Assessments of Noneconomic Damage Awards in Medical Negligence: A Comparison of Jurors with Legal Professionals

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Many commentators accuse juries in medical malpractice cases of awarding excessive damages, especially for the noneconomic components of claims, such as pain and suffering. They make these accusations in the absence of rigorous empirical research. This Article reports a controlled experiment involving a medical negligence case, comparing juror awards with those rendered by experienced legal professionals. The damages

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Other claims are reviewed, and the empirical studies are critiqued in the following: Neil Vidmar, The Unfair Criticism of Medical Malpractice Juries, 76 Judicature 118 (1992) [hereinafter Vidmar, Medical Malpractice Juries]; Neil Vidmar, Empirical Evidence on the "Deep Pockets" Hypothesis: Jury Awards for Pain and Suffering in Medical Malpractice Cases, 43 Duke L.J. 217 [hereinafter Vidmar, "Deep Pockets"].
awarded for pain and suffering and disfigurement and the rationales behind the awards did not differ between the two sets of decisionmakers. However, statistical calculations suggest that juries may provide more stable estimates of noneconomic damages than arbitrators. This Article interprets these findings in the context of other research and discusses their policy implications.

I. BACKGROUND AND PRIOR RESEARCH

No subject in the contemporary debate over the functioning, or malfunctioning, of the American civil justice system is more controversial than the role of the jury in medical malpractice litigation. Legal commentators, policymakers, physicians, and their liability insurers argue that malpractice juries are capricious, incompetent to decide the complex issues in the claims, biased in favor of plaintiffs, and prone to award excessive damages against the “deep pockets” of doctors and hospitals. 2

Recently, empirical findings showing that plaintiffs win only one-third to one-fifth of cases 3 have muted some of the criticism of juries in malpractice suits. 4 Although several different explanations may account for the low plaintiff success rate, 5 the rate itself lends little support to the claim


3. For example, in North Carolina plaintiffs win only about one case in five. Vidmar, Medical Malpractice Juries, supra note 1, at 119. Of a sample of Florida closed claims decided at verdict and not appealed, 22% were decided in favor of the plaintiff, and a Kansas City sample yielded a win rate of 34% . Frank A. Sloan & Chee R. Hsieh, Variability in Medical Malpractice Payments: Is Compensation Fair?, 24 Law & Soc’y Rev. 997, 1007 (1990). Bovbjerg et al., Juries and Justice, supra note 1, at 22, concluded with a different sample that the win rate for plaintiffs was about 33%, a figure substantially lower than for other types of claims. In a sample of malpractice cases tried in federal courts, Kevin M. Clermont & Theodore Eisenberg, Trial by Jury or Judge: Transcending Empiricism, 77 Cornell L. Rev. 1124, 1141 (1992), found malpractice plaintiffs won 30% of jury trials.


5. There appears to be an emerging consensus that malpractice cases selected for trial are more likely to involve questionable liability. See Bovbjerg et al., Juries and Justice, supra note 1, at 11; Clermont & Eisenberg, supra note 3, at 1125; Theodore Eisenberg, The Relationship Between Plaintiff Success Rates Before Trial and at Trial, 154 J. Royal Stat. Soc’y, Ser. A, 111, 111 (1991). On the other hand, some researchers credit low plaintiff success rate to the notion that since doctors have more to lose from an adverse trial outcome than plaintiffs have to gain, the doctors will settle questionable cases and only allow cases they are sure of winning to go to trial. Samuel R. Gross & Kent D. Syverud, Getting to No: A Study of Settlement Negotiations and the Selection of Cases for Trial, 90 Mich. L. Rev. 319, 364 (1991). Another explanation for low plaintiff success rate may lie in jurors’ skepticism about plaintiffs’ claims and the motivation behind those claims. See, e.g., Valerie P. Hans, Attitudes Toward Corporate Responsibility: A Psycholegal Perspective, 69 Neb. L. Rev. 158, 176-77 (1990); Valerie P. Hans & William S. Loftquist, Jurors’ Judgments of Business Liability in Tort Cases: Implications for the Litigation Explosion Debate, 85 Law & Soc’y Rev. 85, 94 (1992); Vidmar, Medical Malpractice Juries, supra note 1, at 120. Still another explanation may lie in jurors’ concerns about the impact of large jury awards on insurance rates, although jurors may not draw on this concern when faced with a particular plaintiff. See, e.g., Edith Greene et al., Jurors’ Attitudes
that juries are quick to find physicians liable.

Nevertheless, commentators continue to criticize juries for awarding excessive damages to plaintiffs who do prevail. Usually the charge centers on juror waywardness with respect to noneconomic damages, particularly pain and suffering. For example, in Medical Malpractice on Trial, Professor Paul Weiler states that "the most troublesome feature of large tort verdicts is the amount of damages awarded for pain and suffering, not for direct medical costs." This view leads some commentators to advocate placing the matter of damages in the hands of more reliable and responsible decision-makers. Others advocate caps on the amounts that juries may award for noneconomic damages or argue that juries should be provided with "schedules" to guide their decisionmaking.

Closer scrutiny of these claims about jury malfeasance leads to two main conclusions. The first is that critics base their claims upon an evidentiary ground which is, in the most generous view, highly fragile. The second is that their evaluations explicitly or implicitly compare jury awards to awards rendered by professional decisionmakers.

As Stephen Daniels has documented, many claims against malpractice juries are based upon anecdotes, erroneous portrayals of actual cases, and statistical compilations that are unrepresentative of the universe of jury trials. Some criticisms come from the insurance industry or other interest groups that have agendas for tort reform and that use these data for political ends. But even serious scholars are seduced by the compelling vividness of specific "horror" cases and by other data that, on the surface, appear to support the thesis that juries award excessive damages. Thus,

About Civil Litigation and the Size of Damage Awards, 49 Am. U. L. Rev. 805, 817 (1991) (finding that "a large majority of the jurors surveyed agreed that there has been a litigation explosion and that insurance costs have been affected by large damage awards. On the other hand, the jurors were apparently not persuaded that an insurance 'crisis' exists and "would not penalize plaintiffs in civil suits based on their perception that insurance costs are rising."). Finally, low plaintiff success rates have been attributed to doctors' power to veto insurance settlement offers, thereby forcing frivolous plaintiff suits that might otherwise be settled for nuisance value to go to trial. Gross & Syvertud, supra, at 360-62.

6. Weiler, supra note 1, at 54.
8. Michael J. Saks, Do We Really Know Anything About the Behavior of the Tort Litigation System—And Why Not?, 140 U. Pa. L. Rev. 1147, 1251-54 (1992) ("The best way to 'find' that juries have been making awards that soar above those of the past has been to violate many of the standards of good empirical research . . .").
9. See infra text accompanying notes 15, 38, 39, 50 & 51.
10. Daniels, supra note 2, at 292-308; Daniels & Martin, supra note 2, at 322-28.
11. Daniels, supra note 2, at 274-75, 279-81; Daniels & Martin, supra note 2, at 322-28. See also Robert M. Hayden, Neocontractual Polemics and Unconscionable Scholarship, 24 Law & Soc'y Rev. 865, 887 (1990); Saks, supra note 8, at 1186.
12. For example, Weiler's claim, see Weiler, supra note 1, at 54-56, nn. 34-39, is documented by reference to several cases that may not be at all representative of malpractice awards, by reference to a study dealing with product liability rather than malpractice cases and by reference to a study by Danzon, discussed infra at notes 34-36 and accompanying text, that
before turning to the empirical research, we will consider the explanations
given for concern about medical malpractice jury awards.

Damages can be divided into two broad categories: economic or special
damages, and noneconomic or general damages. Economic damages
consist of past and future medical expenses, lost income, and other injuries
that can be determined relatively objectively with the assistance of estimates
from accountings based on market values and actuarial projections. In
contrast, noneconomic damages such as pain and suffering, disfigurement,
and loss of consortium involve wholly subjective judgments about the
degree of the plaintiff's injury and the translation of that assessment into
the entirely different metric of money. Furthermore, as Weiler and others
have observed, since juries are ad hoc groups of lay persons familiar only
with the case at hand, they do not have information on awards in similar
cases with which to compare and adjust their figures. Additionally, judges
give jurors only vague instructions to be "fair and reasonable" and to use
their "enlightened conscience" to make the plaintiff "whole." Juries can
channel any proplaintiff sympathies into the noneconomic component of
the award. Those observations, however, are only hypotheses about why
juries might go overboard on noneconomic damages; they do not constitute
evidence that juries actually do so.

