clear new benefit to claimants rather than simply curtailing traditional prerogatives. [FN195]

How would one set award values for death cases? Past jury awards reflect legal restrictions on nonpecuniary recoveries and, therefore, offer little guidance for a new approach. Here, a legislature might well weigh the value of life evidence might be weighed, despite the defects that make it unwise to use only such evidence for creating damages schedules. [FN196] The value of life approach seems stronger when tempered by common sense adjustments, such as a legislature might make in adopting a matrix or other schedule for death cases. One could also use the age categories of the valuation matrix (Table 5), applying those relative weightings to the dollar numeraire set by the best estimate of the value of life research.

b. Injury Cases.--The value of life findings give only a death-related numeraire; [FN197] to apply the research in such a way as to place values on nonfatal injuries, supplemental evidence is necessary to scale such injuries ***952** relative to death. Most such scales, however, rely on either expert assessment of disability and pain or the self-reported ability of the injured party to conduct normal activities. Used this way, value of life research becomes simply an adjunct to a system based on jury awards, rather than an independent source of values.

Overall, the approach of combining a dollar value for life with a scale of relative values has more conceptual than practical appeal, on at least four grounds. First, as noted before, the basic value of a life lost in the value of life literature is

insufficiently determinate. [FN198] Second, there is no agreed methodology for determining relative values, nor a research or practical consensus on what those relativities are. Thus, it is more plausible to expect such valuation to find acceptance in the regulatory framework where rough, average valuations of injuries are sufficient for ex ante regulatory decisionmaking than to expect state legislatures to accept similar imprecision in ex post valuation of individual injuries in tort litigation. Moreover, considerable methodological sophistication is needed to tease out values, making it hard to explain to laypeople and undercutting the attractiveness of the approach in political settings. [FN199]

Third, applying such scales in a liability case would require expert testimony concerning relevant relativities and the plaintiff's precise rank on the scoring system. This complex undertaking is more likely to lead to battles of the experts than simplification of damage computations and more predictable results. Fourth, the categories within the relative-value scales are extremely subjective and open to moral hazard. Most depend entirely too much on truthful self-reporting, which is put to a stern test when a considerable money rides on whether claimants report that they are "anxious or depressed" as opposed to "happy and relaxed," "able to sleep normally" versus having "considerable difficulty in sleeping," or relatively "capable of activities of daily life" rather than "incapable" of normal functioning. [FN200] Moral hazard in the form of injury exaggeration already exists in the current system; [FN201] making a particular disability ***953** score the basis for a fixed award of non-economic damages would only make matters worse.

B. Valuation "Scenarios" to Assist Juries

1. The General Approach.--Instead of a numerical matrix, a second form of damages scheduling might be to give juries a limited number of standardized injury "scenarios," with associated dollar values of non-economic loss for each. These descriptions of prototypical circumstances of injury would help jurors assess the non-economic damages in a given case, relative to the approved values in the scenarios. For each lawsuit, a relevant spectrum of scenarios would be provided, ranging from less severe to more severe injury. In effect, a set of scenarios would constitute a relative-value scale in readily grasped, qualitative terms. These scenarios would be best promulgated by legislatures or judiciaries, based upon the types of data reviewed for Table 5, with appropriate normative adjustments.

The scenarios would resemble the legal "hypotheticals" so beloved by law professors, but would focus on the circumstances of injury, rather than on the law. A small number of them, perhaps up to ten, would be included as jury instructions, preferably given in writing and allowed into the jury room. The jury would be instructed that no single scenario is expected to fit their own case perfectly, but that the scenario values are approved benchmarks by which to assess their case. They should decide which scenarios most nearly resemble the injury in the case they are deciding, then make the appropriate level of award somewhere near those values. The scenario values would thus be advisory rather than mandatory. [FN202] Even so, while juries would retain discretion to choose intermediate amounts between the scenario levels, their choices would be subject to more active judicial review to maintain consistency of valuation across cases.

The scenario approach reflect the normal mental response of people to difficult valuation problems outside the jury room--that is, making comparisons to other cases. A person looking to buy or sell a house wants to know the selling price of other three-bedroom, two-bath houses in the neighborhood. Certainly, every house is unique, and small variations in location or features make a difference. Nonetheless, having a quantitative benchmark is essential to reasonable valuation--and it also helps buyer and seller agree more rapidly than they otherwise might. Similarly, when psychological researchers have asked people to consider how they value certain states of injury, it has proven helpful to present ***954** scenarios about the extent of disability and pain. [FN203] Moreover, trial and appellate judges use a very similar approach when reviewing a jury award for excessiveness or inadequacy--that is, they consider prior awards, drawing upon their personal experience, relying on the parties' briefs, or consulting published listings of awards. In contrast, adoption of the scenario approach would require a legislature to review and incorporate a complete body of information into the standardized scenarios and their valuations.

2. Scenario Content.--Valuation scenarios must offer descriptions that are vivid enough to be comprehensible and offer a practical guide. They must not, however, consist of cases that are memorable for being unusual, but rather ones truly typical of each level of injury represented. As with any scheduling approach, it is vital to keep matters simple. The most important factors to reflect in a scenario are the physical severity of the injury, the victim's age or life expectancy, the extent of pain endured, the extent of incapacity to engage in normal activities, and the duration of each factor. Physical injury and age are relatively unambiguous and so help "anchor" the scenario objectively. The importance of duration (even if only given as

temporary versus permanent) is obvious. These objective factors alone considerably help distinguish among injuries, as shown by the sample matrix and supporting data discussed previously.

Pain and inability to function, though highly subjective, are also intuitively important. Moreover, they correspond to the two main types of intangible harm previously noted--newly imposed suffering and loss of former enjoyment of life. For them, one might use fairly simple descriptors, such as the strength of drug needed to control pain and the type of activities curtailed. [FN204] These are subjective measures, so plaintiffs will tend to exaggerate their suffering while defendants try to minimize it; but the situation will be no worse than at present. [FN205]

In general, the scenarios should describe only circumstances of injury relative to damages, not to responsibility or causation. The degree of "color" to provide in a scenario must still be determined. One could give only neutral descriptors, as in the nine-point severity scale; alternatively, the scenarios could offer more engrossing depictions of the injury. Particularized details make a scenario seem more real, but may also make it overly case-specific and difficult to generalize to other cases. A typical neutral scenario might read:
Permanent minor injury (level 5). Life expectancy 25 years. Mild persistent ***955** pain, usually controllable with aspirin. Unable to engage in more than light housework.

A more colorful version might explain:
Plaintiff Peters has completely and permanently lost the use of her left arm. Her life expectancy is 25 years, according to standard life insurance tables. Her arm throbs painfully most of the time, but the pain can usually be controlled with aspirin. She cannot do more than light housework.

Another issue is the handling of death cases. One could maintain the traditional restrictive approach to nonpecuniary losses, limiting the description to conscious pain and suffering endured by the decedent. Alternatively, in the interest of greater deterrence, one could describe the emotional losses of survivors and perhaps also the enjoyment of life lost by the decedent. This choice is a matter of substantive law, however, and not strictly a problem of constructing scenarios.

3. Creating Scenarios.--How many scenarios would be needed to represent the spectrum of non-economic damages fairly? To an observer steeped in courtroom process, the answer might well be "an infinite number," for the types and degrees of suffering and loss of life's enjoyment are indeed infinite. [FN206] Nonetheless, a fixed number of guideposts can cover the spectrum; a relatively small number of scenarios applicable to any given case would suffice, and, once the law approves a set number of qualitative descriptions, future advocates are left to argue the appropriate placement of their cases among these scenarios. In any event, it does not seem feasible to expect a jury to cope with a large number of qualitative scenarios at once. The capacity (and patience) of juries is limited, and ten scenarios for each case may be the outside limit. [FN207]

The simplest approach would base nine scenarios on the nine levels of the severity scale, [FN208] but would give a much more thorough description of prototypical injury for each level. A reasonable objection to this approach is that there would be too great a difference between adjacent injury values. Nine widely-spaced scenarios provide far more information than jury instructions now provide, but admittedly one might still prefer a more finely differentiated approach. Even so, the number of scenarios actually supplied a jury in a given case must be kept manageable.

One way to utilize more scenarios without overburdening juries ***956** would be to create a large inventory of scenarios describing a full universe of injuries, but use only a small number of relevant ones in a given case. For example, one could have a six-scenario spectrum for each severity category on the nine-point scale. The number actually given the jury could be kept to a manageable size in several ways. First, the whole inventory of scenarios could be treated as part of the pattern jury instructions, with each side advocating particular sets to be submitted and the judge deciding which is appropriate. Alternatively, the judge could independently rule on the severity category of the case (for example, whether the evidence supported a category 7 or 8 injury), then direct the jury to consider the dozen or so scenarios associated with those two categories. The key problem with these judge-based approaches is that they arguably shift at least part of the jury's fact-finding function to the judge. A third approach would cluster the scenarios around a preliminary finding of one totally objective consideration--the injured party's age, perhaps in the same six or seven classes used for the matrix--so that the judge's determination would be uncontroversial. A fourth, and preferable, approach would give the jury instructions sequentially: once the jury reached a decision on liability and the appropriate category of injury, it would request the

associated scenarios to determine nonpecuniary damages. [FN209]

The scenario descriptions and associated dollar values could be developed from a variety of sources of inspiration--the severity-scale categories, cases in jury verdict reporters, appellate court decisions, and value of life research scenarios. Dollar valuations could draw on the same sources as matrix scheduling--reported past awards held not excessive or inadequate, value of life findings, and decisionmakers' own judgment and experience. These choices could be made by a state legislature, perhaps with guidance from a study commission. Many states have adopted a process for developing pattern jury instructions, this same process could also be used to create valuation scenarios. Alternatively, a state's judiciary could take the lead. The national, state, and local bar associations would no doubt be heard in any process.

C. Flexible Ranges in Lieu of Caps for Non-Economic Damages

1. The Present "Flat" Caps.--Since 1975 legislatures have addressed concerns about the open-endedness of liability by enacting "caps" on some or all the damages awardable in personal injury cases. [FN210] By the end of 1988, most states had capped awards in some fashion. ***957** Most 1980s caps are applied broadly, rather than being limited to malpractice cases. [FN211] Most caps limit only the non-economic components of awards, presumably reflecting a general feeling that it is unfair to cap awards for economic losses, given the potential for very large medical and other bills. [FN212]

The caps almost always limit recovery for non-economic damages in all suits at a fixed amount, most commonly $250,000 or $500,000, but ranging from a low of $150,000 to a high of $1,000,000. [FN213] The caps prevent juries from awarding large amounts beyond provable economic losses as a form of quasi- punitive damages. Reformers also promote caps as necessary to keep insurance affordable, and the caps have been found to reduce liability insurance payments and premiums. [FN214] Nonetheless, flat caps are troubling, especially on issues of basic fairness, because the ***958** arbitrary limits come into play only in the most severe cases. [FN215] Moreover caps are designed to address only potential jury overvaluation, and only in those cases with the very highest awards. They fail to address any undervaluation or overvaluation below the ceiling.

Thus, despite their popularity, caps are inferior to matrices or scenarios as a means of structuring nonpecuniary awards. A better system of limits could be developed.

2.An Improved, Flexible Range: Floors and Caps.--Should states still prefer to set ceilings rather than adopt matrices or scenarios, they should address four key weaknesses of flat caps. First, they should hesitate to single out medical malpractice or other single areas for special treatment, given the similarity of the law of damages for all personal injuries. Second, recognizing that some injuries are much more severe than others, states should not apply a single, flat cap to all awards. [FN216]

Third, states should avoid the arbitrariness of today's caps, whose levels bear no particular relation to the expected savings in liability insurance premiums (the generally stated rationale for enactment) nor any relationship to the correction of possible errors in jury valuations (this Article's primary concern). Even if a cap of, say, $250,000 is somehow "correct" when enacted, it is likely to remain so when unadjusted over time. [FN217] A more rational cap would somehow define unduly high awards, perhaps targeting the top 5% as unreasonable outliers. [FN218]

***959** Fourth, states should not so readily assume that some awards are "too high," but that no award is too low--an implicit assumption of flat caps. Proponents of caps seem to have articulated no basis for this assumption. The best rationale would seem to be that caps correct for an inherent asymmetry of the law--defendants are liable for unlimited amounts, but plaintiffs can do no worse than zero recovery. [FN219] However, if mistakes occur at the high end of damage awards, perhaps because of an unusually sympathetic plaintiff, presumably they occur at the low end of awards as well, perhaps because of an unusually sympathetic defendant.

Flat caps have the virtue of leaving most assessments unaffected, but also the accompanying vice of giving no guidance to juries in most cases. We prefer matrices or scenarios as a means to improve valuation in all cases, but offer the following suggestions for states wanting to leave most jury verdicts unaffected. Instead of a single, arbitrary cap, we propose a set of varying floors and ceilings bounding jury awards at both the high and low ends of valuation. These limits should be tailored to reflect severity of injury or, better yet, severity and age combined. A minimum improvement would create a sliding scale of caps with award limits for the different categories of injury on the nine-point severity scale. This would allow higher

recoveries than past caps in the most severe cases and decrease the maximum allowable award for less severe injuries. A further improvement would mandate minimum recoveries for injuries at each severity level. [FN220] Finally, the floors and ceilings could employ both injury severity and age as classifying factors, as in the matrix and scenario approaches.

A flexible set of floors and caps that accounts for injury severity could readily be created from the distribution of past jury findings--for instance, setting the limits to invalidate the estimated top and bottom five percent of each group. [FN221] Because these are boundaries, affecting only far outliers, and not schedules to be applied to all cases, juries would still be free to tailor awards to fit precise circumstances, but would not be able to abuse their discretion by going too high or too low. Like current caps, juries might or might not be told about the existence of the flexible range. [FN222]

Flexible ranges aimed only at extreme outliers would presumably ***960** still leave considerable unexplained variability across jury valuations, even allowing larger awards to less severely injured plaintiffs than more severely injured ones. This effect distinguishes ranges set by flexible floors and ceilings from the matrix approach, even when the matrix's values consist of ranges rather than point values. [FN223] Floors and caps do not attempt to encourage equal results in equal cases, but rather only to correct errors of inadequacy and excessiveness. In this way, a system of flexible floors and caps is analogous to formalized standards of additur and remittitur.

### D. Cross-Cutting Issues of Implementation

Regardless of the scheduling approach preferred by a particular jurisdiction, a number of practical issues common to all three models should be addressed. Underlying each of the proposals are concerns involving the data to be used as a foundation for scheduled award values, particularly the accumulation of a reliable data base and the weight to be given prior jury awards. There are additional procedural matters, such as the respective roles of judge and jury and employment of special verdicts as a procedural check on any tendency to pad awards. Finally, residual issues remain that must be considered--namely, providing for changes in value over time and the treatment of less meritorious suits. [FN224]

1. Accumulating a Data Base: A New Reporting System.--A major strength of our proposed reforms is the use of actual past awards in scheduling award values. No entirely reliable and comprehensive compilation of jury awards is now available. [FN225] At least one court has remarked that awards in analogous cases would be helpful in providing "some sense of a reasonable range in awards" on review. [FN226] We propose that all states maintain reporting systems for damage awards, in a standard format, and corrected for subsequent judicial proceedings. [FN227]

***961** Some time would elapse before any significant data could accumulate for any jurisdiction. Before then, general consideration of the matrix, scenario, and flexible-range reforms could begin. Less quantitative information is needed for scenarios and ranges than for matrices, so a legislative committee, judicial conference, or other policy body could use information from jury verdict reporters or other unofficial sources, with due regard to the need for informed judgment to correct for shortcomings of these reporters. Moreover, a jurisdiction could draw on better-documented experience in another state deemed comparable. Once a good reporting system is in place, superior information will be useful not only for initial construction of a scheduling model, but also for keeping current over time and shifting approaches in response to observed outcomes.

2. The Weight To Be Given Prior Jury Findings.--Another matter for policymakers to resolve in scheduling valuations is the way in which prior jury valuations should be used. A premise of this Article is that the aggregate wisdom of prior findings of nonpecuniary damages should be codified in some fashion, and our three scheduling approaches offer different ways of doing so. In each case, we propose assigning dollar values to categories of injury severity based on prior jury findings. Arguably, the distribution of prior awards for non-economic damages is not an absolutely reliable basis for scheduling future awards. After all, it is the very lack of guidelines for awards that is the impetus for our proposed reforms, and one cannot fully and accurately assess what portions of past awards have been economic versus non- economic, especially in the absence of special verdicts and standardized reporting. Nonetheless, the use of the aggregate wisdom of past practice is quite reasonable--certainly more so than reinventing dollar values in each case.

As already indicated, better data on the non-economic portions of awards would be helpful, and some judgmental adjustment may also be needed. Legislatures (or judiciaries) are free to add a normative dimension to the empirical analysis of past

valuations in the course of promulgating a scheduling system. They can readily smooth the irregularities of past award distributions or choose different levels for floors and caps. [FN228] They, of course, might even depart from historical patterns altogether, although it would be difficult to defend such an action from a charge of arbitrariness. Linkage to past awards, in short, provides a helpful empirical foundation upon which to base--and justify--policy judgment.

