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Time is Money: An Empirical Assessment of Non-Economic Damages Arguments

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TIME IS MONEY: AN EMPIRICAL ASSESSMENT OF NON- ECONOMIC DAMAGES ARGUMENTS

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ABSTRACT

Non-economic damages (pain and suffering) are the most significant and variable components of liability. Our survey of fifty-one U.S. jurisdictions shows wide heterogeneity in whether attorneys may quantify damages as time-units of suffering (per diem) or demand a specific amount (lump sum). Either sort of large number could exploit an irrational anchoring effect.

We performed a realistic, online, video-based experiment with 732 human subjects. We replicated prior work showing that large lump sum demands drive larger jury verdicts, but surprisingly found no effect of similarly-sized per diem anchors. We did find per diem effects on binary

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liability outcomes, and thus expected case values, and we discuss potential causal mechanisms, based in the cognitive science literature.

This empirical work contradicts the speculations by scholars and courts that per diem arguments powerfully impact damage awards by exploiting juror irrationality. Nonetheless, our data surprisingly shows per diem arguments enhancing the expected value of cases by increasing win rates, perhaps because they allow plaintiffs to explain the basis for a large request. This latter dynamic would not seem to justify the proscription currently employed in some jurisdictions.

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INTRODUCTION

One of the most difficult tasks imposed upon a jury in deciding a case involving personal injuries is to determine the amount of money the plaintiff is to be awarded as compensation for pain and suffering. No method is available to the jury by which it can objectively evaluate such damages The chief reliance for reaching reasonable results . . . must be the restraint and common sense of the jury.

Beagle v. Vasold, 417 P.2d 673, 675 (Cal. 1966) (citing C. MCCORMICK, MCCORMICK ON DAMAGES § 88 (1935))

Flying down a highway at seventy-five miles per hour, the tread on the front left tire of an SUV separates. The SUV crashes, paralyzing the driver. At trial against the tire manufacturer, the plaintiff's attorney argues the design of the tires was negligent, asking the jury to find the defendant liable and to award damages. To support the request for economic damages, the attorney provides the jury with past medical bills, calculates lost wages, and totals other economic harm, such as the need to modify the plaintiff's home to accept a wheelchair. Opposing counsel denies liability, but argues in the alternative that the economic damages are much lower, providing competing expert opinions. After closing argument, the jury receives jury instructions providing clear guidance on how to determine liability and economic damages. The abiding hope is that a reasonable award allows the tort system to serve its dual purposes of recompense and deterrence.

"Jurors report being deeply challenged by the task of arriving at damage awards."¹ Non-economic damages, which on average account for 50%–80% of the total jury award, are particularly difficult for jurors because they are not tied to bills, lost income or future healthcare costs.² They are, instead, an effort to quantify human suffering. And they matter. A retired person who is severely injured may have almost no economic loss, but he or she might suffer in severe pain the rest of his life.

So, what can attorneys say to jurors in closing argument on this important and difficult topic? What impact will their argument have? Could it unfairly swing impressionable jurors grasping for anything to hold onto?

1. Valerie P. Hans & Valerie F. Reyna, *To Dollars from Sense: Qualitative to Quantitative Translation in Jury Damage Awards*, 8 J. EMPIRICAL LEGAL STUD. 120, 122 (2011).

2. Neil Vidmar, *The Performance of the American Civil Jury: An Empirical Perspective*, 40 ARIZ. L. REV. 849, 881–84 (1998).

Could arguments about damages could seep into findings on liability?

These questions matter for plaintiffs, defendants, the justice system, and society as a whole. Yet, courts have embraced wildly differing, contradictory approaches to how attorneys may address non-economic damages in closing argument.³ In particular, courts differ on whether the attorney is permitted to break down the years that the plaintiff will suffer with her injuries and disabilities into smaller units of months, days, or even minutes—a rhetorical strategy known as a “*per diem* argument” (even when not limited to days in particular). Some courts allow *per diem* calculations of the amount of time a person will suffer but prohibit suggesting a particular dollar amount (e.g., “plaintiff has 2,225,000 minutes of suffering left in his life; award what you think is fair”). Others allow a lump sum demand but no *per diem* calculation to support it (e.g., “please award \$4,000,000 for pain and suffering”). Still others allow both approaches together—an argument that quantifies how long the plaintiff will suffer in a unit of time then multiplies it by a fixed amount in order to support a total demand (e.g., “58,240 hours left to be awake and in pain multiplied by \$7.50 per hour, supporting an award of \$436,000”). Finally, some states forbid attorneys from saying anything at all about the time a person will suffer or an appropriate amount, leaving the work entirely to the jury.

Each regime is purportedly justified by assumptions about how lump sum and *per diem* calculations will impact a jury.⁴ Some courts speculate that *per diem* calculations will give jurors a false sense that damages are certain, and this will result in runaway awards.⁵ Other courts speculate that *per diem* calculations help jurors quantify pain and suffering damages, as they provide jurors with guidance when deciding a difficult issue.⁶

These are of course empirical questions. This article provides a complete index of the contradictory legal regimes by classifying every state and then randomly assigning mock jurors into one of the regimes, controlling all other information presented. After exposing jurors to a rich forty-minute trial stimulus, including all components of a real trial and legally-

3. See *infra* Part II. A.

4. See generally Shari Seidman Diamond et al., *Juror Judgments About Liability and Damages: Sources of Variability and Ways to Increase Consistency*, 48 DEPAUL L. REV. 301, 318 (1998).

5. See *Caley v. Manicke*, 182 N.E.2d 206, 208 (Ill. 1962). The Supreme Court of Illinois laid out its reasoning for allowing lump sum arguments, but not *per diem*. In holding that the *per diem* argument is improper, the court states that such arguments create “an illusion of certainty” that is not inherent in pain and suffering. *Id.* at 208.

6. See, e.g., *Louisville & Nashville R.R. Co. v. Mattingly*, 339 S.W.2d 155, 161 (Ky. 1960) (holding that if jurors have to put exact figures on pain and suffering, then attorneys should be able to provide guidance on how to do so).

appropriate instructions, we measure both liability findings and outcomes, just as real jurors decide cases. To enhance generalizability, we replicate our own results with a convenience sample of law students.

We find that *per diem* arguments do *not* dramatically increase awards as many states assume; they do, however, impact liability awards, despite the fact they should be conceptually separate. Indeed, *per diem* arguments increase liability awards by about 10%, a counterintuitive result that no state law contemplates.

The article proceeds as follows. In Part I, we systematically survey the fifty state laws on *per diem* and lump sum arguments to identify four distinct legal regimes. We also review an expansive literature that sheds light on the potential arguments for having one set of rules or the other. In Part II, we lay out the design of our experiment. In Part III, we discuss results, including outcomes on amount and variability of damages awards, binary case outcomes, and case expected value. In Part IV, we discuss methodological limitations and implications for law, policy, and strategy. A short conclusion suggests directions moving forward. Appendices provide citations to support the fifty-state survey and additional statistical analyses.

I. BACKGROUND

A. *The Law of Non-Economic Damage Arguments*

We undertook a fifty state (plus D.C.) review to identify state court decisions addressing what closing argument tactics are permissible for guiding the jury's non-economic damages decision. We found that the states fall roughly into four categories:

1. States that allow a lump sum demand and *per diem* calculations to support the demand (twenty-four states);
2. States that allow a lump sum demand but do not allow *per diem* calculations to support the demand (nine states);
3. States that allow *per diem* calculations for the time plaintiff will spend with pain and suffering, loss of enjoyment, etc., but that do not let the plaintiff convert those into a dollar demand (two states);
4. States that prohibit both lump sum demands and *per diem* calculations (four states).

The list above covers thirty-nine states. In addition, there are eight states that leave closing argument to the "sound discretion" of the trial court, including how non-economic damages are argued. Four states that have no clear appellate or statutory law providing a definite answer regarding lump

sum demands and *per diem* calculations. In those states, our informal conversations with practitioners suggest the reality on the ground is that judges have their own preferences across the four dominant approaches, but there is no prevailing statewide practice. Table 1 below displays each category and the respective states.⁷

Table 1. State Authority on the Permissibility of Non-Economic Damages Arguments

	<i>Per diem</i> allowed	<i>Per diem</i> prohibited
Lump sum allowed	Alabama Alaska California Colorado Connecticut District of Columbia Florida Georgia Hawaii Idaho Indiana Iowa Kansas	Kentucky Louisiana Michigan Minnesota Mississippi New Mexico North Carolina Ohio Oregon Rhode Island Vermont
Lump sum prohibited	New Jersey Massachusetts	Illinois Maine Missouri New Hampshire New York North Dakota South Carolina Virginia Wisconsin Delaware Pennsylvania West Virginia Wyoming

Note: The following states have unsettled or unclear law on the issue, or allow trial court discretion: Arizona, Arkansas, Maryland, Montana, Nebraska, Nevada, Utah, Washington. See the Appendix for citation to and discussion of authority for each classification decision.

As can be seen in Table 1, almost 50% of all states (twenty-four) allow

7. More extensive citations have been provided in the Appendix.

a plaintiff to make a lump sum demand and to support that demand with a *per diem* calculation. States that allow this approach often support this rule by stating that closing arguments are allowed to rely on “inferences” from the evidence. This is consistent with the view that a closing argument is just that—an “argument.” And since closing argument is based on inferences, the jury can accept or reject the arguments. For example, in rejecting a challenge to lump sum demands and *per diem* calculations, the California Supreme Court noted attorneys are “permitted to discuss all reasonable inferences from the evidence.”⁸ Courts also suggest that both a lump sum demand and a *per diem* calculation are a logical extension of how jurors decide damages—as *per diem* arguments track how a jury may calculate damages from the evidence. For example, the California Supreme Court has said that, “[i]t would be paradoxical to hold that damages in totality are inferable from the evidence but that when this sum is divided into segments representing days, months or years, the inference vanishes.” In states that allow *per diem* arguments, the concern that such arguments will produce impermissibly high awards is typically rejected. For example, a D.C. court expressed faith in juries, stating that it has “confidence in our juries’ ability to distinguish between argument and evidence.”⁹ The same court also noted the power of trial courts to remit verdicts if they were excessive.¹⁰

In nine states, courts concluded a lump sum demand is allowable, but *per diem* calculations are impermissible. The most common justifications for this position are that *per diem* calculations are either misleading or too easily manipulated. For example, the Illinois Supreme Court held that *per diem* calculations create “an illusion of certainty.”¹¹ New Hampshire’s Supreme Court held that *per diem* arguments are too susceptible to manipulation, stating, “[t]he mathematical formula applied to the plaintiff’s pain and suffering . . . for her life expectancy of 233,600 hours can result in any amount that the imagination of counsel deems advantageous.”¹²

Even within these nine lump sum states, there is some variation in how close to a *per diem* calculation an attorney can come. For example, in Illinois, an attorney demanded \$49,000 for a person with 49 years of life expectancy.¹³ The court affirmed the award, noting that “[c]ounsel may

8. *Beagle v. Vasold*, 417 P.2d 673, 678 (Cal. 1966).

9. *Evening Star Newspaper Co. v. Gray*, 179 A.2d 377, 382 (D.C. 1962).

10. *Id.* at 383.

11. *Caley*, 182 N.E.2d at 208.

12. *Duguay v. Gelinis*, 182 A.2d 451, 454 (N.H. 1962).

13. *Watson v. City of Chicago*, 464 N.E.2d 1100, 1102 (Ill. App. Ct. 1984).

properly suggest a lump sum figure for pain and suffering, and may make reference to life expectancy in conjunction therewith.”¹⁴ The court reasoned that life expectancy is critical in determining awards.¹⁵ It also noted that it cannot be the law that “a total award for pain and suffering lump sum demands which is easily divisible by the plaintiff’s life expectancy” are improper.¹⁶ As a result, although some states facially deny the propriety of *per diem* arguments, they allow at least some reference to life expectancy, so long as the explicit mathematical calculations are not expressed to the jury.

There are two states that allow *per diem* calculations but prohibit a specific reference to an ultimate monetary value for non-economic damages. New Jersey provides the most insight into this approach as it has one of the earlier decisions that prohibits *per diem* calculations and lump sum demands. In *Botta v. Brunner*, the New Jersey Supreme Court reasoned that “[t]here can be no doubt that the prime purpose of suggestions, direct or indirect, in the opening or closing statements of counsel of per hour or *per diem* sums as the value of or as compensation for pain, suffering and kindred elements associated with injury and disability is to instill in the minds of the jurors impressions, figures and amounts not founded or appearing in the evidence.”¹⁷ It prohibited lump sum demands based on similar reasoning. Subsequently, the *Botta* decision was cited extensively across at least 163 different cases in at least twenty different states, with some states agreeing and some disagreeing. Nonetheless, *Botta* is no longer the law in New Jersey. Instead, New Jersey now has a very unusual regime: attorneys cannot make a lump sum demand, but they can make a *per diem* argument so long as it is not connected to a dollar amount.¹⁸ In other words, attorneys can discuss the plaintiff’s life expectancy in units of time (i.e., minutes), but cannot suggest how much a given unit of pain and suffering is worth.

There are only four states that prohibit attorneys from providing a lump sum demand and that also prohibit *per diem* calculations. They tend to do so because they assert that such arguments are not supported by the evidence and could be inflammatory. For example, Pennsylvania holds that lump sum demands in “cases where the damages are unliquidated and incapable of

14. *Id.*

15. *Id.* at 1103.

16. *Id.*

17. *Botta v. Brunner*, 138 A.2d 713, 722 (N.J. 1958).

18. N.J. Ct. Rule 1:7-1(b) (2006). “In civil cases any party may suggest . . . unliquidated damages be calculated on a time-unit basis without reference to a specific sum.” *Id.*

measurement by a mathematical standard” are impermissible because “they tend to instill in the minds of the jury impressions not founded upon the evidence.”¹⁹ Similarly, when prohibiting *per diem* arguments, the Supreme Court of Pennsylvania notes that they are “of course improper.”²⁰

In eight states, trial courts retain discretion about whether attorneys can provide lump sum demands and *per diem* calculations in closing argument. In these states, depending on the case, the judge, and any local rules, lump sum demands and *per diem* calculations could be allowed or disallowed.²¹ Courts that take this approach reason that “the conduct of final argument is within the sound discretion of the trial court, and absent abuse of that discretion, the trial court’s ruling regarding final argument will not be disturbed.”²²

There are also four states in which we were unable to discover clear law regarding lump sum demands and *per diem* calculations.²³ In some cases, such as Tennessee, the courts have expressly reserved rulings, stating that “issues relating to the propriety of particular arguments must await the appropriate cases.”²⁴ In other states, although the highest court has not ruled, intermediate appellate courts have. For example, Texas intermediate courts have approved of *per diem* calculations, making it the law of the land for now.²⁵

B. Literature Review

In law reviews, there are two lengthy articles about *per diem* arguments. Both suggest that *per diem* arguments should not be allowed. But neither cite *any* data regarding the impact of *per diem* arguments, and a close inspection of the articles suggests an underlying hostility towards noneconomic damages generally.

The first article, *Counting Angels and Weighing Anchors* by Joseph King, provides some useful history, explaining that *per diem* arguments are of a “fairly recent vintage” and that the technique was probably popularized by Melvin Belli (nicknamed the “King of Torts”).²⁶ King captures the state

19. *Stassun v. Chapin*, 188 A. 111 (Pa. 1936).

20. *Ruby v. Casello*, 201 A.2d 219, 220 (Pa. 1964).

21. *Richardson v. Child. Hosp.*, 787 N.W.2d 235, 245 (Neb. 2010).

22. *Id.*

23. See appendix for lists of states.

24. *Elliot v. Cobb*, 320 S.W.3d 246, 252 (Tenn. 2010) (Koch, J., concurring).

25. *Hernandez v. Baucum*, 344 S.W.2d 498, 500 (Tex. Civ. App. 1961).

26. Joseph H. King, Jr., *Counting Angels and Weighing Anchors: Per Diem Arguments for*

of the debate: “The use of *per diem* arguments is a highly controversial aspect of what is itself probably the most controversial element of personal injury tort claims, noneconomic pain and suffering damages.”²⁷ King reviews the arguments for and against *per diem*,²⁸ but ultimately takes a stark position, opposing *per diem* arguments as improper and manipulative.²⁹ Relying on a 1983 article published in an insurance defense journal,³⁰ King asserts that the “[u]se of *per diem* arguments has been a significant factor contributing to the increase in damages for pain and suffering in modern tort law.”³¹ King suggests that *per diem* arguments are an “oblique, or perhaps stealthy” way to exploit the anchoring phenomenon,³² and should thus be proscribed.³³ King’s unfavorable view of *per diem* arguments may be driven by his unfavorable view of non-economic damages more generally, describing the task of putting a money value on suffering as illogical.³⁴

In the second article addressing *per diem* arguments, Martin Totaro concludes that, “by falsely attributing mathematical certainty where none exists and ignoring the realities of modern pain management techniques, the *per diem* method misleads jurors into arriving at an artificially high award.”³⁵ Totaro, however, does not identify a lodestar for identifying the proper level of damages from which his claim of artificiality could be contrasted. Totaro also speculates that future medical advances could eliminate the plaintiff’s pain, and he refers to evidence that injured persons may acclimate to the pain.³⁶

There is only one article that addresses *per diem* arguments empirically. McAuliff and Bornstein recruited 180 jury-eligible participants and presented them with a five-page scenario in which liability was already determined in favor of the plaintiff.³⁷ They studied “whether different

Noneconomic Personal Injury Tort Damages, 71 TENN. L. REV. 1, 4–5 (2003).

