7-1-2006

Judges, Juries, and Punitive Damages: Empirical Analyses Using the Civil Justice Survey of State Courts 1992, 1996, and 2001 Data

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Journal of Empirical Legal Studies
Volume 3, Issue 2, 263–295, July 2006

Juries, Judges, and Punitive Damages: Empirical Analyses Using the Civil Justice Survey of State Courts 1992, 1996, and 2001 Data

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We analyze thousands of trials from a substantial fraction of the nation's most populous counties. Evidence across 10 years and three major data sets suggests that: (1) juries and judges award punitive damages in approximately the same ratio to compensatory damages, (2) the level of punitive damages awards has not increased, and (3) juries' and judges' tendencies to award punitive damages differ in bodily injury and no-bodily-injury cases. Jury trials are associated with a greater rate of punitive damages awards in financial injury cases. Judge trials are associated with a greater rate of punitive damages awards in bodily injury cases.

I. Introduction

Concerns about punitive damages—especially juries' role—persist and continue to inform legal reform debates. Recent Supreme Court opinions

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We thank participants in faculty workshops at Texas and Marquette for useful comments on earlier drafts. Earlier versions of this article were presented at the 2005 American Law and Economics Association and Law & Society Association annual conferences. Any errors remain our own.

reflect judicial discomfort with significant punitive damage awards.[1] Some commentators suggest that greater reliance on judges and a corresponding diminution in reliance on juries to award and set punitive damage levels will improve civil justice.[2] Other commentators, however, either regard the reliance on the jury as a strength of the American justice system or question calls for reducing jurors' power absent evidence of judges' comparative superiority.[3] The growing empirical dimension of these debates advances our understanding about axioms critical to reform suggestions. Nevertheless, even well-designed empirical studies analyzing identical data sometimes point in different directions owing, in part, to debates about appropriate model specifications, assumptions, and statistical techniques.[4]

This study joins the scholarly and policy debates about judge and jury differences in relation to punitive damages by analyzing a new data set. A newly released data cohort, combined with prior cohorts, permits unprecedented analyses of judge and jury punitive damages behavior over time. Our study explores two broad issues: the relation between compensatory and punitive damages and the rates at which judges and juries award punitive damages. Our findings reveal that judges and juries perform similarly in

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[1]See, e.g., State Farm Mut. Auto. Ins. Co. v. Campbell, 538 U.S. 408, 417 (2003) (noting that punitive damages can pose an "acute danger of arbitrary deprivation of property"), quoting Honda Motor Co. v. Oberg, 512 U.S. 415, 432 (1994); BMW of N. Am., Inc. v. Gore, 517 U.S. 559, 585–86 (1996) (finding that punitive damages were constitutionally excessive).

[2]Joni Hersch & W. Kip Viscusi, Punitive Damages: How Judges and Juries Perform, 33 J. Legal Stud. 1, 2 (2004) (arguing that juries are more likely to award punitive damages and their awards are larger); David Schkade et al., Deliberating about Dollars: The Severity Shift, 100 Colum. L. Rev. 1139 (2000); Reid Hastie & W. Kip Viscusi, What Juries Can't Do Well: The Jury's Performance as a Risk Manager, 40 Ariz. L. Rev. 901, 916 (1998); Paul Mogin, Why Judges, Not Juries, Should Set Punitive Damages, 65 U. Chi. L. Rev. 179 (1998).

[3]E.g., Theodore Eisenberg, Neil LaFountain, Brian Ostrom, David Rottman & Martin T. Wells, Juries, Judges, and Punitive Damages: An Empirical Study, 87 Cornell L. Rev. 743 (2002) (finding no substantial evidence suggesting that jurors and judges differ in the rate of awarding punitive damages or in the relation between punitive and compensatory awards); Richard Lempert, Juries, Hindsight, and Punitive Damages Awards: Failures of a Social Science Case for Change, 48 DePaul L. Rev. 867 (1999); Marc Galanter & David Luban, Poetic Justice: Punitive Damages and Legal Pluralism, Am. U. L. Rev. 1393, 1439 (1999); Michael L. Rustad, How the Common Good Is Served by the Remedy of Punitive Damages, 64 Tenn. L. Rev. 793 (1997).

[4]See, e.g., Hersch & Viscusi, supra note 2, at 30 (identifying sources of disagreement with the Eisenberg et al. study).

some punitive damages tasks and differently in others. Some of these findings comport with our previous findings; other findings surprise and provide more texture to analytical comparisons between judges and juries.

With respect to the relation between the size of punitive and compensatory awards, one aspect critical to recent Supreme Court decisions,[5] we find no substantial evidence that judges and juries behave differently in any meaningful and systematic manner. Indeed, we find no serious disagreement in the literature on this. Conditional on the existence of a punitive award, virtually all data sets reveal a strikingly strong association between the size of the punitive award and the size of the compensatory award. With respect to the decision to award punitive damages, more refined analyses of case types reveal that judges are more likely to award punitive damages to successful plaintiffs in cases involving bodily injury (other than motor vehicle cases). Conversely, juries are more likely to award punitive damages in cases where successful plaintiffs did not suffer bodily injury.

Caution prompts us to cast our findings in the negative. The stream of cases that wind up in front of judges and juries differs and these differences preclude bolder and more robust assertions about differences between judge and jury behavior. Simply put, because the data do not permit judge-jury comparisons with identical case streams (or a more perfectly controlled research design), we cannot be certain how judges and jurors would have behaved had they decided identical cases. Even our negative findings make clear, however, that assessments of judge-jury differences in the world of punitive damages require continued careful analyses and benefit greatly from more and better data. Data reveal a more nuanced and complex picture of judge and jury behavior than does conventional wisdom, which typically rests precariously on unstudied assumptions and axioms.

The issues we address in this article transcend the standard debates about optimizing rules of civil adjudication. Public debates about tort reform endure and frequently focus on punitive damages and their role in the torts "crisis" (real or perceived).[6] Presidential candidates' promises to do some-

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[5]See, e.g., State Farm Mut. Auto. Ins. Co. v. Campbell, 538 U.S. 408, 425 (2003) ("[I]n practice, few awards exceeding a single-digit ratio between punitive and compensatory damages, to a significant degree, will satisfy due process.").