***962** 3. The Roles of Juries and Judges.--The proposed schedules should generally be applied by juries rather than judges, for the schedules have been conceived as an improvement on the currently vague law of nonpecuniary damages, and valuing such damage is a traditional jury function. If juries cannot be trusted with making valuations under the scheduling models, then the entire validity of trial by jury seems dubious. [FN229] The trial judge has the power of remittitur and additur, adequate safeguards for reasonable use of the schedules, assuming that special verdicts are in place. [FN230] The trial judge's decisions are further subject to appellate review for reasonableness, an additional protection. Moreover, the very existence of new, quantitative standards for nonpecuniary damages greatly facilitates the review of awards, correcting the existing problem caused by the lack of good benchmarks against which to judge adequacy and excessiveness.

4. The Need for Special Verdicts. -- Regardless of the approach preferred, successful application of scheduling requires that juries specify their nonpecuniary awards through special verdicts. [FN231] The need for separate information on awards for non-economic damages is two-fold: (1) to develop an accurate reporting system, and (2) to make awards reviewable by trial and appellate judges under the new scheduling rules.

Once special rules apply to non-economic damages, more careful specification of economic damages is also in order. It is not enough that juries merely report separate conclusions on economic and non-economic injury. Dollars are fungible, so a jury--wanting to achieve a certain overall dollar result [FN232] and aware of a cap or other special rule or non-economic damages that constrains its discretion--can simply alter its findings on economic damages to achieve its desired "bottom line." Legislatures and courts are aware of this potential. It explains the typical rule that trial judges are not to tell the jury of a cap on non-economic loss, but instead apply it themselves after a special verdict. [FN233]

Thus, economic calculations need to be justified so that they can be reviewed for reasonableness and to ensure adherence to the scheduling ***963** provisions. Otherwise, the supposedly separate total for non-economic damages will be equally unreviewable, at least in a meaningful manner. At a minimum, juries should disclose their findings on past and future allowances for wage loss and medical expenses, plus the inflation and discount rates used. The reasonableness of both economic and non-economic awards could then be reviewed using more objective standards than are now available. [FN234]

5. Changes in Values Over Time.--Policymakers should also consider the importance of increasing matrix award levels (or scenario values or ceiling and floor amounts) over time. Common sense suggests that values should increase over time--just to keep pace with inflation. [FN235] This issue is of extreme interest to liability insurers and reinsurers, as stability is vital to projecting their future claims expense. A schedule need not change the general level of awards immediately to have a large impact on the projected claims history of an insurance policy sold today; many injuries arising now will only be resolved some time in the future.

Increases in scheduled values could be formulated in a variety of ways. For example, one could project scheduled values forward at the rate of past growth, as plotted over a number of years. More likely, though, a legislature would choose an index related to inflation in consumer prices or periodically update the values judgmentally. Finally, policymakers should periodically re-examine not only the absolute values of the schedules, but also the relativities among categories in the matrix, scenarios, or sliding-scale ranges.

6. Dealing with Less Meritorious Suits.--The prospect of more certain recovery for nonpecuniary loss under the proposed scheduling reforms may well induce more people to seek jury trial, especially those with relatively uncertain cases on liability grounds. To varying degrees, the scheduling approaches also undercut a jury's traditional, if covert, ability to compromise damages in a relatively weak case on liability. Hence, under a scheduling regime, particular attention must be paid to the problem of less meritorious claims. This problem is best addressed through ancillary measures of judicial administration. Past statutory tort reforms have ranged from certification of meritorious suits [FN236] to imposition of costs, including legal fees, on the losing party. [FN237] Other measures may also be appropriate.

### ***964** E. Pros and Cons of the Forms of Scheduling

Which type of scheduling model should a jurisdiction prefer? Policy decisions will be influenced by policymakers' judgments along many dimensions, but their answers to two questions are central. First, to what extent do legitimate factors not captured by objective analysis cause the observed variation in awards in the existing tort regime? Those who believe that most of the current variability in awards is legitimate will seek to maintain maximum jury discretion--if they support reform at all--by supporting such proposals as floors and caps to deal with extreme outliners, perhaps advisory scenarios as aids to juries, and possibly matrices containing ranges of values. Those who see award variability as caused mostly by illegitimate factors or random jury error are more likely to support the more standardizing approaches, like point- value matrices and more rigorous scenarios.

A second significant policy decision is the relative importance of doing justice in individual cases versus arriving at fair results across cases. The strongest attribute of a matrix-based regime is the ability to achieve equal dollar results in equal cases of all types and severities, especially when the point-value format is used. A point-value matrix may, however, insufficiently respond to unusually worthy (and unworthy) cases, a weakness that may necessitate the adoption of a process to handle outliers. In sharp contrast, a flexible range of floors and caps addresses only the outliers, maintaining jury discretion in the vast majority of cases, but also likely maintaining the current wide, inconsistent, and unexplained disparity among cases. Any individual method, while arguably meant to achieve fairness in each case, will most likely fail to achieve fairness across cases--continuing past failures in this regard. The ability to discriminate can readily yield inconsistent and inappropriate results, whether or not intended by a particular jury. The scenario approach lies between that of matrices and sliding-scales of ranges-- giving considerable quantitative guidance to jury valuation of small and large cases alike, ***965** yet leaving broad discretion to a jury's idiosyncratic views of particular circumstances. Scenarios would not, however, greatly simplify the process of jury valuation, and awards based on scenarios may be more difficult to review than determinations under the other proposals.

As an aid to policy discussion, Table 6 provides a summary of the relative strengths and weaknesses of the three proposed models of scheduling.

## V. POLITICAL AND CONSTITUTIONAL ISSUES

### A. Legislative and Judicial Roles in Reform

Tort law is state law, and state legislatures are the natural locus of tort reform. Almost all American tort reform has occurred by statute. [FN238] Of course, most developments in tort law occur on a common-law basis by judicial decision, and there is Canadian precedent for a common-law cap on awards for pain and suffering. [FN239] However, the changes we propose are more complex than the single, arbitrary dollar cap imposed in Canada, [FN240] and we instead follow the California Supreme Court in suggesting that rules for pain and suffering awards should be revised by legislative action rather than judicial decision. [FN241]

There is no "gold standard" by which to judge the specific dollar levels or overall appropriateness of the award-scheduling matrices, scenarios, or floors and caps proposed here. Deciding upon such values is ultimately a matter of social choice that requires the balancing of many competing interests, with results bearing not merely upon the resolution of disputes over individual injuries, but also upon general public health, ***967** insurance policy, and redistribution of income. [FN242] The entity with the greatest social legitimacy in making such broad trade-offs is the state legislature. [FN243] Furthermore, our proposals are best accomplished by building upon the accumulated experience of prior awards and new research such as the value of life findings, requiring the collection of considerable background information. [FN244] This is more in the style of legislative investigation than judicial dispute resolution.

TABLE 6: STRENGTHS AND WEAKNESSES OF SCHEDULING APPROACHES: MATRIX, SCENARIOS, AND RANGES

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| Reform Model | Strengths | Weaknesses |
|---|---|---|
| A. Award Matrix | All cases covered in evenhanded manner, should make results very comparable in comparable cases | May raise lower awards more than it reduces upper ones, depending on values ultimately chosen for matrix |
| | A wide range of valuations provided, in well differentiated categories (e.g., 54-cell matrix) | May bring more cases into the system, as plaintiffs 'guaranteed' certain recovery if of certain severity |
| | Classifying factors objective, well related to loss intuitively and according to past jury findings, so overall fairness of system apparent | System quite inflexible, may not account for subtle variations in nature of injuries in a single cell of matrix, at least where only 'point values' given |
| | Appropriate valuations very clearly established, jury awards easy to review | In'point value' form, may seem to intrude on jury, replacing informed human judgment with 'damages by computer' |
| | If desired, 'point values' can be replaced with range of values in each cell of matrix, further tempered by 'outlier' system | |
| B. Injury | All cases covered in evenhanded | Probably will have less |

| | | |
|---|---|---|
| Scenarios | manner | practical effect on variation across cases than matrix |
| | Entire range of awards covered | Hard to create truly paradigmatic injury descriptions that will help guide all cases |
| | Great flexibility in tailoring awards to circumstances | May offer fewer guidelines of value than matrix |
| | Readily assimilable by jury, not highly technical | |
| | Continues traditional trust in jury decisions, but with jury awards easier to review | May increase lower cases as much or more as it lowers upper ones |
| C. Flexible Ranges | Closest to current system, including enacted caps | Caps often successfully opposed in legislature, court |
| | Tailored to hit extreme outliers only, high and low | Precise levels of ranges' 'ceilings' and 'floors' still somewhat arbitrary |
| | Shares burden of cuts across severity levels, balances with increases in 'floors' | Does not improve predictability of 95% of cases |
| | Affects large share of dollars in system, because distribution so skewed to high awards | May eventually promote 'creep' of lower awards toward ceilings |
| | Reasonable statistical rationale | |

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exists for levels chosen,

modifiable by legislature
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Unquestionably, however, experienced judges could contribute to the design of better valuation methods and help identify potential problems of courtroom application to be avoided in advance. [FN245] In a more administrative mode, the judiciary could readily oversee the design of a set of injury scenarios or adopt a relatively simple set of floors and ceilings for nonpecuniary awards. A more sophisticated matrix with empirically derived dollar values might be more difficult, although, as already noted, a judicial conference might undertake such reforms, perhaps aided by a special committee of the bar.

Perhaps the ultimate dividing line between the state legislature and ***968** judiciary is budgetary, however. Regardless of issues like social legitimacy and the capability to form policy, legislation would be needed to fund any new data collection system or systematic study of past results. Thus, legislative action would seem a prerequisite to the adoption of any of our proposed reforms.

### B. Policy Context: Distinguishing Scheduling From Prior Reforms

Past tort reforms have been attacked in legislatures, in print, and in court on similar grounds. Opponents have attacked past reforms on a number of grounds, arguing among other things that: (1) the alleged insurance crisis is a mere pretext for pro-defense, special-interest legislation; (2) it is unfair to take away traditional, common law prerogatives of plaintiffs without a compensatory quip pro quo being given in return; (3) malpractice-only reforms (once very popular) unfairly single out medical practitioners for protections, to the detriment of malpractice plaintiffs who face corresponding cutbacks in remedies; (4) flat caps unfairly single out the most severely injured people to bear the cost of reform; and (5) reforms abrogate the sanctity of trial by jury. [FN246]

Very little in these attacks is directly relevant to the scheduling reforms proposed here, however, because the goals, means chosen, and likely effects of scheduling are quite different from those of prior tort reforms. This creates a very different policy context within which to counter political and constitutional attacks. Nevertheless, opponents are likely to characterize scheduling as yet another tort reform, subject to attack on the same grounds as previous reforms. So we pause to highlight the relevant differences.

Scheduling aims primarily to promote the integrity of the judicial system in the valuing of nonpecuniary damages--not to help the insurance industry, doctors, manufacturers, or any other special interest. In contrast, most prior reforms were enacted under pressure from defendants and insurers, at times even under the threat of a physicians' strike. [FN247] Our scheduling proposals are designed to apply across the spectrum of personal injury suits, not merely to malpractice, products liability, or some other select class of personal injury litigation.

The rationales underlying the scheduling models are not merely hollow justifications of preconceived changes in traditional tort prerogatives of plaintiffs. Rather, the design of our proposed scheduling models derives directly from careful analysis of past problems of jury valuation. The specific schedule categories themselves are based largely on injury severity and age and are, thus, related closely to expected losses--both ***969** intuitively and empirically. Scheduling is even-handed not only across the variety of case types (malpractice, products, auto), but also with regard to case size (big or small); matrices and scenarios would apply to all cases, and caps and floors would impact both high and low value awards in parallel fashion.

Furthermore, the schedules are not mere "take-aways" of plaintiffs' prerogatives. Instead, our scheduling proposals are designed to be eminently fair and balanced. Under the award matrix and scenario approaches, all plaintiffs receive a standard measure of adequate compensation; the sliding- scale approach, alternatively, balances award caps with corresponding floors. In short, there is a quid pro quo for alleged losses. Some plaintiffs will receive more than they might otherwise, while others receive less. Finally, all litigants will likely benefit from lower litigation costs and greater ease of settlement.

The dollar amounts suggested quite reasonably derive from the award histories of past juries, with perhaps some judgmental adjustment. Unlike past caps, the values are not arbitrarily selected. In operation, the schedules would directly and

immediately achieve their main goal-- bringing standards to a previously standardless area of law and consistency to previously inconsistent judicial outcomes. Well-designed scheduling approaches have the potential to improve both equity (fair valuation of each case and consistent valuations across cases) and efficiency (enhanced predictability that simplifies proof, facilitates settlements, and eases insurance rating). [FN248]

C. Constitutional Considerations [FN249]

1. Equal Protection And Due Process.--The constitutional validity of the three scheduling proposals would almost certainly be sustained against federal equal protection and due process challenges. Review under federal equal protection [FN250] and due process analysis would most ***970** likely proceed under the traditional rationality standard that applies to economic and social welfare legislation. [FN251] In such circumstances, a law need only be rationally related to a legitimate state interest to be constitutionally valid. [FN252]

This somewhat mechanistic and toothless standard does not require courts to investigate the weightiness of the governmental interest asserted and does not typically require a close fit between the means chosen to effectuate the goal and the goal itself. For example, it would be "rational" in this sense to burn down a barn to kill a rat. Further, courts will not allow an empirically based challenge to undo a legislative classification. Even if dubious on empirical grounds, the legislation will be sustained if the legislative judgment was logically plausible. [FN253] It is therefore unsurprising that nearly all legislative classifications have been sustained when courts apply this standard. [FN254] Thus, the scheduling reforms proposed here would most likely pass muster [FN255] under this traditional form of constitutional review.

At the state level, the federal approach to equal protection and due process generally prevails, but there have been some successful challenges to past efforts at tort reform. [FN256] Decisions striking down medical malpractice reforms in North Dakota [FN257] and New Hampshire [FN258] are well known, but the durability of tort reforms against state constitutional attack exceeds their general reputation. [FN259] In California and Indiana, the ***971** two "strongest" examples of malpractice reform have been upheld, [FN260] and reviewing courts have generally been quite deferential to legislative reforms, typically applying the federal rational basis test of validity. [FN261] Indeed, more recent state court decisions show a clear trend away from intensified scrutiny of state tort reform legislation, [FN262] with two of the more aggressive states, Kansas and Montana, backing away from earlier decisions in their most recent pronouncements. [FN263]

To the extent that state equal protection and due process analysis accords with the permissive federal standard, [FN264] the reforms proposed in this Article will likely be found constitutional. Moreover, our proposals would also likely pass constitutional muster even in those jurisdictions that apply a more rigorous and searching degree of scrutiny. More searching review can require an examination of the weightiness of the interest being promoted and a tighter fit between the goals and the means adopted in furtherance of those goals. In either case, [FN265] our proposals are appropriate.

***972** First, with respect to the importance of the interest promoted, the proposed reforms address the fundamental integrity of the judicial process--the desirability of achieving fairness among litigants by assuring that similarly situated plaintiffs receive comparable damage awards for pain and suffering. They are also designed to facilitate the smooth functioning of the insurance market, a fundamental component of the current liability-compensation system. These reasons are surely sufficiently weighty to justify legislative action, even under heightened judicial scrutiny.

Second, the fit between the proposed policy approach and the underlying policy objective is quite close and should pass any reasonable standard requiring such a fit. The proposals are designed to deal directly with the fairness and efficiency of judicial administration of personal injury awards, especially for nonpecuniary damages, which now lack any systematic standards and show considerable variability in ostensibly similar cases. Moreover, the proposals accomplish their objectives without unduly burdening any class of litigant, since each of the reforms acts to prevent undervaluation as well as overvaluation.

2. Jury Trial.--Damage caps have recently been challenged in federal and state courts on right-to-jury-trial grounds. The arguments is that legislatively set caps impinge upon jury prerogatives in the award of damages. Both the Third [FN266] and Fourth [FN267] Circuits have recently rejected such challenges under the Seventh Amendment. Damage caps have been invalidated, however, in a few state supreme courts on the basis of jury trial provisions in state constitutions. [FN268]

Nonetheless, these attacks have not had uniform success; at least one state supreme court has upheld a flat cap against a jury trial challenge. [FN269]

Courts that have invalidated damage caps on jury trial grounds have worried that the province of the jury is impermissibly invaded by legislative countermanding of jury verdicts. Believing that the jury's role extends to the remedies phase of litigation, [FN270] the Washington Supreme Court in Sofie v. Fibreboard Corp. [FN271] found that, without a change in underlying substantive law, a damage cap impermissibly deprives the ***973** jury of its role in setting damages. Under the typical cap, a jury decides the amount of damages in accordance with existing principles of substantive law, and then the court imposes the legislatively determined cap to reduce the jury award. From a formalistic viewpoint, the jury's determination appears to be countermanded.