27. *Id.* at 2–3.

28. *Id.* at 15–16.

29. *Id.* at 28.

30. Jeffrey O’Connell & Keith Carpenter, *Payment for Pain and Suffering Through History*, 50 INS. COUNS. J. 411, 411–12 (1983).

31. King, *supra* note 26, at 5.

32. *Id.* at 37.

33. *Id.* at 49–50.

34. *Id.* at 11 (“By arbitrarily magnifying awards for pain and suffering, *per diem* arguments literally compound the illogic of attempting to monetize pain and suffering into a damages remedy.”).

35. Martin V. Totaro, *Modernizing the Critique of Per Diem Pain and Suffering Damages*, 92 VA. L. REV. 289, 324 (2006) (emphasis added).

36. *Id.* at 290–91.

37. Bradley D. McAuliff & Brian H. Bornstein, *All Anchors Are Not Created Equal: The Effects of Per Diem Versus Lump Sum Requests on Pain and Suffering Awards*, 34 LAW & HUM. BEHAV. 164,

quantifications of the same damage award request . . . influenced pain and suffering awards compared to no damage award request.”³⁸ Specifically, they manipulated the non-economic damage demand by including a demand for \$175,000 lump sum, three different *per diem* strategies—\$10/hour, \$240/day, or \$7300/month for 2 years—or no economic demand at all.³⁹ They found that the \$10 per hour demand and the \$175,000 lump sum demand produced the largest results.⁴⁰ The authors speculated that that jurors took the \$10 an hour demand seriously, as it might have sounded similar to compensation, whereas the daily or monthly rates may have seemed too high when compared to the juror’s own income.⁴¹ Finally, the authors supposed that the \$175,000 demand was likely effective because of anchoring.⁴² The study also concluded that at least one *per diem* demand—\$10 per hour—increased variability among juror awards when compared to no demand.⁴³

The McAuliff and Bornstein study is a significant contribution to *per diem* research, and it calls into question the presumption that *per diem* arguments significantly inflate awards.⁴⁴ However, because some *per diem* arguments influenced jurors much more than others, it is difficult to generalize from these results.⁴⁵ This study also did not cross the lump sum demand with a *per diem* argument for that amount, which may be the most powerful and realistic use of the strategy. Finally, because the study presupposed liability, it is impossible to determine what role *per diem* arguments might play in altering binary liability conclusions and thus overall case value, which is function of both the chance of winning at all and the average award when the plaintiff does win.⁴⁶

Although there is no other empirical research on *per diem* arguments, a broader body of research on “scaling” provides some insight. Scaling effects occur when outcomes are influenced by the type of scale that is used (e.g.,

165–66 (2010). See also Kenneth R Laughery, Danielle Paige, Richard N. Bean & Michael S. Wogalter, *Pain and Suffering Awards for Consumer Product Accidents: Effects of Suggesting Day-rate Information*, 45 PROCEEDINGS OF THE HUM. FACTORS AND ERGONOMICS SOC’Y ANN. MEETING 843 (2001) (testing several different jury demands, some of which were *per diems*, but not investigating alternative ways to argue for the same demand).

38. McAuliff & Bornstein, 34 LAW & HUM. BEHAV. at 164.

39. *Id.* at 164.

40. *Id.* at 170–71.

41. *Id.* at 171.

42. *Id.* at 172.

43. *Id.*

44. *Id.*

45. *Id.* at 171.

46. *Id.* at 173.

asking for a price in terms of dollars versus cents). Research suggests that “[s]cale distorts judgments and preferences.”⁴⁷ Telling someone they received a thousand bonus points is often perceived as better than telling them they received ten bonus points, even though the points, and how many you need in order to redeem them for rewards is entirely arbitrary.⁴⁸ Similarly, people find cancer risk more threatening when expressed in months than in years.⁴⁹

In an ingeniously simple study, Rachlinski and his co-authors presented judges with a criminal case in which guilt was already determined.⁵⁰ They asked the judges to sentence the guilty individual. Half of the judges were asked to sentence the defendant in years and the other half in months.⁵¹ The authors found that, “[s]entencing format had an enormous effect on the judges. The [judges] who sentenced in years provided an average sentence of 9.7 years, or 115 months. In contrast, the [judges] who sentenced in months provided an average sentence of only 66.4 months, or 5.5 years.”⁵² Even experienced decision makers are influenced by how identical information is scaled, suggesting jurors may be susceptible to similar manipulations.

One challenge for this vein of research is that although it is possible to measure how different arguments impact decision makers, it is not possible to say empirically which outcome is “right.” Although we can be sure that such extraneous factors should not matter, empirical studies cannot say which level of fear about cancer is more appropriate or whether the sentence expressed in months or years produces a more just result. Nonetheless, the scaling literature suggests that *per diem* arguments, including how they are expressed, will matter. However, there is very little research examining how

47. Jeffrey J. Rachlinski et al., *Can Judges Make Reliable Numeric Judgments? Distorted Damages and Skewed Sentences*, 90 IND. L.J. 695, 711 (2015). See also Daniel Kahneman, David Schkade & Cass Sunstein, *Shared Outrage and Erratic Awards: The Psychology of Punitive Damages*, 16 J. RISK AND UNCERTAINTY 49 (1998) (finding huge variance in awards when unscaled, but much more coherence among jurors when given a common scale).

48. See Rajesh Bagchi & Xingbo Li, *Illusionary Progress in Loyalty Programs: Magnitudes, Reward Distances, and Step-Size Ambiguity*, 37 J. CONSUMER RES. 888, 892–95 (2010) (reporting research in which subjects expressed a greater affinity for a consumer reward program in which points and prizes were denominated in thousands).

49. See Sucharita Chandran & Geeta Menon, *When a Day Means More than a Year: Effects of Temporal Framing on Judgments of Health Risk*, 31 J. CONSUMER RES. 375, 384 (2004).

50. Jeffrey J. Rachlinski et al., *supra* note 47, at 714–18.

51. *Id.* at 715. Half the judges were instructed as follows: “Without regard to the sentence maximum in your own jurisdiction, how many years would you sentence Smith to serve in prison, based on the facts above?” This was followed by a blank labeled ‘___/years.’ For the other half, the researchers replaced the word ‘years’ with ‘months’ and followed this with a blank labeled ‘___/months.’” *Id.*

52. *Id.* at 716.

per diem arguments operate. As McAuliff and Bornstein put it, “[e]mpirical research on *per diem* arguments is surprisingly scant.”⁵³

The “because” effect may also drive jurors’ responses to *per diem* arguments. There is evidence that even arbitrary justifications might increase compliance with a request compared to no justification at all. For example, Langer, Blank, and Chanowitz conducted a study in which people about to use a public copy machine were approached by an experimenter asking to use the copy machine first.⁵⁴ Three different requests were randomly assigned: 1) “Excuse me, I have 5 . . . pages. May I use the Xerox machine?” 2) “Excuse me, I have 5 . . . pages. May I use the Xerox machine, because I have to make copies?” 3) “Excuse me, I have 5 . . . pages. May I use the copy machine, because I’m in a rush?”⁵⁵ The justifications in Conditions 2 and 3 obviously provide no real information, and thus should not affect compliance rates, if justifications worked only through this informational channel. Yet, the study found that 60% complied in Condition 1, while 93–94% complied in Conditions 2 and 3.⁵⁶ This body of research might suggest that *per diem* arguments, to the extent they function as even a facial justification for an award, might increase the damage award simply because it fits an intellectual script. Further, to the extent that *per diem* arguments are perceived as meaningful information – a valid justification – they should increase compliance with the demand request. Indeed, in observational studies with real jurors, Shari Diamond and colleagues found that when plaintiffs backed up their damages demand with specific evidence, jurors were seven times as likely to accept them.⁵⁷

The phenomenon of anchoring is obviously relevant to lump sum damage demands, and may be relevant to *per diems* as well. Many studies conclude that a successful plaintiff can obtain a higher damage award simply by offering a higher *ad damnum*; that is, requesting more money from the jury.⁵⁸ Psychologists call this an “anchoring effect,” referring to

53. McAuliff & Bornstein, *supra* note 37.

54. Ellen Langer et al., *The Mindlessness of Ostensibly Thoughtful Action: The Role of “Placebic” Information in Interpersonal Interaction*, 36 J. PERSONALITY & SOC. PSYCHOL. 635, 637 (1978).

55. *Id.*

56. *Id.* at 637. The study found that as the number of pages to be copied was increased from five to twenty, the compliance rate for Condition 2 began to match that of Condition 1, suggesting that once people had to engage in more thoughtful deliberation, they recognized that a meaningful justification was really not a justification at all.

57. Shari Seidman Diamond et al., *Damage Anchors on Real Juries*, 8 J. EMPIRICAL LEGAL STUD. 148, 166 tbl.2 (2011) (12.5% compared to 1.8%).

58. See Gretchen B. Chapman & Brian H. Bornstein, *The More You Ask for, the More You Get: Anchoring in Personal Injury Verdicts*, 10 APPLIED COGNITIVE PSYCHOL. 519, 521 (1996); John

when an individual's numerical judgments are inordinately influenced by an "arbitrary number."⁵⁹ Anchors are powerful influences, not only when they are made obvious, but also when subtly embedded in a more complex thicket of information.⁶⁰ Anchoring effects have repeatedly been shown in the context of jury trials,⁶¹ reaching back at least to the 1950s, when the Chicago Jury Project studied jury responses to a typical car accident case.⁶² The study used mock juries who listened to tape-recorded mock trials.⁶³ The participants were actual jurors who were on duty at the time.⁶⁴ Jurors were exposed to higher and lower damages demands. Across conditions, the conclusion was that "the higher the [demand by plaintiff] the higher the verdict."⁶⁵

Studies since then have confirmed that as the demand increases, so does the award—indeed, so much so that one study's title provocatively suggests that "the more you ask for, the more you get."⁶⁶ A few studies suggest that this effect persists even when anchors are extreme. One study tested demands ranging from \$100 to \$1 billion.⁶⁷ Both the absurdly low and inordinately high demands produced anchoring effects, pulling verdicts

Malouff & Nicola S. Schutte, *Shaping Juror Attitudes: Effects of Requesting Different Damage Amounts in Personal Injury Trials*, 129 J. OF SOC. PSYCHOL. 491, 495 (2001) ("The primary finding of the present experiment was that when more money was requested for damages . . . the jurors awarded more.").

59. Amos Tversky & Daniel Kahneman, *Judgment under Uncertainty: Heuristics and Biases*, 185 SCI. 1124, 1128–31 (1974).

60. Chapman & Bornstein, *supra* note 58, at 520 (discussing studies in which anchors, even when included with a variety of other information, proved powerful).

61. See, e.g., Dale W. Broeder, *The University of Chicago Jury Project*, 38 NEB. L. REV. 744, 754 (1959); Barry Markovsky, *Anchoring Justice*, 51 SOC. PSYCHOL. Q. 213, 214 (1988); Jane Goodman et al., *Runaway Verdicts or Reasoned Determinations: Mock Juror Strategies in Awarding Damages*, 29 JURIMETRICS J. 285, 291 (1989); Shari Seidman Diamond & Jonathan D. Casper, *Blindfolding the Jury to Verdict Consequences: Damages, Experts, and the Civil Jury*, 26 LAW & SOC'Y R. 513, 521 (1992); Mollie W. Marti, *Anchoring Biases and Corrective Processes in Personal Injury Damage Awards* (July 1999) (thesis submitted in partial fulfillment of requirements for Ph.D., Graduate College of Iowa) (on file with author); Edith Greene et al., *The Effects of Injury Severity on Jury Negligence Decisions*, 23 LAW & HUM. BEHAV. 675, 678 (1999); Reid Hastie et al., *Juror Judgments in Civil Cases: Effects of Plaintiff's Requests and Plaintiff's Identity on Punitive Damage Awards*, 23 LAW & HUM. BEHAV. 445, 449 (1999); Mollie Marti & Roselle L. Wissler, *Be Careful What You Ask For: The Effect of Anchors on Personal Injury Damage Awards*, 6 J. EXPERIMENTAL PSYCHOL.: APPLIED 91, 94 (2000); Roselle Wissler et al., *The Impact of Jury Instructions on the Fusion of Liability and Compensatory Damages*, 25 LAW & HUM. BEHAV. 125, 126 (2001); Leslie Ellis, *Defense Recommendations, Verdicts and Awards: Don't Find My Client Liable, But If You Do...* (2002) (unpublished Ph.D. dissertation, University of Illinois) (on file with author).

62. Broeder, *supra* note 61, at 753.

63. *Id.*

64. *Id.*

65. *Id.* at 759.

66. See, e.g., Chapman & Bornstein, *supra* note 58.

67. Chapman & Bornstein, *supra* note 58, at 523.

towards them.⁶⁸ Although one study has suggested that absurdly high anchors actually decrease damages,⁶⁹ one of our previous studies calls this into question, as it found that high anchors are uniquely resistant to tactics commonly used to challenge the anchor's veracity.⁷⁰

The anchoring effect may apply with equal force to *per diem* arguments. In classic behavioral experiments, the anchor was completely arbitrary (e.g., a number produced by a spinning wheel or the last digits of a social security number).⁷¹ Thus, one might predict that if a plaintiff computes a very large number of minutes (e.g., 5,000,000) as part of a *per diem* argument, then it may anchor the damages award just as if she had proposed a similarly large lump sum award (\$5,000,000). Indeed, Diamond's research team has shown that a high monetary anchor can backfire, or be muddled through countervailing effects, if it offends the jury, who sees it as "irrelevant" and "outrageous."⁷² A large number generated through a *per diem* argument may have a strong cognitive anchoring effect on jurors without offending their conscious sensibilities about a money demand in particular.

Finally, the "fusion effect" is also potentially relevant to both *per diem* and anchoring tactics, and the law that regulates them. Fusion is a process in which the strength of a case influences damage awards despite static damage evidence or, in reverse, severity of injury influences findings of liability despite static liability evidence.⁷³ The precise mechanism of fusion is unknown, but respected scholars in the area agree that fusion occurs.⁷⁴ Edith Greene, Michael Johns, and Jason Bowman found that jurors allowed severity of injury to influence findings regarding liability.⁷⁵ Broeder agreed, finding that damage awards will generally vary with the strength of the liability evidence against the defendant, and not solely as a function of the

68. Studies finding that an anchoring effect is boundless arguably conflict with more general cognitive science literature that suggests that for an anchor to be salient, it must not be so extreme as to conflict with other scale elements. See, e.g., Barry Markovsky, *supra* note 62, at 214.

69. See Marti & Wissler, *supra* note 61.

70. John Campbell et al., *Countering the Plaintiff's Anchor: Jury Simulations to Evaluate Damages Arguments*, 101 IOWA L. REV. 543 (2016).

71. See Tversky & Kahneman, *supra* note 59.

72. Diamond et al., *supra* note 57, at 176–78.

73. See, e.g., Marti & Wissler, *supra* note 61, at 126 (defining "fusion" as the conflation of liability with damages, or damages with liability); Edith Greene et al., *supra* note 61, at 690 (finding that jurors allowed severity of injury to influence findings regarding liability); Ellis, *supra* note 61 (concluding that severity of injury influenced damages); Broeder, *supra* note 61, at 754 (finding a \$7,000 difference in damage awards based on severity of injury when liability facts did not change).

74. See e.g., Edith Greene, *On Juries and Damage Awards: The Process of Decisionmaking*, 52 LAW & CONTEMP. PROBS. 225, 225, 246 (1989).

75. Edith Greene et al., *supra* note 61 at 690.

plaintiff's loss.⁷⁶ He found a \$7,000 difference in damage awards based on severity of injury when liability facts did not change.⁷⁷ It is possible then, that a *per diem* argument or a high anchor might make damages seem more severe, and that this perceived increase in severity might influence determinations regarding liability.

In sum, the existing literature creates as many questions as it answers. Only one prior empirical study measures of whether *per diem* arguments inflate damages, and they did not interact a *per diem* argument with a lump sum demand. And no one has suggested that *per diems* can impact determinations of liability. This article begins to fill these holes, providing insight on both.

II. EXPERIMENTAL DESIGN

A. Research Questions

Our study tested five primary research questions.