[6]E.g., authorities cited supra notes 2 and 3 and infra note 8.

thing can involve changes in punitive damages.[7] Parallel debates continue to simmer within the legal academy. Articles focusing on punitive damages reform increasingly appear in leading student- and faculty-edited law journals.[8]

Section II describes the data, which comprise trial outcomes punitive damages decisions from three consistent data sets spanning 1991 though 2001. Section III presents descriptive results with particular emphasis on the relation between compensatory and punitive damages. We find that a case's compensatory award persists as a strong predictor of the case's punitive award. This relation holds over time and applies to juries and judges. This section also explores possible case types where differences emerge between how juries and judges award punitive damages. Section IV reports regression results that confirm the core results of Section III. Section V considers the influence of selection effects on our results. Section VI concludes.

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[7]E.g. <http://www.cnn.com/2003/ALLPOLITICS/01/16/bush.malpractice/> (last visited Jan. 30, 2005).

[8]Student-edited journals that have recently published punitive damages articles include the *University of Chicago Law Review* (Mogin, supra note 2); *Columbia Law Review* (Schkade et al., supra note 2); *Cornell Law Review* (Eisenberg et al., supra note 3); *Harvard Law Review* (A. Mitchell Polinsky & Steven Shavell, Punitive Damages: An Economic Analysis, 111 Harv. L. Rev. 869 (1988)); *Journal of Law & Politics* (Denise E. Antolini, Punitive Damages in Rhetoric and Reality: An Integrated Empirical Analysis of Punitive Damages Judgments in Hawaii, 1985–2001, 20 J.L. & Pol. 143 (2004)); and *Yale Law Journal* (Catherine M. Sharkey, Punitive Damages as Societal Damages, 113 Yale L.J. 347 (2003)). Examples of leading faculty-edited journal entries include *American Law & Economic Review* (W. Kip Viscusi, How Do Judges Think about Risk? 1 Am. L. & Econ. Rev. 26 (1999)); *Journal of Empirical Legal Studies* (Catherine M. Sharkey, Dissecting Damages: An Empirical Exploration of Sexual Harassment Awards, 3 J. Empirical Legal Stud. 1 (2006); Theodore Eisenberg & Martin T. Wells, The Significant Association Between Punitive and Compensatory Damages in Blockbuster Cases: A Methodological Primer, 3 J. Empirical Legal Stud. 175 (2006)); *Journal of Legal Studies* (Thomas A. Eaton, David B. Mustard & Susette M. Talarico, The Effects of Seeking Punitive Damages on the Processing of Tort Claims, 34 J. Legal Stud. 343 (2005); Hersch & Viscusi, supra note 2; Theodore Eisenberg et al., The Predictability of Punitive Damages, 26 J. Legal Stud. 623 (1997)); *Journal of Law & Economics* (Jonathan M. Karpoff & John R. Lott, Jr., On the Determinants and Importance of Punitive Damage Awards, 42 J. Law & Econ. 527 (1999)); *Journal of Risk & Uncertainty* (Daniel Kahneman et al., Shared Outrage and Erratic Awards: The Psychology of Punitive Damages, 16 J. Risk & Uncertainty 49 (1998)); *Law and Human Behavior* (Jennifer Robbenolt, Decision Making: The Decisions of Citizens and Trial Court Judges, 26 Law & Hum. Behav. 315 (2002)); and *Supreme Court Economic Review* (Theodore Eisenberg & Martin T. Wells, The Predictability of Punitive Damages Awards in Published Opinions, the Impact of *BMW v. Gore* on Punitive Damages Awards, and Forecasting Which Punitive Awards Will Be Reduced, 7 Sup. Ct. Econ. Rev. 59 (1999)).

II. Data

The "Civil Justice Survey of State Courts," a project of the National Center for State Courts (NCSC) and the Bureau of Justice Statistics (BJS), presents data gathered directly from state court clerks' offices on tort, contract, and property cases disposed of by trial in fiscal year 1991–1992 and then calendar years 1996 and 2001. The three separate data sets cover state courts of general jurisdiction in a random sample of 46 of the 75 most populous counties in the United States.[9] The 75 counties sampled include approximately 33 percent of the 1990 U.S. population; the actual 45 counties contributing data account for approximately 20 percent of the population.[10] The initial data set (1991–1992) includes only jury trials. The two subsequent data sets, 1996 and 2001, include jury and bench trials, thereby allowing direct comparisons between judge and jury trials. The three data sets include all completed trials in all three years in most of the counties. Sampling in the 1992 and 1996 data sets is described in earlier publications. Sampling was used in three counties in the 2001 data set, Cook County, Illinois, and Philadelphia County and Bergen County, New Jersey.

These data are the most representative sample of state court trials in the United States. With direct access to state court clerks' offices, as well as approximately 100 trained coders recording data, the information gathered does not rely on litigants or third parties to report. Self-reports, common in

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[9]The 2001 data included 46 counties; the 1991–1992 and 1996 data included 45. One county included in the 1991–1992 and 1996 study, Norfolk, MA, fell out the nation's 75 most populous in the 2000 Census and was replaced by Mecklenburg County, NC, and El Paso County, TX. Two Maryland counties declined to participate in the 1991–1992 study, and were replaced with Fairfax County for all three iterations of the Civil Justice Survey.