The existing empirical evidence on jury awards is based upon studies
that use statistics derived from jury verdict reporters and closed-claim files.
The patterns in the various studies are contradictory, however, and jury
verdict research is fraught with methodological shortcomings that preclude
causal interpretations of the relationships that are found. These studies
can be divided into those that examine total awards and those that attempt
to examine only the noneconomic component of awards.

Some studies compare mean and median total malpractice awards
against a baseline period. These studies generally show that mean and
median awards, adjusted for inflation, have increased substantially over

is subject to methodological criticism. See Daniels & Martin, supra note 2, at 324-28; Saks,
supra note 8, at 1159-65.

13. For general discussion and references, see Bovbjerg et al., Valuing Life and Limb in
Tort, supra note 7.

14. We note, however, that the "science" of economics is less than precise, and expert
evidence on special damages presented at trial often varies considerably. In one malpractice
case involving a brain-damaged child that we observed, the plaintiff produced an expert who
valued the case at over $5 million while the defendant's experts varied between $2.1 million
and $4.2 million. This case was observed as part of the Medical Malpractice Project at Duke
University School of Law, a comprehensive review of North Carolina medical malpractice
cases. See Vidmar, "Deep Pockets," supra note 1; Vidmar, Medical Malpractice Juries, supra
note 1, at 119.

15. Weiler, supra note 1, at 55; Bovbjerg et al., Valuing Life and Limb in Tort, supra note
7, at 912-14.


17. Daniels & Martin, supra note 2, at 326-28; A. Russell Localio, Variations on $962,258:
The Misuse of Data on Medical Malpractice, 13 Law Med. & Health Care 126, 126 (1985);
Saks, supra note 8, at 1245-46; Vidmar, "Deep Pockets," supra note 1; Vidmar, Medical
Malpractice Juries, supra note 1, at 120 n.9.
time. Although some sources interpret these findings as an indication that juries are increasingly prone to give large—and therefore excessive—awards, they cannot validly draw this conclusion from the data for several reasons which are not mutually exclusive. First, a credible alternative hypothesis suggests that changes have occurred in the type of cases that are selected for trial. Juries may be deciding cases the same way but are trying fewer cases with small damage valuations or more cases with large valuations or both. Randall Bovbjerg and his colleagues statistically controlled for some of these variables and found no evidence that awards have increased. Second, Daniels' examination of a sample of jurisdictions around the United States showed that the apparent trends are not consistent from jurisdiction to jurisdiction. Third, even if awards have increased, at least part of the explanation may be that economic damages have increased. Fourth, it is possible that plaintiffs' attorneys have become more skilled at presenting evidence on damages at trial. This last hypothesis suggests the possibility that past cases were undercompensated rather than that present cases are overcompensated.

Other studies have attempted to correlate the verdict data with other variables to obtain an indirect assessment of the reasonableness of the jury awards. These studies show that, on average, the amounts awarded positively correlate with the severity of injury. Thus, juries award the least damages for temporary and insignificant injuries and the largest for permanent catastrophic injuries such as quadriplegia, blindness, and brain damage. Awards for death are smaller than those for major catastrophic injuries. Awards also correlate negatively with patient age; accordingly, younger patients who have longer life expectancies receive more than older

18. Peter W. Huber, Liability: The Legal Revolution and Its Consequences 10 (1988); Peterson, supra note 1, at 15-37. But see Bovbjerg et al., Valuing Life and Limb in Tort, supra note 7, at 919 n.67; Saks, supra note 8, at 1240-48.

19. See Huber, supra note 18, at 121-22; Specialty Society Medical Liability Project, A.M.A., supra note 1, at 7-11; Jury Awards for Damages Grow Bigger by the Year, Nat'l L.J., Jan. 21, 1991, at 55; see also Weiler, supra note 1, at 48 ("At the same time jurors have become accustomed to huge award requests, and they are more willing to reach into the deep pockets of malpractice insurers to compensate the victims generously . . . .").

20. See Clermont & Eisenberg, supra note 3, at 1129; Saks, supra note 8, at 1244; Vidmar, "Deep Pockets," supra note 1; Vidmar, Medical Malpractice: Juries, supra note 1, at 120.


22. Stephen Daniels, Tracing the Shadow of the Law: Jury Verdicts in Medical Malpractice Cases, 14 Just. Sys. J. 4, 13-14, 32 (1990); Daniels & Martin, supra note 2, at 329; see also Saks, supra note 8, at 1251-52, 1257.

23. See Weiler, supra note 1, at 4, 50; Saks, supra note 8, at 1247. Saks further suggests that advances in medical technology and greater access to health care, as well as inflation, have led to the increased cost of economic damages. Id. at 1181-82, 1266-67.

24. See Weiler, supra note 1, at 48.

25. See Saks, supra note 8, at 1226.

patients. However, some evidence suggests considerable variability within categories of injury severity, raising the possibility that juries do not award damages uniformly from case to case.

Some studies compare malpractice awards with awards in other types of cases, such as automobile injuries. These studies find that malpractice awards often exceed those for other types of injuries. However, as discussed earlier in the context of comparisons of verdicts over time, these studies cannot control for differences in how the comparison cases are selected for trial. In short, the studies involve specious comparisons of apples and oranges.

A recent study by Kevin Clermont and Theodore Eisenberg compares verdicts rendered by juries with those rendered by judges in bench trials. In medical malpractice cases, the judges' awards were 1.78 times larger than those rendered by juries. Clermont and Eisenberg ascribe most of this difference to variations in the type of cases selected for bench and jury trials but also consider the possibility that judges may be more generous than juries.

Another set of studies using jury verdict data attempts to estimate the amount of noneconomic damages involved in jury awards by subtracting the estimated economic damages from the total award. Weiler cites one such study by Patricia Danzon as concluding that pain and suffering, broadly defined, constitute nearly fifty percent of total tort damages. However, the Danzon study combines so many disparate data sources and

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27. Bovbjerg et al., Juries and Justice, supra note 1, at 82; Sloan & Hsieh, supra note 3, at 1020.

28. The lack of uniformity could be a result, in part, of variability in the skill of lawyers, the type of evidence presented at trial, the amount of plaintiff economic loss, or other factors rather than inconsistency of juries. While the severity of the injury sustained is a reasonable index by which to judge relative differences in jury verdicts, it is an imperfect proxy variable that does not take into account all of the economic damages that may be presented to the jury. See Bovbjerg et al., Valuing Life and Limb in Tort, supra note 7, at 919-24; Vidmar, “Deep Pockets,” supra note 1.


30. For example, in comparison to automobile injury lawsuits, a higher percentage of malpractice suits go to trial; they are more likely to involve multiple versus single defendants, to have specialist lawyers, to involve different types of lay and expert evidence and to involve different legal theories and assumptions about plaintiff risk and plaintiff liability. A more extended discussion of these methodological issues is contained in Vidmar, “Deep Pockets,” supra note 1.

31. Clermont & Eisenberg, supra note 3, at 1126. The study examined a wide variety of legal cases in addition to medical malpractice.

32. Id. at 1141. Clermont and Eisenberg incorporate the verdict ratio (the probability of winning a case before a judge versus before a jury) to yield an “expected return ratio” of 1.78. Without adjusting for the verdict ratio, awards by judges and juries in medical malpractice cases are about the same.

33. Weiler, supra note 1, at 55 n.36.

34. Danzon, supra note 1, at 132-41.
makes so many tenuous assumptions that it cannot be used to evaluate jury performance. Moreover, nowhere in the report does Danzon cite a figure which suggests that fifty percent of total awards are due to noneconomic components. Other studies of this genre show that noneconomic awards track the seriousness of injury. However, confirmation of the reliability and validity of these estimates of noneconomic damages is impossible. Furthermore, the published data fails to separate malpractice cases from those involving other types of injuries or mixes jury verdicts with closed-claim settlements, precluding any unconfounded analyses of relationships between variables.