1. **Lump Sum Effects:** Will jurors award larger damages when a plaintiff requests a large specific total amount, even if that amount is unreasonable?
2. **Per Diem Effects:** Will jurors award larger damages when the plaintiff's attorney breaks down the plaintiff's likely time suffering into a large total number of minutes the plaintiff suffered?
3. **Interaction:** Will the lump sum and *per diem* effects interact, perhaps because the *per diem* argument justifies the larger demand?
4. **Predictability:** Will jurors' damages awards become more predictable (i.e., have less variation) when the plaintiff is allowed to request a specific award or give a *per diem* argument for it?
5. **Fusion Effects:** Will jurors change their binary liability verdicts based on the type of damages arguments the plaintiff makes?

Our study also estimates the relative strengths of the effects we identify and suggests how they should impact policy and litigation tactics.

B. Stimulus and Manipulations

We performed an online, vignette-based experiment, in a 2 (lump sum demand or not) x 2 (*per diem* argument or not) between-subjects factorial

76. Broeder, *supra* note 61, at 754.

77. *Id.*

design, as shown in Table 2. All subjects watched a medical malpractice trial video that lasted roughly 40 minutes. The video included judicial instructions, opening statements from the plaintiff's and defendant's attorneys, testimony from expert witnesses about the standard of care in the case, cross-examination of both experts, closing arguments and jury instructions.⁷⁸ Participants were randomly assigned to see one of four different scenarios. Each scenario had or did not have a combination of two different plaintiff's closing damages arguments. This video was developed by real physicians serving as writers of the medical scenario and serving as actors for the expert witnesses, along with an experienced arbitrator consulting on the jury instructions and serving as the judge. Opening and closing arguments were written by one of the co-authors, an experienced trial attorney. Thus, although condensed, the video had a high degree of verisimilitude.

The scenario in the video concerned a primary care physician's failure to diagnose a case of lumbar radiculopathy and refer the patient to imaging, which allegedly would have allowed timely surgery and avoided the permanent disability the patient now suffers. The primary dispute concerned whether the physician-defendant met the standard of care when, instead of ordering imaging, he simply instructed the patient to take over-the-counter medications and return if the pain got worse. On this point, the evidence favored the plaintiff strongly, because the parties did not dispute that a peer-reviewed national practice guideline specifically provides that when a patient has two or more signs of neurological impingement (as the plaintiff did), a physician should order imaging.⁷⁹

Mock jurors viewed one of the four different plaintiffs closing arguments.⁸⁰ In all the variations, the plaintiff and defendant made the same

78. The core trial footage, including jury instructions and two expert witnesses, was taken from a prior experiment. See Christopher T. Robertson & David V. Yokum, *The Effect of Blinded Experts on Juror Verdicts*, 9 J. EMPIRICAL LEGAL STUD. 765, 771 (2012). We modified the trial by adding new expert testimony that favored the plaintiff and new opening and closing arguments by both sides. We excluded individuals who had participated in experiments that used this footage in two ways: (1) individuals that attempted to participate with mTurk identification numbers that had participated in our previous experiments were automatically excluded, (2) at the end of the video, we asked participants if they had seen a variation of this trial before and participants who said "yes" were also excluded from our results. See Eyal Peer et al., *Screening Participants from Previous studies on Amazon Mechanical Turk and Qualtrics* (May 2, 2012), available at <https://experimentalturk.files.wordpress.com/2012/02/screening-amt-workers-on-qualtrics-5-2.pdf>

79. See generally Roger Chou, et al., *Diagnosis and Treatment of Low Back Pain: A Joint Clinical Practice Guideline from the American College of Physicians and the American Pain Society*, 147 ANNALS OF INTERNAL MEDICINE 478 (2007).

80. To see these arguments verbatim, please reference *infra* Appendix A.

Table 2. Transcript of Experimental Manipulations in Closing Arguments, Two Variables Fully Crossed in Four Conditions

	<i>Per diem</i>	<i>No Per diem</i>
Lump Sum	<p>[Scenario 1] Assuming Mr. Stevens lives another 9.5 years, which is about the average for someone in his health condition, he will spend 60 minutes an hour, 24 hours a day, 7 days a week, 52 weeks a year in pain. That is 4,979,520 minutes in pain. I'm asking you to award him one dollar a minute. No rational person would agree to be paid a dollar a minute to suffer pain, and Mr. Stevens wouldn't take that deal either. But he has no choice now. So, do what you can to make this right. Award him \$5,000,000.</p>	<p>[Scenario 2] Award Mr. Stevens \$5,000,000. That's a fair amount for 9.5 years of pain. \$5,000,000 won't make his back better, but it will let him breathe a little easier.</p>
No Lump Sum	<p>[Scenario 3] The law does not allow me to tell you what I think you should award, but I can tell you this. ... Assuming Mr. Stevens lives another 9.5 years, which is about the average for someone in his health condition, he will spend 60 minutes an hour, 24 hours a day, 7 days a week, 52 weeks a year. That is 4,979,520 minutes in pain. 4,979,520 minutes of pain that could have been avoided.</p>	<p>[Scenario 4] The law does not allow me to tell you what I think you should award, but I can tell you this. An expert has said that my client's average lifespan is about 9.5 years. So, you need to award an amount that will help Mr. Stevens breathe easier for the rest of his life. It needs to be an amount that spread over the rest of his life will make things a little better. I trust and know that you can decide on that number.</p>

liability argument and the defendant made the same damages argument. All conditions mentioned that the plaintiff would suffer for 9.5 years—his life expectancy. We manipulated two types of plaintiff damages arguments, lump sum and *per diem*. This resulted in four different scenarios, as shown in Table 2. When a lump sum was not given, the attorney explained that this was because the law did not allow him to do so.

Subjects rendered individual judgments, following pattern jury instructions asking them to respond “yes” or “no” to the prompt: “Based on the instructions provided by the judge in the video, do you believe that the Plaintiff has proved, by the greater weight of the evidence, that the Defendant committed medical negligence?” The jurors who found negligence awarded non-economic damages for “pain and suffering,” which had been defined by the judge’s instructions.⁸¹ Economic damages were not awarded, because the attorneys told the participants that they were not in dispute. Finally, we asked jurors to “in a sentence or two explain your answers.”⁸²

C. Respondents

We recruited subjects from the population of workers on Amazon Mechanical Turk (Mturk) in June 2015 and screened for those that were “jury eligible,” meaning residents of the United States over age 18 who could read, write, and speak English. Subjects were paid four dollars to complete the experiment online. All subjects consented in accordance with IRB requirements. We administered a demographic questionnaire at the beginning of the survey.

In total, 732 people completed the online experiment. The sample was more educated, politically liberal, and younger than the population at large. It was also slightly more male. The race and median income, on the other hand, was more closely representative of the U.S. Census data.⁸³ Balance

81. Following the pattern jury instructions for Arizona, the judge stated that, “if you find Dr. Davidson liable to Mr. Stevens, you must then decide the full amount of money that will reasonably and fairly compensate Mr. Stevens. In this case, the amount of medical expenses and other damages have been stipulated, but you must decide the amount to compensate Mr. Stevens for the pain, discomfort, suffering, disability, disfigurement, and anxiety already experienced, and reasonably probable to be experienced in the future as a result of the injury.” See RAJI (Civil) PIDI (5th ed.).

82. We also collected other data not reported here.

83. Specifically, the sample demographics are as follows: 51% male; mean and median age of twenty-six and thirty-one, respectively; 81% White, 10% African American, 6% Asian, 1% American Indian, and 2% other; 49% with Bachelor’s degree or higher; and 60% lean toward, prefer, or strongly prefer the Democrats.

checks did not reveal any differences in demographic compositions across the four experimental groups; randomization succeeded.

Mturk has become a large and robust platform for social science research, with proven reliability through the replication of many known results.⁸⁴ However, the platform requires great care to ensure meaningful results. Using participants' unique identifiers, we excluded anyone who had participated in previous studies that use the same video. We paid at a rate near the national minimum wage, which was sufficient to recruit enough workers to complete data collection in a matter of hours, minimizing any risk that workers could communicate with one another on chat boards, thereby "unblinding" the experiment.⁸⁵ We did not include "attention check" questions as a method for disqualifying respondents, because that could increase the risk of false positives in our experiment. We also lack a gold-standard measure for how much attention real jurors pay. We did however, screen respondents with poor worker reputation scores (<85%), which indicates a propensity to cheat on Mturk tasks, and warned workers about the risk of nonpayment in our study as a deterrent.⁸⁶ We also measured how long respondents remained on videos, excluding those who took less time than the video length as well as those who took extraordinary amounts of time, suggesting they may have left the monitor and attended to other tasks. Finally, we required participants to enter qualitative responses to explain their decisions (as real jurors would do in deliberations), and we reviewed data for non-responsive answers.

To enhance the generalizability of the primary experiment, we also ran the experiment on a convenience sample of several hundred law students at two universities. Specifically, we wanted to ensure that the results were replicable. We also wanted to investigate whether the effects we saw would differ among those with increased legal literacy. In total, 179 students participated, including 61% who were first year law students participating prior to the beginning of substantive coursework (making them more similar to layperson jurors). The sample was too small to provide statistically significant results; however, it served as general confirmation for our results. We briefly report these results after the primary experiment.

84. See also sources cited *infra* notes 102–103.

85. See generally Eyal Peer et al., *Reputation as a Sufficient Condition for Data Quality on Amazon Mechanical Turk*, 45 BEHAV. RES. METHODS 1023 (2013).

86. *Id.*

III. RESULTS

We report individual juror results in Table 3. To reduce the effect of extreme outliers—which in the real world would be moderated by other jurors in the deliberation process or ultimately by the judge with *remittitur*—we adopted the common statistical technique of transforming all awards above \$5 million to \$5 million.⁸⁷ In addition, because our sample set did not follow a normal distribution, we applied a bootstrapping algorithm to create 95% confidence intervals for different treatments.⁸⁸ Confidence intervals allow the analyst to understand the range of actual values that are consistent with the observed data; these are values that cannot be “ruled out.” Specifically, for each condition we resampled our individual responses to create a new simulated data set of the same size and calculated the mean for this set. We did this 10,000 times to arrive at 10,000 means. We then used the bias corrected and accelerated (BCa) method to determine the upper and lower bounds for a 95% confidence interval.⁸⁹ Finally, as shown in the Appendix, we performed multivariate regressions, with and without demographic controls, to perform hypothesis tests comparing effects and to check for confounds. The p-values discussed below are from these regressions.

87. There were only one or two awards in excess of \$5 million for each condition. *See* Appendix B (histograms depicting frequency of different damages awards).

88. Instead of the upside down “U” shaped normal distribution, the scenarios show a strong cluster at \$5 million with a significant number of substantially smaller damages awards. The scenarios without large lump sum demands also have numerous smaller awards. All scenarios show one award above \$5 million. *See infra* Appendix B. For non-normal distributions, a bootstrapping algorithm is an appropriate method for calculating confidence intervals because it uses the observed distribution rather than assuming normality. *See generally*, BRADLEY EFRON & ROBERT TIBSHIRANI, AN INTRODUCTION TO THE BOOTSTRAP 45, 113, 183 (1993).

89. *Id.*

Table 3. Results by Experimental Condition

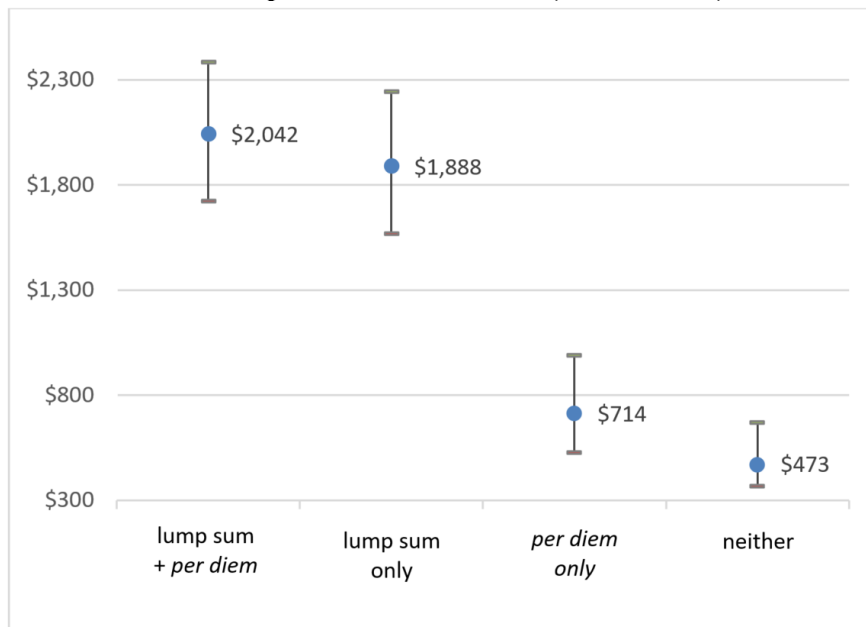
Stimulus	N	Plaintiff Wins		Damages			Case Expected Value		
		#	Rate	Mean	Median	SD	Mean	Median	SD
Lump sum + <i>per diem</i>	190	116	61.1	2,042,006	1,000,000	1,835,123	1,246,698	250,000	1,745,242
Lump sum only	185	94	50.8	1,887,500	1,000,000	1,702,147	959,054	20,000	1,536,121
<i>Per diem</i> only	173	98	56.6	714,317	275,000	1,119,861	404,642	60,000	912,844
Neither	184	94	51.1	473,489	225,000	710,552	241,891	5,000	559,382

A. Effects on Damages

When examining damages, we excluded those observations where mock jurors found in favor of the defendant and found no liability. For example, in Table 3, we had 190 participants that viewed Scenario 1, but only 116 found the defendant liable and their responses were used for our damages analysis. (We include all responses, including those that found no liability, in other analyses below.)

Figure 1 below illustrates the damages results by scenario. Average damages in Scenarios 1 and 2, where the plaintiff's attorney asked for \$5 million, were \$2,042,006 and \$1,887,500 respectively. In contrast, when the plaintiff did not make the large lump sum demand, average damages decreased significantly. Specifically, in Scenarios 3 and 4 average damages were \$714,317 and \$473,489 respectively. The 95% confidence intervals depicted in Figure 1 show similar results and illustrate the difference between damage awards in the presence and absence of a large lump sum demand. Consistent with the prior literature, we found that large lump sum demands have a strong anchoring effect on damages awards.

Figure 1. Mean Damages by Experimental Condition with 95% Bootstrap Confidence Interval (in thousands)



We can isolate the specific effects of the large lump sum demand by looking at the results of our standard regression, presented in the Appendix. In our basic model, the award without the large lump sum demand was \$496,389, which is similar to the unadjusted value shown in Figure 1 (\$473,489).⁹⁰ When the plaintiff asked for \$5 million (Scenarios 1 and 2), that argument increased the damages award by \$1,368,211 or 276% ($p < .001$), again, similar to the effect shown in Figure 1. These results did not change significantly when we included additional variables in different models.⁹¹ Thus, we confirm our first hypothesis—mock jurors respond to large, even unreasonable damages demands, by issuing higher damages verdicts.

Recall that, to create the *per diem* argument, we added a few sentences to the plaintiff's closing argument that characterized the plaintiff's remaining expected 9.5-year life span in terms of 4,979,520 minutes. The manipulation lasted seconds and was an extremely small portion of the approximately forty minutes of trial footage.

As shown in Figure 1, average awards with *per diem* arguments in Scenarios 1 and 3 were \$2,042,006 and \$714,317 (Lump sum/*Per Diem* and *Per Diem* Only, respectively). These results were nominally higher than the averages in the scenarios where the *per diem* argument was not made. In comparison without the *per diem* argument, the average damages awards were \$1,887,500 and \$473,489 (scenario 2 "Lump Sum Only" and scenario 4 "Neither").

Our regression analysis was consistent with these results suggesting that *per diem* arguments increased damages by \$195,963. However, these results were not statistically significant ($p = .2$). Thus, although we suspect *per diem* arguments do increase damages, we had insufficient power to confirm our second hypothesis with respect to damages outcomes. In contrast, the *per diem* argument did have statistically significant effects on both liability and expected value outcomes, discussed below.

We also compared the effects of the large lump sum demand against the *per diem* argument, head-to-head. The large lump sum demand results in dramatically higher damages than the *per diem* argument, increasing damage awards by between \$770,381 and \$1,583,994.

Aside from the average damages, the variability in damages is also an important consideration for risk-adverse litigants and policymakers who

90. See *infra* Appendix B, tbl.1 (Basic Model). The analysis does not differ significantly when we added additional variables to our analysis (Basic +Edu Model and All Model).

favor predictability in outcomes for the sake of due process. Table 4 shows both the traditional standard deviation and the standard deviation as a percentage of the mean (also known as the “coefficient of variation”), for *per diem* and large lump sum arguments. The large lump sum demand increased the standard deviation but reduced the coefficient of variation, which is relative to the average amount of the award. In other words, the range of awards was larger with the lump sum demand, spanning from zero to more than \$5 million (absolute variability). But when you compare this variability to the average award—measured by calculating the standard deviation as a percentage of the mean—the lump sum demands produce lower relative variability. The standard deviation as a percentage of mean was around 90% for both the large lump sum scenarios and 158% and 150% for the scenarios without large lump sum arguments. In contrast, the *per diem* argument did not affect variability.