[10]For a summary of the data and methodology, see Bureau of Justice Statistics Bulletin: Civil Justice Survey of State Courts, 2001: Civil Trial Cases and Verdicts in Large Counties, 2001 (Apr. 2004) [hereinafter "BJS, 2001"]; Bureau of Justice Statistics Bulletin: Civil Justice Survey of State Courts, 1996: Civil Trial Cases and Verdicts in Large Counties (1996) [hereinafter "BJS, 1996"]; Bureau of Justice Statistics Bulletin: Civil Justice Survey of State Courts, 1992: Tort Cases in Large Counties 6 (1995) [hereinafter "BJS, 1992"]. See also Hersch & Viscusi, supra note 2, at 10–13 (describing 1996 data); Eisenberg et al., supra note 3 (describing 1996 data); Michael Heise, Justice Delayed?: An Empirical Analysis of Civil Case Disposition Time, 50 Case Western Res. Univ. L. Rev. 813, 822–27 (2000) (describing 1992 data).

many commercial verdict reporters, typically overstate plaintiff win rates and award levels.[11]

III. Civil Trials and Punitive Damages[12]

Civil complaints that culminate in a trial on the merits remain comparatively rare events.[13] Within this small subset of trials that reach a final verdict, those that involve either judges or juries awarding punitive damages are similarly infrequent. Table 1, which presents descriptive information for the sample of 11,610 cases in which the plaintiff prevailed, illustrates that punitive damages were awarded in less than than 5 percent of the cases ($N = 551$; $N = 539$ for cases with nonzero compensatory award). Thus, applying any realistic rate of filed cases reaching trial, less than 1 percent of civil actions formally commenced resulted in the awarding of punitive damages. Consequently, studies of punitive damages—such as ours—are necessarily studies of unusual events.

A. Punitive Damages Award Patterns

Although judges and juries awarded punitive damages at roughly similar rates (approximately 4 percent and 5 percent, respectively), jury trials dominate our sample of punitive damages cases. Among the 551 cases in which the plaintiff prevailed and punitive damages were awarded, juries decided 81.5 percent of the cases, with judges deciding the remaining 18.5 percent.

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[11]Eisenberg et al., Predictability, supra note 8, at 641, n.53 (finding bias in commercial verdict reporter samples); Deborah Jones Merritt & Kathryn A. Barry, Is the Tort System in Crisis? New Empirical Evidence, 60 Ohio St. L.J. 315, 324–26 (1999) (same); Erik K. Moller et al., Punitive Damages in Financial Injury Jury Verdicts, 28 J. Legal Stud. 283, 335 (1999) (reporting reasonable levels of confidence in the jury verdict reporters but acknowledging some potential bias). See also Paula L. Hannaford-Agor & Thomas Cohen (forthcoming) (finding that on average jury verdict reporter data sets contained half the number of jury trials as were included in the 2001 Civil Justice Survey, trial outcomes were skewed toward higher plaintiff win rates, and higher mean and median compensatory and punitive awards, but no difference in the rate of punitive awards).

[12]Unless otherwise noted, the descriptive tables use raw, unweighted data.

[13]See Marc Galanter, The Vanishing Trial: An Examination of Trials and Related Matters in Federal and State Courts, 1 J. Empirical Legal Stud. 459, 509 tbl.5 (2004) (analyzing state courts of general jurisdiction for 10 states from 1992–2002).

Table 1: Characteristics of Damages Awards

	Jury	*Bench*	*Combined*
Total number of trials w/ plaintiff win	9,040	2,570	11,610
Number of trials w/ PD	438	101	539
Percent of trials w/ PD	4.85	3.93	4.64
PD Characteristics in Cases with PD			
Mean ($ 2001)	3,016,691	461,118	2,557,262
SD	$2.40 \cdot (10^7)$	3,204,604	$2.18 \cdot (10^7)$
Mean log10(PD)	4.80	4.49	4.74
CD Characteristics in PD Cases (if CD > 0)			
Mean ($ 2001)	1,518,006	717,622	1,374,117
SD	7,767,222	3,848,419	7,224,816
Mean log10(CD)	5.04	4.77	4.99
Ratio of PD : CD (if CD > 0)			
Mean	2.90	1.60	2.66
SD	13.81	4.54	12.66
Median	0.62	0.66	0.62
Percent of PD Awards in the Range			
$1 to 9,999	23.52	24.75	23.75
$10,000 to 99,999	34.7	45.54	36.73
$100,000 to 299,999	16.21	21.78	17.25
$300,000 to 999,999	13.24	4.95	11.69
$1,000,000 or more	12.33	2.97	10.58

NOTE: PD = punitive damages; CD = compensatory damages. Total cases $N = 551$, of which 539 had a nonzero compensatory award. Amounts are in inflation-adjusted 2001 dollars.

SOURCE: Civil Justice Survey of State Courts 1992–2001.

The dominance of jury trials in our punitive damages cases data set largely reflects civil litigants' general preference for jury trials (77.9 percent of the civil trials where plaintiffs won were decided by juries). A limitation in the data set also exerts upward pressure on the percentage of punitive damage awards from jury trials. Although the final two years of data cohorts (1996 and 2001) contain bench and jury trials, the initial data cohort (1991–1992) contains punitive damages (177) from only jury trials.

Consistent with conventional wisdom, Table 1 reveals that jury trials involved higher punitive and compensatory award levels than judge trials.[14]

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[14]Compensatory damages were awarded in almost all cases in which the plaintiff prevailed and punitive damages were awarded. In our data set of 551 cases in which the plaintiff prevailed and punitive damages were awarded, there are 12 instances where the compensatory award was zero.

Owing to substantial nonrandom case routing, however, juries and judges saw different streams of cases. For example, plaintiffs demand higher damages in jury trials[15] and, as Table 2 suggests, jury trials involve more tort cases while judges see more contract cases.[16] These differences in the stream of cases juries and judges see likely contribute to damages awards' variation in jury and bench trials.

Much of the angst over punitive damages concerns the largest awards (or "blockbuster awards"[17]) that involve hundreds of millions or even billions of dollars. At the high end of the punitive damage spectrum, and as Hersch and Viscusi note,[18] jury trials tended to dominate. As Table 1 illustrates, however, most punitive awards were small. More than 23 percent of the punitive awards were for less than $10,000; 60 percent were for less than $100,000. On the other end of the distribution, less than 11 percent of the cases involved punitive awards in excess of $1 million.

The different case streams that judges and juries saw help explain differences in various case characteristics for bench and jury trials. Table 2 illustrates the salience of party status. Although judges saw more cases involving individuals suing other individuals, juries saw more cases involving individuals suing hospitals, corporations, or governments (labeled as "non-indiv"). Notably, cases with individuals as plaintiffs account for 88.5 percent of the cases where punitive damages were awarded. Even greater variation exists across case types. Intentional tort, fraud, employment, and motor vehicle cases account for more than 55 percent of the pool of punitive damages cases. At the more general case-category level, tort and contract cases predominate, though contract cases with punitive awards likely have a tort component since punitive damages generally are not available for contract claims.