This brief review of empirical research on verdicts points to several conclusions. First, even taken at face value, empirical findings about jury awards are conflicting. Second, jury verdict research is methodologically flawed because it cannot control for the processes by which cases are selected for trial or for differences in the evidence presented to the jury. Juries may be deciding very different cases over time, across jurisdictions, and between classes of litigation. Third, uncontrolled and potentially unreliable estimates plague attempts to isolate the noneconomic component of jury awards.

The final problem is the comparison of jury behavior with the behavior of professionals. As Harry Kalven and Hans Zeisel pointed out more than a quarter century ago, calls for replacing the jury force us to consider the alternative—having the decision made by professionals such as judges or arbitrators. As previously noted, commentators argue that jurors lack a perspective which transcends individual cases and the profes-
sional discipline that checks sympathies favorable to plaintiffs. Strikingly, the Clermont and Eisenberg study hinted that the findings could go in the other direction because they found that, on average, judges' awards were larger.

This discussion of the controversy and the methodological flaws in jury verdict research provides the background to our novel study. To test the thesis, propounded by critics of the jury, that jury awards are more generous than those of legal professionals, we posed the hypothesis that there is no difference. Our experiment compares noneconomic damages awards rendered by jurors and senior attorneys in response to exactly the same medical negligence case. By collecting additional data on perceptions of the case, we were also able to compare the bases for their decisions.

II. The Experiment

A. Method

1. Subjects

Twenty-one arbitrators for various personal injury, contract, and labor disputes participated in the study. Eighteen were senior members of the North Carolina bar; five had previously been judges in the North Carolina superior courts. Only one indicated that his law practice was predominantly plaintiff-oriented and none indicated a predominantly defense-oriented practice. All but two of the arbitrators were male. We recruited most of them from a list of screened and qualified arbitrators held by the Private Adjudication Center, an affiliate organization of Duke Law School that provides alternative dispute resolution services and conducts research on the civil justice system. The arbitrators received the case materials described below with an accompanying cover letter. The letter stated that the purpose of the study was to learn about how arbitrators made decisions. We contacted twenty-six arbitrators for the study: four declined to participate because of current workloads and one had recently died.

We recruited the first group of jurors from a panel awaiting jury duty in Durham, North Carolina. Forty-seven of fifty-one jurors agreed to participate in the study, which we described as a study of juror decision-making in civil cases. Fifteen were male, twenty-two were female, and ten did not indicate their gender on the questionnaire. A second group of

40. See Specialty Society Medical Liability Project, A.M.A., supra note 1, at 7-11; see also notes 15-16 and accompanying text.
41. Clermont & Eisenberg, supra note 3, at 1141. Note that the authors themselves concluded that much of the difference between judges and juries can be ascribed to the types of cases selected for bench versus jury trials. Id. at 1147.
42. In statistical terms this is known as posing the null hypothesis. The null hypothesis asserts that there is no difference between the two populations. Any observed differences in the direction of the alternative hypothesis, namely that jurors will give more generous awards than professionals, must reach a prescribed level of probability before we can reject the null hypothesis. The most common standard for rejecting the null hypothesis in social science research is the .05 level of probability. See Quinn McNemar, Psychological Statistics 63-75 (1962).
jurors came from a similar panel awaiting jury duty in Greensboro, North Carolina. Forty-two of the forty-six recruits agreed to participate in the study: twenty-four males, sixteen females, and two who did not indicate their gender on their questionnaire. We did not collect data on the race of individual jurors, but estimate that approximately twenty percent of both juror samples were black. In short, the study compared the decisions of twenty-one experienced lawyer-arbitrators to those of eighty-nine qualified veniremen.

2. Stimulus Materials

The stimulus materials included a single-spaced, four-page summary description of a medical malpractice case that a three-person arbitration panel had actually decided. Except for final instructions, which were labelled either "Arbitrator Instructions on Damages" or "Jury Instructions on Damages," the materials given to arbitrators and jurors were identical.

The materials described the case of a thirty-five-year-old married female who underwent elective surgery to have a bunion removed from her foot. The operation required general anesthesia and during the surgery someone in the operating room accidentally placed a just-sterilized, extremely hot surgical instrument on the plaintiff's knee, causing second and third degree burns on an area of the knee about two inches wide by four inches long. As a consequence, the plaintiff awoke from the surgery experiencing severe pain in her knee that lasted for several weeks. After five weeks, a plastic surgeon performed skin graft surgery because the burn did not heal. Despite these efforts, the incident left the plaintiff with a permanent, disfiguring scar in the shape of an upside-down heart on her knee and a lesser scar on her hip caused by the skin graft. Additional plastic surgery cannot correct the knee scar. In the evidence presented to the arbitrators and jurors, the defendant surgeon admitted liability for the injury, but contested the amount of damages demanded by the plaintiff. In transcript format the plaintiff described her painful recovery; her great fear of the corrective operation resulting from the shock of the outcome of the original operation; and most important, her continuing embarrassment over the permanent, disfiguring scar on her knee, which caused her to be self-conscious at work and particularly while at the beach. Four photographs accompanied the case description: one of the plaintiff,\textsuperscript{48} one of the hip scar, and two of her knee scar.

The defendant did not contest the $5,000 in medical expenses for plastic surgery or $2,000 in plaintiff's lost wages, but argued that $15,000 was the appropriate amount for pain and suffering and disfigurement, for a total award of $22,000. In contrast, the attorney for the plaintiff argued that fair and reasonable total compensation was between $75,000 and $100,000. The judicial instructions to the jurors and arbitrators stated that the doctor did not contest his liability or the $7,000 in special damages for medical expenses and lost wages. The instructions also stated that the

\textsuperscript{48} The head and shoulder photograph of the plaintiff used in the experimental materials was not that of the actual plaintiff but rather of someone of roughly the same age.
damage award should not include a sum for "loss of use" or for future physical pain and suffering because the plaintiff was not prevented from undertaking normal activities and no longer suffered pain in the scar area. Thus, the task of the jurors and arbitrators was limited to determining the amount of noneconomic damages for past pain and suffering and for disfigurement.

3. Dependent Variables

In addition to the $7,000 for actual economic damages, the jurors and arbitrators were instructed to award separate sums for past pain and suffering and disfigurement. They were told to sum all three components to yield a total award.

After awarding damages, the subjects explained in their own words what factors they considered when making their decisions. Next they responded to ten questions concerning their perceptions of the case answered on a ten-point scale. These questions are reproduced in the Appendix and in Table 3 below. A final set of questions asked the subjects to indicate their age, education, marital status, household income, and gender.

4. Other Methodological Considerations

Arbitrators and jurors alike answered the materials anonymously. The subjects received feedback about the purpose and results of the experiment through separate procedures after its completion. The focus of the study was individual juror decisionmaking, and therefore, jurors did not compare their answers or deliberate before giving their answers.

B. Results

1. Damage Awards

Table 1 displays the results for the total damage awards for arbitrators and the combined sample of jurors plus disaggregated data for the two sets of jurors. As reflected in column 1 of Table 1, the median arbitrator award was $57,000 and the mean was $50,423. The median is similar to the award rendered by the panel of three arbitrators in the original case from which the stimulus case was constructed: $58,300. The mean was almost $7,000 less than the median due to several relatively low awards. The mode for the arbitrators was identical to the median: five of twenty-one, or almost twenty-five percent of arbitrators, awarded $57,000.

The second column in Table 1 presents the total damage award for the combined samples of jurors. The median award was $47,850, and the mean was $51,852. Strikingly, the distribution of awards was multi-modal and the

44. Many jurisdictions only require jurors to provide a lump sum for noneconomic damages. However, by asking for separate decisions about the two components, our study allows us to make comparisons of the extent to which the components were distinguished and were related to other variables.
high frequency categories were widely distributed: there were five or more awards at $22,000, $32,000, $37,000, $47,000, $57,000, $67,000, $82,000, and $97,000.

Tests of the arbitrator and juror samples indicate no statistically significant difference between the medians, although the arbitrators' median was over $9,000 more than the jurors' median.45 Neither was there a statistically significant difference between the means.46

Columns 3 and 4 of Table 1 disaggregate the data from the two samples of jurors. The first two rows of these columns show similar medians, but means that are about $9,000 apart. However, the differences between means are not statistically significant.47 The difference between the second sample of jurors and the arbitrators is also not statistically significant.48

Thus, the data in rows 1 and 2 of Table 1 show no statistically significant difference between arbitrators and jurors with respect to their total damage awards. Rows 3 and 4 of the table indicate that both the range of awards and the variability, as reflected in the standard deviations, were more restricted in the arbitrator sample.49 This finding appears consistent with the view that legal professionals would produce more stable estimates of damages than individual jurors. However, this Article further explores this finding in Section III and yields a contrary conclusion.