In our view, the Washington court's equation of the power of the jury to determine damages and the power of the jury to award an amount of damages beyond a legislatively established maximum is unsatisfying. It leads us to probe more deeply to understand the concerns of the Sofie majority. Our conclusion is that the issue is a matter of characterization. If one thinks of the damage cap as a matter of substantive law, [FN272] then it is appropriate to respect the legislative determination of remedial bounds. The legislature is viewed as merely establishing the parameters within which a jury's factfinding deliberations proceed. [FN273]

The Washington Supreme Court expressed concern that a jury's findings of fact "go unheeded" when a court, applying a statutory cap, adjusts the jury's award. [FN274] Such an approach, it said, only "pays lip service to the form of the jury but robs the institution of its function." [FN275] The court seemed troubled by the failure of the legislature to directly alter the underlying principles of law that govern tort litigation. Non-economic damages were permitted (as before), and juries were permitted to determine the amount of nonpecuniary loss actually incurred (as before), but the statute operated to reduce the amount of damages actually awarded if the jury's determination exceeded that permitted by the statute's formula. [FN276] Thus, the Washington court viewed the cap not as a ***974** change in substantive law, but rather as legislative second-guessing of a factual determination entrusted to the jury.

The concerns of the Sofie majority can be addressed by drawing an analogy to the area of procedural due process. There, a successful plaintiff must show the deprivation of a liberty or property interest protected by the fifth and fourteenth amendments. [FN277] If an interest is protected under state law, the procedures required when that interest is impaired must pass constitutional scrutiny. The adequacy of state procedures of redress is subject to scrutiny under federal due process standards. [FN278] Thus, while states can modify the substantive law and thereby modify the scope of the "property" interest, they are bound by the federal due process clause once that entitlement exists. [FN279]

The procedural due process analogy would seem to capture the concerns of the Sofie majority. Once specific damage determinations are left up to the jury, then the legislature must allow the jury's determination to stand. If the legislature wishes to change the rules for assessing damages, however, it can circumscribe the jury's discretion and establish new standards. In the latter situation, there would be no after-the-fact, legislative countermanding of actual jury findings. Rather, the reform would fall within the legislature's inherent and legitimate power to declare rules prospectively--that is, to legislate.

Our three alternative proposals for scheduling awards for non-economic damages thus appear to satisfy the concerns voiced in Sofie. They do not leave intact existing standards for the determination of awards for pain and suffering, but instead establish a new basis for the assessment of non-economic damages. There is no jury determination that is countermanded by judicial implementation of a legislatively-enacted cap nor is there any inference that the jury's calculation of loss is untrustworthy. Rather, the jury is relied upon to categorize the level of injury severity in its factfinding capacity, under a new legislatively-mandated method of determining damages.

In sum, the proposals quite clearly change the substance of the law of non-economic damages. They are not merely arbitrary restraints upon a jury's power to award a large amount of damages. For these reasons, our proposals satisfy even the interpretation of jury trial requirements enunciated by the high courts of Washington and Kansas.

## ***975** VI. CONCLUSION

This Article proposes to reform the calculation of "pain and suffering" and other non-economic damages, the least

well-defined and most variable element of recovery for personal injuries. We suggest limiting the currently open-ended liability by replacing a system reliant on broad jury discretion with a system of quantitative "scheduling" of awards for nonpecuniary loss. In this vein, we present three alternative scheduling models: (1) a system of standardized awards set according to a matrix of dollar values based on victim age and injury severity; (2) a scenario-based system that employs descriptions of prototypical injuries with corresponding award values designed to be given to juries as guides to valuation; or (3) a system of flexible ranges of award floors and caps that reflect the various categories of injury severity.

We prefer matrices or scenarios to a system of floors and caps, primarily because they more comprehensively address the problems of variability and predictability in damage awards. Floors and caps, alternatively, deal only with the problem of extreme outliers, thus preventing excessive over- and under- valuation, but maintaining broad jury discretion (and variability in outcomes) for awards within the range. Whether matrices or scenarios are preferred depends primarily on how much one thinks non-economic damages should be individualized, how much one trusts juries to exercise discretion, and the importance one attaches to achieving similar results in similar cases.

Regardless of the scheduling model adopted, the relative levels and absolute sizes of allowances should be based on past award history, as modified and promulgated by state legislatures and, possibly, judiciaries. (We also suggest a substantive change to provide for non-economic loss in wrongful death.) The increase in values over time should be controlled, so that longer-term predictability is maintained. Our proposals are all fairer and more consistent with past results than the arbitrary flat caps now frequently enacted by legislatures--but not infrequently invalidated by the courts. Scheduling- oriented reforms promise to increase the consistency of awards across cases, as similar cases would achieve more similar results. These are important goals in their own right. Moreover, the enhanced predictability of awards would promote settlement and make tort liability a more readily insurable event.

Most tort reform debate has pitted the advocates of defendants against those for plaintiffs in an adversary political process that mirrors the courtroom. As in the courtroom, the drama is played as a zero-sum game--plaintiffs lose exactly what defendants win, and vice versa. From collateral source offset to various sorts of caps on awards, every dollar saved for defendants (or their insurers) is a dollar taken directly from plaintiffs (or their attorneys). Very few reforms allow both sides to gain. However, by improving accuracy and predictability, the scheduling of non-economic loss promises to help both sets of advocates. And, not ***976** insignificantly, the proposed reforms would promote confidence in the fairness of the legal system.

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[FN1] See infra notes 56-85 and accompanying text.

[FN2] We follow conventional usage in referring to pain, suffering, and other nonpecuniary or intangible losses as "non-economic," even though they have a demonstrable value in the marketplace. See infra notes 101-02 and accompanying text.

[FN3] See infra note 165 and accompanying text.

[FN4] See Bovbjerg, Legislation on Medical Malpractice: Further Developments and a Preliminary Report Card, 22 U.C. DAVIS L. REV. 499 (1989).

[FN5] See infra notes 210-15 and accompanying text.

[FN6] See infra notes 120-23 and accompanying text.

[FN7] See infra notes 105-06 and accompanying text.

[FN8] See infra notes 100-04 and accompanying text.

[FN9] See, e.g., Restatement (Second) of Torts § 901 (1965)(the purposes for which actions in tort are maintainable: "(a) to give compensation, indemnity or restitution for harms; (b) to determine rights; (c) to punish wrongdoers and deter wrongful conduct; and (d) to vindicate parties and deter retaliation or violent and unlawful self-help"). For a broader view emphasizing the social role of accident prevention, see G. Calabresi, The Costs of Accidents (1970). Tort actions can also be justified by the need for social fairness in distributing innumerable liability insurance payments. For a discussion of numerous goals attributed to personal injury law, see ABA Special Committee on the Tort Liability System, Towards a Jurisprudence of Injury: The Continuing Creation of a System of Substantive Justice in American Tort Law, 4- 1 to 4-225 (1984) [hereinafter ABA Comm. Report]. The appropriate level of awards may vary according to whether the focus is on individual compensation or general deterrence.

[FN10] Punitive damages may also be available where a defendant's conduct is egregious. See W. KEETON, D. DOBBS, R. KEETON & D. OWEN, PROSSER & KEETON ON THE LAW OF TORTS 9-15, 213 (5th ed. 1984) [hereinafter PROSSER & KEETON]. This Article does not deal with punitive damages, which call for a different analysis. In any event, they are granted in a low percentage of cases. See Daniels, Punitive Damages: The Real Story, A.B.A. J., Aug. 1, 1986, at 60. Our jury verdict research, described infra at notes 144-46, also found very few cases in which punitive damages have been awarded.

[FN11] See, e.g., D. DOBBS, HANDBOOK ON THE LAW OF REMEDIES (1973); C. MCCORMICK, HANDBOOK ON THE LAW OF DAMAGES (1935). For a standard judicial charge to a jury, see 8 AMERICAN JURISPRUDENCE PLEADING & PRACTICE FORMS (1982):
In determining the amount of plaintiff's damages, if any, you may take into consideration the following elements as shown by the evidence: 1. The [plaintiff's] pain and suffering, disabilities or disfigurement, and any accompanying mental anguish .... 2. The reasonable and necessary medical expenses incurred or paid .... 3. The loss of time or earnings .... In arriving at the amount of your award, you will take into consideration the nature, extent, and duration of the plaintiff's injuries, if any, his age, and his general health and condition both before and after the occurrence of the injuries complained of.
Id. at 274.

[FN12] See, e.g., The "City of Panama," 101 U.S. 453, 464 (1879) ( "[T]here cannot be any fixed measure of compensation for the pain and anguish of body and mind,... but the result must be left to turn mainly upon the good sense and judgment of the tribunal assigned by law to ascertain what is a just compensation for the injuries inflicted."); Beagle v. Vasold, 65 Cal. 2d 166, 172, 417 P.2d 673, 675, 53 Cal. Rptr. 129, 131 (1966) ("No method is available to the jury by which it can objectively evaluate [nonpecuniary] damages, and no witness may express his subjective opinion on the matter."); Botta v. Brunner, 26 N.J. 82, 92-93, 138 A.2d 713, 718 (1958) ("There is and there can be no fixed basis, table, standard, or mathematical rule which will serve as an accurate index and guide to the establishment of damage awards for personal injuries.").

[FN13] There can, however, be considerable disputes in some cases. For example, the parties may disagree about the degree of causation and fault, the necessity of certain medical expenses and other services, the duty of the plaintiff to mitigate losses, and the appropriate rate (if any) of prejudgment interest.

[FN14] See D. DOBBS, supra note 11, §§ 3.2-.4; 4 F. HARPER, F. JAMES & O. GRAY, THE LAW OF TORTS § 25.3 (2d ed. 1986); Schaefer, Uncertainty and the Law of Damages, 19 WM. & MARY L. REV. 719 (1978).

[FN15] There are at least three approved approaches: exact offset of inflation against discount rate, yielding a zero rate (so the jury is to use nominal current dollars); partial offset to achieve one discount rate (e.g., to one to three percent, a "real interest rate"); or separate calculation of inflation and discount rates, to be applied jointly. See 22 AM. JUR. 2D Damages §§ 143-50 (1988).

[FN16] Many variables are involved in projecting future losses, even before applying various discount rates. See generally M. BROOKSHIRE, ECONOMIC DAMAGES: THE HANDBOOK FOR PLAINTIFF AND DEFENSE ATTORNEYS (1987).

[FN17] See, e.g., PROSSER & KEETON, supra note 10, at 949-51.

[FN18] See D. DOBBS, supra note 11, § 3.1, at 135-38. The first award for pain and suffering seems to date from 1763. U.S. DEPT. OF TRANSP., AUTOMOBILE INSURANCE AND COMPENSATION STUDY: MOTOR VEHICLE CRASHES AND THEIR COMPENSATION IN THE UNITED STATES 35 (1971).

[FN19] Compare Goodrich, Emotional Disturbance as Legal Damage, 20 MICH. L. REV. 497 (1922) (noting the common law requirement that mental anguish be accompanied by some physical injury for recovery) with Bell, The Bell Tolls: Toward Full Recovery for Psychic Injury, 36 U. FLA. L. REV. 333 (1984) (arguing in favor of liability for negligently caused emotional distress, even absent physical harm).

[FN20] See, e.g., Rodrigues v. State, 52 Haw. 156, 472 P.2d 509 (1970). See generally Miller, The Scope of Liability for Negligent Infliction of Emotional Distress: Making "The Punishment Fit the Crime," 1 U. HAW. L. REV. 1 (1979).

[FN21] E.g., Weitl v. Moes, 311 N.W.2d 259 (Iowa 1981) (loss of society and companionship of parent); see also Leibson, Recovery of Damages for Emotional Distress Caused by Physical Injury to Another, 15 J. FAM. L. 163 (1977); Love, Tortious Interference with the Parent-Child Relationship: Loss of an Injured Person's Society and Companionship, 51 IND. L.J. 590 (1976).

[FN22] See, e.g., Capelouto v. Kaiser Found. Hosps., 7 Cal. 3d 889, 892- 93, 500 P.2d 880, 883, 103 Cal. Rptr. 856, 859 (1972) ("pain and suffering" a "unitary concept" that "has served as a convenient label under which a plaintiff may recover not only for physical pain but for fright, nervousness, grief, anxiety, worry, mortification, shock, humiliation, indignity, embarrassment, apprehension, terror or ordeal").

[FN23] D. DOBBS, supra note 11, at 548-49 n.59; see also Cramer, Loss of Enjoyment of Life as a Separate Element of Damages, 12 PAC. L.J. 965 (1981). It is logical to consider new, negative harms caused by an injury (e.g., pain, distress) separately from the loss of previously enjoyed, positive benefits of uninjured existence (e.g., loss of enjoyment of life, loss of consortium), although the legal issues do not seem to be framed in just these terms. This distinction normally makes little practical difference, for loss of enjoyment typically accompanies conscious pain; it matters greatly, however, in cases of death, shortened life expectancy, or permanent coma where there is arguably no conscious suffering. Compare Flannery v. United States, 718 F.2d 108 (4th Cir. 1983) (no award under Federal Tort Claims Act for loss of enjoyment of life when claimant is permanently comatose and cannot benefit personally from the use of money), cert. denied, 467 U.S. 1226 (1984) with Flannery v. United States, 297 S.E.2d 433 (W.Va. 1982) (as a question of state law, certified from the United States Court of Appeals for the Fourth Circuit, recovery for the lost enjoyment of life was allowable) and Shaw v. United States, 741 F.2d 1202 (9th Cir. 1984) (recovery for lost enjoyment of life allowed where child was severely injured, but partially conscious).

[FN24] See generally D. DOBBS, supra note 11, at 557-62; PROSSER & KEETON, supra note 10, at 949-54; S. SPEISER, RECOVERY FOR WRONGFUL DEATH AND INJURY (3d ed. 1988).

[FN25] See PROSSER & KEETON,supra note 10, at 949-54. Even so, the survivors' loss of society and comfort and the pecuniary value of lost services may be recoverable. Id. at 951.

[FN26] Historically, legislatures have also simply feared extravagant awards. See PROSSER & KEETON, supra note 10, at 951.

[FN27] D. DOBBS, supra note 11, at 545.

[FN28] Id.; Dunlap v. Lee, 257 N.C. 447, 450-52, 126 S.E.2d 62, 65-66 (1962).

[FN29] See Botta v. Brunner, 26 N.J. 82, 93, 138 A.2d 713, 718 (1958) ( "No market place exists at which ... malaise is bought and sold. A person can sell quantities of his blood, but there is no mart where the price of a voluntary subjection of oneself to pain and suffering is or can be fixed."); see also 8 AMERICAN JURISPRUDENCE PLEADING & PRACTICE FORMS 278 (1982) (standard jury instruction stating that "[p]ain and suffering have no market value; they are not capable of being exactly and accurately determined; and there is no fixed rule or standard whereby such damages can be measured").

[FN30] See Miller, Willingness to Pay Comes of Age: Will the System Survive?, 83 N.W. U.L. REV. 876 (1989); Viscusi, Pain and Suffering in Product Liability Cases: Systematic Compensation or Capricious Awards?, 8 INT'L REV. L. & ECON. 203 (1988).

[FN31] The dollar value of nonpecuniary loss is equivalent to the difference between what people are willing to pay to avoid a particular risk or injury or death and the solely financial component-- medical expenses, lost earnings-- associated with that risk. For example, even someone fully insured against economic losses is nonetheless willing to pay for some safety measures and will require a wage premium to run risks at work. Such behavior shows the economic value of "non-economic" losses. See generally Miller, supra note 30; Viscusi, supra note 30. See also infra notes 100-05 and accompanying text.

[FN32] Compare Chiarello v. Domenico Bus Serv., 542 F.2d 883, 886 (2d Cir. 1976) (discount) with Ball v. Burlington N. Ry., 672 S.W.2d 358, 361 (Mo. App. 1984) (no discount). See generally D. DOBBS,supra note 11, § 8.8, at 574.

[FN33] See supra notes 12 and 29; see also McDonald v. Union Pac. Ry., 42 F. 579 (C.C.D. Colo. 1890), aff'd, 152 U.S. 262 (1894) ("[T]here is no price-list, there is no price-current, for pain, for human suffering .... The value that shall be put upon pain and suffering is left to [the jury and its] own good common sense and experience ...."). One standard jury instruction nearly apes the language affirmed by the Supreme Court in McDonald, telling the jury "that the law cannot give you a precise formula or yardstick ..., but the law contemplates that twelve intelligent jurors, exercising common sense and calling upon their experiences in life, can satisfactorily fix and determine a proper award of money ...." 8 AMERICAN JURISPRUDENCE PLEADING & PRACTICE FORMS 278 (1982).

[FN34] See Zelermyer, Damages for Pain and Suffering, 6 SYRACUSE L. REV. 27 (1954).