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[15]See, e.g., Kevin M. Clermont & Theodore Eisenberg, Trial by Jury or Judge: Transcending Empiricism, 77 Cornell L. Rev. 1124, 1177 app. B. (1992); Theodore Eisenberg & Kevin M. Clermont, Trial by Judge or Jury: Which is Speedier? 79 Judicature 176, 180 (1996).

[16]See, e.g., Clermont & Eisenberg, supra note 15, at 1141 tbl.4; Eisenberg et al., Litigation Outcomes in State and Federal Courts: A Statistical Portrait, 19 Seattle U. L. Rev. 433, 443 tbl.4.

[17]Hersch & Viscusi, supra note 2, at 4–10 tbl.1.

[18]Id. at 13–15 tbl.2 & fig.2 (reporting 1996 data).

Table 2: Summary of Jury and Bench Trial Characteristics in Punitive Damage Cases

	Jury	*Bench*	*Percent of Total Cases*
Party Status[a]			
Individual vs. individual	135	47	35.0
Indivual vs. nonindividual	246	32	53.5
Nonindividual vs. nonindividual	49	11	11.5
Case Category			
Torts	233	44	50.3
Contract	208	56	47.9
Property	8	2	1.8
Selected Case Types			
Motor vehicle accident	57	3	11.0
Premises liability	18	7	4.6
Product liability (including asbestos)	8	1	1.6
Intentional tort	70	25	17.3
Medical and professional malpractice	26	3	5.3
Fraud	51	30	14.8
Employment discrimination or dispute	65	5	12.8
Rental/lease agreement	8	1	1.6
Selected Case Characteristics			
Bodily injury (motor vehicle)	57	3	11.2
Bodily injury (non-motor-vehicle)	114	25	25.9
No bodily injury	266	72	62.9
States			
Arizona	25	5	5.4
California	121	38	28.9
Connecticut	3	5	1.5
Florida	20	0	3.6
Georgia	24	0	4.4
Hawaii	5	1	1.1
Illinois	14	3	3.1
Indiana	3	1	0.7
Kentucky	18	2	3.6
Massachusetts	8	1	1.6
Michigan	2	0	0.4
Minnesota	6	1	1.3
Missouri	11	6	3.1
North Carolina	3	0	0.5
New Jersey	17	7	4.4
New York	10	1	2.0
Ohio	27	5	5.8
Pennsylvania	14	1	2.7
Texas	93	18	20.2
Virginia	18	3	3.8
Washington	3	1	0.7
Wisconsin	4	3	1.3

[a]Every case, regardless of the number of potential plaintiff or defendant types, is assigned one (of four) plaintiff or defendant type (individual, hospital, corporation, or government). For those cases that involve multiple plaintiff or defendant types, cases are assigned based on a hierarchy. Bureau of Justice Statistics, U.S. Dep't of Justice, Bulletin No. NCJ-202803, Civil Trial Cases and Verdicts in Large Counties, 2001, at 3 (Apr. 2004) (tbl.3 n.1).

NOTE: Total cases $N = 551$.

SOURCE: Civil Justice Survey of State Courts 1992–2001.

Cases involving bodily injury occupy a special place in the popular lore surrounding the American tort system.[19] Due to the sizable presence of motor vehicle torts in general, as well as in our punitive damages data set in particular,[20] we separate motor vehicle and non-motor-vehicle personal injury cases. Consistent with the general overall distribution of jury and bench trials that awarded punitive damages,[21] Table 2 shows that 82 percent of the non-motor-vehicle-related injury cases and 78 percent of the non-injury cases went to a jury. Less consistent with the overall case trial mode distribution is that 95 percent of motor vehicle injury cases went to a jury.

1. The Relation Between Compensatory and Punitive Damages

One of our principal lines of inquiry involves the relation between compensatory and punitive damages. Figures 1 and 2 permit visual inspections of both trial modes for the three data cohorts.[22] The scatterplots reveal a consistent and shared pattern in the ratio of logged punitive and compensatory damage awards for judge and jury trials. Equally important is that this general pattern persists over time.

Figure 1 is a scatterplot of punitive (log) and compensatory damages (log) with jury and bench trials from all three data sets separately marked by "J" and "B," respectively. We use logarithmic scales because, as is often the case with award amounts, linear scales fail to reveal the relation between the variables.[23] Figure 1 also includes the best-fitting regression lines for bench

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[19]See, e.g., Dan B. Dobbs, The Law of Torts 9 (2000) ("Many people think of personal injury cases when they think of tort law."). Also, as shown below, cases involving bodily injury correspond with markedly different propensities to award punitive damages by judges and juries. See Section III.B.

[20]Of the 199 cases that involved bodily injuries, 60 (30.2 percent) involved motor vehicle accidents.

[21]As Table 1 shows, of the 551 cases that awarded punitive damages, 81.5 percent were jury and 18.5 percent were bench trials.

[22]Recall in our description of our data the limitation that in 1992 data were gathered only from jury trials. The two subsequent data cohorts include data on both judge and jury trials. See Section II.

[23]Also, the untransformed punitive and compensatory award damages are not normally distributed, do not have a linear association, and, therefore, violate standard regression assumptions. For a discussion of the need for logarithmic scales in punitive damage awards, and of the need

and jury trials.[24] Notably, the two regression lines that best describe the relation between the compensatory and punitive damages award levels are similar in terms of their slope and intercept. The overall patterns displayed in Figure 1 are also consistent with those in previous studies.[25] Moreover, the greater visual dispersion around the jury trial regression line in Figure 1 is confirmed by the lower R^2 value for a regression of compensatory damages (log) on punitive damages (log).[26]

Figure 2 explores the relation between compensatory and punitive damages in greater detail. It shows scatterplots for each of the data cohort years by trial mode. These more refined plots allow us to assess whether the general pattern that emerges in Figure 2 is robust to both time and trial mode. Notably, the strong positive relation between compensatory and punitive damages endures over time and between trial modes.