Table 2 compares the damage awards rendered by the arbitrators and the total sample of jurors when we examined the specific components of the awards separately. Of course, the special, or economic damages, reported in row 1, were the same for both sets of subjects: $7,000. Row 2 reports the mean awards for pain and suffering, and row 3 reports the mean awards for disfigurement. Comparing across columns, we found minimal differences between arbitrators and jurors on the noneconomic components. Comparing within groups and across the noneconomic components, we discover that for arbitrators the award for disfigurement was approximately 1.5

45. Statistical significance was assessed by a Mann-Whitney test which yielded a U of 836. See Sidney Siegel, Nonparametric Statistics: For the Behavioral Sciences 116-27 (1956). The difference between the medians was not found to be statistically significant under this test. Thus, the null hypothesis that there is no difference cannot be rejected, which means that we cannot confirm the hypothesis that there is a difference. See supra note 41. In this instance it is at least worth noting that the data are in a direction opposite to what critics of the jury would have predicted.

46. Statistical significance was determined by a t test which yielded a t = .30 with 108 degrees of freedom. The difference is not statistically significant. This means the null hypothesis cannot be rejected. See supra note 41. For the rationale behind the tests, see Allen Edwards, Experimental Design in Psychological Research 167-69 (1980).

47. Significance was determined by a t test which yielded a t = 1.4 with 87 degrees of freedom. The difference is not statistically significant.

48. The t = 0.94 with 61 degrees of freedom. This was not statistically significant.

49. The standard deviation is a measure of variation of scores around the mean, or average. One standard deviation encompasses two-thirds of the scores that are distributed on either side of the average. The larger the standard deviation, the more variability of dispersion of the scores from the mean. See McNemar, supra note 41, at 20-25. The difference in variability between the arbitrators and jurors was statistically significant (F = 3.001, df 22,80, p < .01).
times larger than the pain and suffering component ($26,083 + $17,350 = 1.5$); for jurors the ratio was approximately 1.7 ($28,119 + $16,733 = 1.7$). Judges and attorneys in North Carolina frequently speak of an informal guideline that suggests that noneconomic damages should be between three and seven times the amount of economic damages. Row 5 compares the ratio of the summed noneconomic damages to the economic damages: for arbitrators, ($17,350 + $26,083)/$7,000 = 6.2; for jurors, ($16,733 + $28,119)/$7,000 = 6.4. Thus, row 5 shows that for arbitrators the ratio was 6.2 and for jurors it was 6.4. It may be that the arbitrators consciously applied the "multiplier rule of thumb" formula to calculate their damages, or as a check on the reasonableness of their independent calculations. The jurors somehow intuitively arrived at a similar ratio.

2. Correlates of Damage Awards

We correlated the ten questions posed to both the jurors and arbitrators with the pain and suffering, disfigurement, and total awards. A number of the juror and arbitrator correlations were statistically significant, and the correlations differed between the components of noneconomic damages. The correlations are reported in Table 5. This Article discusses only those correlations that are statistically significant.

The extent to which the jurors believed the scar was disfiguring (Q.1), affected the quality of the plaintiff's life (Q.4), and was worse than a similar scar on a male (Q.6) was positively related to the amount jurors awarded for disfigurement: \( r \)'s of .25, .33, and .25, respectively. However, these variables were not related to the pain and suffering component. The extent to which jurors believed the scar truly embarrassed the plaintiff (Q.3) positively correlated with both the disfigurement award (\( r = .36 \)) and the pain and suffering award (\( r = .29 \)). The extent to which the jurors believed that the defendant's offer was unreasonable (Q.7) positively correlated with the total award (\( r = .58 \)); the extent to which the jurors viewed the plaintiff's demand as unreasonable (Q.8) yielded a negative relationship with the total award (\( r = -.39 \)). There were no significant relationships between the awards and the belief that the doctor was negligent (Q.9) or that doctors are sued too often (Q.10).

Arbitrators showed roughly similar patterns. There were positive correlations between the disfigurement award and the extent to which the

50. Some arbitrators expressly noted that they did so when they responded to the open-ended question on the survey.

51. It is possible that some jurors who had previously served on civil juries were familiar with the "times" formula, but we would not expect this knowledge to be widespread among the jurors.

52. The Pearson \( r \) statistic is the most common statistic for assessing the extent to which two variables are associated with one another. The \( r \) statistic ranges from +1.00 (a perfect relationship between the variables) through 0.00 (no relationship) to -1.00 (a perfect inverse relationship). The degree of statistical significance is dependent, in part, on the size of the sample and other factors. Thus, in the data reported in Table 3, correlations of smaller magnitude among jurors may be statistically significant while correlations of larger magnitude among arbitrators are not. This apparent anomaly results from the juror sample being over four times larger than the arbitrator sample.
arbitrators believed the plaintiff was embarrassed \( (Q.3; \tau = .45) \), or that the quality of her life was affected \( (Q.4; \tau = .54) \). In addition, the award positively correlated with the perceived seriousness of the scar compared to a similar scar on a male \( (Q.6; \tau = .49) \). Also similar was the correlation of the total award and the extent to which the arbitrators found the defendant's offer unreasonable \( (Q.7; \tau = .56) \); however, there was no correlation with the perception of the plaintiff's demand \( (Q.8) \). Interestingly, for arbitrators there was a significant correlation \( (\tau = .65) \) between the extent to which the arbitrators perceived the doctor as negligent \( (Q.9) \) and the amount of the pain and suffering award. Additionally, the extent to which the arbitrators believed that plaintiffs only sue doctors when they are negligent \( (Q.10) \) positively correlated \( (\tau = .51) \) with the amount awarded for disfigurement.

For the most part, jurors and arbitrators showed similar patterns in how their perceptions related to damage awards. It appears that they treated the disfigurement award as conceptually distinct from the pain and suffering award. We cannot explain why arbitrators' perceptions of the doctor's negligence were related to the pain and suffering award since we instructed them, like the jurors, that negligence was admitted. The finding does suggest that jurors did the right thing. They treated liability and damages as separate issues while perhaps arbitrators did not. The positive correlation between the arbitrators' awards for disfigurement and the belief that doctors are too often sued is interesting, but we have no explanation for it.

Finally, we examined the relationship between juror demographic variables and awards. There was no relationship between gender and magnitude of award or between age and award. The degree of education \( (\tau = .28) \) and income \( (\tau = .20) \) were positively but modestly related to the amount of the total damage award.

3. Juror and Arbitrator Comments

We invited jurors and arbitrators to comment in their own words on the case and why they rendered the award that they did. These qualitative data are consistent with the questionnaire data reported above. For example, jurors who gave larger awards for the disfigurement commented on the plaintiff's "young age," "bad scar," "the visibility of the scar," "not normal scar," or "bearing the disfigurement for the rest of her life." Several also commented that the original operation was on the foot, and there was no expectation of damage to her knee. Others commented on how patients must put trust or faith in their doctors and expect good outcomes, not bad ones. Jurors who gave lower awards made comments like, "the scars are not serious," the scar was "not on her face," "doctors are allowed to make mistakes," patients should not "take advantage" of doctors, and "$75,000 is far too much to ask." Several jurors also asserted that lawyers "get too much" money in litigating such cases.

With some minor variations, arbitrators provided reasons similar to those of the jurors. Several arbitrators referred to the formula that noneconomic damages are "worth at least three times medical expenses and lost wages." Several also explicitly stated that they considered attorney fees in their award, a factor that is not legally permissible and which no juror
Arbitrators who were not involved in this study later informed us that they too consider attorney fees in their awards—in direct defiance of the law.

Finally, we interviewed the three arbitrators in the original case after they rendered their decision. It is important to caution that our stimulus materials differed from the fact pattern of the original case. However, the basic damage facts were very similar, as were the amounts suggested by the respective lawyers. All three original arbitrators, one female and two males, arrived independently at a figure within several thousand dollars of the amount that they awarded after deliberations. The extensive interviews indicated that although they weighed some factual material in slightly different ways, their pain and suffering and disfigurement awards were similar to those rendered by the typical juror and arbitrator in this study, as were the reasons they gave for the award.