In sum, the results show that our third hypothesis is also true. Some arguments do appear to reduce variability. In particular, when plaintiffs provide a specific damage request in the form of a large lump sum demand, relative variability of damages is reduced.

Table 4. Standard Deviation and Bootstrapped Confidence Interval of Damages by Experimental Condition, With Standard Deviation as Percentage of Mean

Scenario	Standard Deviation (SD) [Confidence Interval]	SD as % Mean
Lump Sum + <i>Per Diem</i>	1,835,123 [1,673,651–1,983,525]	90.0%
Lump Sum Only	1,702,147 [1,506,029–1,885,025]	90.2%
<i>Per Diem</i> Only	1,119,861 [808,406–1,491,496]	157.8%
Neither	710,552 [471,986–1,207,033]	150.1%

B. Liability Determinations

We also assessed what effect, if any, large lump sum and *per diem* arguments had on binary liability determinations. Table 5 breaks out plaintiff win rates based on the damages argument that the plaintiff advanced, pooling the two *per diem* conditions (Lump Sum/*Per Diem* and

Per Diem Only) against the two non-*per diem* conditions (Lump Sum Only and Neither).

Surprisingly, *per diem* arguments increased the plaintiff's chances of prevailing. Mock jurors found liability 59.9% of the time when the plaintiff made a *per diem* argument. In contrast, mock jurors only found liability in 50.9% of the cases when the plaintiff did not make the *per diem* argument.⁹² These differences were statistically different ($p = .036$, using chi-square test). Thus, we disproved our fourth hypothesis. The plaintiff's chance of prevailing increased when his damages were characterized using *per diem* arguments.

Table 5. Binary Liability Outcomes by Presence of *Per Diem* Argument

	Plaintiff Prevails	Defendant Prevails
No <i>Per Diem</i>	188 50.9%	181 49.1%
<i>Per Diem</i>	214 59.0%	149 41.0%

$p = .036$

We are unable to say why *per diem* arguments affected liability, and our study was not designed to investigate the mechanism. We gathered information regarding jurors' certainty as to liability. After rendering binary judgments, we asked the participants to rate the evidence on a scale 1 (certainly not medical negligence) to 6 (certainly medical negligence). We examined this data to see whether *per diem* arguments created more juror certainty about liability. We detected no such effect. (chi-square = .1466).⁹³

C. Effects on Case Value

Finally, the expected case value takes into account both the defense verdicts and the verdicts for the plaintiff resulting in damage awards.⁹⁴ This dependent variable—which includes all the data, with defense verdicts counted as zeros—allows us to assess the relative strength of the effects

92. The breakdown by scenario can be found in Table 1.

93. The p value ($p = .1466$) results from a likelihood ratio test comparing ordinal regression of the rating on both large lump sums and *per diem* arguments to the null model with an intercept alone.

94. Awards over \$5 million were transformed to \$5 million.

observed above. This dependent variable is the most important for rational litigants, policymakers, and courts concerned with aggregate liability costs. We also have greater power for these tests than for the damages tests, which excluded those observations that found no liability.

For this purpose, we again pooled the data by presence of either lump sum or *per diem*, to test those trial tactics as such. As shown on the left side of Figure 2 below, when the plaintiff asked for \$5 million, expected value jumped significantly. The average individual damage award jumped from \$320,759 to \$1,104,794. Thus, the lump sum case expected value was 344% of the case expected value without the lump sum demand.

Our regression analysis isolated the specific effect of the lump sum argument and found that it increased the case expected value by \$779,029 in our experiment ($p < .001$).⁹⁵ That is a 370% increase. Thus, we confirm that large lump sum demands also strongly increase case expected value.

Although we did not find statistically significant effects of *per diem* on damages,⁹⁶ we did detect such effects on the case expected value.⁹⁷ The right side of Figure 2 shows how the case expected value increased when the plaintiff used a *per diem* argument. The average case expected value jumped from \$601,444 to \$845,388. Thus, the *per diem* award was 141% of the award without *per diem*.

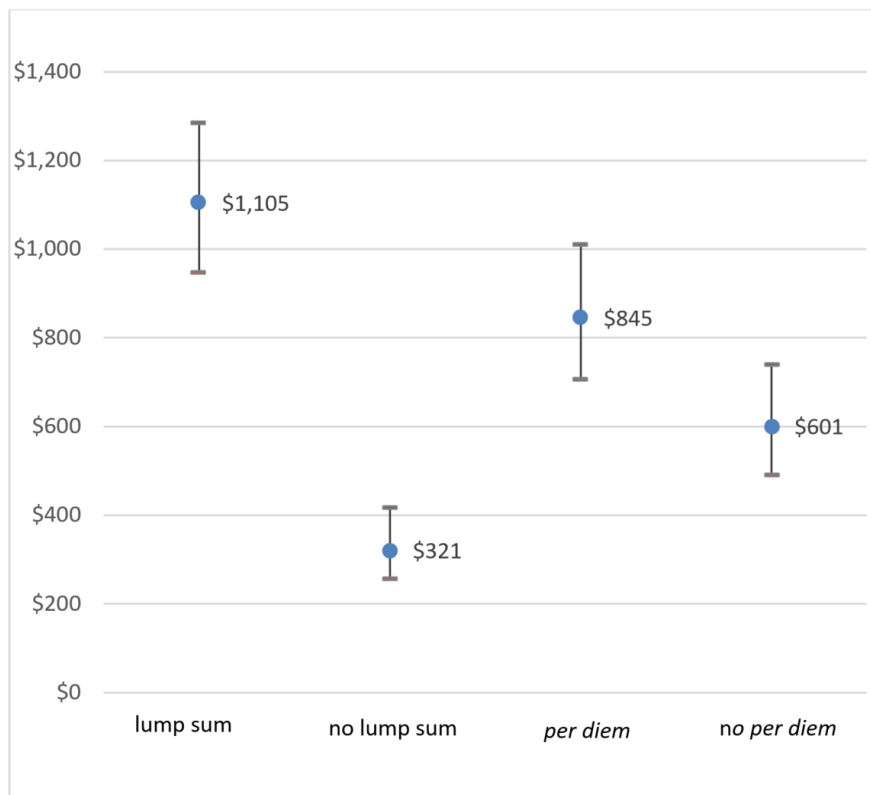
The regression analysis provides a more precise estimate of the *per diem* effects. The *per diem* argument increased the case expected value by \$226,757 ($p < .05$), largely through the binary verdict mechanism. That represents a 108% increase. Thus, we can confirm our hypothesis with respect to case expected values. The *per diem* argument increased case expected value, but in an amount substantially smaller than we observed with the large lump sum.

95. The p value was calculated using bootstrapping.

96. See *supra* Section III(A).

97. We obtained statistically significant results for case expected value (CEV) and not damages for two reasons. First, CEV incorporates both liability and damage determinations, which are two distinct mechanisms of action. Second, our sample size was larger for the *per diem* analysis, since it included the defense verdicts as zeroes.

Figure 2. Case Expected Value by Presence of Lump Sum versus *Per Diem* Arguments with 95% Bootstrap Confidence Intervals (in thousands)



As a whole, our results revealed the following:

1. Requesting a large lump sum award dramatically increases award amounts.
2. *Per diem* awards did not increase damage awards at a statistically significant level, though they may trend in that direction.
3. *Per diem* awards do not interact with large lump sum demands to further enhance awards at statistically significant level, though they may trend in that direction.
4. Lump sum demands reduce the relative variability of awards. *Per diem* arguments do not do so detectably.
5. *Per diem* arguments increase the win rate for plaintiffs at a statistically significant level.

D. Replication with Student Sample

In addition to our large, diverse online research population, we also sought to replicate our key findings with another population. We recruited 179 students at two law schools (New York University School of Law and Sturm College of Law, University of Denver). Using the same video stimuli and online response software, we randomized the students to two of the conditions above, those with and without a *per diem* argument (Scenario 3 vs. Scenario 4). We eliminated Scenarios 1 and 2 for simplicity.

In the student sample, the plaintiff prevailed only 52.4% of the time in the control group without the *per diem* argument and 57.7% of the time with the *per diem* case argument.⁹⁸ Although we cannot rule out the null hypothesis based on this data alone, this trend towards *per diems* increasing the win rate is consistent with our finding in our full-scale study.

On average, students in the control group not seeing the *per diem* arguments and finding in favor of the plaintiff awarded \$705,442 compared to \$775,268 with the *per diem* argument.⁹⁹ This is consistent with our earlier finding. While *per diem* arguments likely do not substantially increase damage awards, they may have some modest advantage for plaintiffs.

IV. LIMITATIONS

Our study had several limitations. First, although our randomized experiment allowed us to isolate causal effects for a particular type of case, it required us to choose a specimen case and exemplars of the manipulations we tested. In particular, we used a case that was a close call on liability, with plaintiff win-rates just over 50%. Much stronger or much weaker plaintiff cases may show different effects. However, since most cases that are tried are close, our study should prove useful in many jury trials. Relatedly, our experiment only exposed mock jurors to one example of a lump sum demand and one example of a *per diem* argument. The effects we tested may either be moderated or enhanced by selecting different numbers or *per diem* strategies (e.g. hours or days instead of minutes).¹⁰⁰ Still, we can expect that

98. The 95% confidence interval for the control group is 41% to 63%, while the interval for *per diem* is 46% to 69%, $p=0.61$.

99. The bootstrapped 95% confidence interval for the control group is \$493,620 to \$1,104,998, and for *per diem* it is \$511,837 to \$1,220,995, $p=0.59$.

100. See Campbell et al., *supra* note 70, at 554–55 (comparing the effects of large unreasonable demands with a small demand).

plaintiffs' lawyers will select large anchors and large lump sums. Our use of nearly equal numbers in both conditions (each approximately \$5 million) allows us to hold potential anchoring constant, while exploring the potential differing informational content delivered by a *per diem* compared to a large lump sum.

Second, we used a forty-minute abridged civil trial for our experimental stimulus. The condensed stimulus allowed us to utilize a randomized, controlled, trial-experiment design, which is the gold-standard for scientific research.¹⁰¹ Still, there are reasonable concerns about external validity. One might expect that the large lump sum or *per diem* effects would be smaller if outweighed by more trial evidence. Still, since this particular manipulation is necessarily right at the end of the case, it will likely be salient to jurors, regardless of how much they saw before. Moreover, compared to other research performed with a few hundred words of text as the stimulus, our forty-minute video stimulus, complete with jury instructions, witnesses, and arguments, is at the high end of the range of external validity.

Third, we did not study real jurors and could not allow respondents to deliberate together to reach collective verdicts. Instead, we used an online population that "is at least as representative of the U.S. population as traditional subject pools"¹⁰² and where known experimental results have been replicated.¹⁰³ However, as noted, that subject pool is slightly more liberal, educated, young, and wealthy than the population as a whole. It also measures only those who have access to the internet. In response to these potential limitations, we took several methodological precautions.¹⁰⁴ Nonetheless, online respondents may be more easily distracted from the trial compared to real jurors. It may be that real jurors are more earnest in their efforts to provide meaningful responses or that real jurors determine liability and damages differently, knowing that the outcomes will impact real individuals and companies. Our factorial design—which manipulates two variables, both in the closing arguments and shows a large effect for one variable (lump sum) and no effect on the other (for damages)—repudiates any simplistic suggestion that participants were systematically

101. See generally, BLINDING AS A SOLUTION TO BIAS: STRENGTHENING BIOMEDICAL SCIENCE, FORENSIC SCIENCE, AND LAW 41–128 (Christopher T. Robertson & Aaron S. Kesselheim, eds., 2016) (discussing the history, ethics, and efficacy of randomized controlled trials in biomedical science).

102. Gabriele Paolacci et al., *Running Experiments on Amazon Mechanical Turk*, 5 JUDGMENT AND DECISION MAKING 411, 411, 414 (2010).

103. Adam J. Berinsky et al., *Evaluating Online Labor Markets for Experimental Research: Amazon.com's Mechanical Turk*, 20 POL. ANALYSIS 351, 362–63 (2012).

104. See *supra* note 82.

unresponsive. Finally, our replication of our primary results with a convenience sample of students further ameliorates concerns that our null results may be peculiar to a particular subject pool. Finally, individual juror verdict preferences have been shown to be predictive for collective jury outcomes, which minimizes concerns about the lack of deliberations.¹⁰⁵

V. IMPLICATIONS

Notwithstanding the limitations mentioned in the previous section, our study suggests several important implications for advocacy and policy.

First, our study showed that a plaintiff's *per diem* argument on damages increased the plaintiff's likelihood of prevailing on liability. This finding is remarkable, as it is one not predicted by the courts or commentators, who have instead focused on the likely effect on damages.¹⁰⁶ One explanation is that mock jurors took more seriously the gravity of the defendant's alleged negligence when the injury was illustrated in this way, or perhaps simply became more sympathetic for the plaintiff when pondering his lived-experience over time. Alternatively, it is possible that respondents found the plaintiff and his attorney more credible because the attorney offered this additional reason for a verdict, a dynamic related to the "because" effect discussed above.¹⁰⁷ These hypothesized mechanisms are not particularly worrisome from a policy perspective; they do not suggest that the *per diem* argument is causing the jury to behave irrationally. Of course, we generally cannot say whether a finding of liability in any given case is good or bad. However, in this case, we do have such a lodestar, since the defendant admittedly violated a national treatment guideline as to the standard of care. Given that the win rate was below what the evidence likely supports, our study suggests that the effect may have been salutary. At a minimum, they suggest that lawyers who are given the option to use *per diem* arguments should do so.

Second, scholars and courts critical of *per diem* arguments have presumed that they will produce drastically inflated awards and are therefore prejudicial. The behavioral science literature further supports the hypothesis that presenting the jury with a number in the millions of minutes

105. See, e.g., Diamond & Casper, *supra* note 61, at 546 (“[T]he median [individual juror award pre-deliberation] is the best single predictor of the jury’s final verdict . . .”).

106. See, e.g., McAuliff & Bornstein, *supra* note 37.

107. See *supra* notes 54–57 and accompanying text.

would tend to anchor damages awards upwards.¹⁰⁸ Our study showed that impacts on damages are smaller than predicted, and in fact, not statistically distinguishable from zero. Thus, although *per diems* appear to be helpful to plaintiffs, the notion that they exploit irrational anchoring effects, and thus should be prohibited, is unsupported.

Third, and relatedly, it is unsurprising that the effects of a large lump sum demand were massive. Multiple studies already confirmed this. Nonetheless, the finding is useful here to put in context the alleged problem with *per diem* arguments. The large lump sum dramatically overwhelmed any *per diem* effect, suggesting that lump sum arguments should be the real target for reformers, if any reform is required at all. Nonetheless, we caution that there is a profound problem of knowing what the “correct” amount of non-economic damages may be in any given case. We suspect that jurors who are not familiar with transactions in the millions of dollars may well underestimate pain and suffering, and guess somewhat randomly if the plaintiff is not allowed to make a specific request.

Fourth, if reducing the variability of jury awards is desirable, our study suggests that allowing lump sum demands is helpful, whereas *per diem* arguments may not produce the same effect. The takeaway is that leaving jurors to attempt to figure out non-economic damage awards without a specific damage request results in more damages variability.

CONCLUSION

Most articles and many courts assume that *per diem* arguments powerfully impact damage awards. Some go so far as to suggest that *per diem* arguments manipulate jurors irrationally and account for astronomical awards. Our study does not support these positions. Instead, the impact on damage awards is nominal, and *per diem* arguments do not significantly alter the variability of awards.

Nonetheless, plaintiffs’ lawyers have been wise to use *per diem* arguments when allowed to do so, since our data shows them enhancing the expected value of cases. Strikingly, our study reveals an unforeseen mechanism. *Per diem* arguments increase the likelihood that jurors will find liability at all. In cases like ours, where the defendant arguably *should* be liable for violating an objective measure of the standard of care, the *per diem* argument is thus on the side of justice. We have only suggested some potential mechanisms for how *per diem* arguments increase liability

108. See, e.g., Tversky & Kahneman, *supra* note 59.

findings, by effecting perceptions of injury severity. Alternatively, or additionally, *per diem* arguments may increase the credibility of the parties who makes them, or increase juror attention to details of the case. Further study is required.

If a modest increase in liability findings is the only effect of *per diem* arguments, it is not clear that courts should proscribe the practice. Indeed, it would be difficult to distinguish this form of argument from other permissible ways in which attorneys try to make the case comprehensible and meaningful for jurors.

APPENDIXES

A. Survey of State Non-Economic Damages Law

The following states allow lump sum demands and *per diem* calculations that support them.

1. **Alabama**¹⁰⁹
2. **Alaska**¹¹⁰
3. **California**¹¹¹

109. The Supreme Court of Alabama did not provide much reasoning in its opinion holding that the *per diem* argument is proper. *Atl. Coast Line R.R. Co. v. Kines*, 160 So. 2d 869, 876 (Ala. 1963). The court held that it was not an error for the judge to allow the plaintiff to use a chart that argued past and future pain and suffering at \$15 and \$5 per day respectively, and totaled a request from the jury of \$74,525 for pain and suffering. *Id.* at 875. Alabama requires that the trial judge give a warning to the jury that the *per diem* argument is merely the belief of the plaintiff, and that it is free to accept or reject it. *Id.* at 876.