[FN35] In the aftermath of a 1979 airplane crash, one expert estimated that the likely awards for the deaths of people of identical age and background ranged from a low of $10,000 to a high of $2 million, depending on the varying legal rules in different states. Warren, How Much is a Human Life Worth?, Chicago Sun-Times, May 25, 1980, at 5, col. 1 (cited in ABA COMM. REPORT, supra note 9, at 2-26).

[FN36] See generally M. BROOKSHIRE, supra note 16. Most large awards involve very substantial amounts for future economic and non-economic losses. Juries have discretion concerning the discount rate to apply in the face of conflicting expert testimony. When calculating losses over a plaintiff's expected lifetime (at the extreme, perhaps 75 years for a child injured at birth), the present value depends greatly on whether the discount rate net of inflation is, say, 2% or 4%--either of which could be justified depending upon different assumptions about appropriate rates or future developments.

[FN37] See 5 M. BELLI, MODERN TRIALS §§ 64.1-65.0 (2d ed. 1982). Mr. Belli claims to have devised the "dollar a day pain and suffering" rule. Id. § 64.1, at 3.

[FN38] Most courts allow the use of such a mathematical formula, although a few do not, fearing that it lends an inappropriate aura of precision. D. DOBBS, supra note 11, at 545-48.

[FN39] PROSSER & KEETON, supra note 10, at 469-75.

[FN40] Id. at 475-77. Statutory modification of the traditional joint and several rule of liability has been a popular tort reform, especially in the 1980s. Id. at 475 nn.59-60; see also Bovbjerg, supra note 4, at 526-27, 539.

[FN41] C. MCCORMICK, supra note 11, § 16, at 64 (jurors are not permitted to compromise among themselves nor agree on a "quotient" process--i.e., to average the damage assessments of the 12 jurors): accord 8 AMERICAN JURISPRUDENCE PLEADING & PRACTICE FORMS 267 (1982) (Form 137: "In arriving at your verdict you must not make a compromise

between the question of liability and the amount of damages, if any.").

[FN42] See City of Newport v. Fact Concerts, Inc., 453 U.S. 247, 256 n.12 (1981) ("Ordinarily, an error in the charge is difficult, if not impossible, to correct without retrial, in light of the jury's general verdict.").

[FN43] See C. MCCORMICK, supra note 11, § 16 (noting that courts protect jury verdicts from attack by making it hard for jurors to impeach their own verdicts later and limiting appellate review of a trial court's refusal to grant a new trial): see also District of Columbia v. Woodbury, 136 U.S. 450 (1890) (amount of damages is a jury question, to be determined in view of the circumstances of each particular case).

[FN44] C. MCCORMICK, supra note 11, § 19.

[FN45] Id. §§ 16-19. One classic formulation would allow remittitur only where damages are "flagrantly outrageous" or "extravagant," showing the jury to have acted from "passion, partiality, prejudice, or corruption." 22 AM. JUR. 2D Damages § 1022 (1988).

[FN46] Judges do have the benefit of some level of experience with prior cases, though, and may hear post-verdict argument regarding the results in similar cases.

[FN47] Not all appeals filed result in appellate decisions, of course; rather, most are settled or dropped. According to a major systematic study, post-trial adjustments are made to 20% of all jury verdicts (including defense verdicts) and 25% of plaintiff verdicts; almost all adjustments are reductions. M. SHANLEY & M. PETERSON, POSTTRIAL ADJUSTMENTS TO JURY AWARDS 26-27 (Rand Corp. No. R-3511-ICJ, 1987) (based on random sample of verdicts from Chicago, San Francisco, and selected California counties). Of the reductions, 62% result from private settlement, 23% from court action, and 13% from collection problems; of the court actions, most occurred on motion to the trial court, rather than through the appeals process. Id. at 45-46. Shanley and Peterson do not report what proportion of verdicts are appealed. Among closed malpractice claims from Florida (1985-88), 4,759 closed after suit but before verdict, 696 closed at verdict, and 66 closed on appeal. Sloan & Hsieh, Variability in Medical Malpractice Payment: Is the Compensation Fair?, Table 2 (forthcoming).

[FN48] Appellate courts generally will not intervene in a trial court's decision unless there is "clear abuse" of discretion, e.g., Bingaman v. Grays Harbor Community Hosp., 103 Wash. 2d 831, 699 P.2d 1230 (1985), and are to view the evidence in a light favorable to upholding the judgment of the trial court, e.g., Seffert v. Los Angeles Transit Lines, 56 Cal. 2d 498, 507, 364 P.2d 337, 342, 15 Cal. Rptr. 161, 166 (1961).

[FN49] See Zelermyer, supra note 34, at 27-30. On review, appellate courts may consider the size of awards in similar cases. See, e.g., Precopio v. Detroit Dep't of Transp., 415 Mich. 457, 473-81 & nn.29-30, 330 N.W.2d 802, 809-13 & nn.29-30 (1982); Gaspard v. LeMaire, 245 La. 239, 257-59, 158 So. 2d 149, 155-56 (1963). On rehearing in Gaspard, however, the Louisiana Supreme Court disavowed the value of comparing awards in analogous cases. Id. at 264-72, 158 So.2d at 158-60; see also infra note 155.

[FN50] See M. SHANLEY & M. PETERSON, supra note 47, at 45-46.

[FN51] E.g., J. O'CONNELL, THE LAWSUIT LOTTERY 8-9 (1979).

[FN52] According to a recent nationwide survey, about 90% of malpractice claims were closed prior to verdict. U.S. GEN. ACCOUNTING OFFICE, MEDICAL MALPRACTICE: CHARACTERISTICS OF CLAIMS CLOSED IN 1984 37, Table 2.20 (1987) [hereinafter GAO STUDY].

[FN53] The ABA Special Committee on the Tort Liability System found it "lamentable that the system yields dissimilarities in treatment of cases which appear to be the same." ABA COMM. REPORT, supra note 9, at 4-143. See also generally W. BLUM & H. KALVEN, PUBLIC LAW PERSPECTIVES ON A PRIVATE LAW PROBLEM (1965) (addressing the variety of approaches proposed to handle auto accident injuries and compensation).

[FN54] The ABA Committee Report, in addressing concerns about unequal damage awards for similar injuries, focused on

the use of legal theories (e.g., strict liability versus negligence). ABA COMM. REPORT, supra note 9, at 4-140 to 4- 145. Recognizing the tension between the axiomatic command to treat like cases alike and the system's failure to achieve such outcome uniformity, the committee "rational"-ized this phenomenon by concluding that the process as a whole worked to permit courts to "confront[] social and technological change ... in ... diverse factual situations." Id. at 4-143.

[FN55] Id. In 1986,. the property/casualty insurance industry collected $176.5 billion in premiums. INSURANCE INFORMATION INST., INSURANCE FACTS: 1987- 88 PROPERTY/CASUALTY FACT BOOKKKK 16 (1987).

[FN56] See, e.g., P. HUBER, LIABILITY: THE LEGAL REVOLUTION AND ITS CONSEQUENCES (1988). Much is made of the argument that the open-ended threat of very high awards hurts defendants in negotiation, but this effect is easily exaggerated. Equally overemphasized are the anecdotal reports of seemingly frivolous cases that result in large jury awards or settlements. See, e.g., Sorry, Your Policy Is Canceled, TIME, Mar. 24, 1986, at 16.

[FN57] There is relatively little dispute about the generally rising frequency of insurance claims and litigation through the mid-1980s. See, e.g., Danzon, The Frequency and Severity of Medical Malpractice Claims: New Evidence, 49 LAW & CONTEMP. PROBS. 57 (Spring 1986); Priest, The Current Insurance Crisis and Modern Tort Law, 96 YALE L.J. 1521 (1987). However, the precise reasons people bring liability claims are unclear, at least for medical malpractice. Numerous factors other than the injury seem to affect the probability of a claim being made. See Zuckerman, Koller & Bovbjerg, Information on Malpractice: A Review of Empirical Research on Major Policy Issues, 49 LAW & CONTEMP. PROBS. 85, 94-97 (Spring 1986). And the frequency of insurance claims has fallen as unexpectedly as it has risen--notably, in the aftermath of the publicity and legal reforms generated by the 1970s malpractice crisis and the 1980s general liability crisis. See Bovbjerg, supra note 4, at 510-11, 551-52; Schiffman, Medical-Malpractice Insurance Rates Fall: Drop in Number of Claims Cuts Insurers' Costs, Wall St. J., Apr. 28, 1989, at B1, col. 3; Malpractice: The Tide Recedes, THE ECONOMIST, June 24, 1989, at 29.

[FN58] Both sides, of course, must bear the costs of litigation, which affect total losses and gains, but neither insured defendants nor plaintiffs represented on a contingent-fee basis bear many of those costs directly.

[FN59] See J. O'CONNELL, supra note 51, at 18-19, 28. Professor O'Connell recounts numerous examples of the dynamics of settlement negotiations, including a malpractice case involving an infant in which the defendant hospital raised its settlement offer from $85,000 (made after the claim was filed) to $425,000 (after ten days of trial). Both figures were rejected. While the jury was out, the defendant agreed to a compromise figure of $500,000, only to learn that the jury was about to exonerate the hospital. Id. at 3-4.

[FN60] Discussion often highlights million dollar awards. See, e.g., M. SHANLEY & M. PETERSON, COMPARATIVE JUSTICE: CIVIL JURY VERDICTS IN SAN FRANCISCO AND COOK COUNTIES, 1959-1980, at 27-29 & Fig. 9 (Rand Corp. No. R- 3006-ICJ, 1983). This and other Rand research on jury verdicts note that million dollar verdicts were almost nonexistent in these two jurisdictions in the early 1960s, but account for most of the dollars awarded by juries today. Id.; see also M. PETERSON & G. PRIEST, THE CIVIL JURY: TRENDS IN TRIALS AND VERDICTS, COOK COUNTY, ILLINOIS, 1960-1979 20-29 (Rand Corp. No. R-2881-ICJ, 1982); M. PETERSON, CIVIL JURIES IN THE 1980S: TRENDS IN JURY TRIALS AND VERDICTS IN CALIFORNIA AND COOK COUNTY, ILLINOIS 33, 37, 52-53 (Rand Corp. No. R-3466-ICJ, 1987). These are high-award jurisdictions, and amounts paid in settlement (pre- or post-verdict) are typically less.

[FN61] See supra notes 25-26 and accompanying text. Some legislatures initially even set low ceilings on recovery for wrongful death. D. DOBBS, supra note 11, § 8.5. In the era of the original statutes, death was the common catastrophic injury. Modern medical care, however, has created the truly catastrophic event--survival from injury in debilitated condition and in need of continuing, expensive medical attention. These injuries claim the highest recoveries. See infra Table 2; GAO STUDY, supra note 52, at 41, Table 3.3.

[FN62] See, e.g., P. HUBER, supra note 56; 4 WORLD & I (1989) (symposium on the tort crisis published by the Washington Times); Sorry, Your Policy Is Canceled, supra note 56.

[FN63] See, e.g., U.S. TORT POLICY WORKING GROUP, AN UPDATE ON THE LIABILITY CRISIS 34-41 (1987)

(assembling data compiled by Rand Corp. and Jury Verdict Research, Inc.); M. SHANLEY & M. PETERSON, supra note 60, at 26-36.

[FN64] The mid-1970s crisis in medical malpractice coverage and the mid- 1980s general liability upheaval have been thoroughly chronicled. See generally P. DANZON, MEDICAL MALPRACTICE: THEORY, EVIDENCE, AND PUBLIC POLICY (1985); S. LAW & S. POLAN, PAIN AND PROFIT: THE POLITICS OF MALPRACTICE (1978); Bovbjerg, supra note 4, at 501-10; Harrington & Litan, Causes of the Liability Insurance Crisis, 239 SCIENCE 737 (1988); Priest, supra note 57; Robinson, The Medical Malpractice Crisis of the 1970's: A Retrospective, 49 LAW & CONTEMP. PROBS. 5 (Spring 1986). For a review of empirical evidence on the existence of a crisis, see generally F. SLOAN & R. BOVBJERG, MEDICAL MALPRACTICE: CRISES, RESPONSE, AND EFFECTS ON HEALTH CARE & COVERAGE (1989) (Research Bulletin from the Health Insurance Association of America.

[FN65] One study of cases in Chicago and parts of California found that jury awards were altered after trial, typically by a reduction, in about 20% of cases. Very large were even more likely to be reduced. As a result, payments averaged only 71% of the initial jury award. M. SHANLEY & M. PETERSON, supra note 47, at 17-47.

[FN66] See infra notes 82-85 and accompanying text.

[FN67] It seems clear that the severity of insurance claims, that is, the average payment per claim, has risen rather steadily for some time. See Danzon, supra note 57. But the cost of living has also grown, and the injury severity, that is, the extent of real damage done, has also been subject to change. Controlling for inflation and injury severity, there are indications that the growth in awards has not been extensive, at least for medical malpractice. Sloan & Hsieh, supra note 47.

[FN68] See infra notes 100-06 and accompanying text.

[FN69] According to common wisdom, pain and suffering damages are perceived to comprise a high proportion of large awards. Trebilcock, The Social Insurance-Deterrence Dilemma of Modern North American Tort Law: A Canadian Perspective on the Liability Insurance Crisis, 24 SAN DIEGO L. REV. 929,964 (1987). There is some evidence to the contrary. See NAT'L ASSOC. OF INS. COMM'RS, MALPRACTICE CLAIMS: FINAL COMPILATION 48-66 (M. Sowka ed. 1980) [hereinafter NAIC STUDY]; accord Sloan & Hsieh, supra note 47 (malpractice indemnity payments in Florida rise by less than a dollar for every additional dollar of economic loss, implying that large awards have smaller non-economic component).

[FN70] The Rand Corporation's Institute for Civil Justice abstracted personal injury cases from jury verdict reporters covering Chicago, San Francisco, and some other parts of California. See,e.g., M. PETERSON, supra note 60; see also M. PETERSON & G. PRIEST, supra note 60; M. SHANLEY & M. PETERSON, supra note 60. In cooperation with Rand, we used a similar data collection format to abstract jury verdict data for Florida and Kansas City. We, but not Rand, used the nine-point injury severity scale described in Table 1, infra. Rand used a five-point scale and a severity of injury index. Because we prefer the nine-point scale, we have limited our empirical analysis in this Article to data from the Florida and Kansas City reporters; because we are presenting scheduling reforms for jurisdiction-by-jurisdiction adoption, the text is limited to analysis of our larger jurisdiction, Florida.

[FN71] A national 1977 product liability database has been used in several studies by Duke University economist W. Kip Viscusi. See,e.g., Viscusi, supra note 30. Two national databases covering malpractice settlements are also available. See NAIC STUDY, supra note 69 (data on claims closed between 1975 and 1978); GAO STUDY, supra note 52 (data on claims closed in 1984). Some states also require insurers to report medical malpractice claims to their respective state departments of insurance. See, e.g., Cal. Bus. & Prof. Code § 801(b)(West Supp. 1989); Ind. Code Ann. § 16- 9.5-6-1 (West 1984 & Supp. 1989). We have analyzed data from 1976-88 on closed malpractice claims in Florida. See Sloan & Hsieh, supra note 47.

[FN72] So as to increase the number of observations for empirical analysis, we also merged Florida and Kansas City compilations. The results were not materially different and are not presented here.

[FN73] See, Sloan & Hsieh, supra note 47.

[FN74] See NAIC STUDY, supra note 69, at 10.

[FN75] For temporary injuries, the duration of injury is the major classification factor. The terms "recovery delayed" and "no delay" reflect the scale's origins in medical malpractice, in which patients already under medical care claim further injury due to alleged negligence by their health care provider.

[FN76] This category is least satisfactory because it encompasses an extremely wide range of harm. Unlike the categories of physical injury, the "fright" category lumps together temporary, minor distress (e.g., a relative's fainting in the hospital at the sight of blood) with much more serious, long term psychological damage (such as that likely caused a patient raped by a medical provider).

[FN77] E.g., GAO STUDY, supra note 52; Sloan & Hsieh, supra note 47.

[FN78] Data came from two Florida jury verdict reporters (covering the entire state) and from a Kansas City reporter (covering the two-state metropolitan area); both state and federal court verdicts are included. About two-thirds of the cases come from the larger jurisdiction, Florida; the Kansas City data is included to create a larger pool of observations for statistical examination. Our regression analysis is controlled for the jurisdictional effect on valuation. Cases included auto injuries, medical malpractice, products liability, and all suits against governmental defendants. We coded the data using modified versions of the latest Rand Corporation forms and coding instructions. For a description of verdict reporters and the coding process, see M. PETERSON & G. PRIEST, supra note 60, at 61-69. All jury determinations are stated as full damage awards, adjusted for findings of comparative negligence. Note that this is not the same as actual payment made in the cases. See supra note 65 and accompanying text. All amounts are expressed as thousands of 1987 dollars (brought to current value by the Consumer Price Index).