III. Discussion and Conclusions

This study provides an unconfounded comparison of how jurors and legal professionals award damages for pain and suffering and disfigurement in a medical negligence case. The data lend no support to the widely held view that jurors are more generous than judges or arbitrators in awarding noneconomic damages. Moreover, the data do not support the view that the reasoning of laypersons in calculating the award is substantially different from that of legally trained persons.

The data do show a greater range of variability in juror awards in comparison to those rendered by the legal professionals. On the surface, this finding supports those who attribute excessive variability and caprice in our civil justice system to juries. For example, Professor Albert Alschuler argues that "the lawlessness of our jury system—especially the largely unguided discretion that juries exercise in assessing damages—exerts pressure for settlement on risk-averse litigants on both sides." Similarly, Professor George Priest claims that, even in routine cases, the variability of jury awards adversely affects settlement negotiations and that the use of judges increases both the predictability of trial outcomes and settlement rates. The basic argument of these and other authors is that legal professionals, unlike juries, have some level of experience with previous cases and thus adjust their awards according to the standards set by other cases. However, other authors point out the lack of empirical evidence to support this assertion about jury variability generally or in comparison to legal professionals.

53. Some jurors did say that they were unsure who paid her attorney fees and wondered if this should be part of the award.
55. Priest, supra note 7, at 191-200.
56. Id. See also Bovbjerg et al., Valuing Life and Limb in Tort, supra note 7, at 953.
Before considering our findings to be supportive of Alschuler, Priest, and others, however, we need to recognize that juries produce verdicts by pooling their twelve individual estimates of the appropriate award for pain and suffering. To approximate this pooling process, consider a "jury" formed by randomly choosing twelve persons from the "venire" composed of the eighty-nine jurors who participated in the present study.\textsuperscript{58} We can estimate the damage award that this "jury" would render by assigning it the value of the median of the awards of its twelve individual members.\textsuperscript{59} The verdict would vary, of course, depending on which twelve jurors were chosen. Moreover, our interest is not with any single jury but with the typical or average jury and how variable those "jury" awards would be in comparison to awards rendered by legal professionals.

Following the above reasoning, we undertook a further experiment with our data. We randomly drew 100 twelve-person "juries" from the "venire" of eighty-nine individual jurors and for each "jury" assigned a damage award based on the median award of its members.\textsuperscript{60} The awards from these "juries" ranged from $29,500 to $69,000 with the average verdict being $48,900. The standard deviation of the "jury" verdicts was $10,970, which means that two-thirds of the verdicts fell between $37,930 and $59,870.\textsuperscript{61}

These figures contrast with the comparable statistics for arbitrators that we reported in Table 1. The average arbitrator award was $50,433 but awards ranged from $22,000 to $82,000. The standard deviation was $16,730, which means that two-thirds of the verdicts fell between $33,703 and $67,163.\textsuperscript{62} In brief, the "jury" verdicts in our exercise were less variable than those of the arbitrators. Moreover, this difference was statistically significant.\textsuperscript{63} The implication of this exercise is that more stable estimates of noneconomic damages would be obtained from a "jury" than from single arbitrators or judges.\textsuperscript{64}

\textsuperscript{58} The term "jury" is placed in quotes to remind the reader that this is an exercise and "juries" are artificial groups that social psychologists apply call "nominal" or "statistized" groups. See Ivan D. Steiner, Group Process and Productivity 35-37 (1972).

\textsuperscript{59} Recent research indicates that the best predictor of jury final damage awards is the median of the jurors' individual pre-deliberation awards. See Shari S. Diamond & Jonathan D. Casper, Blindfolding the Jury to Verdict Consequences: Damages, Experts and the Civil Jury, 26 Law & Soc'y Rev. 513, 545-46 (1992).

\textsuperscript{60} After each "jury" was drawn and the median calculated the awards were returned to the pool before the next draw was made.

\textsuperscript{61} See supra note 49. These figures are derived by taking the average, or mean, verdict of $48,900 + $10,970.

\textsuperscript{62} See supra note 49. These figures are derived by taking the average, or mean, arbitrator award of $50,433 + $16,730.

\textsuperscript{63} Comparison of the difference between the variances of the two groups was by an F Test. See McNemar, supra note 41, at 63-75. The value derived from the test was as follows: $F=2.33$, df 20, 88, $p < .05$.

\textsuperscript{64} Much discussion has centered around the use of six-person rather than twelve-person juries, with social scientists arguing that, statistically, across many trials, six-person juries have to yield less reliable estimates of damages than twelve-person juries. See, e.g., Michael J. Saks, Jury Verdicts 44 (1977); Hans Zeisel, . . . and Then There Were None: The Diminution of the
These figures, of course, are speculative and are only a substitute for research comparing the awards of deliberating juries with those of judges or arbitrators. However, before leaving this matter, we should make two additional points. The first is that the process of voir dire might have eliminated some of the jurors who gave outlier awards in our study and thus, reduced the initial variability in the jury sample, leading to even more stable estimates of damages than our exercise found. The second point is that the variability among the arbitrators in our sample should not be surprising. Other research showing great variability in lawyers' valuations of cases contradicts the assumption that their greater experience increases the stability of their awards.

Another question is whether the arbitrators in the study attempted to imitate jury behavior rather than give their own evaluation of the worth of the case. We told the arbitrators that the experiment was a study of arbitrator decisionmaking and did not allude to our intention to compare their awards with jury awards. Of course, arbitrators do rely on their perceptions of going rates in attempting to come up with appropriate figures, and in this sense they may use their perceptions of how juries decide cases. We note, however, that research indicates judges and lawyers may overestimate what juries will award. In addition, research shows that interlawyer agreement on the worth of the same case is often extremely variable. We will return to the topic of whether arbitrators or jurors are

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Federal Jury, 38 U. Chi. L. Rev. 710, 717-19 (1971). To demonstrate this phenomenon we conducted the same statistical exercise on our data with six-person "juries." The mean award for 100 six-person juries was $51,390 and the standard deviation was $12,290. Thus, the size of the standard deviation of six-person "juries" was, as predicted, larger than that of twelve-person "juries". However, the difference was not statistically significant (F = 1.24, df 88,88, p = n.s.). On the other hand, even the six-person "juries" yielded statistically more reliable judgments of damages than the legal professionals (F = 1.88, df 20, 88, p < .050).

65. The study by Diamond and Casper indicated that the process of deliberation may inflate the pre-deliberation average of juror awards by as much as 26%. Diamond & Casper, supra note 59, at 533. This finding needs to be replicated before we can draw confident conclusions about the deliberation process. However, even if the award inflation effect occurs there is no indication that the variability of awards increased. Consequently, our conclusions about greater stability of "jury" awards over those of legal professionals remains reasonable.

66. See, e.g., Douglas E. Rosenthal, Lawyer and Client: Who's in Charge? 202-07 (1974); Gerald R. Williams, Legal Negotiation and Settlement 5-7, 110-15 (1983); Saks, supra note 8, at 1214-15, 1222-23; see also Hazel Genn, Hard Bargaining: Out of Court Settlements in Personal Injury Actions 75-78 (1987) (discussing the difficulty British solicitors have estimating damage awards in personal injury cases). Of course, the purpose of having a three-arbitrator panel, as occurred in the original case from which we derived the materials for this experiment, is a recognition of this variability and an attempt to control it by combining awards on the same basic principle that juror awards are combined. It is, of course, possible to estimate what randomly selected three-arbitrator panels would award in the same way that we made estimates of "jury" awards. We did not undertake these calculations because of the small sample of arbitrators.

67. See G. Thomas Munsterman & Janice T. Munsterman, National Center for State Courts, a Comparison of the Performance of Eight-and Twelve-Person Juries 71-72 (1990) (finding, in a sample of personal injury trials, that judges consistently predicted that juries would award more than actually was awarded); Clermont & Eisenberg, supra note 5, at 1133 (misperception of jury awards by lawyers).

68. See Rosenthal, supra note 66, at 202-07; Saks, supra note 8, at 1214-15; Williams, supra note 66, at 110-15.
better able to reliably measure damages when we consider standards for judging noneconomic damages, but first briefly consider some questions that can be raised about methodological weaknesses in the study.