110. The Alaskan case authorizing the use of *per diem* arguments is unique in that the defendant was appealing the judge's use of a *per diem* formula in calculating damages. *Beaulieu v. Elliott*, 434 P.2d 665, 675 (Alaska 1967). The judge determined that the plaintiff was entitled to future pain and suffering damages for thirty-six years at a rate of \$20 per day for fifty-two days of the year, and \$3 for the remaining days of the year. *Id.* The court found nothing unfair about the court's use of the formula in determining damages, and that the real question was "whether the total sum is reasonable or not, regardless of how it was arrived at." *Id.* at 676. A further interesting point of *Beaulieu*, is that the defendant argued in the alternative, that if damages are calculated on a *per diem* basis, then that award should be reduced to present value. *Id.* at 676. The court rejected this argument, citing a state rule that when damages are for future earning capacity, they should not be reduced to present value. *Id.* at 676-77.

111. In California, the *per diem* argument is the right of the plaintiff after the California Supreme Court specifically rejected leaving its admissibility to the discretion of the trial court. *Beagle v. Vasold*, 417 P.2d 673, 682 (Cal. 1966). In *Beagle*, the trial judge denied the plaintiff the ability to mention a lump sum or *per diem* argument to the jury, reasoning it was not in evidence. *Id.* at 674. While first acknowledging the difficulty of placing a value to pain and suffering, the court then found error in the trial judge's denial of the lump sum argument, as had been the practice in California for a long time. *Id.*

4. Colorado¹¹²

at 675–76.

In its approval of *per diem* arguments, the California Supreme Court specifically rejected the *Botta* ruling. *Id.* at 678. In the court's view, the *Botta* ruling was flawed. In that case, that the plaintiff sues for money, the defense opposes an award of money, juries award money, but the court's holding forbids any reference to money. *Id.* (quoting *Recent Cases*, 12 RUTGERS L. REV. 522 (1958)). The California Supreme Court agreed with *Botta* in that these arguments by counsel are not found in evidence, but disagreed about whether they can be inferred from evidence. *Id.* Attorneys are "permitted to discuss all reasonable inferences from the evidence," and since the jury must necessarily infer the value of pain and suffering, attorneys are able to discuss that inference. *Id.* Furthermore, the court found it "paradoxical to hold that damages in totality are inferable from the evidence but that when this sum is divided into segments representing days, months or years, the inference vanishes." *Id.*

The *Beagle* court also specifically rejected *Botta's* contention that a *per diem* argument invaded the province of the jury. *Id.* The court likened it to the plaintiff asking the jury to determine liability, as both must come from inferences. *Id.* The court gives a lot of credit to juries, stating:

Nor should we conclude as a matter of law that a jury will ignore the court's instructions to award a reasonable amount as compensation for the plaintiff's pain and suffering and that it will inevitably choose an indefensible course of slavishly follow counsel's suggestions on damages, merely because he asserts in argument that such compensation should be measure on a "*per diem*" basis.

Id. at 678–79 (emphasis added).

As for the *Botta* court's concern that the *per diem* arguments will lead to excessive damage awards, California sees no concern at all. *Id.* at 679. The court points out that the number of cases where a jury returns the exact amount requested by the plaintiff is small. *Id.* Even when they do, "the verdict is not excessive as a matter of law." *Id.* at 680. Also, it should not concern the courts if the *per diem* arguments result in larger awards, as long as those awards are still reasonable. *Id.* If the argument leads to an excessive verdict, the trial and appellate courts have the power to reduce unreasonable awards. *Id.* The court uses the same line of reasoning to deal with concerns over the plaintiff use of small units of time, such as seconds. *Id.* The jury is tasked with coming up with a reasonable award for pain and suffering, and the *per diem* argument is just one way of helping them determine what is reasonable. *Id.*

Beagle also discussed the credibility factor as a deterrent to plaintiffs seeking absurd awards from juries. *Id.* at 680–81. In asking for too much, the plaintiff's counsel undermines his entire case, and runs the risk of defense counsel pointing out the unreasonableness of the argument. *Id.* at 681. Also, the court held that trial judges should instruct juries that such arguments are not evidence, and that they are "not bound by any particular method of calculation in assessing damages for pain and suffering." *Id.*

112. Colorado has an interesting history to its rule allowing *per diem* damages. In 1963, when the Colorado Supreme Court held that *per diem* arguments are permissible, it based its opinion largely on the fact that it was "[a]n integral part of the instructions given by the trial court in this state to the jury contains the amount of compensation sought by the plaintiff for pain and suffering." *Newbury v. Vogel*, 379 P.2d 811, 814 (Colo. 1963). Therefore, "[t]he *per diem* argument is nothing more than a course of reasoning suggested by the plaintiff for translating pain and suffering into reasonable compensation . . ." *Id.* (emphasis added). Colorado seemed to overrule *Newbury* in 1973, when the Colorado Jury Instructions were changed so that the jury would no longer be instructed on the amount the plaintiff requested in its complaint. *Rodrigue v. Hausman*, 519 P.2d 1216, 1217 (Colo. App. 1974). The trial judge in *Rodrigue* had ruled that the plaintiff would not be allowed to argue specific dollar amounts, nor a *per diem* argument under the new instructions. *Id.* However, the Court of Appeals of Colorado held that both the lump sum and *per diem* arguments were admissible. *Id.* The jury instruction was only one of the reasons the court in *Newbury* held the arguments proper. *Id.* The others being that "the *per diem* argument is nothing more than a course of reasoning suggested by the plaintiff for translating pain and suffering into reasonable compensation," and that there is no possibility for jurors to confuse the argument with evidence, because "juries in this jurisdiction are always instructed that arguments of counsel are not evidence . . ." *Id.* (quoting *Newbury*, 379 P.2d at 814) (emphasis added).

5. Connecticut¹¹³

6. District of Columbia

7. Florida¹¹⁴

113. Connecticut has a statutory right to present a lump sum or *per diem* argument to the jury. CONN. GEN. STAT. ANN. § 52-216b (West 2014). The statute survived a validity challenge in *Bartholomew v. Schweizer*, 587 A.2d 1014 (Conn. 1991). The first challenge was under separation of powers because the statute overrules prior Connecticut Supreme Court holdings to the contrary. *Id.* at 1018 (citing *Carchidi v. Rodenhiser*, 551 A.2d 1249 (Conn. 1989)) (plaintiff may not argue lump sum); *Pool v. Bell*, 551 A.2d 1254 (Conn. 1989) (plaintiff may not present a *per diem* argument). The court held that the statute was not “intended to abrogate the power of the court to discipline attorneys or to control their statements during oral argument as justice may require.” *Id.* at 1019. The courts retain the right to monitor closing arguments, and give curative instructions if necessary to prevent prejudice. *Id.* at 1020. The judge can declare a mistrial or “set aside a verdict if counsel’s comments were so prejudicial that no curative instruction could preserve the parties’ right to a fair trial.” *Id.* Further, the court held that statute does not violate the separation of powers, because it is a public policy issue, which is under the authority of the legislature. *Id.*

The defendants in *Bartholomew* also challenged the statute under their right to trial by an impartial jury, asserting that such arguments are “so prejudicial that no curative instruction can ensure a fair result after an attorney has posited such a value.” *Id.* at 1021. The court responded by saying that in most cases, the curative instruction is enough to preserve the defendant’s rights, and “[i]f in any case the statements of counsel so exceed the bounds of propriety that no curative instruction can remove their taint, the court retains the power and duty to declare a mistrial or to set aside a jury’s verdict.” *Id.*

114. While the lower appellate courts in Florida had been approving of plaintiffs’ use of *per diem* arguments since the early 1960’s, the Supreme Court of Florida did not directly weigh in until 1974. *See Braddock v. Seaboard Air Line R. Co.*, 80 So. 2d 662, 662 (Fla. 1957) (Supreme Court of Florida held a verdict for the exact amount requested by plaintiff’s counsel whom had used a *per diem* argument was not excessive without addressing the propriety of the argument used). In *Allred v. Chittenden Pool Supply, Inc.*, the Supreme Court of Florida held that the *per diem* argument, “may be helpful to the jury in its final deliberations . . . [while the argument] is not unfettered and is not evidence.” 298 So. 2d 361, 365 (Fla. 1974). The court held that there was no prejudice or fundamental error, citing the plaintiff’s attorney’s own warning that the *per diem* argument was not evidence, and the judge’s instructions. *Id.* at 366.

The District Court of Appeal of Florida, Third District, generally discussed the arguments for and against *per diem* arguments, before ruling them proper in *Ratner v. Arrington*. 111 So. 2d 82, 88–89 (Fla. Dist. Ct. App. 1959). The arguments against being: (1) no evidentiary basis; (2) counsel cannot suggest the lump sum, so they cannot use a *per diem* argument; (3) attorneys are not allowed to testify; (4) juries will consider the argument evidence, leading to excessive awards. *Id.* The court also pointed out a very interesting fifth argument against the use, stating that:

[F]ollowing such argument by plaintiff, a defendant is prejudiced by being placed in a position of attempting to rebut an argument having no basis in the evidence, with the result that if he does not answer plaintiff’s argument in kind he suffers its effect on the jury, but if defendant does answer in kind he thereby implies approval of the *per diem* argument for damage determination for pain and suffering. *Id.* (emphasis added).

The reasoning for the use of the *per diem* argument, as pointed out by the court was: (1) juries need some guidance in their determinations; (2) juries should not award damages on a “blind guess”; (3) there is no real danger of misleading the jury; (4) that because the jury makes the inference from evidence, the argument is also based in the evidence; (5) it is only a suggestion of one possible method the jury may use in determining the award; (6) *per diems* are only illustration and suggestion; (7) judicial instructions reduce the possibility of the argument being taken as evidence; (8) defendant’s counsel may suggest his own belief of the amount of damages. *Id.* at 89.

8. Georgia¹¹⁵
9. Hawaii¹¹⁶
10. Idaho¹¹⁷
11. Indiana¹¹⁸
12. Iowa¹¹⁹

115. Georgia has statutory authority for lump sum arguments that provides “counsel shall be allowed to argue the worth or monetary value of pain and suffering to the jury; provided, however, that any such argument shall conform to the evidence or reasonable deductions from the evidence in the case.” GA. CODE ANN. § 9-10-184 (West 2014). A *per diem* argument is also proper “provided such argument is within the bounds of reasonable deduction from the evidence in the case.” *Hardwick v. Price*, 152 S.E.2d 905, 908 (Ga. Ct. App. 1966). The court agreed with the reasoning in *Beagle* “that the suggestion of a sum for damages can have no foundation in the evidence.” *Id.* (citing *Beagle v. Vasold*, 417 P. 2d 673, (Cal. 1966)). Also, the court found it “paradoxical to hold that damages in totality are inferable from the evidence but when this sum is divided into segments representing days, months, or years, the inference vanishes.” *Id.* Thus, plaintiff’s statement in closing that “the hourly worth of the plaintiff’s pain and suffering should be as much as the price of a measly bottle of Coca-Cola was not, under the facts of this case, an unreasonable deduction from the evidence . . .” *Id.*

116. Hawaii has statutory authority for lump sum and *per diem* arguments that provides

[i]n all actions for damages for personal injuries or death the parties or their counsel shall be entitled to argue the extent of damages claimed or disputed in terms of suggested formulas for the computation of damages or by way of other illustration, and shall be entitled to state in argument the amount of damages the party believes appropriate. HAW. REV. STAT. § 635–52 (West 2014).

117. In the latest opinion on the subject, the Idaho Supreme Court has found that “[p]er diem arguments are allowed in Idaho as long as counsel does not employ unfair, misleading, or inflammatory tactics in his use of figures.” *Tucker v. Union Oil Co. of Cal.*, 603 P.2d 156, 161 (Idaho 1979) (citing *Meissner v. Smith*, 494 P. 2d 567 (Idaho 1972)). The court held that because plaintiff’s counsel and the trial court had properly informed the jury that they were not bound by plaintiff’s argument, no inflammatory tactics were used. *Id.* The judge’s instruction to the jury stated that “what counsel asked for in their arguments was no criteria for measure of damages sustained. The opinion or conclusion of counsel as to what damages should be awarded should not influence you unless it is sustained by the evidence . . .” *Id.* (internal quotation marks omitted).

118. Indiana allows *per diem* arguments. In holding that such arguments are permissible, the Appellate Court of Indiana cited an earlier Supreme Court of Indiana case as authorizing such arguments. *S. Ind. Gas & Elec. Co. v. Bone*, 180 N.E.2d 375, 380 (Ind. Ct. App. 1962) (citing *N.Y. Cent. R. Co. v. Milhiser*, 106 N.E.2d 453, 460 (Ind. 1952)). *Milhiser* is interesting in that the trial court sustained the defendant’s objection to the use of a chart that was essentially a *per diem* argument. *N.Y. Cent. R. Co. v. Milhiser*, 106 N.E.2d 453, 460 (Ind. 1952). The judge denied the defendants motion to dismiss because the chart had briefly been exposed to the jury. *Id.* In affirming the trial court’s decision, the Supreme Court of Indiana stated that the chart “contained nothing that the attorney was not authorized to discuss and probably did discuss in his argument.” *Id.*

119. In *Corkery v. Greenberg*, the Supreme Court of Iowa approved of *per diem* arguments. 114 N.W.2d 327, 332 (Iowa 1962). The court held such arguments are “nothing more than a suggestion of a course of reasoning from the evidence of pain and disability to the award.” *Id.* The court found no reason to allow a lump sum argument, and not the *per diem*, pointing out that an argument for an unreasonable amount of damages would become more apparent if presented in a *per diem* argument. *Id.* The *Corkery* rule was upheld in *Miller v. Rohling*, where the plaintiff made a *per diem* argument on the stand in a bench trial, testifying to what she believed she was entitled to per hour for damages. 720 N.W.2d 562, 570 (Iowa 2006). The court also approved of the judge’s use of a *per diem* formula in calculating the damages to be awarded. *Id.*

13. Kansas¹²⁰
14. Kentucky¹²¹
15. Louisiana¹²²
16. Michigan¹²³

120. Kansas originally did not allow *per diem* arguments. *Caylor v. Atchison*, 374 P.2d 53, 58 (Kan. 1962). In *Caylor*, the court reasoned that *per diem* arguments are “speculation of counsel unsupported by evidence,” and “amounted to the giving of testimony by counsel” *Id.* The jury in that case had specifically requested to see the chart used in the plaintiff’s summation, which suggested to the court that they viewed it as evidence. *Id.* Seven years later, the Kansas Supreme Court modified *Caylor*, to allow for *per diem* arguments without specific sums attached. *Timmerman v. Schroeder*, 454 P.2d 522, 527 (Kan. 1969). In overturning the jury verdict, the Supreme Court of Kansas cited in part the judge’s denial of plaintiff attorney’s use of a chart that showed life expectancy in total years, total months and total weeks without affixing a dollar figure of damages. *Id.* The court held that such a chart was not barred by the *Caylor* decision. *Id.*

The Supreme Court of Kansas overturned the *Caylor* decision completely in 1997. *Wilson v. Williams*, 933 P.2d 757, 761 (Kan. 1997). In *Wilson*, the court found inconsistent the current state of the rule, which allowed plaintiffs to argue life expectancy in months, weeks, and days, and also to argue a lump sum of damages to be awarded, but they could not combine the two. *Id.* at 760. The court also pointed out that if a jury were to calculate damages on a *per diem* basis on their own, the court would not overturn that verdict. *Id.* at 761. Furthermore, jurors were always instructed that arguments by attorneys were not to be regarded as evidence. *Id.* at 760. Also, the court held that trial judges should give the instruction that opening and closing arguments are not evidence, and “that there is no mathematical formula to determine nonpecuniary damages.” *Id.* at 761.

121. Kentucky approved of *per diem* arguments in *Louisville & N. R. Co. v. Mattingly*, 339 S.W.2d 155, 162 (Ky. 1960). The court held that “[s]ince the jury itself must arrive at a specific figure we see no logical reason why counsel should not be permitted to speak in terms of specific figures.” *Id.* at 161. The court found that *per diem* arguments were no more speculative than lump sum arguments, which are permitted in Kentucky. *Id.* (citing *Aetna Oil Co. v. Metcalf*, 183 S.W.2d 637, 639 (Ky. 1944) (holding counsel is entitled to argue the amount of damages)). The court also cited the trial court’s right to reduce unreasonable damages as a safeguard against excessive damages. *Id.*

122. In holding that the defendant was not prejudiced by a chart depicting a *per diem* argument, the Supreme Court of Louisiana specifically denied the *Botta* rule. *Little v. Huges*, 136 So. 2d 448, 452 (La. 1961). The court deemed *Botta* the minority, and cited twenty-one cases that held the opposite. *Id.* at 452–53. The court also held that the defendant may request that “the trial judge give a cautionary instruction advising the jury that the *per diem* estimates and blackboard or chart computation are not evidence nor exhibits, but constitute mere argument by the attorney.” *Id.* at 453.