2. The Punitive-Compensatory Ratio

Additional insight is generated by describing the punitive-compensatory relation with a single number for each case. A punitive-compensatory award ratio is described by some scholars as a "widely cited barometer of whether a

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for transformations to satisfy regression assumptions, see Eisenberg & Wells, The Significant Association, supra note 8.

[24]Simple regression models of punitive damages (log) as the dependent variable and compensatory damages (log) as the explanatory variable, run separately for judge and jury trials and using weighted data, yield the following results:

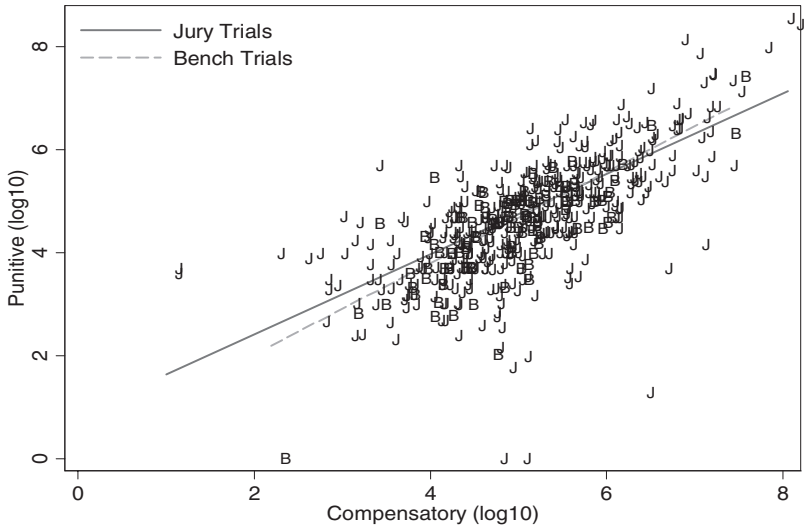
Trial Mode	*Compensatory (Log) Coefficient*	*SE*	*Intercept*	R^2	N
Bench	0.897**	0.047	0.209	0.814	101
Jury	0.807**	0.050	0.751**	0.500	438

**$p < 0.01$.

[25]See, e.g., Antolini, supra note 8 (we analyzed the Hawaii data made available on Professor Antolini's website); Eisenberg et al., Predictability, supra note 8, at 638 fig.3 (1991–1992 data); Eisenberg et al., Juries, Judges, supra note 3, at 754 fig.1 (1996 data); Moller, supra note 11, at 300 n.52.

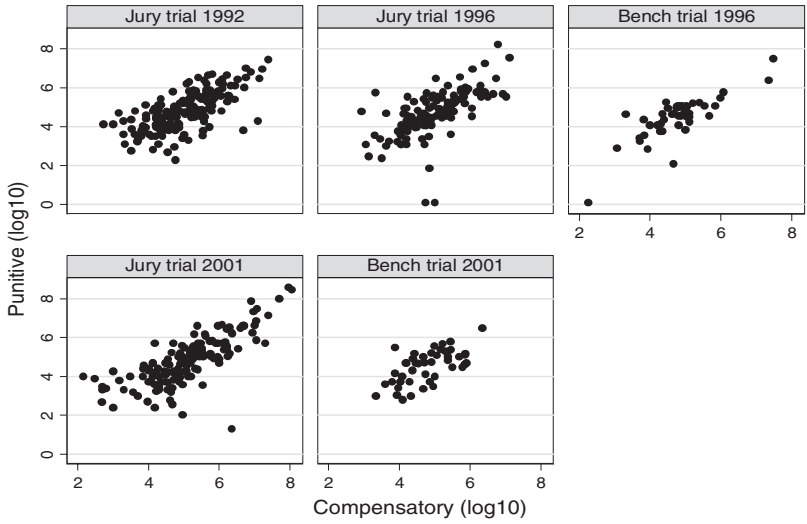
[26]See supra note 24.

Figure 1: Judge and jury punitive and compensatory (logs) damages.



NOTE: Trials indicated by "J" are jury trials; trials indicated by "B" are bench trials. Lines are the best-fitting linear regression lines for jury and bench trials.
SOURCE: Civil Justice Survey of State Courts 1992–2001.

Figure 2: Punitive and compensatory awards (logs) by trial mode and year.



SOURCE: Civil Justice Survey of State Courts 1992–2001.

Table 3: Punitive-Compensatory Award Ratio by Trial Mode

Trial Mode	*Mean Ratio*	*Median Ratio*	*SD*	*Untransformed Median Ratio*	*N*
Bench trial	0.939	0.956	0.163	0.602	101
Jury trial	0.970	0.959	0.258	0.612	438
Significance of bench-jury trial difference	0.249	0.417	0.000	0.499	

NOTE: Ratio is the ratio of punitive award (log) to compensatory award (log). Untransformed ratio is the ratio of punitive award to compensatory award. The significance of means difference is based on a *t* test; the significance of medians differences is based on a Mann-Whitney test; the significance of standard deviations is based on an *F* test.

SOURCE: Civil Justice Survey of State Courts 1992–2001.

punitive damages award is out of line."[27] Moreover, Supreme Court consideration of punitive damage limits involves such a ratio.[28] We constructed our compensatory-punitive damage award level (log) ratio by dividing the punitive award (log) by the compensatory award (log).

Table 3 summarizes various punitive and compensatory damages ratios by trial mode to facilitate comparisons. The ratio means and medians do not differ significantly between bench and jury trials. Althouth the standard deviations do differ, a test of the entire distributions precludes the rejection of the hypothesis that they are the same ($p = 0.429$).[29] The 95 percent confidence intervals for the means of the ratios are narrow for both judge and jury trials. For judge trials, the intervals range from 0.907 to 0.971. For jury trials, the interval ranges from 0.946 to 0.994. This slightly narrower interval range for jury trials likely is attributable to the greater number of jury trials. The untransformed median ratios of punitive and compensatory awards for

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[27]Hersch & Viscusi, supra note 2, at 9. Although Hersch and Viscusi report that juries award punitive damages more frequently than judges, they do not question the very strong relation between punitive and compensatory awards in the mass of cases. They do so only for what they call "blockbuster" awards and even then report a significant relation between punitive and compensatory awards. See also Eisenberg & Wells, The Significant Association, supra note 8 (showing substantial, statistically significant association between punitive and compensatory awards in blockbuster cases).