[FN79] Only one case involved emotional injury that was unaccompanied by physical harm; thus, the "emotional only" category cannot be separately considered in our analysis of jury awards. For malpractice insurance payments, however, category 1 injuries generally result in higher payment than those in category 2. Sloan & Hsieh, supra note 47.

[FN80] One significant factor is jurisdiction. In our data base, award values in Florida cases alone are higher than those presented in Table 2, which combines data from Florida and Kansas City to increase the statistical reliability. For instance, the mean for all Florida awards is $552,000 rather than the $490,000 reported in Table 2. On other influential factors, see infra notes 84-85.

[FN81] For the regression analysis supporting this statement, see Bovbjerg, Githens & Sloan (forthcoming). A similar analysis using only malpractice data, but also including settlements, appears in Sloan & Hsieh, supra note 47.

[FN82] The variation coefficient is quite large for settlements within any given severity category, and the coefficients are similar for available data on jury verdicts and on settlements. See id.

[FN83] To avoid giving the extreme awards undue statistical prominence, Table 2 omits the 5% of values farthest from the median. Part of the extremely wide variation in these severity level distributions is due to combining relatively higher Florida valuations with relatively lower Kansas City ones. Another factor may be selective reporting of jury awards in the verdict reporters; plausibly, plaintiff attorneys are likely to overreport large awards, while the defense overreports small ones. Similar variations, however, exist in the Florida malpractice closed claim data base, see Sloan & Hsieh, supra note 47, which includes all insurance payments in the state. Moreover, Kansas City awards are consistently lower than Florida ones, although only urban courts are in the former area and many rural ones are in the latter. Subsequent regression results see infra note 156, control for jurisdiction.

[FN84] Injury severity, age, economic loss, and other objective factors used in our analysis mainly relate to the outcome of an injury and the prognosis for the future (e.g., lifetime care). By hypothesis, these factors should be reasonably accurate predictors of the economic consequences of an injury. But suffering and other nonpecuniary damages may also arguably relate to the process of injury. For instance, one may reasonably suppose that more short-run suffering occurs when an injured person is trapped in wreckage for many hours after an auto accident than when the identical injury occurs under general anesthesia in the course of surgery. This argument, however, is less persuasive with regard to injuries involving

ongoing suffering.

[FN85] A large part of the observed variation in awards, however, plausibly reflects errors in awards, that is discrepancies between the amount awarded and the plaintiff's actual losses, or at least what a more typical jury would have awarded. Of course, juries cannot presently be told what other juries have awarded in similar cases.

[FN86] There is no mechanism for even monitoring, much less assuring, horizontal equity across cases. Cf. D. DOBBS, supra note 11, at 550 (wide variations in awards for pain and suffering raise "substantial doubts whether the law is evenhanded in the administration of damage awards"). Where outcome variation is too extreme, it may be unconstitutional, as small criminal juries have been held to be. See Ballew v. Georgia, 435 U.S. 223, 235 (1978) (holding five-member criminal jury to be unconstitutional denial of sixth and fourteenth amendment right to jury trial, after reviewing social science research raising "significant doubts about the consistency and reliability of the decisions of smaller juries").

[FN87] See generally Mistretta v. United States, 109 S.Ct. 674 (1989) (upholding constitutionality of federal sentencing guidelines); Prisons: There Must Be a Better Way, THE ECONOMIST, Apr. 22, 1989, at 29-30 (general overview).

[FN88] See G. CALABRESI, supra note 9.

[FN89] This argument assumes, plausibly, that physicians and other defendants are risk averse; if they were not, they would not buy insurance. It may also explain physicians' apparent belief in the need for defensive medicine. See Danzon, The Medical Malpractice System: Facts and Reforms, in THE EFFECTS OF LITIGATION ON HEALTH CARE COSTS 28, 29-30 (1985).

[FN90] See Priest, supra note 57, at 1568; Steptoe, Dispirited Doctors: Hassles and Red Tape Destroy Joy of the Job for Many Physicians, Wall St. J., Apr. 10, 1987, at 1, col. 1. Not all changes in medical practice result from liability fears, however. See F. SLOAN & R. BOVBJERG, supra note 64, at 24-37.

[FN91] See Ulen, The Economics of the Tort Liability Crisis, 4 WORLD & I 507, 507-08 (1989).

[FN92] Trials results may be more predictable, however, than the variation shown in Table 2 indicates.
The table does to some degree reflect true differences in losses among cases--differences known to the parties, but unobservable through analysis of the jury verdict reporters. Nonetheless, to the extent that part of the award variation reflects errors in valuation, such errors impede settlement because the resulting unpredictability makes it more difficult for the parties to agree on damages. The more similar their pretrial expectations, the more likely the parties to settle--and at far less cost to themselves and the system. Were there more general agreement on the rules and likely amount of damages in particular cases, one major element of the system's expense could be considerably reduced. See Wittman, Dispute Resolution, Bargaining, and the Selection of Cases for Trial: A Study of the Generation of Biased and Unbiased Data, 17 J. LEGAL STUD. 313 (1988).
Of course, unpredictable results may make risk-averse parties more willing to settle, thereby saving litigation costs. See Fournier & Zuehlke, Litigation and Settlement: an Empirical Approach, 71 REV. ECON. & STATISTICS 189 (1989). Fournier and Zuehlke suggest that defendants are more risk-averse than plaintiffs. Id. at 193. In one sense, this result is plausible. Some defendants-- physicians in medical malpractice cases and firms in product liability cases, for example--may have much to lose in terms of damaged reputations. In Viscusi's analysis of risk aversion in the contest of product liability, however, the firm is risk neutral and the plaintiff is assumed to be risk averse. Viscusi, Product Liability Litigation with Risk Aversion, 17 LEGAL STUD. 1.01 (1988). One could also argue that some plaintiffs' lawyers have a stake in establishing a reputation by winning big, while corporate defendants keep their reputations relatively unsullied by staying out of the newspaper. Clearly, there is room for much more empirical analysis of these issues.

[FN93] See J. KAKALIK & N. PACE, COSTS AND COMPENSATION PAID IN TORT LITIGATION 74 (Rand Corp. No. R-3391-ICJ, 1986) (net compensation paid claimants is 52% of total litigation expense for auto torts, 43% for other torts). Unsubstantiated claims exist up to four times as much is spent on litigation as on compensating injured victims of their survivors. E.g., Grad, Medical Malpractice and the Crisis of Insurance Availability: The Waning Options, 36 CASE W. RES. L. REV. 1058, 1088 (1986).

[FN94] The "allocated loss expense" (i.e., administrative cost) of malpractice insurers averaged 25.18% of total losses (indemnity plus allocated loss expense) during 1977-86; for commercial auto physical damages, 10.27%; for workers' compensation, 11.11%; and for health insurers, an average of only 3.9% (but 4.9% in 1986). See A.M. BEST CO., BEST'S AGGREGATES & AVERAGES, PROPERTY/ CASUALTY 88-91 (1987). Public health care programs, whose administration is even more straightforward, typically cost even less to administer--for Medicare and Medicaid, less than 5% of total spending. See HEALTH CARE FINANCING ADMINISTRATION, MEDICARE AND MEDICAID DATA BOOK (1986).

[FN95] "Shocks" resulting from unanticipated large awards would be especially difficult for small insurers (and self-insurers) to absorb. For an interesting analysis linking fluctuations in losses to cycles in the availability and price of liability insurance, see Winter, The Liability Crisis and the Dynamics of Competitive Insurance Markets, 5 YALE J. ON REG. 455 (1988).

[FN96] See U.S. TORT POLICY WORKING GROUP supra note 63, at 22-31.

[FN97] See GAO STUDY, supra note 52, at 19 (payments of $250,000 and more accounted for only nine percent of paid malpractice claims in 1984, but fully 61% of total indemnity paid).

[FN98] Traditionally, primary insurers seek "reinsurance" for large losses. Kramer, The Nature of Reinsurance, in REINSURANCE 1, 5-7 (R.W. Strain ed. 1980). Because there is literally no upper bound to damage awards, reinsurers are extremely concerned about participating to the high levels sought by primary insurers and their insureds, and insurance markets may contract, for the capital necessary to underwrite primary companies assuming the risk is simply not present. See Baker, The Purpose of Reinsurance, in REINSURANCE, supra, at 33, 41-42 (explaining the limitations of reinsurance). This may help explain the reduced availability of coverage for medical malpractice in the mid-1970s, and for all liability coverage in the mid-1980s.

[FN99] See R. MEHR & E. CAMMACK, PRINCIPLES OF INSURANCE 30-32 (1980) (pooling of risks to take advantage of "law of large numbers").

[FN100] See Miller, supra note 30, at 906-07.

[FN101] For an early symposium on this topic, see Valuing Lives, 40 LAW & CONTEMP. PROBS. 1 (Autumn 1976); for contemporary summaries, see W. VISCUSI, RISK BY CHOICE 93-113 (1983); Miller, supra note 30.

[FN102] See Sherrod v. Berry, 629 F.Supp. 159, 162-163 (N.D. Ill. 1985) (ruling that evidence on the "hedonic" value of life is admissible), rev'd, 856 F.2d 802 (7th Cir. 1988); see also Barrett, New Legal Theorists Attach a Dollar Value to the Joys of Living, Wall St. J., Dec. 12, 1988, at A1, col. 1.

[FN103] E.g., Sherrod, 629 F.Supp. 159 (N.D. Ill. 1985).

[FN104] E.g., Leiker v. Gafford, 978 P.2d 823 (Kan. 1989) (loss of enjoyment of life is not a separate element of damages); Nussbaum v. Gibstein, 73 N.Y.2d 912, 536 N.E.2d 618, 539 N.Y.S.2d 289 (1989) (same); Singleton v. Shur, No. 100,462 (Ohio App., May 18, 1989) (1989 WESTLAW 54383) (disallowing evidence of loss of enjoyment of life in wrongful death action).

[FN105] Miller, supra note 30, at 893.

[FN106] Because Table 2's values are derived predominantly from Florida, a high-award jurisdiction, the impact of recognizing value of life evidence would be even greater in most jurisdictions.

[FN107] Past enactments have generally addressed damage awards rather than standards for liability. Little attention has been paid to making the system more accurate, more predictable, or less expensive to administer. Some reforms have, however, addressed the high cost of administration. See Bovbjerg, supra note 4, at 531.

[FN108] See Danzon, Medical Malpractice Liability in LIABILITY: PERSPECTIVES AND POLICY 101, 118-79, 122

(R.E. Litan & C. Winston ed. 1988) (arguing that tort rules of damages are economically "inefficient" because they result in greater compensation than other compensation systems, and suggesting that malpractice damages be scheduled by age and severity of injury).

[FN109] See generally A. LARSON, WORKMEN'S COMPENSATION (rev. ed. 1989) (leading workers' compensation treatise).

[FN110] Cf. 4 F. HARPER, F. JAMES & O. GRAY, supra note 14, at 495 (asserting that society is moving toward a system of enterprise liability without fault, and with lower damages, in view of the speculative nature of many nonpecuniary items).

[FN111] The seminal book on this topic is R. KEETON & J. O'CONNELL, BASIC PROTECTION FOR THE TRAFFIC VICTIM (1965).

[FN112] The New Zealand Accident Compensation Act of 1972 created a nearly comprehensive no-fault system for compensating most injuries. See Accident Compensation Act, No. 181 (N.Z. 1982).

[FN113] In the medical malpractice arena, a similar trade occurred in the recent "no fault" statutes enacted by Virginia and Florida for the compensation of certain severely deformed newborns. See Fla. Stat. Ann. § 766.301- .316 (West Supp. 1989); Va. Code Ann. § 38.2-5000 to -5021 (1950 & Supp. 1989). In some jurisdictions, an increase in the number of claims paid may be a necessary quid pro quo for the constitutional validity of reforms that limit damages awardable or plaintiffs' prerogatives. See infra note 264.

[FN114] Experience rating is simply the insurance practice of raising or lowering premiums to reflect the number and amount of claims paid (and projected to be paid) over the life of a policy.

[FN115] Cf. Keeton, Compensation for Medical Accidents, 121 U. PA. L. REV. 590, 614-15 (1973) (arguing that uncertain causation makes medical malpractice inappropriate for no-fault reform). Keeton's view diverges from that of Professor O'Connell, see J. O'CONNELL ENDING INSULT TO INJURY: NO-FAULT INSURANCE FOR PRODUCTS AND SERVICES (1975), and the view that Keeton and O'Connell jointly endorsed with respect to auto accidents, see R. KEETON & J. O'CONNELL, supra note 111.

[FN116] E.g., Danzon, supra note 108, at 122-23.

[FN117] The American Medical Association has proposed a fault-based administrative payment scheme with partially scheduled damages that has been introduced in some state legislatures. See AMERICAN MEDICAL SOC'Y MODEL MEDICAL LIABILITY AND PRACTICE REFORM ACT (1989); AMERICAN MEDICAL SOC'Y, A PROPOSED ALTERNATIVE TO THE CIVIL JUSTICE SYSTEM FOR RESOLVING MEDICAL LIABILITY DISPUTES: A FAULT-BASED, ADMINISTRATIVE SYSTEM (1988).

[FN118] See infra notes 120-43 and accompanying text.

[FN119] This is demonstrated by Table 2, supra.

[FN120] Fein v. Permanente Medical Group, 38 Cal. 3d 137, 159, 695 P.2d 665, 680-81, 211 Cal. Rptr. 368, 383-84, appeal dismissed, 474 U.S. 892 (1985). It may also be argued that non-economic losses are not "real" damages and that many damage actions do not allow recovery for intangible losses. For example, mental suffering can attend breach of contract, yet is not generally compensable. There is much mental anguish occasioned by others that the law does not attempt to"monetize" and assign to its cause.

[FN121] E.g., J. O'CONNELL, supra note 115. Other commentators have also been critical of the present method of awarding non-economic damages, but have stopped short of calling for outright abolition. See Jaffe, Damages for Personal Injury: The Impact of Insurance, 18 LAW & CONTEMP. PROBS. 219 (1953) (disapproving of current method of computing damages); James, Some Reflections on the Bases of Strict Liability, 18 LA. L. REV. 293, 297 (1958) (opposing awards for pain and suffering when the cost is ultimately passed on to the innocent beneficiaries of the wrongdoer's enterprise); Morris,

Liability for Pain and Suffering, 59 COLUM. L. REV. 476, 495 (1959) (foreshadowing pressure by the insurance industry on legislatures to limit awards for pain and suffering); Plant, Damages for Pain and Suffering, 19 OHIO ST. L.J. 200, 210-11 (1958) (proposing ceiling on non- economic damages as a way of achieving greater award predictability); Seavey, Torts and Atoms, 46 CALIF. L. REV. 3, 11-12 (1958) (limit pain and suffering to cases of conscious wrongdoing and wrongful acts).

[FN122] Workers' compensation is the archetype for statutorily limiting non- economic recoveries in exchange for guaranteed recovery of economic losses. See 1 A. LARSON, supra note 109, § 1, at 1-4. "No-fault" automobile insurance is another example. See, e.g., Compulsory Motor Vehicle Liability Insurance, Mass. Ann. Laws ch. 90, § 34A (Law. Co-op. 1985) (first-in-nation provision originally enacted Aug. 13, 1970); see also R. Keeton & J. O'Connell, supra note 111.

[FN123] See O'Connell, Neo-No-Fault Remedies for Medical Injuries: Coordinated Statutory and Contractual Alternatives, 49 LAW & CONTEMP. PROBS. 125, 131-34 (Spring 1986); O'Connell, Offers That Can't Be Refused: Foreclosure of Personal Injury Claims by Defendants' Prompt Tender of Claimants' Net Economic Losses, 77 NW. U.L. REV. 589 (1982). Professor O'Connell has also proposed that plaintiffs forgo awards for pain and suffering in exchange for guaranteed payment of attorneys' fees. O'Connell, Proposal to Abolish Defendants' Payment for Pain and Suffering in Return for Payment of Claimants' Attorneys' Fees, 1981 U. ILL. L. REV. 333.

[FN124] E.g., P. DANZON, supra note 64, at 153, 160, 171.

[FN125] No health coverage, public or private, explicitly pays for non- economic damages; indeed, group health plans "coordinate benefits" where two or more plans are involved, to assure that they do not pay in excess of actual medical costs. See HEALTH INS. ASS'N OF AM., GROUP HEALTH INSURANCE 51-52, 224- 25 (1976). Private disability coverage typically pays less than actual wages lost, in recognition of taxes avoided and to encourage an early return to work and discourage malingering. Public disability programs not only pay small amounts but also impose significant "waiting periods" during which the injured party receives no support--five months for Disability Income under Social Security. See HOUSE COMM. ON WAYS & MEANS, 101ST CONG., 1ST SESS., BACKGROUND MATERIAL AND DATA ON PROGRAMS WITHIN THE JURISDICTION OF THE COMMITTEE ON WAYS AND MEANS 42 (Comm. Print 1989) [hereinafter WAYS & MEANS REPORT]. Note, however, that coordination of benefits rarely reaches the proceeds of individual health insurance coverage, and people often buy policies that advertise that benefits are "paid directly to you, not the hospital," thus recovering more than economic losses.