We argued that the strength of the present experimental study in relation to jury verdict studies is that we were able to control the variables so that jurors and arbitrators responded to the same case facts. There are, however, tradeoffs related to the generalizability of the study to the real world, some of which this Article previously noted. Jurors did not undergo voir dire, nor did they deliberate. Neither jurors nor arbitrators were under oath and they knew that their awards were hypothetical.

No single study possesses unlimited generalizability, whether the issue is the degree to which it mirrors the real world or the degree to which a jury verdict study based on data from one or two jurisdictions reflects malpractice trends across the United States. However, other factors indicate that our results can be generalized. Postexperiment interviews with jurors and arbitrators indicated that they took their task seriously. The awards and reasons given for the awards roughly mirrored those offered by the arbitrators in the original case.

Additionally, the findings in the study are consistent with other recent research findings about jury behavior. Valerie Hans and Peter Lofquist interviewed dozens of jurors who decided civil cases involving business and corporate defendants. In many respects, they found that jurors have a prodefendant bias. Jurors frequently scrutinized the plaintiffs' motives for bringing suit more carefully than the allegedly negligent behavior of the defendant. They were particularly negative in claims for loss of consortium, another component of noneconomic damages for which juries have been accused of being overly generous. These findings are consistent with our own interviews of North Carolina jurors immediately after they decided important medical malpractice cases. North Carolina jurors also scrutinized the motives of the plaintiff. They expressed concerns about the doctors, whom they perceived as trying to help patients, and they worried about the impact of an adverse verdict on the doctor and his ability to pay the award. They also mentioned concerns about the effects of large jury awards on liability insurance and health care.

Other studies further support our finding of close similarity between jury and arbitrator awards. A recent survey of 101 Georgia superior court judges by Perry Sentell indicates that judges express significant agreement with jury decisions and damage awards. Clermont and Eisenberg's study

69. Hans & Lofquist, supra note 5, at 89-90.
71. See Vidmar, Medical Malpractice Juries, supra note 1.
72. R. Perry Sentell, Jr., The Georgia Jury and Negligence: The View from the Bench, 26 Ga. L. Rev. 85, 102-07, 115-16 (1991). The survey was inspired by Kalven's study. See Kalven, supra note 39. The Kalven study compared judges' views with the verdicts rendered by juries in over 6000 civil trials that occurred in the early 1950s and concluded that jury awards were approximately 20% higher than the awards the judge would have given. Id.
found that plaintiffs in medical malpractice cases are more likely to win before a judge than before a jury and that often the mean recovery in judge trials is greater than in jury trials. These various findings do not speak directly to the artificiality criticism of our experiment, but they provide support for a review that our findings are not aberrations of methodology. Other studies produced the same basic results using different methodologies.

The severity of the plaintiff's injury and the damages requested in the case used in this study were relatively modest compared to many malpractice claims. Would similar results be obtained in a more serious case meriting a claim for hundreds of thousands or millions of dollars? This is an important question in light of assertions that it is in the big cases that jurors give sway to their proplaintiff and "deep pocket" proclivities. On the other hand, some studies have estimated that overcompensation tends to occur in cases with less serious injuries, while undercompensation occurs in cases involving more serious injuries. These studies, based on data rather than anecdotes and speculation, lead to the conclusion that a replication of the present study with cases involving more serious injuries would show similar results. In any event, the methodological approach of our study lends itself to answering these questions. The methodology can also be used to ask whether jurors are inclined to give larger awards in medical negligence cases than they do for similar injuries in automobile negligence cases.

Finally, we return to the issue of the standards against which jury awards for noneconomic damages should be judged. Had we found that jurors were more generous than arbitrators or vice versa, we still would not have provided evidence of which group of decision makers was correct. Since there is no absolute standard by which human suffering can be judged, nor a metric to convert that suffering into dollars, the theory that a group of community citizens should hear the facts and decide the outcome is as good and possibly better than alternative theories. If there is no difference between jurors and professionals, the jury verdict may have the advantage of providing a sense of procedural justice and legitimacy to the award. And, of course, the calculations from our data suggest that

73. Clermont & Eisenberg, supra note 3, at 1141; see also Saks, supra note 8, at 1272-74.
74. Also, we have learned that a major health maintenance organization dropped a mandatory arbitration clause for patient-doctor disputes from its standard contract because it concluded that arbitrator awards were more generous than those given by juries.
76. See Saks, supra note 8, at 1217-20, 1276; Sloan & Hsieh, supra note 3, at 1027-28.
across cases, the awards of twelve-person juries (and six-person juries, as well) are likely to be more consistent than those that individual judges can provide.

This study’s findings do not necessarily negate arguments that providing “schedules” or other types of guidelines could assist jurors and increase the consistency of their decisionmaking regarding noneconomic damages. Our discussions with jurors in the North Carolina malpractice project indicate that jurors might welcome this help because they expressed uneasiness, and often frustration, about the lack of guidance from courts. This issue merits further research.

In conclusion, we do not contend that the results of the study reported in this Article are sufficient to reach a definitive conclusion about the performance of jurors in awarding noneconomic damages. However, in conjunction with other recent research on jury behavior, our findings do offer a significant challenge to the argument that legal professionals are more capable and consistent than juries in awarding noneconomic damages.

<table>
<thead>
<tr>
<th></th>
<th>ARBITRATORS</th>
<th>ALL JURORS</th>
<th>JURORS: GROUP 1</th>
<th>JURORS: GROUP 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEDIAN</td>
<td>$57,000</td>
<td>$47,850</td>
<td>$47,000</td>
<td>$48,500</td>
</tr>
<tr>
<td>MEAN</td>
<td>$50,493</td>
<td>$51,852</td>
<td>$47,674</td>
<td>$56,429</td>
</tr>
<tr>
<td>RANGE</td>
<td>$22,000-</td>
<td>$11,000-</td>
<td>$11,000-</td>
<td>$14,000-</td>
</tr>
<tr>
<td></td>
<td>$82,000</td>
<td>$107,000</td>
<td>$107,000</td>
<td>$197,000</td>
</tr>
<tr>
<td>STANDARD</td>
<td>$16,730</td>
<td>$28,981</td>
<td>$24,258</td>
<td>$33,017</td>
</tr>
<tr>
<td>DEVIATION</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

80. See Weiler, supra note 1, at 58-61; Bovbjerg et al., Valuing Life and Limb in Tort, supra note 7, at 938-60.

Table 2

Comparisons of Separate Damage Components for Arbitrators and Jurors

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>ARBITRATORS</th>
<th>JURORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Damages</td>
<td>$7,000</td>
<td>$7,000</td>
</tr>
<tr>
<td>Noneconomic: Mean Pain and Suffering Award</td>
<td>$17,350</td>
<td>$16,733</td>
</tr>
<tr>
<td>Noneconomic: Mean disfigurement award</td>
<td>$26,083</td>
<td>$28,119</td>
</tr>
<tr>
<td>Total noneconomic damages: Mean</td>
<td>$43,433</td>
<td>$44,852</td>
</tr>
<tr>
<td>Ratio of noneconomic to economic damages</td>
<td>6.2:1</td>
<td>6.4:1</td>
</tr>
</tbody>
</table>
Table 3

Correlations Between Questions and Demographics and Components of Damages: Arbitrators and Jurors

<table>
<thead>
<tr>
<th>Question</th>
<th>Arbitrators</th>
<th></th>
<th>Jurors</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>P&amp;S</td>
<td>Disfig</td>
<td>Total Award</td>
<td>P&amp;S</td>
</tr>
<tr>
<td>1. How disfiguring is knee scar?</td>
<td>.17</td>
<td>-.18</td>
<td>-.23</td>
<td>.16</td>
</tr>
<tr>
<td>2. How disfiguring is hip scar?</td>
<td>.05</td>
<td>-.44</td>
<td>-.31</td>
<td>.12</td>
</tr>
<tr>
<td>3. How embarrassed is plaintiff?</td>
<td>-.22</td>
<td>.45b</td>
<td>.22</td>
<td>.29b</td>
</tr>
<tr>
<td>4. How is quality of life affected?</td>
<td>-.11</td>
<td>.54b</td>
<td>.36</td>
<td>.02</td>
</tr>
<tr>
<td>5. How serious is knee scar compared to facial scar?</td>
<td>-.25</td>
<td>-.10</td>
<td>-.23</td>
<td>-.04</td>
</tr>
<tr>
<td>6. How serious compared to a male?</td>
<td>.01</td>
<td>.49b</td>
<td>.38</td>
<td>-.05</td>
</tr>
<tr>
<td>7. Was defendant's offer unreasonable?</td>
<td>.41</td>
<td>.34</td>
<td>.56b</td>
<td>.55b</td>
</tr>
<tr>
<td>8. Was plaintiff's offer unreasonable?</td>
<td>-.34</td>
<td>-.30</td>
<td>-.42</td>
<td>-.29b</td>
</tr>
<tr>
<td>9. Was the doctor negligent?</td>
<td>-.65b</td>
<td>-.06</td>
<td>-.42</td>
<td>-.16</td>
</tr>
<tr>
<td>10. Are doctors sued too often?</td>
<td>-.13</td>
<td>.51b</td>
<td>.37</td>
<td>.04</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td>-.07</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td>.20</td>
</tr>
<tr>
<td>Income</td>
<td></td>
<td></td>
<td></td>
<td>.19</td>
</tr>
</tbody>
</table>