[28]*State Farm v. Campbell*, supra note 1 (noting that to satisfy due process concerns, the punitive and compensatory damages ratio will typically not exceed a single digit).

[29]This result is based on the Kolmogorov-Smirnov test.

jury trials is lower than in judge trials, though the untransformed median bench and jury trial ratios do not significantly differ.[30]

Sample size is not the likely explanation for the absence of statistically significant differences between bench and jury trials in their respective ratios of punitive and compensatory awards. Perfectly designed and executed studies may nevertheless fail to uncover socially important differences because the statistical procedures lacked the power to detect the effect flowing from a small sample size.[31] A power calculation shows that to be 80 percent confident of detecting a 10 percent difference in the ratios' means, at a 0.05 significance level, requires 148 jury and 34 judge trials.[32] Our sample size exceeds these requirements.

Figure 3 presents kernel density estimates[33] of the distributions of the compensatory-punitive damages award level ratios for jury and bench trials. Visual inspection reveals some differences in the shape of the distributions for bench and jury trials. Specifically, the distribution of the jury trial compensatory-punitive damages award level ratios is more "spread" than the bench trial distribution. More striking, however, is the substantial similarity between the distributions and that the differences in the bench and jury trial distributions do not achieve statistical significance.

3. Award Ratios Over Time

Figure 4 presents a slightly different vantage point on the punitive-compensatory ratio and reinforces the pattern displayed in Figure 3. Specifically, the boxplots in Figure 4 suggest minimal, though observable, variation in the dispersion of the punitive and compensatory damage ratio over the years and between trial modes. Although the outside values do not appear to suggest any coherent pattern, separation between the 75th and 25th percentiles (the upper and lower borders of the boxes) evidences some discernable variation. To the extent that any trend emerges, what is hinted is that in 2001

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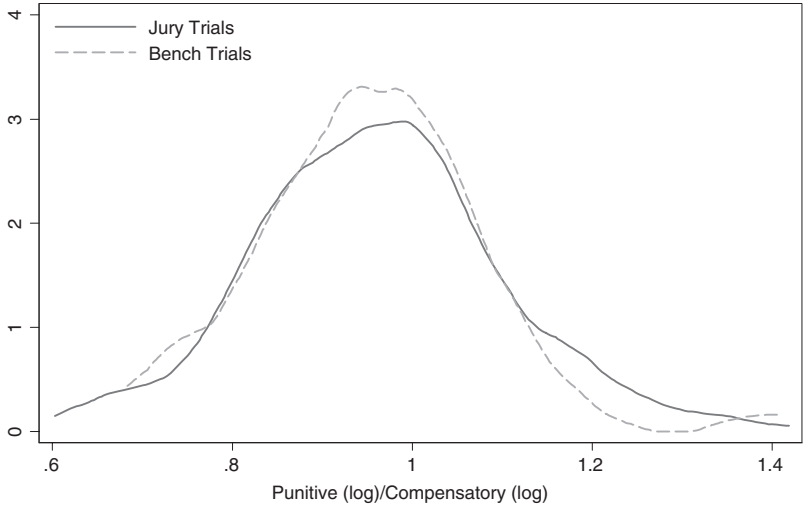
[30]A Kolmogorov-Smirnov test of the entire untransformed ratio distributions yields $p = 0.287$.

[31]Stanton A. Glantz, Primer of Biostatistics 165 (5th ed. 2002).

[32]The power calculation employs the standard deviations observed in Table 1 and hypotheses means that are 0.9 and 1.0.

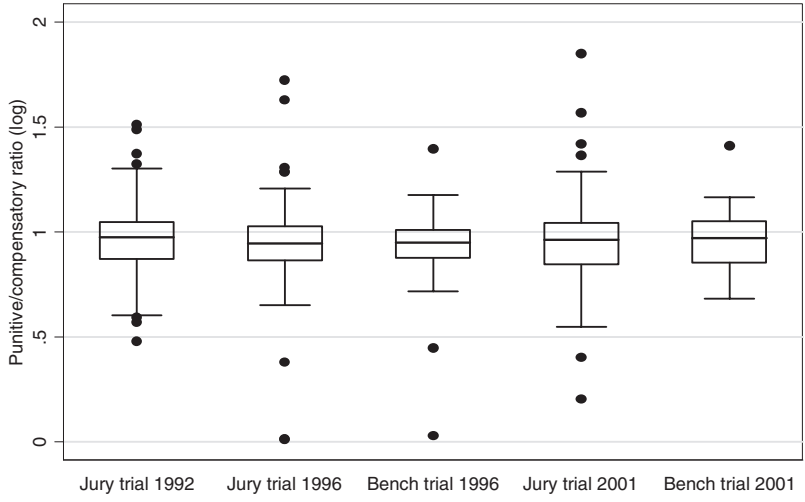
[33]For a discussion of kernel density estimation, see B.W. Silverman, Density Estimation for Statistics and Data Analysis (1986).

Figure 3: Kernel density estimates.



NOTE: Kernel density estimates of the ratio of punitive damages in cases containing both kinds of awards, by bench or jury trial mode. Jury trials show greater "spread" than bench trials.
SOURCE: Civil Justice Survey of State Courts 1992–2001.

Figure 4: Punitive-compensatory award ratio (logs) by trial mode and year.



SOURCE: Civil Trial Court Network 1992–2001.

separation between the 75th and 25th percentiles regained the 1992 value after a slight dip during 1996, especially for judge trials.

Perhaps the most remarkable finding in Figure 4 is the stability in the median punitive-compensatory damages ratios for judges and juries over time. The line dissecting each box denotes the ratio median. If one drew a line connecting the medians, the line would be close to straight, as the ratio median consistently hovers just below 1.0. What this suggests, of course, is not only that little descriptive difference emerges between judges and juries in terms of their punitive and compensatory damage ratios, but also that judge and jury damage ratios remain stable over time.