[FN126] Cf. P. HUBER, supra note 56, at 3-17 (unfairness of involuntary "tort tax").

[FN127] E.g., Danzon, supra note 108, at 114-16.

[FN128] This economic explanation of insurance essentially embodies a thought experiment. In buying coverage, an individual or household decides to pay a certain amount in the present to receive a right to payment following the uncertain contingency of a particular future loss. Thus, the policyholder moves wealth from the immediate world of today to a hypothetical world in which some calamity has occurred. The theory addresses the decision of how much to transfer from the "normal" world of no injury to the imagined postinjury state of affairs.

[FN129] See S. SHAVELL, ECONOMIC ANALYSIS OF ACCIDENT LAW 245-47 (1987).

[FN130] Viscusi & Evans, Utility Functions That Are Dependent on One's Health Status: Estimates and Economic Implications, AM. ECON. REV. (forthcoming). It remains hypothetically plausible, however, that some injuries result in increased marginal utility of wealth relative to the uninjured state. For example, a quadriplegic may desire to have special care and may need specialized, expensive equipment merely to engage in commonplace activities such as typing or watching television.

[FN131] If insurance companies could accurately assess these characteristics, they might respond simply by charging higher premiums, but such assessment is generally seen as too costly or even impossible. Generally, insurers have trouble distinguishing among persons based on probability of loss prior to the sale of coverage. See Hosios & Peters, Repeated Insurance Contracts with Adverse Selection and Limited Commitment, 104 Q. J. ECON. 229 (1989).

[FN132] Such behavior is not necessarily immoral, just normal self-interest. People naturally want more when someone else is paying. Cf. R. MEHR & E. CAMMACK, PRINCIPLES OF INSURANCE 20- 21 (1980) (both dishonesty and indifference to loss are forms of moral hazard).

[FN133] After the fact insurance valuation of non-economic damages might not be possible at all, for private insurers cannot impose their findings on policyholders in the same way a court can. To help control moral hazard, however, private insurers could "schedule" (ex ante, and as part of the policy) fixed amounts of compensation. See O'Connell, Harnessing the Liability Lottery: Elective First-Party No-Fault Insurance Financed by Third- Party Tort Claims, 1978 WASH. U.L.Q. 693, 698 n.27. Scheduled payments for non- economic loss would still invite exaggeration by claimants in order to move to a higher category of injury (and compensation), however.

[FN134] By way of deductibles and copayment requirements, for example.

[FN135] See WAYS & MEANS REPORT, supra note 125, at 40-44.

[FN136] See Restatement (Second) of Torts § 901 (1965).

[FN137] The best justification for our elaborate liability systems is its deterrent effect. As merely a system for compensating injured parties, it pays too few claimants after too long a delay and at a very high administrative cost. Cf. Bovbjerg, Medical Malpractice on Trial: Quality of Care Is the Important Standard, 49 LAW & CONTEMP. PROBS. 321, 328-35 (Spring 1986) (same point in medical malpractice context).

[FN138] See Fisher, Chestnut & Violette, The Value of Reducing Risks of Death: A Note on New Evidence, 8 J. POL'Y ANALYSIS & MGMT. 88 (1989); V.K. Smith, Public Choices and Private Risks: The Role of Economic Analysis 13-14, Benjamin H. Hibbard Memorial Lecture Series, University of Wisconsin-Madison (Oct. 21, 1988).

[FN139] To a certain extent, developments in damage law have already helped homemakers by allowing recovery for the loss of services, with evidence taken on the market cost of replacing household help. See, e.g., Rindahl v. National Farmers Union Ins. Cos., 352 N.W.2d 837 (Minn. Ct. App. 1984); Garza v. Berlanga, 598 S.W.2d 377 (Tex. Civ. App. 1980).

[FN140] See Miller, supra note 30, at 881-83.

[FN141] One survey asked persons to place a dollar value on different body parts lost in an accident. The values were amounts the respondents would have considered adequate compensation from an insurer. Responses varied widely according to the type of respondent. For example, daytime university students valued the loss of an eye, hand, or leg at a median of $50,000 (1971 dollars); the same body parts were valued at $500,000 by evening university students. Estimates by other groups were well below these figures. For instance, geriatric women valued the loss of a finger at a mere $75, and a leg at only $500. Plutchik, Conte & Weiner, Studies of Body Image II: Dollar Values of Body Parts, 28 J. GERONTOLOGY 89 (1973). Note, however, that many of these values (even the very low ones) might far exceed economic loss.
Another approach has been to apply statistical analysis to data on jury awards to measure pain and suffering. See Cohen, Pain, Suffering and Jury Awards: A Study of the Cost of Crime to Victims, 22 LAW & SOC'Y REV. 537 (1988). Cohen used data from Jury Verdict Research, Inc., to measure pain and suffering stemming from various criminally inflicted injuries. He appears to have subtracted the amount of economic loss from the total award. Then he regressed the estimated payment for "pain and suffering" on medical plus wage loss for various types of injuries. The regression for gunshot victims was:
pain and suffering = $17,957 + [$5.20 x (medical + wage loss)]
Id. at 542. The R2 and standard errors of estimates were not presented, but the R2 was said to be nearly one. Cohen used regression results and other data to estimate the mean value for pain and suffering associated with various kinds of injuries. In the examples provided, average pain and suffering loss far exceeded economic loss. For example, for gunshot wounds, the mean medical cost and lost wages was $3,844, compared to $59,344 for pain and suffering. Broken bones or teeth caused $1,700 in economic loss, but $15,273 in non- economic damage.
W. Kip Viscusi analyzed payments for pain and suffering using data from the Insurance Services Office (ISO) Product Liability Closed Claim Survey, containing data on all claims closed by 23 insurance companies during 1976-77. Viscusi, supra note 30, at 205. To obtain a measure of pain and suffering payment, Viscusi subtracted estimated economic loss from the total payment. When economic loss exceeded the total payment, he set the value of pain and suffering payment at zero.

He estimated two equations--a probit equation with the dependent variable set equal to one if payment was made for pain and suffering, and a tobit equation with the dependent variable defined as the natural logarithm of $1 + pain and suffering award. He added $1 to the payment because one cannot take the logarithm of a zero value. He included variables for causes of the loss (e.g., laceration, cancer, brain damage), financial loss, and legal theory used in the case, in addition to distinguishing characteristics of the claimant as explanatory variables. He found that payments for pain and suffering in product liability cases are not random, but are also not a constant mark-up of financial losses. Id. at 213. Rather, payments vary most systematically according to injury type (a proxy for severity of injury). Id. Pain and suffering payments were also higher for younger claimants and those who were married or had dependents. Id. at 212. These personal characteristics are likely to increase economic damages, too.

[FN142] See PROSSER & KEETON, supra note 10, at 19, 54-66, 359-67.

[FN143] D. DOBBS, supra note 11, at 550.

[FN144] Values are calculated by subtracting known economic losses from jury findings of total loss, adjusted for comparative negligence. Some variation may result from this technique, given that the jury verdict reporters do not give uniform data on economic loss and may or may not give present values. Moreover, some cases are lost to analysis altogether because they do not report whether there was any economic loss. We have located two other studies that similarly examine the extent of nonpecuniary damages using multiple regression analysis and similar data bases, although variability is not their focus. See Cohen, supra note 141; Viscusi, supra note 30.

[FN145] Again here, we combined data from multiple jurisdictions to increase the number of observations and improve statistical confidence in analytic results. However, simple tabulations are not tremendously different for the jurisdictions considered separately, and the patterns are similar, even though Florida awards are systematically higher than those in Kansas City. Consider, for example, that valuations for level 3 injuries in Table 3 vary from less than $500 to over $56,000 between the bottom and top 25% of awards. Considering cases from Florida alone, the range is more limited, but still extremely large: from $20,000 to $158,000 for level 3 injuries, and from $29,000 to $220,000 for level 5 injuries. These categories have enough cases to be statistically credible.

[FN146] Where a jury verdict reporter contained no statement about economic loss, the case was omitted from the analysis. See supra note 144.

[FN147] Cases falling two standard deviations from the mean, or at the 2.5% and 97.5% critical values.

[FN148] See infra notes 238-45 and accompanying text.

[FN149] Claims that are derivative to the principal bodily injury may call for a distinct variation in the suggested approaches. See infra note 236. In some special cases, an altogether different measure of damages may be appropriate. One such case is "wrongful birth"--in which the measure of damages is intrinsically different from conventional injuries. Other possibilities include claims primarily vindicating a legal right rather than making a claimant whole and deterring physical injury, such as medical "informed consent" cases.

[FN150] See infra notes 154-201 and accompanying text.

[FN151] See infra notes 202-210 and accompanying text.

[FN152] See infra notes 211-223 and accompanying text.

[FN153] We do not discuss an obvious, but less appropriate, form of "scheduling"--setting the non-economic award as a mark-up over economic losses, a more documentable amount. A standard negotiating ploy for personal injury lawyers is to seek as "general," or non-economic, damages some multiple of "special," or economic, damages. See H. ROSS, SETTLED OUT OF COURT (1970). Cohen and Viscusi have independently assessed the relationship between economic loss and payment for non-economic loss. See supra note 141; see also NAIC STUDY, supra note 69, at 48-51, Table 2.6 (non-economic "mark-up" over economic loss decreases for larger and more severe cases, with very large cases and severity

level 8 victims actually settling for less than economic loss). Obviously, no simple, fixed multiplier would be acceptable. Moreover, even a variable set of multipliers would fail to be acceptable. First, such a variable set of multipliers would assume that pain, suffering, and loss of enjoyment of life are higher for higher-income people (whose wage loss and medical bills, other things being equal, would be higher than for lower income people). Second, it would provide too great an incentive for malingering and other forms of moral hazard which would increase economic harm, and therefore potential economic and non-economic damage awards.

[FN154] For permanent injuries that shorten life expectancy, age may relate less well to duration of suffering. American courts have not traditionally allowed damages for lost expectation of life as such. See D. DOBBS, supra note 11, at 549.

[FN155] Many current award listings are arranged solely by body part. See, e.g., 5 M. BELLI, supra note 37, §§ 67.1-.10 (a leading plaintiff attorney's handbook for his brethren); Special Project, A Quantum Study of Pain and Suffering Awards for Personal Injuries in the Louisiana Appellate Courts (1983- 85) 31 LOY. L. REV. 889 (1986) (a survey of Louisiana appellate court holdings for pain and suffering awards); 22 AM. JUR. 2D Damages §§ 293-397 (1988) (encyclopedic listing).

[FN156] We based the regression analysis on jury verdict reporter data from Florida and Kansas City. See supra note 78. In addition to age and severity level, defined as sets of binary variables (zero-one variables), we included explanatory variables for: type of defendant (pure government, government and other, other only); type of case (product liability, auto, medical malpractice, other); and jurisdiction (Florida; Kansas City, Missouri; Kansas City, Kansas). We also included binary variables indicating whether or not the injury aggravated a pre-existing medical condition, where the case was tried (federal versus state court), and whether the case involved loss of consortium (including any similar derivative claims). The dependent variable, payment for non-economic loss, was defined as in Viscusi, supra note 30.
These are the key findings: The equation explains 62% of the variation in payment for non-economic loss (58% when the R2 is adjusted for degrees of freedom). Valuations are highest for persons having level 7 and 8 injuries (see Table 1 for definitions), and lowest for those in the severity 1 and 2 categories. The relationship between age and payment for non-economic loss is roughly an inverted U. Medical malpractice cases result in the highest awards, on average; the lowest awards come from auto liability cases. Payments are much higher in Florida than in the two Kansas City jurisdictions. Cases in which loss of consortium is claimed result in higher payment for non-economic loss. See also Bovbjerg, Githens & Sloan, supra note 81 (more detailed analysis across five jurisdictions, using Rand data from Chicago and California as well).

[FN157] If body part were to be used as a classifying variable, greater attention would need to be given to the number and definition of categories, as borderline cases would be more of a danger.

[FN158] We suggest a fifty-four cell matrix only for discussion purposes. One might well vary the nine point injury severity scale, creating ten severity levels by distinguishing between short- and long-term "emotional only" injuries, for example. See supra note 76 and accompanying text. Similarly, a distinction could be drawn between permanent injuries limited to disfigurement and those causing functional impairment. See infra note 205.
The number of age categories could also be expanded. In fact, we would prefer to add a seventh age classification for newborns under six months or a year old. Injuries to newborns are an important area of litigation, especially for medical malpractice, but our small data base made separate analysis of this area impracticable.

[FN159] Arguably, the severity categories also implicitly distinguish between short- and long-duration temporary injuries, as some severe, temporary injuries will inherently involve longer recovery periods than relatively minor, temporary injuries.

[FN160] Current jury verdict reporters, used in our research, are insufficient as now organized. A particular failing is the lack of information on post-verdict proceedings. We recommend creating a systematic public reporting system to compile this data. See infra notes 225-27 and accompanying text; see also Bovbjerg, Sloan & Blumstein, Two New Approaches for Assessing Tort Damages for Personal Injuries (submitted for publication).

[FN161] We suggest that state legislatures perform the sort of policy-minded review we have in mind. See infra notes 238-45 and accompanying text.

[FN162] The underlying empirical analysis uses data from both Florida and Kansas City, but we estimate values only for Florida. To construct Table 5 from our regression results, we multiplied the coefficients on the case type variables by their

respective means and set variables for Kansas City (Florida is the omitted reference category), pre-existing condition, loss of consortium, and federal court (state court is the omitted reference category) equal to zero.

[FN163] From the regression analysis, it is evident that jury awards are significantly lower in the Kansas City metropolitan area than in Florida. Awards are about the same in Chicago and a variety of California jurisdictions. See Bovbjerg, Githens & Sloan, supra note 81.

[FN164] See infra note 170 and accompanying text.

[FN165] See, e.g., M. SHANLEY & M. PETERSON, supra note 60, at xiii-xv, 30- 32; Bovbjerg, Githens & Sloan, supra note 81.

[FN166] In brief, the extent to which past award differences are legitimate or illegitimate is not clear. One hypothesis is that observed differences in valuation result from pretrial selection--that malpractice and product liability cases tried to verdict are somehow more severe than auto cases, for instance, in ways not captured by the nine-point severity scale and other objective measures of injury. A competing explanation is that jury sympathies are different in different types of cases, impacting recoveries at all levels of injury. See generally Bovbjerg, Githens & Sloan, supra note 81. To the extent that the former is true, adjustments to past results seem in order for any damages matrix to be employed in the future.

[FN167] Rand analyses of jury verdicts have found a racial effect, e.g., M. PETERSON, supra note 60, at 2-3. The persuasiveness of one's lawyer would also play a lesser role in influencing damages in a matrix scheduling regime than in a system in which attorneys document injury and losses.

[FN168] The latter categories are combined in Table 5 because, if taken separately, the number of observations in our data would be too small for statistical confidence.

[FN169] See supra notes 24-26 and accompanying text.

[FN170] Most post-trial adjustment is downward, so the total award values (relative values multiplied by the numeraire) are somewhat inflated. See M. SHANLEY & M. PETERSON, supra note 47, at viii, 16-17, 26-28.

[FN171] Awards might also be adjusted to account for other factors, particularly timing of payment. Even awards for non-economic damages are appropriately brought to present value. A state might also reduce scheduled values under other circumstances where not all the damages are attributable to the actions of the defendant, including revisions to the doctrine of joint and several liability making particular defendants liable for less than 100% of damage, a common tort reform. See Bovbjerg, supra note 4, at 526-27, 541. Regardless of current practice, states might consider reductions for claimants whose injury aggravated a pre-existing condition, for malpractice claimants who allege failure to diagnose a disease (for instance, cancer that progresses due to delayed treatment), and other areas in which there is joint causation or the defendant's action deprives the claimant of only a chance at being "whole," but not the reality of a normal life. See generally King, Causation, Valuation, and Chance in Personal Injury Torts Involving Pre-existing Conditions and Future Consequences, 90 YALE L.J. 1353 (1981) (proposing solutions to the "loss of change" dilemma in personal injury litigation).

[FN172] See supra note 41 and accompanying text.

[FN173] It seems undesirable, though technically feasible, to create a different payment schedule for pre-verdict settlements. The appropriate extent of compromise would vary widely by party assessments of liability issues, and by precisely when settlement occurred. Private negotiation is better suited to resolve such concerns than statistical analysis.

[FN174] This contention would be part of an equal protection attack on a point-value matrix. See infra notes 250-65 and accompanying text.

[FN175] Suggested factors should be suitable for use in scheduling-- objective, verifiable, and so forth.

[FN176] Although juries must ultimately quantify all factors, objective and subjective, used to make awards, they have the

advantage of operating after the fact and presently need not explain how they arrive at a given award value.