*Exact questions are reproduced in the Appendix

*bIndicates a statistically significant relationship at the .05 level of probability.
APPENDIX

PART I

Wilson versus Hall

Background Facts:

On August 1, 1989, Mrs. Wilson went to Dr. Hall because she was having pain in her left foot. Dr. Hall examined her foot and diagnosed her as suffering from a bunion. After Dr. Hall and Mrs. Wilson discussed all of the possible treatment options, they decided that she would have the bunion removed with a surgical procedure called a bunionectomy. The operation required general anesthesia.

Two weeks later Mrs. Wilson went to the hospital to have Dr. Hall perform the surgery. During the surgery, the surgeon or one of the assisting nurses accidentally placed a hot surgical instrument on her knee, causing a severe burn. Dr. Hall discovered the burn during the operation and immediately called a plastic surgeon into the operating room. The plastic surgeon examined the knee injury and diagnosed it as a second and third degree burn. While Mrs. Wilson was still under anesthesia, the plastic surgeon treated the burned area and placed a bandage on it.

When Mrs. Wilson awoke in the hospital recovery room, she was told that there had been an accident during the operation and that she had suffered a severe burn on her left knee. The burn was approximately 2 inches wide by 4 inches long. During her recovery from the surgery she was given pain medication for her foot surgery which also relieved the pain from the burn.

Two weeks later both Mrs. Wilson’s bunionectomy and the burn were healed enough so that she was able to return to work, though she did need crutches to assist in walking. She had to return to the plastic surgeon several times, however, so that he could continue to treat the burn. After five weeks, the plastic surgeon decided that the burn would not heal properly without a skin graft. The skin graft would require Mrs. Wilson to undergo surgery with general anesthesia again. She was understandably frightened by this prospect since the burn accident had occurred during the first surgery.

After much discussion with her doctor and family, Mrs. Wilson agreed to have the necessary skin graft. She entered the hospital and the skin graft surgery was successfully performed. The surgeon took a piece of skin from her hip to cover the knee. She missed two weeks of work while she was recovering from the second surgery.

The end result of the above series of events is that Mrs. Wilson has been left with a scar on her left knee. The scar is approximately 2 inches wide by 4 inches long and is in the shape of an upside-down heart. The scar will not change from its present appearance: she will have the scar as it exists now for the rest of her life. Mrs. Wilson does not suffer from any pain from the scar and she is not limited in the activities she can perform. There is also a small scar on her hip from the skin graft.
The Beginning of the Lawsuit:

Mrs. Wilson contacted an attorney to see what her legal rights were and what compensation she was due as a result of the accident. Mrs. Wilson's attorney and Dr. Hall's attorney met and discussed the case. Dr. Hall readily admitted that he was responsible for the accident and said he was sorry. He offered to pay for all of the medical treatment for the burn ($5,000) for all of the work Mrs. Wilson had to miss as a result of the burn ($2,000). He also offered to pay an additional amount for the pain and suffering caused by the burn and for the permanent disfigurement of the scar on her knee.

Mrs. Wilson agreed that the amount of the medical treatment was $5,000 and the amount of lost wages was $2,000. Mrs. Wilson and Dr. Hall did not agree, however, on the amount to be paid for pain and suffering and disfigurement. Because the two could not agree on an amount of money that both thought was fair, Mrs. Wilson sued Dr. Hall.

Both parties agreed to submit the dispute to a jury in order to decide the fair amount of damages that Dr. Hall should have to pay to Mrs. Wilson for pain, suffering, and disfigurement.

Testimonial Evidence:

The following is an edited version of information that was obtained during the trial. It should help you as a juror to decide the issue of damages. The testimony is from Mrs. Wilson, her attorney, and Dr. Hall's attorney. This testimony along with the pictures of the scar are all of the evidence that you have to decide the case.

At the trial Mrs. Wilson gave all parties the impression that she was a reasonable and sincere person. She is a 35-year-old woman who works as an accountant for a medium sized company. She has a child that is now about five years old.

In response to questions by her lawyer she described her reactions to the injury with respect to a number of matters. Portions of her testimony are as follows.

**Question:** (from her lawyer): What was your first recollection of the injury?
**Answer:** “It was in the recovery room. I felt a lot of pain in my knee but I didn't understand at first. Then, my husband told me there had been an accident. Then the doctor came in and told me as well. He said he was sorry about the accident.”

**Question:** Please describe the pain that you experienced.
**Answer:** “I went home from the hospital after I recovered. I had expected some pain from the bunionectomy but most of the pain was in the knee. I remained in bed for two weeks and was on constant medication for pain. The pain decreased with time.”

**Question:** Tell us about the skin graft.
**Answer:** “The scar on my knee began to turn black and the plastic surgeon said that a skin graft was required. I was afraid of the skin graft, but I was told that without it the burn would take months to heal and I'd be left with an even more horrible scar.”
**Question:** Why were you afraid of the skin graft?
**Answer:** “I didn’t want to go back to the hospital for general anesthesia. I was afraid and I told the plastic surgeon. I felt very vulnerable. I had a normal fear before [the first operation] but realizing that such a horrible thing could happen while they had you asleep made me doubly afraid. I almost canceled the operation the day before, but my husband and the doctor reassured me and convinced me that the surgery was necessary.”

**Question:** What happened with the skin graft?
**Answer:** “I was in the hospital three days and could not get out of bed. I had pain on my knee and on my thigh where they took the skin for the graft and I had to take pain pills for another week. My knee was bandaged for two months and I had to change it many times each week. I couldn’t drive my car because I couldn’t operate the clutch.”

**Question:** Tell us how you feel about the appearance of your knee now.
**Answer:** “It’s ugly. It’s heart-shaped. It stands out, especially when I wear a skirt or a bathing suit at the beach. I’m very self-conscious about my appearance. My husband loves me but he too thinks it’s ugly. And people stare at it. I’m self-conscious. If people ask what happened I just say it was an accident. I don’t want to give them details. Because the scar is heart-shaped it has caused some ridicule from my friends; they say I should have my husband’s name tattooed on it. I know that they are my friends and just having some fun, but I don’t think it is funny.”

**Question:** Do you have any physical disability or current pain as a result of the injury?
**Answer:** “No, I don’t have any pain or disability from the scar on my knee. I do have some eczema, redness and dryness of the skin, at the scar but otherwise no.”

**Arguments to the Jury**

**Lawyer for Dr. Hall**

We do not contend that Mrs. Wilson should not be compensated for her injury. There was an accident and Dr. Hall has said that he accepts responsibility and is sorry. We realize that Mrs. Wilson’s knee can never be put back into the condition it was in before the accident and deserves some amount of compensation. Dr. Hall wishes to emphasize the fact that the compensation should be a fair and reasonable amount. When you are thinking about her disfigurement, please consider the factors such as the size of the scar and the scar’s location. While the scar is permanent, it is not an excessively large scar. Further, the scar is not located in a horrible place, such as the face, but is on her knee where scars are relatively common. Many people have scars on their knees or elsewhere and don’t worry too much about them.