123. In *Yates v. Wenk*, the Supreme Court of Michigan made some bold assertions on the psychology of jurors in holding that *per diem* arguments are not even objectionable. 109 N.W.2d 828, 830–31 (Mich. 1961). In specifically rejecting the reasoning in *Botta*, the court used some familiar criticisms of *Botta*. *Id.* at 830. The court disagreed with *Botta*’s rejection of *per diem* arguments on the basis that pain and suffering are impossible to equate to money, saying this is exactly what juries are asked to do and “to which the lawyers’ arguments are required to be directed.” *Id.* The court relied on the then current law in Michigan to read the jury the *ad damnum* from the pleadings to the jury, as further reasoning to allow the *per diem* arguments. *Id.* at 831. While the Michigan statute on pleadings was amended in 1986, restricting plaintiff’s from stating a specific amount in their pleadings if that amount is over \$25,000, there has been no opinion reversing *Yates* on *per diem* arguments. MICH. CT. R. 2.111.

The court also declared that the *per diem* argument would not lead to excessive verdicts for plaintiffs for two reasons. *Yates*, 109 N.W.2d at 831. First, that such arguments would be “effectively balanced by defendant’s lawyer’s counter argument.” *Id.* Second, in an extremely original take on the psychology of jurors, the court stated that “juries automatically discount ‘lawyer talk’ to some degree.”

17. Minnesota¹²⁴
 18. Mississippi¹²⁵
 19. New Mexico¹²⁶
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Id. The court also said that trial judges instruct that the arguments of counsel are not evidence. *Id.*

124. Minnesota's Supreme Court jurisprudence on *per diem* arguments is quite confusing, although in the end, it appears as though they are permissible. Originally, the Supreme Court of Minnesota held that *per diem* arguments were impermissible because "[a]n award for pain, suffering, and disability on a *per diem* basis ignores the subjective basis of such damages." *Ahlstrom v. Minneapolis*, 68 N.W.2d 873, 891 (Minn. 1955). The court noted that damages for pain and suffering were not subject to being reduced to present value due to their inability to be "reduced to mathematical formulae," thus, the same reasoning should apply to counsel's use of *per diem* arguments for pain and suffering. *Id.*

In a case decided by the court just eight days after *Ahlstrom*, the court added that pain and suffering are not uniform from day to day, and counsel using a *per diem* argument will choose "the worst hour or the worst day as a yardstick for evaluating pain." *Hallada v. Great N. Ry.*, 69 N.W.2d 673, 687 (Minn. 1955). The court seemed to frown upon all segmentation arguments, even for loss of earning capacity, saying that such arguments "though illuminating, may be misleading." *Id.* However, the court went on to state "[w]hatever process is adopted in fixing an injured person's damages, the reasonableness of the lump sum awarded by the jury must, in the last analysis, also be tested from the unitary standpoint of what total financial benefits that lump sum will confer upon the injured person as a means of making him financially whole." *Id.* The court found no prejudice or passion from the jury, but held that the verdict was excessive and cited the *per diem* argument as the cause of the excessive award. *Id.*

The very next year, the court seemed to back track from *Hallada* in *Boutang v. Twin City Motor Bus Co.*, 80 N.W.2d 30, 39 (Minn. 1956). The court stated that neither *Ahlstrom* nor *Hallada* held that a "mathematical formula may not be used for purely illustrative purposes." *Id.* The court simply stated that *Hallada* said appellate courts could not use *per diem* formulas for determining the reasonableness of verdicts. *Id.* The court went on to state "[t]his rule does not bar the use of the mathematical formula for purely illustrative purposes." *Id.*

However, that principle was confused in a case heard twenty-two years after *Ahlstrom*. *Busch v. Busch Const., Inc.*, 262 N.W.2d 377, 399 (Minn. 1977). The court stated that *per diem* arguments were not allowed for "pain and suffering, and for other generally non-quantifiable compensatory awards." *Id.* (citing *Ahlstrom*, 68 N.W.2d at 890). *Busch* concerned damages for loss of consortium, which the court found easily quantifiable and thus *per diem* arguments were permissible for such. *Id.* After *Busch*, the Court of Appeals of Minnesota quoted a 1970 Supreme Court of Minnesota case "[t]his approach is not found objectionable where it is coupled with an instruction that the argument is not to be substituted for evidence and that the jury should follow the court's general instructions regarding that element of damage." *Cafferty v. Monson*, 360 N.W.2d 414, 417 (Minn. Ct. App. 1985) (quoting *Christy v. Saliterman*, 179 N.W.2d 288 (Minn. 1970)).

125. The Supreme Court of Mississippi held that *per diem* arguments were proper before most states had decided the issue. *Four-Cty. Elec. Power Ass'n v. Clardy*, 73 So. 2d 144, 152 (Miss. 1954). The court upheld a *per diem* argument for \$5 per day for pain and suffering, stating that "'counsel may in argument to the jury suggest and state what he believes the evidence shows in the way of a damage award . . . and that counsel may draw deductions as to the extent of pecuniary damage, within the confines of the evidence.'" *Id.* (quoting *J.D. Wright & Son Truck Line v. Chandler*, 231 S.W.2d 786, 789 (Tex. Civ. App. 1950)). A few years later, the court affirmed *Four-Cty.* *Arnold v. Ellis*, 97 So. 2d 744 (Miss. 1957). In *Arnold*, the counsel argued that the plaintiff's pain was worth twenty cents per hour, which the court held was only a suggestion of what he thought the pain was worth. *Id.* at 747. Counsel has "the right to state to the jury what he thought would be proper damages for the jury to award for this item, (pain) in his opening statement and arguments." *Id.*

126. New Mexico agrees with California's *Beagle* case, and allows *per diem* arguments in the state. *Higgins v. Hermes*, 552 P.2d 1227, 1230 (N.M. 1976). The court acknowledged that the argument at issue was not a traditional *per diem* argument in that counsel asked for a lump sum, calculated the number of days the plaintiff would suffer, did not do the final calculation, but still approved of the

20. North Carolina¹²⁷**21. Ohio**¹²⁸**22. Oregon**¹²⁹

traditional argument. *Id.* Contrasting *Beagle* against *Botta*, the court found issue with a number of *Botta*'s lines of reasoning. *Id.* The argument is not improper because it presents information not found in evidence. *Id.* On the contrary, "the evidence of the suffering and pain undergone by the plaintiff forms a sufficient foundation for the award of a specific monetary sum" and counselors are permitted to make reasonable inferences from the evidence. *Id.*

The court also rejected *Botta*'s theory that juries latch on to specific numbers presented to them, causing excessive verdicts. *Id.* The court found two faults with the theory. *Id.* First, New Mexico allows lump sum arguments, while New Jersey does not. *Id.* "Secondly, we know of no real support for the theory that the *per diem* arguments results in excessive verdicts, and prefer to control the evil of excessive verdicts by the normal processes of judicial review." *Id.*

127. *Weeks v. Holsclaw*, 295 S.E.2d 596, 600 (N.C. 1982) ("We are persuaded by the reasoning of those courts which conclude that the *per diem* argument may be used provided it is accompanied by cautionary instructions to the jury."):

128. Ohio allows *per diem* arguments for pain and suffering. *Grossnickle v. Vill. of Germantown*, 209 N.E.2d 442, 445 (Ohio 1965). The court first outlined the main reasons against *per diem* arguments:

(1) it displaces the common knowledge and experience possessed by a jury of the nature of pain and suffering, (2) it ignores the fact that pain is generally intermittent, (3) it makes no allowance for a discount for the present use of the total award, and (4) it stretches speculation to absurdity in that pain measured by, for example, a penny a second is equal to \$31,536 a year. *Id.* at 446.

The court then "disposed" of each of the arguments against *per diem*:

(1) [t]he practical fact is that no one intimately experienced with a situation similar to that of the plaintiff in any case would be permitted to sit on a jury; hence, the average juror is unacquainted with the type of pain or suffering which he is called upon to translate into monetary value. (2) Intermittent *pain* may be, but *suffering* the loss of a member or of normal activities is continual. (3) An award in gross is never discounted by the court and, if by the jury, the factor used is never disclosed. (4) The absurdity of any hypothesis is fair game for the opposing party. *Id.*

The court then stated that "the position against the argument in question comes close to a position against any monetary recovery for pain and suffering whatsoever . . ." *Id.* at 446-47.

The court went on to say that that the opposing party should be given equal opportunity to counter the argument. *Id.* at 447. While in *Grossnickle*, the plaintiff did not bring up the *per diem* argument until the defense was unable to rebut it, the court still upheld the verdict because the defense counsel did not object at trial. *Id.*

129. Oregon did not decide on the propriety of *per diem* arguments until 1977. *DeMaris v. Whittier*, 569 P.2d 605, 607-08 (Or. 1977). The Supreme Court of Oregon held that lump sum arguments are permissible, stating "as long as damages for pain and suffering continue to be a proper element of damages, we are of the opinion that counsel can properly suggest what is reasonable compensation." *Id.* at 607. The court went on to say that if a lump sum is proper, the *per diem* argument "does not appear to us to be improper." *Id.* The court did not offer much reasoning, simply differentiating Oregon from *Botta*'s holding that New Jersey does not permit lump sum arguments. *Id.* at 608. However, the court did liken its reasoning to a similar argument in a case on loss of earning capacity in which there was no evidence introduced on the amount of earning capacity lost. *Id.* at 607 (citing *Rich v. Tite-Knot Pine Mill*, 421 P.2d 370 (Or. 1966)). In *Rich*, the court specifically pointed out that the argument at issue in the case was not for pain and suffering before holding it permissible for loss of earning capacity. *Rich*, 421 P. 2d at 378. The reasoning behind the holding was that it "is not a representation to the jury that plaintiff will lose a specific amount of money per day, but is a suggested course of reasoning from the evidence of his injuries . . ." *Id.*

23. Rhode Island¹³⁰**24. Vermont**¹³¹

The states that prohibit *per diem* calculations but that allow lump sum demands are:

1. Illinois¹³²

130. Rhode Island is another state that allows attorneys to argue noneconomic damages using a *per diem* argument. *Worsley v. Corcelli*, 377 A.2d 215, 218 (R.I. 1977). Plaintiff's counsel had proposed to the trial judge four different possible arguments for use in counsel's closing argument: (1) add up the medical bills and lost wages and multiply them by three or four to reach a total damages award; (2) use the plaintiff's annual salary as the value of a year of pain; (3) a traditional *per diem* argument; or (4) tell the jury the *ad damnum*, and then suggest they choose a percentage of that for their final award. *Id.* at 217. The Supreme Court of Rhode Island, after citing what appears to be every case to date for or against the *per diem* argument, held that *per diem* arguments are proper for counsel to use in closing statements. *Id.* at 218. The court found there were sufficient safeguards against excessive verdicts, mentioning instructions from trial courts that the argument is not evidence, rebuttal from opposing counsel. *Id.* The court also mentioned that juries tend to discount "Lawyers' Talk" and the risk that asking for too much could damage the entire argument. *Id.* at 219. Lastly, the trial judge can always reduce "the award if it shocks the conscience or clearly demonstrates that the jury was influenced by passion or prejudice, or that it proceeded upon a clearly erroneous basis in arriving at its award. *Id.* (citing *Ruggieri v. Beaugard*, 291 A.2d 413 (R.I. 1972); *Raiff v. Yellow Cab Co.*, 176 A.2d 718 (R.I. 1962); *Broccoli v. Krzystron*, 137 A.2d 740 (R.I. 1958); *McGowan v. Interstate Consol. St. Ry.* 38 A.2d 497 (R.I. 1897)).

131. Vermont was very late in deciding that *per diem* arguments are permissible. *Debus v. Grand Union Stores of Vt.*, 621 A.2d 1288 (Vt. 1993). The Supreme Court of Vermont held that since counsel is permitted to argue a lump sum, telling the jury how that figure was reached is not impermissible. *Id.* at 1291. Because the jury is directed to award money for pain, they therefore "can benefit by guidance offered by counsel in closing argument as to how they can construct that equation." *Id.* at 1291. The court did caution plaintiffs from going too far, but held that defense counsel's rebuttal is enough to defend against excessive verdicts, and if not, the trial court can reduce such awards. *Id.* at 1290. In a departure from many other states, the court went on to hold that the argument does not need to be accompanied by a specific instruction. *Id.* The usual instruction that counsel's arguments are not evidence is sufficient. *Id.* at 1291. The court also approved of plaintiff's counsel's own statements to the jury that pain is not easy to quantify. *Id.* Also, it appears that in Vermont, future damages for pain and suffering should be reduced to present value. *Id.* at 1291–92 (quoting defendant's proposed jury instruction on present value that specifically includes pain and suffering, but not commenting on the propriety of doing so, holding only that the pattern jury instruction that states all future damages should be reduced).

132. In *Caley v. Manicke*, the Supreme Court of Illinois laid out its reasoning for allowing lump sum arguments, but not *per diem*. 182 N.E.2d 206 (Ill. 1962). In holding that the *per diem* argument is improper, the court states that such arguments create "an illusion of certainty" that is not inherent in pain and suffering. *Id.* at 208. The court also states that a jury warning that such arguments are not evidence "ignores human nature." *Id.* at 209. Also, an opposing *per diem* argument would not "remedy the situation because this would only emphasize the improper argument and would further mislead the jury into relying on the formulae and figures rather than the actual evidence of damages." *Id.* The Supreme Court of Illinois went on to hold that arguing a lump sum for pain and suffering is permissible. *Id.* The fact that such had been the accepted practice and custom in Illinois and that the court considered "such practice far less misleading than the argument of a mathematical formula" were the court's reasoning for the apparent contradiction. *Id.*

Interestingly, the Appellate Court upheld the admissibility of a plaintiff's argument that requested \$49,000 for 49 years of pain because "[c]ounsel may properly suggest a lump sum figure for

2. **Maine**¹³³
 3. **Missouri**¹³⁴
 4. **New Hampshire**¹³⁵
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pain and suffering, and may make reference to life expectancy in conjunction therewith.” *Watson v. City of Chicago*, 464 N.E.2d 1100, 1102 (Ill. App. Ct. 1984) (citing *Caley* 182 N.E.2d at 206; *Thompson v. Lietz*, 420 N.E.2d 232 (Ill. App. Ct. 1981)). The court reasoned that the formula used was “glaringly transparent,” and that to hold it improper would essentially declare all lump sum arguments “which [are] easily divisible by the plaintiff’s life expectancy, [improper] lest the jury perceive therein some mathematical relationship between the amount requested and life expectancy.” *Id.* “A plaintiff’s life expectancy is an important element to be considered in determining an award for future pain and suffering . . . and it is therefore not unreasonable to expect that there will be some relationship between life expectancy and the figure suggested by counsel in arguing that element of damages.” *Id.* at 1103.

133. Maine allows counsel to argue a lump sum for damages to the jury in closing arguments. *Horner v. Flynn*, 334 A.2d 194, 207 (Me. 1975). Maine’s Practice Series states that *per diem* arguments are prohibited. 4 Maine Prac., Trial Handbook § 37:10 (2016 ed.). However, the case it cited is less clear. *Hartt v. Wiggins*, 379 A.2d 155, 158 (Me. 1977). It states because the court found that the argument at issue was not a *per diem* argument, it was “wholly unnecessary for [the court] to pass upon the propriety of so-called *per diem* argument for pain and suffering, and we intimate no opinion whatever on that question.” *Id.* The plaintiff in *Hartt*, had simply broken the total damages requested into categories. *Id.*

134. The Supreme Court of Missouri proscribed *per diem* arguments in *Faught v. Washam*, 329 S.W.2d 588, 603 (Mo. 1959) *rev’d on other grounds by* *Tune v. Synergy Gas Corp.*, 883 S.W.2d 10, 28–29 (Mo. 1994) (holding that it is always prejudicial error for an attorney to violate the golden rule). The court stated such arguments are “calculated and designed to implant in the jurors’ minds definite figures and amount not theretofore in the record (and which otherwise could not get into the record) and to influence the jurors to adopt those figures and amounts in evaluating pain and suffering . . .” *Id.* The court used as part of their reasoning a case out of Florida, where a jury returned the exact number the plaintiff’s counsel had suggested using a *per diem* argument, and which the Supreme Court of Florida affirmed without opinion. *Id.* (citing *Seaboard Air Line R. Co. v. Braddock*, 96 So. 2d 127 (Fla. 1957)). It appears Missouri has decided that any jury that returns a verdict that is exactly what the plaintiff has asked for is unreasonable. In 1978, the rule proscribing *per diem* arguments was upheld, but the court also noted that it had not found a single case that had been reversed because of the use of such an argument. *Graeff v. Baptist Temple of Springfield*, 576 S.W.2d 291, 302–03 (Mo. 1978).