The stability in the ratios over time reflects underlying stability in both their components over time. No statistically significant variation exists in the inflation-adjusted punitive award level over the three time periods (ANOVA $p = 0.320$). Similarly, no statistically significant variation exists in the inflation-adjusted compensatory award level over the three time periods in punitive damages cases (ANOVA $p = 0.581$). Median award levels also have not significantly increased over the three time periods (Kruskal-Wallis $p = 0.517$ for punitive awards; Kruskal-Wallis $p = 0.460$ for compensatory awards). The absence of noticeable increase in award levels is consistent with the Bureau of Justice Statistics report that, across all cases in the Civil Justice Survey data, the median jury trial award decreased from a median of $65,000 in 1992 to $37,000 in 2001. It is also consistent with the absence of evidence of an increase in recoveries in class actions from 1993 through 2002.[34]

B. The Decision to Award Punitive Damages

Punitive damage award rates are of interest independent of award levels. As Table 1 indicates, even in trials won by plaintiffs, awards of punitive damages are rare. Prior results indicate that judges and juries award punitive damages at similar rates.[35] The cumulative Civil Justice Survey data for 1996 and 2001,

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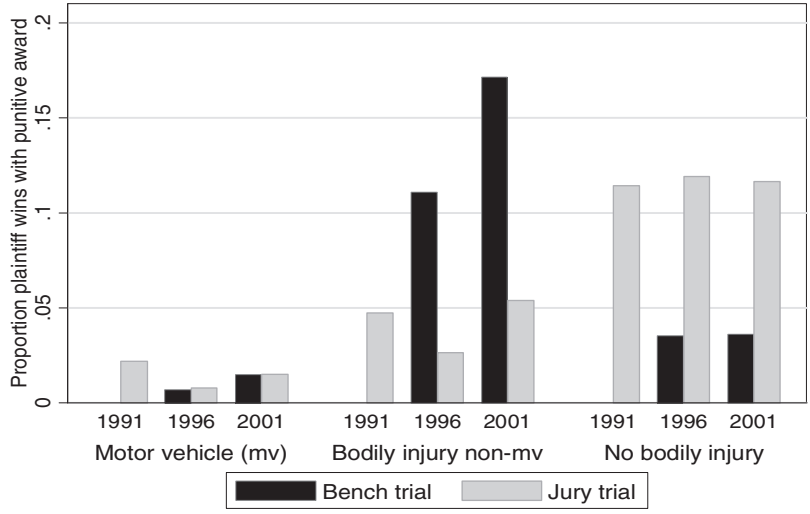
[34]Theodore Eisenberg & Geoffrey P. Miller, Attorney Fees in Class Action Settlements: An Empirical Study, 1 J. Empirical Legal Stud. 27 (2004).

[35]Eisenberg et al., Juries, Judges, supra note 3. Hersch and Viscusi report judge-jury differences in the decision to award punitive damages, but in the only analysis in which they account for the sample design, the jury trial dummy variable was not statistically significant. Hersch & Viscusi, supra note 2, at 31 tbl.8 (showing statistically insignificant jury effect when sampling weights (that is the study design) are taken into account). Hersch and Viscusi incorrectly assert that differences in results between them and Eisenberg et al. are attributable to induced multicollinearity by Eisenberg et al. Hersch & Viscusi, supra note 2, at 3, 34. The results in the models

Figure 5: Punitive award rate, by trial mode and case type.



SOURCE: Civil Justice Survey of State Courts 1992–2001.

which now provide two years of judge trial and jury trial data, permit more refined analysis. We present here the first analysis of these data that explore cases involving bodily injury separately from cases that do not.

As Figure 5 illustrates, punitive award rates for judges and juries are similar for motor vehicle cases but differ for other aggregated case types. Judge and jury propensity to award punitive damages in motor vehicle cases was similar, and low. Punitive awards occurred in not more than 2.2 percent of successful plaintiff trials in all years for both adjudicators. But, after separating out motor vehicle cases, judges and juries awarded punitive damages at quite different rates in bodily jury and no-bodily-injury cases. Specifically, judges were far more likely than juries to award punitive

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reported in Eisenberg et al. did not depend on the inclusion of the interaction term that Hersch and Viscusi assert induced multicollinearity. Hersch and Viscusi may not have precisely replicated the models or otherwise differed in the models they assessed. In any event, it now appears that any jury effect is completely attributable to juries' increased rate of punitive damages awards in no-bodily-injury cases. Juries have a lower rate of punitive awards in bodily injury cases. See Figure 5. This new finding should probably be the focus of at least part of the future discussion about juries, judges, and punitive damages. To claim that judge and jury rates of punitive awards are the same or different now appears to be an oversimplification.

damages in cases where bodily injury existed outside of the motor vehicle setting. In 1996 and 2001 combined, in cases won at trial by plaintiffs, juries awarded punitive damages in 102 of 4,591 (2.2 percent) bodily injury cases and judges awarded punitive damages in 28 of 460 (6.1 percent) bodily injury cases. For the same years, juries awarded punitive damages in 170 of 1,464 (11.6 percent) no-bodily-injury cases and judges awarded punitive damages in 74 of 2,110 (3.5 percent) of no-bodily injury cases. Both differences are highly statistically significant ($p < 0.001$). Figure 5 indicates that these differences are consistent across the two time periods that include both judge and jury trials.

So judge-jury similarity in punitive award levels is not fully mirrored in the decision to award punitive damages. We explore this topic in greater detail in regression analyses reported in Section IV.

IV. Regression Models of Punitive Damages

Without accounting for selection, discussed in Section V, our results indicate that juries and judges are similar in assessing the relation between punitive and compensatory damages, but differ in the decision to award punitive damages. This section explores whether these results survive in regression models that simultaneously account for more than one factor. We first consider the degree to which compensatory awards can explain punitive awards, conditional on a punitive award having been given.[36] We then consider models of the decision to award punitive damages, with a particular focus on Figure 5's difference between judges and juries across case types.