Without question Mrs. Wilson should be paid for her medical costs and lost wages, which amount to $7,000.
The real question is how much she should be paid for her pain and suffering and her disfigurement. I submit that a total award of $22,000 would be appropriate. That would be $7,000 for her medical costs and lost wages and $15,000 for her pain and suffering and for her disfigurement. If she invests that $15,000 today at 8 percent interest, the income from the investment will be $1,200 per year, or $100 every month. In other words, Mrs. Wilson will receive $100 per month for the rest of her life. Since she is now 35 years old and has a life expectancy of at least 40 more years, the income interest from that investment will amount to $63,000 over her lifetime. I submit, therefore, that $15,000 paid today is adequate compensation for her pain and suffering and her disfigurement.

**Lawyer for Mrs. Wilson**

There is no question, as Dr. Hall's lawyer indicated, that Mrs. Wilson should be paid the $7,000 for her medical costs and lost wages. The real issue is how can she be fairly compensated for the pain and embarrassment she has already suffered and for the disfigurement that she will have to live with for the rest of her life. There is no formula to determine such things, but the amount of compensation must be fair. You have had before you evidence that Mrs. Wilson had significant pain from the initial burn to her knee and pain from the plastic surgery to her knee and from her thigh where the skin was taken. She also had periods of being confined to her bed and her home as the result of the operations.

Most important, however, is the fact that she has suffered from a disfiguring scar for two and one-half years and the scar will remain for the rest of her life—and her life expectancy is at least 40 more years. Dr. Hall's attorney has suggested that the scar on the knee isn't so bad, but you have pictures of it and of the skin graft scar on Mrs. Wilson's thigh. Ugly is in the eyes of the beholder and Mrs. Wilson says she is consciously aware of it every day. It makes her stand out and makes her different. Her husband thinks it is ugly and she finds the good-natured teasing by her friends to be uncomfortable. She has testified that to her it is hideous and ugly. And who should know more than Mrs. Wilson?

I do not suggest to you that my client should get an outrageous sum, but it should be a fair award. I suggest that a reasonable lump sum figure for her expenses, her past pain and suffering and for the lifetime disfigurement is between $75,000 and $100,000. I just ask you to consider the facts and give her fair and reasonable compensation.

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**Part 2**

**Judge Instructions and Verdict Sheet**

**Judge Instructions**

The parties to this lawsuit are in agreement about the facts of this case. Dr. Hall is responsible for the accident. They also both agree that he should pay for the damages that have resulted. Both sides agree that her economic damages are $5,000 for medical treatment and $2,000 for lost wages. They do not agree on the amount of money she should receive for the pain and suffering of the burn and for the disfigurement of the scar. Therefore, the parties submitted this case to a jury with the expectation that you will determine a fair amount of money for these damages.
Your job is to consider the instructions below on damages and to award an amount of damages which you consider fair plus the $7,000 for her lost wages and medical bills. After reading the instructions on damages and considering the problem carefully, please complete the verdict sheet and make the award that you consider fair.

**Jury Instructions on Damages**

**ECONOMIC DAMAGES:** Mrs. Wilson should receive $5,000 for medical bills and $2,000 for lost wages.

**PAIN AND SUFFERING:** Damages should include such amount as you find, by the greater weight of the evidence, is fair compensation for the actual physical pain and mental suffering which were the immediate and necessary consequences of the burn. There is no fixed formula for evaluating pain and suffering. You will determine what is fair compensation by applying logic and common sense to the evidence.

**SCARS AND DISFIGUREMENT:** You should consider the evidence introduced in regard to permanent scars and disfigurement. The damages should fairly compensate for the mental pain and suffering which will be suffered as a result of the scar. In considering damages for the future mental pain and suffering, mortuary tables may be considered to show the life expectancy of Mrs. Wilson since the injury will be permanent. Her life expectancy is 40 more years. There will be no damages for the loss of use since Mrs. Wilson is not prevented from doing any of her usual activities. There will be no damages for future pain because Mrs. Wilson does not suffer from any pain in the scar area.

You should now carefully consider the above instructions to determine the amount you will award. Remember:

1. You should award $7,000 for Mrs. Wilson's economic damages.
2. You should award the amount you consider fair in light of the evidence and the instructions on damages for the **pain and suffering**.
3. You should award the amount you consider fair in light of the evidence and the instructions on damages for the **scar and disfigurement**.
4. You should not award any damages to Mrs. Wilson other than those listed in 1, 2, and 3.

**Verdict by Juror.**

Put the figures in the blanks.

1. Economic Damages (Medical and Lost Wages). $7,000
2. Pain and Suffering. $____________
3. Disfigurement. $____________

Total Award is $1 + 2 + 3 = $____________
Reactions to the Case

A. In a few sentences or phrases would you please explain what factors you considered in giving the award to Mrs. Wilson. In other words, what factors were considered important or unimportant, and why?

B. Instructions: Now, we'd like for you to give us your personal impressions or feelings about some of the issues of the case by making ratings on the ten-point scales that accompany each of the following questions. Circle the 1 if your answer is "not at all" and 10 if your answer is "very much" or circle one of the other numbers if your answer is somewhere in between.

1. How disfiguring is Mrs. Wilson's knee scar?  
   Not at all disfiguring 1 2 3 4 5 6 7 8 9 10 Very disfiguring

2. How disfiguring is the skin graft scar on her hip?  
   Not at all disfiguring 1 2 3 4 5 6 7 8 9 10 Very disfiguring

3. To what extent do you believe she is truly embarrassed by the scar?  
   Not at all embarrassed 1 2 3 4 5 6 7 8 9 10 Very embarrassed

4. To what extent will the scars affect the overall quality of Mrs. Wilson's life?  
   Not at all affect 1 2 3 4 5 6 7 8 9 10 Very much affect

5. Compared to someone with a scar on her face how disfiguring is the scar on her knee?  
   Not at all disfiguring 1 2 3 4 5 6 7 8 9 10 Very disfiguring

6. Compared to a male who might have a similar scar on his knee how much different is Mrs. Wilson's scar?  
   Not at all worse 1 2 3 4 5 6 7 8 9 10 Very much worse

7. To what extent was the lawyer for Dr. Hall unreasonable in his suggestion about the appropriate award that should be given to Mrs. Wilson.  
   Very reasonable 1 2 3 4 5 6 7 8 9 10 Very unreasonable

8. To what extent was the lawyer for Mrs. Wilson unreasonable in his suggestion about the appropriate amount of money to be awarded Mrs. Wilson.  
   Very reasonable 1 2 3 4 5 6 7 8 9 10 Very unreasonable

9. To what extent do you believe that Dr. Hall was negligent in the accident?  
   Very negligent 1 2 3 4 5 6 7 8 9 10 Not at all negligent
10. Some people say that in our society doctors are sued too often but other people say that doctors are only sued when they are negligent. Where do you stand on this controversy?

Doctors sued too often 1 2 3 4 5 6 7 8 9 10 Doctors sued only when negligent

C. Instructions: Finally, we would like to obtain some brief biographical information about you. We do not have your name anywhere on this packet of materials so the information that you give cannot be identified with you.

CIRCLE ONE
1. Are you male or female?
2. Please indicate the age range that describes your age by circling one of the categories.
   A. 20-29   D. 50-59
   B. 30-39   E. 60-69
   C. 40-49   F. 70 or over

3. Please circle the category that describes your highest level of education.
   A. 8th grade or less   D. Some university or college
   B. Some high school   E. University or college graduate
   C. High school graduate   F. Post graduate work

4. Please circle your marital status.
   A. Single
   B. Married or Co-habiting
   C. Divorced or Separated
   D. Widowed

5. What is your occupation?

6. If married, what is the occupation of your spouse?
7. Please provide us with your best estimate of your total yearly household income (that is, the combined income of all of the immediate members of your family).
   A. $10,000 or less
   B. $10,000 to $20,000
   C. $20,000 to $30,000
   D. $30,000 to $40,000
   E. $40,000 to $50,000
   F. $50,000 to $60,000
   G. $60,000 to $70,000
   H. Over $70,000

   (CIRCLE)

8. Have you ever served as a juror in a criminal or civil case? Yes No

9. Have you or any immediate member of your family ever been injured by a doctor or other health care provider while you were being treated by him or her? Yes No

10. Approximately how much time did you spend reading the Wilson v. Hall case, thinking about your verdict, and answering this questionnaire?
    a. 15 minutes
    b. 30 minutes
    c. 45 minutes
    d. 60 minutes
    e. More than 60 minutes: How long? __________________