In *Goldstein v. Fendelman*, the court affirmed the holding of *Faught*, yet distinguished lump sum arguments holding it permissible for counsel to state amounts that are fair and reasonable. 336 S.W.2d 661, 667 (Mo. 1960). The court set a limitation to such arguments, declaring it unfair for plaintiffs to make the argument for the “first time in his closing arguments, when defendant’s counsel has made no argument as to amount.” *Id.*

135. The Supreme Court of New Hampshire delivered two opinions within a month of each other proscribing against the use of *per diem* arguments. The first, *Duguay v. Gelinas*, held that *per diem* arguments are impermissible but that lump sum arguments are permissible. 182 A.2d 451, 453–55 (N.H. 1962). The court found that *per diem* arguments are too susceptible to manipulation stating “[t]he mathematical formula applied to the plaintiff’s pain and suffering . . . for her life expectancy of 233,600 hours can result in any amount that the imagination of counsel deems advantageous.” *Id.* at 454. The argument “introduces an element of apparent precision that is illusory and compounds the dangers of conjecture.” *Id.* The court cited *Seffort v. Los Angeles Transit Lines* out of California as an example of jurors adopting the mathematical formula as fact. *Id.* at 454 (citing *Seffort v. Los Angeles Transit Lines*, 364 P.2d 337 (Cal. 1961)). In *Seffort*, the jury returned a verdict of the exact sum requested by plaintiff’s counsel, and the California Supreme Court affirmed the judgment. *Seffort*, 364 P.2d at 347; *Duguay*, 182 A.2d. at 454.

In the second case, *Chamberlain v. Palmer Lumber, Inc.*, the plaintiff had affixed specific sums to the year right after the injury, and then a smaller sum per year for the next four years. 183 A.2d 906,

5. New York¹³⁶**6. North Dakota**¹³⁷**7. South Carolina**¹³⁸

908 (N.H. 1962). The court found that this violated the rule announced in *Duguay*. *Id.* This case is interesting, in that it disallows an argument that seems more reasonable, assigning higher amounts for pain and suffering in years when the pain is greater, rather than a uniform amount spread throughout the time of pain. Counsel in *Chamberlain* also made a traditional *per diem* argument, based on weeks, which the court deemed improper. *Id.*

136. New York's highest court, the Court of Appeals of New York, has never ruled on the *per diem* arguments. The closest they came was in *Tate v. Colabello*, in which they deemed the argument at issue not a *per diem* argument, stating "we have not had the opportunity to pass on [*per diem* arguments], this case does not present the occasion to do so." 445 N.E.2d 1101, 1103 (N.Y. 1983). Counsel had broken down the injury into time units, however, counsel did not assign specific amounts to those time units, nor multiply it out to reach a total amount of damages. *Id.* Interestingly, in the same opinion, the court upheld precedent that allows the plaintiff to make a lump sum argument. *Id.* (citing *Rice v. Ninacs*, 312 N.Y.S.2d 246, 251 (N.Y. App. Div. 1970)). Therefore, in New York, a plaintiff may argue a total lump sum, and break down pain and suffering into time periods so long as they do not assign amounts to those time periods nor do the math for the jury. *See, e.g.*, *Miller v. Owen*, 709 N.Y.S.2d 378, 378–79 (N.Y. Sup. Ct. 2000) (holding that plaintiff is able to state lump sum, but a *per diem* argument in opening statement is impermissible because dollar amounts were assigned to the time units).

137. In North Dakota, counsel may make a lump sum argument, provided "that the argument has some foundation in the evidence of the case." *Brauer v. James J. Igoe & Sons Const., Inc.*, 186 N.W.2d 459, 475 (N.D. 1971). However, The Supreme Court of North Dakota deemed *per diem* arguments improper, as an invasion of the province of the jury. *King v. Ry. Exp. Agency, Inc.*, 107 N.W.2d 509, 517 (N.D. 1961). The court held that such arguments amounted to counsel testifying, and permitting the argument creates a danger that "the jury will substitute counsel's suggested value of such items for evidence." *Id.* It is the jury's duty to determine what is a fair and reasonable verdict based on the evidence. *Id.* The *per diem* argument allows counsel to place figures before the jury that are not based on any evidence from the case. *Id.* The court stated that the arguments simply "back up and bolster the plaintiff's claim for pain and suffering . . ." *Id.* Had plaintiff's counsel merely suggested that the jury create its own *per diem* formula in determining the damages, there would be no error. *Id.* But, because the counselor suggested amounts, and the jury might have adopted those amount, "the verdict would not be based on competent evidence in the record." *Id.* The court overturned the verdict, even though they held that the verdict was not excessive. *Id.*

138. South Carolina has a very interesting rule regarding *per diem* arguments. In *Harper v. Bolton* the Supreme Court of South Carolina held "it was error for the trial judge to permit counsel for the respondent to endorse on a blackboard his own personal opinion as to the *per diem* value of pain and suffering." 124 S.E.2d 54, 59 (S.C. 1962). The court used the familiar reasoning that by doing so, counsel is arguing to the jury facts with no foundation in evidence, and the "inferences [are] based on or drawn from facts which are not even admissible in evidence." *Id.*

Another case in South Carolina dealing with *per diem* arguments held that when "counsel carefully refrained from giving his opinion as to the *per diem* value thereof, being careful to point out that only the jury could place a monetary value thereon; and we are of opinion that the use of the *per diem* formula for illustrative purposes was not error." *Edwards v. Lawton*, 136 S.E.2d 708, 711 (S.C. 1964). In *Edwards*, plaintiff's counsel told the jury it could use a number of methods to determine a reasonable award for pain and suffering, and that one possibility was a *per diem* formula. *Id.* at 709. "Now, if you decide, and you may decide, that he is entitled to fifteen dollars a day, or ten dollars a day, or five dollars a day, or nothing . . ." *Id.* Plaintiff's counsel continually reminded the jury it was up to them to determine a value *per diem*, but also continually suggested figures, and multiplied them out to get total suggested awards. *Id.* It seems as though the court felt that since counsel gave not just one, but multiple suggestions to the jury while reminding it that it was entirely its decision, the court held that this was not an improper *per diem* argument under *Harper*. *Id.* at 709–11.

8. Virginia¹³⁹
9. Wisconsin¹⁴⁰

It appears that South Carolina allows plaintiffs to make lump sum arguments on pain and suffering. In *Felder v. Johnson*, the Supreme Court of South Carolina affirmed a verdict in favor of the plaintiff. 257 S.E.2d 714, 716 (S.C. 1979). Plaintiff's counsel had argued amounts for medical bills and lost wages, and then a separate amount for "just not having a leg and not being able to do the things that people can do who have two good legs for the rest of his life of 39 years . . ." *Id.* The defendant challenged the argument under *Harper*, and the Supreme Court deemed the argument was proper. *Id.*

139. Virginia has statutory authority for informing the jury the total amount of damages sought. VA. CODE ANN. § 8.01-379.1 (West 2015). Breaking damage arguments down into component parts, i.e., asking for a total specific sum for pain and suffering, is also permissible. *Wakole v. Barber*, 722 S.E.2d 238, 241 (Va. 2012). On the other hand, Virginia does not permit *per diem* arguments on pain and suffering, as the Supreme Court deemed that such arguments invade the province of the jury. *Certified T.V. & Appliance Co. v. Harrington*, 109 S.E.2d 126, 131 (Va. 1959). To the court, the argument "may tend to instill in the minds of the jurors impressions not founded on the evidence. Verdicts should be based on deductions drawn by the jury from the evidence presented and not the mere adoption of calculations submitted by counsel." *Id.*

140. In holding that *per diem* arguments are impermissible, the Supreme Court of Wisconsin started by pointing out that few trial judges in the state had allowed them. *Affett v. Milwaukee & Suburban Transp. Corp.*, 106 N.W.2d 274, 277 (Wisc. 1960). The court also held the arguments are "pure speculation by counsel, which is not supported by the evidence and present matters which do not appear in the record." *Id.* at 279. The court points out that pain is not uniform for the plaintiff over their life, and there is no mathematical formula which can account for the varying degrees of pain from day to day. *Id.* It is used to make a certain amount of money seem reasonable by showing that it really is only a small amount of money on a day to day basis. *Id.* The court took issue with this in that it establishes "a fixed standard to displace the jury's concept of what is a fair and reasonable amount to compensate for the pain and suffering sustained . . ." *Id.* at 279–80. Another contention the court has with the argument is "[t]he absurdity of a mathematical formula is demonstrated by applying it to its logical conclusion. If a day may be used as a unit of time in measuring pain and suffering, there is no logical reason why an hour or a minute or a second could not be used, or perhaps even a heart beat [sic] since we live from heart beat [sic] to heart beat [sic]." *Id.* at 280. In a later case, the Supreme Court of Wisconsin affirmed a verdict, even though the plaintiff used a *per diem* argument, because the defendant was not timely in objecting to its use. *Miles v. Ace Van Lines & Movers, Inc.*, 241 N.W.2d 186, 189 (Wisc. 1976).

Attorneys are permitted to make lump sum arguments for pain and suffering. *Affett*, 106 N.W.2d at 280. The Supreme Court also took away much of the trial courts' discretion on allowing lump sum arguments they feel are unreasonable, holding that the test is not the trial judge's belief of a reasonable award, but the juries'. *Fischer v. Fischer*, 142 N.W.2d 857, 861 (Wisc. 1966), *rev'd on other grounds* by *Matter of Stromsted's Estate*, 299 N.W. 2d 226 (Wic. 1980) (concerning who is a party to a contract when the husband consents to medical procedures for his wife). The court rejected the idea that to ask for too large or too small of an amount was an ethics violation, quoting a prior case: "The measurement of pain and suffering is so patently thorny that the yardstick used by counsel should not be condemned merely because the court considers it too long or too short." *Id.* (quoting *Halsted v. Kosner*, 118 N.W.2d 864, 866 (Wisc. 1963)). The court had faith in the jury's ability to discern or reject extremes in the appraisal of damages, and we conclude that if trial counsel is permitted to express their own subjective advocate's appraisal of damages that demands completely unsupported by evidence will be rejected by the jury. The probability of a "backfire" in the event of an unreasonable demand is likely to make this phase of trial advocacy self-policing. *Id.* at 862.

In *Fisher*, the trial judge had sustained an objection to plaintiff's counsel stating a lump sum request for pain and suffering. *Id.* at 860–61. The Supreme Court was concerned that in doing so, the judge had tipped to the jury that he felt such an amount was unreasonable. *Id.* at 863.

The states that allow some form of *per diem*, but that do not allow lump sum demands are:

1. **New Jersey**¹⁴¹
2. **Massachusetts**¹⁴²

The states that prohibit both lump sum and *per diem* are:

1. **Delaware**¹⁴³
2. **Pennsylvania**¹⁴⁴
3. **West Virginia**¹⁴⁵

141. N.J. Ct. R. 1:7-1(b) allows either party to argue that “unliquidated damages be calculated on a time-unit without reference to a specific sum.” *Id.* The judge must give a limiting instruction that it is argument only, and not evidence. *Id.*

142. The *Massachusetts Practice Series* states that it is improper for counsel to make a lump sum argument to the jury without citing any authority for the rule. 43 MASS. PRAC., TRIAL PRACTICE § 19.20 (2d ed. 2013). The Massachusetts rule on *per diem* arguments seems to be similar to the statutory rules in New Jersey, in that they may break down the time of pain and suffering into smaller units, without assigning a total value. See *Cuddy v. L & M Equipment Co.*, 225 N.E.2d 904, 908 (Mass. 1967). In the argument at issue in *Cuddy*, plaintiffs used a quasi *per diem* argument, noting life expectancy of the plaintiff, and suggesting a number of possible sums per week, while also reminding the jury that it was up to it to determine the value. *Id.* at 908 n.3. Counsel also told the jury they could reject the life expectancy given in evidence, and determine its own life expectancy for the plaintiff. *Id.* The court expressly states that it is not deciding on the propriety of *per diem* arguments, but goes on to say that “[w]hatever dangers such a line of argument may be thought to present, those dangers were adequately forestalled by the judge’s charge to the jury.” *Id.* at 909. The practice series also suggests that plaintiff’s attorneys break down life expectancy into days, and then ask the jury to determine a value per day for pain and suffering. 43 MASS. PRAC., TRIAL PRACTICE § 19.15 (2d ed. 2013).

143. Delaware has a rule proscribing *per diem* arguments that dates back to the 1958 case *Henne v. Balick*. 146 A.2d 394 (Del. 1958). The Delaware Supreme Court gave the defendant a new trial because the plaintiff had used a *per diem* argument for pain and suffering. *Id.* at 398. The court reasoned that because pain is different for different individuals, and even varies in degree day to day for the same individual, a *per diem* argument is improper. *Id.* The court also held it improper because no court would allow an expert to testify that an individual experiences a specified dollars’ worth of pain per day, so therefore an attorney may not assert that which an expert may not. *Id.* Such a determination is left for the jury. *Id.* The argument was “speculation of counsel for plaintiff unsupported by the evidence” and was used “solely to introduce and keep before the jury figures out of all proportion to those which the jury would otherwise have had in mind, with the view of securing from the jury a verdict much larger than that warranted by the evidence.” *Id.*

144. Pennsylvania does not allow lump sum nor *per diem* arguments, providing little reasoning in both cases deciding the issues. In holding lump sum arguments impermissible in “cases where the damages are unliquidated and incapable of measurement by a mathematical standard,” the court merely states “they tend to instill in the minds of the jury impressions not founded upon the evidence.” *Stassun v. Chapin*, 188 A. 111 (Pa. 1936). For its rule proscribing *per diem* arguments, the Supreme Court of Pennsylvania simply stated that they are “of course improper.” *Ruby v. Casello*, 201 A.2d 219, 220 (Pa. 1964).

145. West Virginia bars the use of *per diem* arguments under the court’s reasoning that “[t]here can be no doubt that if the mathematical formula arguments were permitted, verdicts would be increased materially because of the emotions of sympathy, prejudice or compassion.” *Crum v. Ward*, 122 S.E.2d

4. Wyoming¹⁴⁶

States that defy categorization are:

1. Arizona¹⁴⁷

18, 27 (W.Va. 1961). In an extensive opinion on the issue, the Supreme Court of West Virginia recited much of the *Botta* case, diving into psychological aspects of the argument without citing any references. *Id.* The court was concerned with the power of suggestion, with its “immeasurable effects,” and that “[t]o merely suggest the existence of pain and suffering, especially pain and suffering of a fellow human being, engenders or activates such complex emotions as sympathy, prejudice, compassion and caprice that exist in every normal person, including each of the twelve jurors, and creates a fervent, resolute desire to relieve or aid the sufferer.” *Id.* at 26. Furthermore, the power of suggestion is even more dangerous in the hands of experienced, learned and eloquent counsel, and even more greatly enhanced by the action of the trial judge in telling the jury, which he effectively does by approving or permitting the argument, that the suggestion of money value of pain and suffering is a reasonable argument and is justifiable, notwithstanding the complete absence of facts related to money value thereof. *Id.* at 26–27.

As for lump sum arguments, it seems as though West Virginia does not like the plaintiff making any statement about monetary figures for any type of damages. *See Bennet v. 3 C Coal Co.*, 379 S.E.2d 388 (W.Va. 1989). In *Bennett*, the court held that “the better practice is to avoid mentioning to the jury the amount sued for, but such disclosure alone may not be reversible error.” *Id.* at 397. The court found four reasons for prejudicial error in that case: (1) the only damages sought in the case were for mental distress and punitive; (2) amount was stated in both opening and closing; (3) the jury returned a verdict in the exact amount requested by plaintiff; and (4) there was no instruction on “how to assess either compensatory or punitive damages.” *Id.*

146. Wyoming rejected the propriety of the use of *per diem* arguments in *Henman v. Klinger*. 409 P.2d 631 (Wyo. 1966). After the perfunctory recitation of decisions from other states, the court started its own analysis by stating that “[n]o witness can testify as to a *per diem* value for pain and suffering . . . Pain and suffering are not dealt with as a commodity in the marketplace.” *Id.* at 634. The amount to be awarded is to be determined by the jury, and the court took exception to the argument that not allowing *per diem* arguments leads to blind guesses by the jury, stating “[h]ow can the jury function be aided by an argument which necessarily is premised on assumptions of fact having no evidentiary basis and tempered only by the candor of counsel advancing such an argument?” *Id.* The court prefers the estimates of jurors over counsel, as counsel’s guesses are “nothing more than a device to clothe with an aura of reasonableness the often fantastic claims made for such an element of damage and hence a technique tending primarily to mislead the jury.” *Id.* The Wyoming Supreme Court, as well as the trial court during the motion for a new trial, found error in allowing the *per diem* argument over objection, but decided the error was not prejudicial, because the amount awarded was not excessive. *Id.* at 635. Interestingly, in a later case, the Supreme Court of Wyoming held that the question “[t]his pain, what is it worth, a dollar a day, a dollar a week?” fell short of being a *per diem* argument proscribed against in *Henman*. *Combined Ins. Co. of Am. v. Sinclair*, 584 P.2d 1034, 1050 (Wyo. 1978).