[FN177] The relative influence of this factor may well diminish as injuries become more severe. No matter how arduous the circumstances under which one incurs an injury, presumably these circumstances pale beside the enduring suffering accompanying such injuries as those resulting in lifetime quadriplegia.

[FN178] By "ordinary victim," we mean the victim whose sum total of subjective factors is within a normal range for people suffering similar injuries (e.g., experiences a normal amount of pain and suffering, possesses neither abnormal sensitivity or insensitivity to pain).

[FN179] This alternative to the point-value matrix is closely akin to adopting a sliding scale of ceilings and floors for awards. See infra notes 211-23 and accompanying text.

[FN180] Since the outlier theory recognizes that recoveries can be below or above average, one should also allow amounts below the minimum and above the maximum values shown in Table 5. How far below and above is a matter of judgment. Halfway to the next cell does not work, for there is no next cell at the margins. Perhaps the increment should be scaled to the other differences between adjacent cells in that severity category.

[FN181] If a state should balk at the concept of specifying jury assessments either as point values or as relatively narrow ranges, an alternative would be to use the ranges as a means of providing information about previous awards to the jury or constraining their discretion. For example, awards within the approved range could be considered presumptively valid; awards outside the matrix-suggested range could require support by evidence showing the case to be atypical. This approach is analogous to establishing guidelines for judicial additur and remittitur.

[FN182] Logically, matrix-based awards could exceed the justifiable award level for low outlier cases. Thus, a state must decide whether to allow the reduction of awards in addition to increases.

[FN183] It does not seem feasible or desirable to require settlements to contribute to the pool. This approach to funding would also reward the parties for settling.

[FN184] For our proposal to create an ongoing data system, see infra notes 225-27 and accompanying text; see also Bovbjerg, Sloan & Blumstein, supra note 160.

[FN185] Either legislators or judges could take the lead in developing a matrix-based system of damage awards. For the roles of legislatures and courts, see infra notes 238-45 and accompanying text.

[FN186] See infra notes 224-37 and accompanying text.

[FN187] Miller, supra note 30.

[FN188] Miller estimates that the value of a lost life is between $1,000,000 and $3,000,000. Id. at 881-83. Adjustments to find the best value for legitimate nonpecuniary damages make the amount even more indeterminate. Overall, the studies range at least as widely as jury awards, with less variation in what they purport to measure. See also infra notes 198-201 and accompanying text.

[FN189] See W. LANDES & R. POSNER, THE ECONOMIC STRUCTURE OF TORT LAW 186- 87 (1987).

[FN190] See PROSSER & KEETON, supra note 10, at 942 n.24.

[FN191] See supra notes 25-26 and accompanying text.

[FN192] If some allowance is not made for rewarding plaintiffs and their attorneys, no cases will be brought and no valuable deterrence achieved. See S. SHAVELL, supra note 129, at 265-70. Similar suggestions have been made for punitive damages, whose raison d'etre is deterrence. See P. DANZON, supra note 64, at 171 & n.26. Some states already mandate that

part of any punitive damage award be placed in a fund. E.g. Colo. Rev. Stat. § 13-21-102(4) (1987) (one- third of punitive damages payable to state general fund); Iowa Code Ann. § 668A.1 (West 1987) (75% of punitive award payable to fund unless trier of fact finds willful and wanton act directed specifically at plaintiff).

[FN193] See infra notes 225-27 and accompanying text.

[FN194] See supra notes 182-83 and accompanying text.

[FN195] See infra notes 211-15 and accompanying text; see also infra note 264. Moreover, as a practical legal matter, the maturing of the value of life literature may raise death awards anyway, perhaps in the form of allowing recovery for "economic" value of loss of enjoyment of life, sometimes called "hedonic" damages.But see supra note 104.

[FN196] The value of life literature should not be read as suggesting a single lump payment for any life lost. Uniform awards for all death cases (say, $2,000,000) are unacceptably crude, even accepting a given value as the "best estimate" of the statistically average life. Ted Miller's suggestion that life-year values be used, Miller, supra note 30, at 895, is sensible. However, considerable assumptions are needed to recompute the loss per life-year lost (e.g., making allowance for the age and possibly other demographic characteristics of the people at risk in the studies).
Moreover, adding a possible allowance for pain and suffering, id. at 894, would be problematic. When applying values so derived, one must further calculate precise years of life expectancy lost on an individual basis before finally making an award. This process can be accomplished with expert testimony, but as of now it remains a matter of jury factfinding, not a truly objective scheduling of values.

[FN197] "Value of life" studies are not "value of injury" studies. The better studies do separately estimate the values of injuries, but they do not sufficiently differentiate degrees of injury as a schedule does. See, e.g., Viscusi, Occupational Safety and Health Regulation: Its Impact and Policy Alternatives, in 2 RESEARCH IN PUBLIC POLICY ANALYSIS AND MANAGEMENT 281, 285 (J. Crecine ed. 1981) (value of a "typical job injury" is in the $20,000 to $30,000 range).

[FN198] See supra notes 105 and 108 and accompanying text. Despite this shortcoming, policymakers could decide to anoint a particular value as "correct" in a particular state.

[FN199] Cf. Miller, supra note 30. A seldom addressed additional complication comes from the assumption that an observed value of avoiding a risk of death can be divided by that risk to give the value of an entire life. In fact, valuations probably vary considerably by level of risk faced. See W. LANDES & R. POSNER, supra note 189, at 187-89.

[FN200] See M. DRUMMOND, G. STODDART & G. TORRANCE, METHODS FOR THE ECONOMIC EVALUATION OF HEALTH CARE PROGRAMMES 115-17, 122-23 (1987); Miller, Narrowing the Plausible Range Around the Value of Life (forthcoming 1990).

[FN201] See, e.g., Crane, Is That Malpractice victim Faking It?, MED. ECON., June 5, 1989, at 40 (insurers and defense attorneys estimate that only five percent or less of malpractice claims are "greatly exaggerated or outright phonies"). Crane recounts numerous incidents of exaggeration and even fraud by malpractice claimants, such as a plaintiff who claimed to be "unable to work, drive a car, or engage in sex or any strenuous physical activity," but was filmed hiking, swimming, and playing tennis. Id. at 40, 42-43.

[FN202] If mandatory, the scenario approach would work as a point-value matrix of as few as ten values. A predictable objection to mandatory application of such an approach is that ten values offer too little variation to adequately fit the award to circumstances. Hence, scenarios should operate as guideposts. Far more than ten may be created, but a smaller number would go to the jury in any given case. See infra notes 208-09 and accompanying text.

[FN203] See Miller, supra note 30, at 898.

[FN204] Id. at 898-99.

[FN205] Nondisabling disfigurement is difficult to accommodate within this or any other system because it is qualitatively

different from literal pain and affects enjoyment of life in a mental rather than physical way. It may be that a separate set of scenarios is needed for such cases, and they are extremely difficult to categorize. The same point holds true for the other scheduling approaches.

[FN206] See C. MCCORMICK, supra note 11, § 88, at 316 ("The various forms of mental suffering are as numberless as the capacities of the human soul for torturing itself.").

[FN207] Currently, juries must work from the relatively few "benchmarks" supplied by parties' arguments at trial. Such benchmarks include arguments that pain is worth a certain number of dollars per day. See supra notes 37-38 and accompanying text. Alternatively, parties employ expert doctors to testify that the plaintiff is, for example, 90% disabled or that his impairment is worse than that of three-quarters of the patients seen by the expert.

[FN208] For the standard severity scale, see supra Table 1. One might prefer 10 levels, providing different categories for permanent and temporary "emotional only" injuries. See supra note 76. Additional levels might be provided for disfiguring, but not disabling, injuries. See supra note 205.

[FN209] Sequential jury instructions would be easy to employ given the adoption of special verdicts as we recommend. See infra notes 231-34 and accompanying text. All evidence regarding liability and damages would be presented as part of this unitary proceeding.

[FN210] See, e.g., Cal. Civ. Code § 3333.2 (West Supp. 1989) ("noneconomic" loss cap of $250,000 in malpractice cases); Ohio Rev. Code Ann. § 2307.43 (Baldwin 1989) (cap on general damages in medical claims not involving death). The Ohio statute was held unconstitutional in Duren v. Suburban Community Hosp., 24 Ohio Misc. 2d 25, 495 N.E.2d 51 (1985).

[FN211] See Bovbjerg, supra note 4, at 525 nn. 115-17, 543 nn. 188-90. A recent malpractice task force report for the Department of Health and Human Services also recommended not a cap on all damages--like that applicable in then-Secretary Bowen's home state of Indiana--but rather a cap on non-economic damages only. U.S. DEP'T OF HEALTH & HUMAN SERVICES, REPORT OF THE TASK FORCE ON MEDICAL LIABILITY AND MALPRACTICE 130-32 (1987); see also U.S. TORT POLICY WORKING GROUP, supra note 63, at 80 (recommending $200,000 cap on non-economic damages). Note that as Governor of Indiana, Secretary Bowen had been a major supporter of that state's cap on overall malpractice awards, yet in his federal role recommended that states enact caps only on pain and suffering.

[FN212] Ohio's cap on "general damages" was declared unconstitutional because the cap limited economic damages and therefore violated due process and equal protection principles. Duren v. Suburban Community Hosp., 24 Ohio Misc. 25, 27-29, 495 N.E.2d 51, 55-56 (1985). But see Etheridge v. Medical Center Hosps., 237 Va. 87, 376 S.E.2d 525 (1989)(upholding total damages cap of $750,000).

[FN213] Of the 23 state enactments through calendar year 1987, four set a $250,000 cap and four others $500,000. See Bovbjerg, supra note 4, at 543 & n. 18; see also Boyd v. Bulala, 647 F.Supp. 781, 785 n.2 (W.D. Va. 1986) (listing states upholding and overturning all types of damage caps). The range caps is quite broad. See, e.g., Cal. Civ. Code § 3333.2 (Deering 1989)(1975 caps of $250,000 subsequently held constitutional in Fein v. Permanente Medical Group, 38 Cal. 3d 137, 695 P.2d 665, 211 Cal. Rptr. 368, appeal dismissed, 474 U.S. 892 (1985)); S.D. Codified Laws Ann. § 21-3-11 (1988)("total damages" caps of $1,000,000 in malpractice cases); Tex Rev. Civ. Stat. Ann. art 4590i, § 1103 (Vernon 1987)(1977 statute providing for cap of $150,000 on non-economic damages in malpractice cases to become effective if preffered $500,000 cap on total damages in § 11.02 were held unconstitutional); Wis. Stat. § 893.55 (1985-86)($1,000,000 cap on non- economic damages in malpractice cases). The Texas Supreme Court has held unconstitutional both the $500,000 cap on total damages and the fallback provision capping non-economic damages at $150,000. Lucas v. United States, 757 S.W.2d 687 (Tex. 1988).
Some state legislatures have had the foresight to "index" their damage caps for inflation. See, e.g., Mich. Comp. Laws Ann. § 600.1483(4)(west 1989); Mo. Rev. Stat. § 538.210 (1988).

[FN214] See generally F. SLOAN & R. BOVBJERG, supra note 64, at 18-24. Caps do not, however, guarantee reductions in overall awards. A ceiling may become a target or even a floor; in New Zealand, for example, a cap on non-economic damages quickly became the standard payment, perhaps in part because it was set quite low, at least by American standards.

See generally G. PALMER, COMPENSATION FOR INCAPACITY: A STUDY OF LAW AND SOCIAL CHANGE IN NEW ZEALAND AND AUSTRALIA 227 (1979). Moreover, caps can be circumvented because all damages are subject to wide variation in reasonable ranges and because the dollar-denominated components of awards are fungible. A jury (or judge) facing a cap on non-economic damages could readily increase the award amount for economic loss to make up the difference. See Green v. Franklin, 190 Cal. App. 3d 93, 103-04, 235 Cal. Rptr. 312, 322-23 (1987); Kalven, The Jury, the Law, and the Personal Injury Damage Award, 19 OHIO ST. L.J. 158, 161 (1958).

[FN215] Because of this unfair impact against the most severely injured plaintiffs, some reviewing courts have held flat caps to be unconstitutional, generally on equal protection grounds. Some courts have similarly been troubled by the application of caps to malpractice cases only. See infra notes 257-60 and accompanying text.

[FN216] There is to date one example of a flexible cap with varied limits for non-economic awards. See Wash. Rev. Code § 4.56.250 (1988)(held unconstitutional in Sofie v. Fibreboard Corp., 112 Wash. 2d 636, 771 P.2d 711 (1989), because of the statute's abridgment of the right to trial by jury). Washington's statute uniquely provided that claimants could not recover for non-economic damages in excess of a formula: 43% of the average annual wage in the state multiplied by the life expectancy of the injured person, counted as not less than fifteen years. According to one report, the resulting maximums ranged in 1986 from $117,000 to $573,000. American Med. Ass'n Dep't of State Legislation, Div. of Legislative Activities, Limits on Recovery (1987). This approach, however, relies too much on one factor, life expectancy, which is not even unambiguous in its expected impact on intangible losses. See Table 5, supra, and accompanying text. The relevant life expectancy under the statute was apparently that of a normal person, not that of the particular plaintiff, however enfeebled as a result of the injury or damage. It also took no account of the severity of the plaintiff's injury, the single most important variable.

[FN217] Most caps are not adjusted to account for changes in economic conditions over time, like inflation. But see Mich. Comp. Laws Ann. § 600.1483(4)(West 1989); Mo. Rev. Stat. § 538.210 (1988).

[FN218] Apparently, drafters of the California cap thought their $250,000 level would affect 5% of cases--in 1976. See Fein v. Permanente Medical Group, 38 Cal. 3d 137, 172, 695 P.2d 665, 690, 211 Cal. Rptr. 368, 393, appeal dismissed, 474 U.S. 892 (1985).

[FN219] Expenses of litigation yield a negative recovery in losing cases, but this risk is borne by contingent-fee attorneys in 85-98% of cases. J. KAKALIK & N. PACE, supra note 93, at 37.

[FN220] There is precedent for a floor for nonpecuniary damages. As a general rule, where special damages have been shown, general damages should also be awarded. 22 AM. JUR. 2D Damages § 42 (1988). A jury should be so instructed when a request is made, Wheeler v. Huston, 288 Or. 468, 480- 81, 605 P.2d 1339, 1346 (1980), and verdicts have been overturned for failure to include awards for pain and suffering in such cases. See, e.g., Webster v. City of Colfax, 250 Iowa 181, 93 N.W.2d 91 (1958).

[FN221] Legislators could, of course, opt for some other percentile.

[FN222] Applied by trial judges, sliding-scale caps and floors would closely resemble the traditional judicial process of reviewing a jury award for excessiveness or inadequacy. Indeed, legislatures would do well to pose the sliding scale in these familiar terms.

[FN223] The matrix, of course, aims to create less variable results in all cases, rather than merely cutting off the extremes.

[FN224] In addition to these practical concerns shared by all the proposed scheduling models, there are political and constitutional concerns that are addressed later in this Article. See infra notes 238-79 and accompanying text.

[FN225] Existing jury verdict reporters do not include information on all cases, nor are data verified and kept in a consistent format. Moreover, post- trial alterations are not included. Finally, and fundamentally, not all jurisdictions are even covered by existing reporters.

[FN226] Precopio v. Detroit Dep't of Transp., 415 Mich. 457, 471-72, 330 N.W.2d 802, 808-09 (1982).

[FN227] For a detailed exposition of this proposal, see Bovbjerg, Sloan & Blumstein, supra note 160.
States might also consider including information on settlements. Our proposal, however, focuses scheduling on the publicly determined valuations made by juries and judges. Those values are the only "official" determinations of the liability system, even though 90% or more of personal injury claims are settled, and expectations of the results of adjudication heavily influence settlements. So we recommend against including such data. Moreover, it is difficult to obtain accurate data and because too many external factors influence settlement amounts, including compromises on liability. According to research on malpractice claims, preverdict settlements pay less for all severity categories than do jury awards--though a higher proportion of malpractice claims settle than other types of claims. See Sloan & Hsieh, supra note 47.

[FN228] See supra text accompanying notes 185 and 221.

[FN229] For a longer exposition of this view, see Bovbjerg, Sloan & Blumstein, supra note 160.

[FN230] See infra notes 231-34 and accompanying text on special verdicts. Additor would appear to be unavailable in federal courts because of the seventh amendment. See Dimick v. Scheidt, 293 U.S. 474 (1935).

[FN231] Some tort reform statutes already mandate special verdicts. See, e.g., Cal. Civ. Code § 3333.2 (West Supp. 1989); N.Y. Civ. Prac. L. & R. 4111(d) (McKinney Supp. 1988).

[FN232] There is evidence that jury decisionmaking focuses more on reaching a single "bottom line" than on adding up separately calculated elements of damages. Kalven, supra note 214, at 161 (juries seldom make awards on an item- by-item basis, but rather usually arrive at a single dollar amount without detailed analysis).

[FN233] See Green v. Franklin, 190 Cal. App. 3d 93, 103-04, 235 Cal. Rptr. 312, 322-23 (1978) ("an instruction [on a damage cap] would only serve to increase the possibility that a jury may simply label damages that otherwise would have been denominated noneconomic as economic losses").

[FN234] Side-stepping of schedules by juries might also be minimized (though probably not eliminated) simply by instructing jurors that the schedules fairly and equally treat parties in similar circumstances and that the values have been derived from the hard work of prior jurors like themselves.

[FN235] Policymakers may also wish to modify schedule values to reflect other economic or social circumstances.

[FN236] See, e.g., Conn. Gen. Stat. Ann. § 52-190a (West Supp. 1989).

[FN237] See, e.g., Minn. Stat. § 549.21 (1988) (nonmeritorious claims only); Fla. Stat. § 768.56 (1981) (all losing suits). The Florida statute was upheld in Florida Patient's Compensation Fund v. Rowe, 472 So. 2d 1145 (Fla. 1985), but repealed by the state legislature in 1986.
Another cross-cutting issue, not considered in detail here, is how scheduling should deal with derivative claims, including suits for loss of consortium, support and so forth. Such claimants have not suffered actual bodily injury and hence cannot themselves be readily classified as to severity of injury. Most current award caps appear to cover all claims together, e.g., Wash. Rev. Code § 4.56.250(1)(B) (1988) ("loss of consortium ... and all other derivative claims ... are to be included"), and some judicial authority supports this approach, e.g., Yates v. Pollack, 194 Cal. App. 3d 190, 239 Cal. Rptr. 387 (1987) (applying single cap to all claims by multiple survivors), although such consolidation has been questioned. See Jordan v. Long Beach Community Hosp., 201 Cal. App. 3d 1402, 248 Cal. Rptr. 651 (1988) (opinion decertified for publication) (under state's cap on non-economic damages, limit applies to each separate and distinct cause of action). Obvious options include scheduling only one amount for nonpecuniary loss without regard to derivative claims, scheduling derivative claims separately, or allowing some percentage add-on for derivative claims. This Article takes no position on these issues, which call for more investigation.

[FN238] One exception is the regulation of lawyers' contingency fees, in which both judiciaries and legislatures have been active, the former under their power to control the bar. See, e.g., Florida Bar re Amendment to the Code of Professional Responsibility, 494 So. 2d 960 (Fla. 1986); Fla. Stat. Ann. § 766.109 (West Supp. 1989).

[FN239] See Andrews v. Grand & Toy Alberta, Ltd., [1978] 2 S.C.R. 229 (Can.); Thornton v. Board of School Trustees, [1978] 2 S.C.R. 267 (Can.); Arnold v. Teno, [1978] 2 S.C.R. 287 (Can.).

[FN240] Many policy choices must be made to implement a scheduling reform. Each jurisdiction must decide the general scheduling approach to adopt and make numerous specific design choices. For example, implementing a matrix-based reform requires agreement on at least the following: (a) that using age and injury severity as the only classifying variables is reasonable; (b) that the chosen categories for age and severity are appropriate; (c) that the aggregate wisdom of past awards is reasonable and should thus be institutionalized; (d) that the relative values computed from past jury findings are intuitively reasonable; (e) normative or other adjustments are needed to relativities; and (f) the dollar numeraire to apply in a given year. It is certainly conceivable that a state supreme court could "legislate" a scheduled approach to damages for pain and suffering, if only as a guide to additur and remittitur. A complex schedule seems more plausible as a matter of judicial administration, however, than as a decision in a single lawsuit.

[FN241] Fein v. Permanente Medical Group, 38 Cal. 3d 137, 158-60 n.16, 695 P.2d 665, 680-81 n.16, 211 Cal. Rptr. 365, 384 n.16, appeal dismissed, 474 U.S. 892 91985). The California Supreme Court cited with approval the dissent by Justice Traynor in Seffert v. Los Angeles Transit Lines, 56 Cal. 2d 498, 511, 364 P.2d 337, 345, 15 Cal. Rptr. 161, 169 (1961) (questioning the desirability of pain and suffering awards, but deferring to legislative judgment).

[FN242] A number of legitimate state interests underlie the scheduling proposals. The major policy concern is the fairness and efficiency of judicial administration of personal injury awards. The integrity of the judicial process itself may also be at risk in the absence of assurance that similar cases will receive similar results and undue variability in results may have a constitutional dimension.
A subsidiary public concern is the smooth functioning of liability insurance, traditionally a state-regulated industry. Without insurance, today's liability- compensation system could not function, and many businesses would not accept the legal risks of operating. Long-run legal predictability is desirable, especially to facilitate reinsurance of "long tail," high-dollar risks like medical malpractice and toxic torts. When awards change markedly without warning, as they can under the present, open-ended system, then long-run predictability is undermined. Improved legal stability will not necessarily end periodic short-term "crises" in insurance markets,however, and doing so is not the rationale of the proposals.
The fairness of compensation to injured parties also affects the public health, though less directly, as accident victims should be assured access to sufficient compensation for their losses. The public health is also affected by the ability of the tort system to maintain appropriate levels of deterrence to prevent injury in the first place. These concerns, of course, are best served by ensuring adequate, but not excessive, levels of compensation, both in individual cases and in the aggregate.

[FN243] It has been argued that federal action is necessary. Cf. Smith, Battling a Receding Tort Frontier: Constitutional Attacks on Medical Malpractice Laws, 38 OKLA. L. REV. 195, 229 (1985) ("vulnerability" of state tort reforms to state court constitutional attacks "suggests the wisdom of federal tort reform legislation"). Nonetheless, tort law is traditionally a state concern, and healthy federalism calls for keeping it so. See Blumstein, Medical Malpractice: Thinking About the Federal Role, 12 J. OF HEALTH & HUMAN RESOURCES ADMIN. 149 (Summer 1989). Moreover, we believe that our proposals would in fact pass state constitutional muster. See infra notes 250-79 and accompanying text.

[FN244] Moreover, substantial state legislative hearings might add to the political legitimacy of a system of scheduled nonpecuniary damages.

[FN245] In many states, one could expect joint legislative-judicial efforts. A legislature could enlist assistance from the state's judiciary through an advisory commission of sitting or recently retired judges. Legislative committees could also seek the advice of their state judiciaries acting in their administrative capacity. A hybrid legislative-judicial model of implementation is provided by the history of criminal sentencing guidelines, which addressed a similar problem of undue variation in legal results. See Mistretta v. United States, 109 S.Ct. 647 (1989).

[FN246] For examples of political and academic attacks, see Goddard, The American Medical Association Is Wrong: There Is No Malpractice Insurance Crisis, L.A. Daily J., May 17, 1985, at 97, col. 1; Cunningham & Lane, Malpractice--The Illusory Crisis, 54 FLA. B.J. 114 (1980).

[FN247] See F. SLOAN & R. BOVBJERG, supra note 64, at 1.

[FN248] Other advantages of our proposals for scheduling reform are institutional and practical. For example, we envision the seeds of some reform being nurtured in the judiciary, a notable change from past reliance on legislation alone. Coordinated reform benefits from both enhanced legitimacy and an increased likelihood of political viability and longevity, as demonstrated by the criminal sentencing guidelines.
The probability of long-term survival for our proposals is also enhanced by mechanisms that allow the scheduling reforms to respond to changes over time. Unlike most flat caps, which remain static and unaltered, we propose a system that not only provides for such basic things as inflationary adjustment, see supra note 235 and accompanying text, but also promotes monitoring and feedback by developing a comprehensive data base for information on awards. See supra notes 225-27 and accompanying text.

[FN249] A comprehensive analysis of constitutional issues is beyond the scope of this Article. As part of a discussion of implementation issues, however, a brief consideration of potential constitutional matters is important and appropriate. For more detail on constitutional principles applied to tort reforms, see Blumstein & Smith, Constitutional Attacks on Medical Malpractice Laws, in LEGAL LIABILITY AND QUALITY ASSURANCE IN NEWBORN SCREENING 167 (L. Andrews ed. 1985).

[FN250] The identification and establishment of an allegedly discriminatory set of classifications is a fundamental threshold requirement for a party to mount an equal protection challenge. This is not a trivial issue because our proposals do not single out for separate treatment any particular class of claimants, as happens under malpractice-only reforms and flat caps on damages.
Even so, plaintiffs presumably would assert that the categories set forth in a matrix or set of scenarios improperly classify the amount of damages allocable for pain and suffering. A complainant could argue that there is considerable overlap across categories that the schedules overlooks and that the use of age and injury severity as measures of pain and suffering is the use of an improper proxy for case-by-case damages assessment.

[FN251] See Boyd v. Bulala, 877 F.2d 1191, 1196 (4th Cir. 1989) ("a limitation on a common law measure of recovery does not violate a fundamental right or create a suspect classification"). It is extremely doubtful that any form of heightened scrutiny or even rationality review with bite would be applied. See Davis v. Omitowoju, 883 F.2d 1155, 1158-59 (3d Cir. 1989); Lucas v. United States, 807 F.2d 414, 421-22 (5th Cir. 1986); Hoffman v. United States, 767 F.2d 1431, 1435-37 (9th Cir. 1985); Continental Ins. Co. v. Illinois Dep't of Transp., 709 F.2d 471, 475 (7th Cir. 1983).

[FN252] See Dandridge v. Williams, 397 U.S. 471 (1970).

[FN253] See Minnesota v. Clover Leaf Creamery, 449 U.S. 456, reh'g denied, 450 U.S. 1027 (1981).

[FN254] There are some rare exceptions. See, e.g., Allegheny Pittsburgh Coal Co. v. County Comm'n, 109 S.Ct. 633 (1989) (invalidating a crazy quilt pattern of differential property taxation); Metropolitan Life Ins. Co. v. Ward, 470 U.S. 869 (1985) (holding illegitimate state's asserted purpose in differentially taxing in-state and out-of-state insurance companies).

[FN255] See Davis v. Omitowoju, 883 F.2d 1155 (3d Cir. 1989); Boyd v. Bulala, 877 F.2d 1191 (4th Cir. 1989).

[FN256] See generally Blumstein & Smith, supra note 249 (more detailed analysis of state constitutional challenges to past tort reforms).

[FN257] Arneson v. Olson, 270 N.W.2d 125 (N.D. 1978).

[FN258] Carson v. Maurer, 120 N.H. 925, 424 A.2d 825 (1980).

[FN259] See Bovbjerg, supra note 4, at 548.

[FN260] Fein v. Permanente Medical Group, 38 Cal. 3d 137, 695 P.2d 665, 211 Cal. Rptr. 368, appeal dismissed, 474 U.S. 892 (1985); Johnson v. St. Vincent Hosp., 273 Ind. 374, 404 N.E.2d 585 (1980).

[FN261] See, e.g., State ex rel. Strykowski v. Wilkie, 81 Wis. 2d 491, 507-10, 261 N.W.2d 434, 442-43 (1978).

[FN262] See, e.g., Hoffman v. Powell, -- S.C. --, 380 S.E.2d 821 (1989); Etheridge v. Medical Center Hosps., 237 Va. 87, 376 S.E.2d 525 (1989).

[FN263] Compare Leiker v. Gafford, -- Kan. --, 778 P.2d 823 (1989) and Samsel v. Wheeler Transp. Servs., Inc., 244 Kan. 726, 771 P.2d 71 (1989) with Farley v. Engelken, 241 Kan. 663, 740 P.2d 1058 (1987); see also Meech v. Hillhaven West, Inc., -- Mont. --, 776 P.2d 488 (1989) (overruling prior cases).

[FN264] Several jurisdictions have applied due-process-like principles under state constitutional open courts provisions to invalidate damage caps. See, e.g., Smith v. Department of Ins., 507 So. 2d 1080 (Fla. 1987); Kansas Malpractice Victims Coalition v. Bell, 243 Kan. 333, 757 P.2d 251 (1988); Lucas v. United States, 757 S.W.2d 687 (Tex. 1988). Under these cases, "when a common-law remedy is modified or abolished, an adequate substitute remedy must be provided to replace it." Kansas Malpractice Victims Coalition, 243 Kan. at --, 757 P.2d at 260. These courts substantively evaluate the fairness of the restriction, requiring that a cut-back in a common-law right be accompanied by a provision of a "reasonable alternative remedy or commensurate benefit." Smith, 507 So. 2d at 1088. Only if the state can show that there is an "overpowering public necessity for the abolishment of the right and no alternative method of meeting such public necessity" can the lack of a substantive quid pro quo be justified. Id.
Unlike the damages caps held invalid in Florida, Kansas, and Texas, our proposals are not takeaways, nor do they redistribute benefits from any burdened group or shift them to any subclass of potential beneficiaries. The proposals are designed to compensate all victims for non-economic losses fairly and in accordance with the severity of the injury adjusted for age. All three approaches work to counteract undervaluation of damages in addition to overvaluation. Moreover, under the matrix and scenario proposals, all plaintiffs will benefit to the extent that increased predictability promotes settlement and lowers litigation costs. There is, therefore, a mutual shared advantage without clearly identifiable winners or losers. No substantive common-law right is infringed or abolished, and the proposed alternatives to the existing system enhance overall fairness and predictability without disadvantaging, in the name of the common weal, any discrete and clearly identifiable group. For these reasons, our proposals would satisfy any quid pro quo requirements applied by the states.

[FN265] Compare Craig v. Boren, 429 U.S. 190 (1976) with Pickett v. Brown, 462 U.S. 1 (1983).

[FN266] Davis v. Omitowoju, 883 F.2d 1155 (3d Cir. 1989).

[FN267] Boyd v. Bulala, 877 F.2d 1191 (4th Cir. 1989).

[FN268] See, e.g., Kansas Malpractice Victims Coalition v. Bell, 243 Kan. 333, 757 P.2d 251 (1988); Sofie v. Fibreboard Corp., 112 Wash. 2d 636, 771 P.2d 711 (1989).

[FN269] See Etheridge v. Medical Center Hosps., 237 Va. 87, 376 S.E.2d 525 (1989) (upholding against jury trial challenge a total damage cap of $750,000 for malpractice cases).

[FN270] This is apparently contrary to the United States Supreme Court's interpretation of the Seventh Amendment. See Tull v. United States, 481 U.S. 412, 426 n.9 (1987) ("Nothing in the [Seventh] Amendment's language suggests that the right to a jury trial extends to the remedy phase of a civil trial.... We have been presented with no evidence that the Framers meant to extend the right to a jury to the remedy phase of a civil trial.")

[FN271] 112 Wash. 2d 636, 771 P.2d 711 (1989).

[FN272] The Virginia Supreme Court viewed damage caps precisely in this way--as a matter of substantive law--in Etheridge v. Medical Center Hosps., 237 Va. 87, 376 S.E.2d 525 (1989).

[FN273] The Virginia Supreme Court reasoned that since the legislatively mandated damages cap "does nothing more than establish the outer limits of a remedy provided by the [legislature]," and since "[a] remedy is a matter of law, not a matter of fact," a legislatively established cap on damages "does not infringe upon the right to a jury trial because [it] does not apply until after a jury has completed its assigned function in the judicial process." Id. at 270, 376 S.E.2d at 529. In sum, even if the

right to a jury trial includes the right to have a jury assess damages--a position apparently at odds with the United States Supreme Court's interpretation of the seventh amendment's jury trial provision, see supra note 270--that right does not include the right "to have a jury dictate through an award the legal consequences of its assessment." Id. at --, 376 S.E.2d at 529. In the context of a damage cap, the jury resolves the disputed facts and assesses damages. If the assessment of damages exceeds that which is authorized by law, then the judge must reduce the amount of the award to bring it into conformity with the provisions of the statutory maximum.

[FN274] Sofie v. Fibreboard Corp., 112 Wash. 2d 636, --, 771 P.2d 711, 721 (1989).

[FN275] Id. at --, 771 P.2d at 721.

[FN276] The Washington Supreme Court opined that, since the legislature had not done away with a cause of action or with the right of civil trial, it could not "deny[] litigants an essential function of the jury." Id. at --, 771 P.2d at 719. The statute in question in Sofie had the effect of "directly chang[ing] the outcome of a jury determination. The statute operates by taking a jury's finding of fact and altering it by a predetermined formula." Id. at --, 771 P.2d at 720. The consequence was to disregard the jury's deliberations, an unconstitutional encroachment of the powers and prerogatives of the jury.

[FN277] See Board of Regents v. Roth, 408 U.S. 564 (1972).

[FN278] See Cleveland Bd. of Educ. v. Loudermill, 470 U.S. 532 (1985) (rejecting the so-called "bitter-with-the-sweet" doctrine that allowed states to condition conferral of a "property" interest on acceptance of a specified procedure).

[FN279] Cf. Tull v. United States, 481 U.S. 412, 427 (1987) (Scalia, J., concurring and dissenting) (acknowledging a similar principle in the jury context: Congress can prescribe a fixed statutory amount of damages, but if it chooses not to set the specific amount, then the determination will be within the domain of the jury).

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