There is no Supreme Court of Wyoming opinion deciding the propriety of lump sum arguments, so Wyoming is a good candidate for a polling of practitioners when it comes to lump sum arguments.

147. In Arizona, the permissibility of a *per diem* argument is left up to the trial judge. *O’Rielly Motor Co. v. Rich*, 411 P.2d 194, 200 (Ariz. Ct. App. 1966). In *O’Rielly*, the plaintiff used a chart showing pain and suffering damages with suggested dollars-per-year awards in the closing statements.

2. Arkansas¹⁴⁸
3. Maryland¹⁴⁹
4. Montana¹⁵⁰
5. Nebraska¹⁵¹
6. Nevada¹⁵²

Id. The Court of Appeals, noting the *Botta* ruling and a number of competing rulings, held that because a cautionary instruction had been given and the damages award was not being contested as unreasonable, it would not overrule the sound judgment of the trial judge. *Id.* If the defendant fails to object to the use of the *per diem* argument, it constitutes a waiver. *Myers v. Rollette*, 439 P.2d 497, 500 (Ariz. 1968).

148. Arkansas, like Arizona, leaves the decision on *per diem* to the discretion of the trial court. *Vanlandingham v. Gartman*, 367 S.W.2d 111, 113 (Ark. 1963). The court held that when “it is perfectly clear that the figures on the chart or blackboard were nothing more than argument by counsel, we cannot say there was an abuse of discretion by the trial court in permitting its use.” *Id.* The court acknowledges counter holdings from other courts, but holds that as long as there is evidence of pain and suffering, a plaintiff may make arguments as to the value of those damages. *Id.* at 114.

149. Maryland is another state that leaves the determination on *per diem* arguments in the hands of the trial judges. *Bauman v. Woodfield*, 223 A.2d 364, 373 (Md. 1966). The Court of Appeals of Maryland held in *Bauman* that while *per diem* arguments are permissible, the trial judge refusing to allow the plaintiff’s *per diem* argument was not reversible error. *Id.* The court did explain some other rules for *per diem* arguments. *Id.* They are permissible in opening or closing statements, and if the argument is first made in closing, then the opposing party should be given the opportunity to rebut the argument. *Id.*

150. Montana leaves “the propriety of counsel’s use of a *per diem* argument to the sound discretion of the trial court.” *Vogel v. Fetter Livestock Co.*, 394 P.2d 766, 772 (Mont. 1964) (citing *Wyant v. Dunn*, 368 P.2d 917, 920 (Mont. 1962)). In *Wyant*, the court differentiated *Botta*, by acknowledging that in Montana, the complaint is read to the jury. *Wyant*, 368 P.2d at 920. The court in *Vogel* held that although the judge should have given a limiting instruction on *per diem* arguments, the failure to do so did not result in any prejudice against the defendant, and was not reversible error. *Vogel*, 394 P.2d at 772.

151. Nebraska allows *per diem* arguments, however the rule is based on some interesting interpretation of the primary case for the state. *Baylor v. Tyrrell*, 131 N.W.2d 393 (Neb. 1964), *rev’d on other grounds by*, *Larsen v. First Bank*, 515 N.W. 2d 804 (Neb. 1994) (dealing with pleading contributory negligence). In *Tyrrell*, the court decided not to take on the permissibility of *per diem* arguments, specifically stating “[a]ssuming, but not deciding, that the use of a mathematical formula is error . . .” *Id.* at 398. The court used this assumption to hold that the argument at issue was not even a *per diem* argument. *Id.* Plaintiff’s counsel merely broke the pain and suffering damages into five different areas: time spent in the hospital, post hospital/pretrial, future damages, mental suffering, and loss of earning capacity. *Id.* at 396. The court differentiated the argument from a traditional *per diem* argument that breaks the damages down into hours or days, and multiplies that by a specific dollar amount. *Id.* at 398. The court held that assigning lump sums to the different time periods was just a modified lump sum argument, which is permissible in Nebraska. *Id.*

The next time the Nebraska Supreme Court addressed the issue was over forty years later. *Richardson v. Children’s Hosp.*, 787 N.W.2d 235 (Neb. 2010). The court started by saying that “the conduct of final argument is within the sound discretion of the trial court, and absent abuse of discretion, the trial court’s ruling regarding final argument will not be disturbed.” *Id.* at 245. The court went on to interpret *Baylor* to hold that traditional *per diem* arguments are permissible. *Id.* at 246. Verdicts should be assessed on their reasonableness, and whether the evidence supports them. *Id.*

152. The Supreme Court of Nevada laid out its reasoning for the propriety of *per diem* arguments in *Johnson v. Brown*. 345 P.2d 754, 759 (Nev. 1959). Pointing out the difference between New Jersey law that does not allow the *ad damnum* to be read to the jury (one of the main reasons behind the *Botta* holding), and Nevada law which allows for that, the court held that the permissibility of such arguments are within the discretion of the trial judge. *Id.* See NEV. REV. STAT. ANN. § 16.090 (West 2013) (Nevada

7. Utah¹⁵³
 8. Washington¹⁵⁴

The states without final decisions from the court of final resort are:

1. Tennessee¹⁵⁵

still allows the pleadings to be read by counsel). When deemed permissible, it may only be used for “illustrative purposes,” and it must be premised by a warning that it is not evidence. *Johnson*, 345 P.2d at 759. The court affirmed the lower court’s ruling that the argument was permissible. *Id.*

153. Utah is another state that leaves the decision on the propriety of the *per diem* argument in the hands of the trial judge. *Olsen v. Preferred Risk Mut. Ins. Co.*, 354 P.2d 575, 576 (Utah 1960). The Supreme Court of Utah, after briefly citing cases from other states on the issue, stated that trial judges in the state had customarily allowed such arguments. *Id.* The concurrence to the case made a strong case for trial judges allowing the argument. *Id.* at 576–78 (Crockett, C.J., concurring). Chief Justice Crockett stated that precluding counsel from discussing amounts for noneconomic damages would in essence preclude them from discussing the entire issue of noneconomic damages. *Id.* at 578 (Crockett, C.J., concurring). “If he can talk about it at all and mention some gross figure, which it has always been assumed he could do, it would seem no more harmful to invite the jury’s attention to a process of analysis and reasoning with respect thereto based upon the time involved and reasonable compensation therefor.” *Id.* (Crockett C.J., concurring).

154. *Per diem* arguments are permissible in Washington. *Jones v. Hogan*, 351 P.2d 153, 159 (Wash. 1960). After discussing the pros and cons of allowing *per diem* arguments quoting extensively from *Ratner v. Arrington* out of Florida, the court agreed with Nevada’s recent holding in *Johnson*, allowing them because in Washington it is permissible to read the *ad damnum* to the jury. *Id.* at 158. “Counsel is allowed a rather wide latitude in jury argument, which is wisely left in the hands of the trial judge . . .” *Id.* at 159.

155. The Supreme Court of Tennessee has yet to rule on the propriety of *per diem* arguments. *See Elliot v. Cobb*, 320 S.W.3d 246, 252 (Tenn. 2010) (Koch, J., concurring) (“Accordingly, this opinion should not be construed as necessarily approving ‘*per diem*’ arguments that are frequently used by lawyers to guide jurors in assessing noneconomic damages Issues relating to the propriety of particular arguments must await the appropriate cases.”) (citations omitted) (emphasis added). *Elliot* also cleared up some conflicting statutes regarding arguing noneconomic damages. In Tennessee, plaintiffs have the statutory right “to argue the worth or monetary value of pain and suffering to the jury; provided, that the argument shall conform to the evidence or reasonable deduction from the evidence in such case.” TENN. CODE § 20-9-304 (2009). But another statute states “[i]n a health care liability action the pleading filed by the plaintiff may state a demand for a specific sum, but such demand shall not be disclosed to the jury during a trial of the case” TENN. CODE § 29-26-117 (2012).

In *Elliot*, the Court held that precedent relied upon by the defendant in arguing that section 29-26-117 precluded a medical malpractice plaintiff from arguing any specific sums for pain and suffer was merely dicta. *See Elliot*, 320 S.W.3d at 250; *see also*, *Runnells v. Rogers*, S.W.2d 87, 91 (Tenn. 1980) (reading of the *ad damnum* was harmless error “beyond doubt”); *Guess v. Maury*, 726 S.W.2d 906, 918–20 (Tenn. Ct. App. 1986) (statement of plaintiff’s counsel that the case was “possibly a multi-million-dollar lawsuit” was violation of court’s instructions, but case was decided on other grounds); *DeMilt v. Moss*, No. 02A01-9611-CV-00283 1997 WL 759440, at *7 (Tenn. Ct. App. 1997) (statement of counsel requesting a specific sum of money for four years of pain was just further reason for granting a new trial, in a case where the issue was not before the court on appeal). The court then goes on to hold that section 29-67-117 proscribes reading the *ad damnum* from the complaint to the jury, but allows the plaintiff to argue the worth of pain and suffering in closing argument. *Elliot*, 320 S.W.3d at 251. The concurrence was written to reemphasize that the argument must “conform to the evidence or reasonable deductions from the evidence.” *Id.* at 252 (Koch J., concurring) (quoting TENN. CODE ANN. § 20-9-304 (2009)).

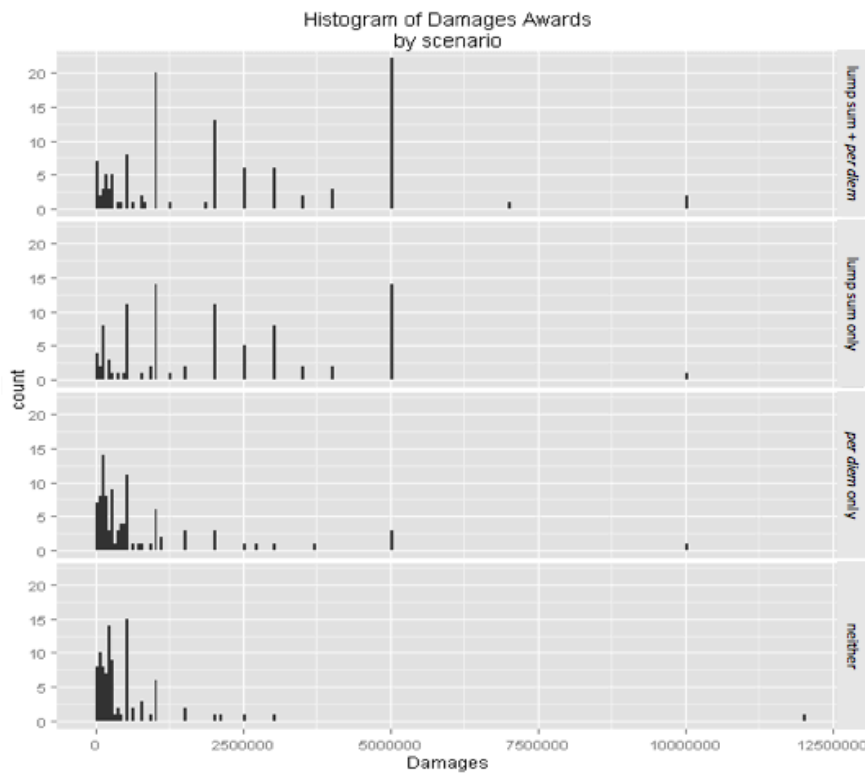
2. Texas¹⁵⁶
3. Oklahoma¹⁵⁷
4. South Dakota¹⁵⁸

156. While the Supreme Court of Texas has yet to rule on the propriety of *per diem* arguments, some of the courts of civil appeals have approved of the *per diem* arguments. *See, e.g.*, *Hernandez v. Baucum*, 344 S.W.2d 498, 500 (Tex. Civ. App. 1961) (“We consider it fair argument and a rational approach to treat damages for pain the way it was endured, month by month, and year by year.”).

157. While the often-cited American Law Reports article *Per Diem or Similar Mathematical Basis for Fixing Damages for Pain and Suffering*, groups Oklahoma with states that hold *per diem* arguments impermissible, the only case it cites evaded ruling on the issue. James O. Pearson, Jr., Annotation, *Per Diem or Similar Mathematical Basis for Fixing Damages for Pain and Suffering*, 3 A.L.R.4th 940, 959 §5 (1981). In *Missouri-Kansas-Texas R. Co. v. Jones*, the court held that “[i]f we agreed with the opinions of some other courts (cited by defendant’s counsel) as to the impropriety, and great potential for producing excessive verdicts, of using a blackboard before a jury as plaintiff’s counsel did, still we would have to recognize, under the harmless error doctrine, and, in accord with those same opinions, that the test of prejudice to defendant, in an error such as the one complained of, is: *Whether or not it resulted in an excessive verdict?*” 354 P.2d 415, 420 (Okla. 1960) (original emphasis).

158. South Dakota has no opinion on the propriety of *per diem* arguments for pain and suffering. The closest it has come was a decision on *per diem* arguments for loss of earning power. *Jennings v. Hodges*, 129 N.W.2d 59, 64 (S.D. 1964). In appealing the trial court’s ruling allowing the plaintiff to suggest \$5 or \$10 per week for loss of earning power, the defendant cited the *King* case out of North Dakota. *Id.* (citing *King*, 107 N.W.2d 509, 514 (N.D. 1961)). The South Dakota court pointed out that *King* only proscribed *per diem* for pain and suffering, but since the damages at issue in *King* “had been testified to and there was specific evidence” to them, the argument was proper. *Id.* In *Jennings*, the court also noted the trial courts statement that the jury was not bound to the arguments of counsel. *Id.* In a case concerning damages for wrongful death, the Supreme Court of South Dakota held that it was reversible error for counsel to request a lump sum award in closing argument, where they had offered no “specific evidence or testimony regarding the pecuniary value of the decedent’s services[.]” *Estate of He Crow v. Jensen*, 494 N.W.2d 186, 192 (S.D. 1992). The argument at issue was: “I’m going to ask you to give the children for the loss of their mother for the pecuniary loss 50,000 a year for 20 years until they reach the age of maturity.” *Id.* at 191. The jury returned a verdict that corresponded to the exact amount requested. *Id.*

B. Histogram of Damages Awards by Scenario



C. Regression Analysis

The following tables report three logistic regression models that predict damages and expected value, respectively. For the damages analysis, only mock juror awards that found the defendant liable were used. In the basic model, the variables Lump Sum and *Per Diem* are dummy variables that refer to the plaintiff's attorney's closing arguments. Lump Sum refers to the plaintiff's attorney requesting \$5 million. *Per Diem* refers to the plaintiff's attorney characterizing the plaintiff's injury in terms of 4,979,520 minutes of pain and suffering. In the second model, we added the "Age" variable.

In the third model, we added all our demographic information. Gender is a dummy value which is positive if the participant was a male. Hispanic, Asian, Black or African American, and White are separate dummy

variables. We did not include ethnicity variables in the third “damages only” regression because of the small number of mock jurors that fell into these categories.

The “Education” variable increased with additional education. It ranged from 1 to 9, with 1 representing elementary school and 9 representing a doctorate degree. The “Income” variable was higher for larger incomes. It ranged from 1 to 13 with 1 representing less than \$10,000 and 13 representing \$200,000 or more. Finally, the “Politics” variable ranged from 1 to 7 with 1 representing “I strongly prefer the Democrats” to 7 representing “I strongly prefer the Republicans.”

Table A1. Regression Models for Damages Only

Variable	Basic Model	Basic +Edu Model	All Model
Lump Sum	1,368,211***	1,363,612***	1,352,952***
<i>Per Diem</i>	195,963	195,758	203,945
Gender (male)			-149,855
Age			4,283
Hispanic			163,232
Education		-35,307	-37,940
Income			-5,252
Politics			-29,533
Intercept	496,389***	640,479***	698,989(**)
Multiple R2	.186	.191	.179

* p<.05, * *p<.01 , *** p < .001

Table A2. Regression for Case Expected Value

Variable	Basic Model ¹⁵⁹	Basic +Edu Model	All Model
Lump Sum	779,029***	770,109***	764,796***
<i>Per Diem</i>	226,757*	231,683*	239,713*
Gender (male)			-68,212
Age			-33.6
Hispanic			-105,178
Asian			-96,172
Black or African American			-33,915
White			-184,814
Education		-75,736*	-78,067*
Income			-5,756
Politics			-39,975
Intercept	210,784*	526,707**	898,748*
Adjusted Multiple R2	.0889	.0933	.0887

* $p < .05$, * * $p < .01$, *** $p < .001$

¹⁵⁹ For the basic model, the residuals from the linear regression are not consistent with the assumption of independent identically distributed normal residuals. However, examination of bootstrap confidence intervals for the regression coefficients confirm that the p-values for the intercept and anchor are less than 0.001, while the p-value for the *per diem* coefficient is approximately 0.02.

D. Variance Comparison

Scenario	Scenario	Equality of Variances for Damages (untrimmed)
1	2	0.3960
1	3	0.0000
1	4	0.0000
2	3	0.0002
2	4	0.0000
3	4	0.2717

The Brown-Forsythe test of the pairwise equality of the variances.