A. Modeling the Level of Punitive Damages Awards

Tables 4 and 5 report results from two distinct though related models. They show that a case's compensatory award remains the most powerful predictor

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[36]For a sampling of opinion, compare Eisenberg et al., Predictability, supra note 8 (discussing the relation between compensatory and punitive damages), with A. Mitchell Polinsky, Are Punitive Damages Really Insignificant, Predictable, and Rational? A Comment on Eisenberg et al., 26 J. Legal Stud. 663 (1997) (same). See also W. Kip Viscusi, The Blockbuster Punitive Damages Awards, 53 Emory L.J. 1405, 1414 tbl.4 (2004) (finding no statistically significant relation between untransformed compensatory and punitive damages but finding a significant relation when the damages are logarithmically transformed for a blockbuster awards subsample); Eisenberg & Wells, The Significant Association, supra note 8.

Table 4: Regression Models of Punitive Damages (Log) Levels

	A	*B*	*C*
Compensatory damages (log)	0.835** (0.040)	0.835** (0.038)	0.843** (0.046)
Jury trial dummy (1 = yes)	—	–0.029 (0.026)	0.009 (0.145)
Jury trial × log of compensatory	—	—	–0.008 (0.029)
Constant	0.593** (0.197)	0.639** (0.199)	0.599* (0.236)
Model significance	0.000	0.000	0.000
R^2	0.577	0.578	0.578
N	539	539	539

NOTE: $*p < 0.05$; $**p < 0.01$. Robust standard errors in parentheses.
SOURCE: Civil Justice Survey of State Courts 1992–2001.

of punitive awards and punitive-compensatory ratio. We analyze the 539 cases where the plaintiff prevailed and won a nonzero compensatory award.[37] For both tables, Column A, the most parsimonious model, involves a single independent variable—compensatory damages award. In Column B we generate a slightly modified model by including a dummy variable signaling the independent influence of a jury (vs. a bench) trial to test whether trial mode exerts any influence. Results from yet another model variation that includes an interaction term are presented in Column C.[38] The importance of compensatory damages for predicting punitive damages emerges from a comparison among the three columns and between the two separate tables. Notably, compensatory damages' coefficients achieve statistical significance in all three variants for both models.

Table 4 presents results from our models of punitive damages award levels. In all three models, only the compensatory damages coefficient achieves statistical significance. This finding is consistent with our prior

[37]We exclude from our analyses the 12 cases where punitive damages were awarded even though no compensatory damages were awarded. See supra note 14 and, for a general discussion, see Eisenberg et al., Predictability, supra note 8, at 629–30.

[38]We include alternative results for both Column B and C in response to multicollinearity concerns raised by Hersch & Viscusi, supra note 2, 33–34. The results illustrate that, as it bears on the influence of compensatory damages, the inclusion or exclusion of either a jury trial dummy variable or the interaction variable (or both) makes little difference.

Table 5: Regression Models of Punitive-Compensatory Ratios

	A	*B*	*C*
Compensatory damages (log)	–0.052* (0.021)	–0.052* (0.021)	–0.056* (0.024)
Jury trial dummy (1 = yes)	—	–0.011 (0.007)	–0.027 (0.056)
Jury trial × log of compensatory	—	—	0.003 (0.011)
Constant	1.230** (0.111)	1.247** (0.115)	1.264** (0.131)
Model significance	0.012	0.028	0.067
R^2	0.063	0.066	0.066
N	539	539	539

NOTE: $*p < 0.05$; $**p < 0.01$. Robust standard errors in parentheses.
SOURCE: Civil Justice Survey of State Courts 1992–2001.

findings from the 1991–1992 data as well as the 1996 data.[39] Moreover, results in Column A demonstrate that this single variable, compensatory damages, explains 0.577 of the variance of punitive damage award levels. The additional independent variables in the alternative models (Columns B and C) add little explanatory power and none of the additional variables achieve statistical significance. Finally, if one assumes that the compensatory award is a rational proxy for harm caused by the defendant, and evidence supports the reasonableness of such an assumption,[40] the compensatory award variable serves something like a control for differences across judge and jury cases.

Table 5 presents results from our models of the ratio of the punitive and compensatory awards (log). This dependent variable permits us to consider whether judges and juries systematically differ in the amount of punitive damages they award per unit of compensatory damages. The overall picture that emerges closely resembles the picture from Table 4. Specifically, the compensatory award is the single best predictor of variation in

[39]Eisenberg et al., Predictability, supra note 8, at 648 tbl.5 (1991–1992 data); Eisenberg et al., Juries, Judges, supra note 3, at 772–74 tbl.5 (1996 data).

[40]See, e.g., Deborah Jones Merritt & Kathryn Ann Barry, Is the Tort System in Crisis? New Empirical Evidence, 60 Ohio St. L.J. 315, 364–65 (1999); Frank A. Sloan & Chee Ruey Hsieh, Variability in Medical Malpractice Payments: Is the Compensation System Fair? 24 L. & Soc'y Rev. 997, 1025 (1990); Neil Vidmar, The Performance of the American Civil Jury: An Empirical Perspective, 40 Ariz. L. Rev. 849, 868–70 (1998).

punitive-compensatory awards (log) ratio. Moreover, compensatory damages' significance persists across all three models.

Results in Tables 4 and 5 differ, however, in two slight ways. First, as a predictor of variance in the dependent variable, our punitive-compensatory awards (log) ratio model is weaker than our punitive damages awards model.[41] Second, in one of the variants of our punitive-compensatory awards ratio models (Column B), trial mode achieves somewhat more significance ($p = 0.164$). Table 5 suggests that jury trials have a lower ratio of punitive to compensatory awards.[42] The independent influence of trial mode, however, was neither particularly strong nor robust as it did not achieve significance in any of the models. The Appendix reports similar models with explanatory variables added for party status and case type. The results do not materially differ from those in our simpler models.

The assertion that punitive damages are absurd often proxies for an assertion that they bear no meaningful relation to compensatory damages. Tables 4 and 5, however, as well as earlier figures, imply the contrary. How good are the models of punitive damages at explaining award levels? One logical point of reference is compensatory damages models in other studies. Comparisons to models from other studies should be viewed cautiously due to different methodologies, differences in independent variables used, and different classes of cases examined. These cautions aside, however, comparisons between punitive damages models and compensatory damages models provide some basis for assessing the efficacy of the punitive damages models. Results in Table 4 illustrate that models that include compensatory damages explain over one-half the variance in punitive damages award levels. Notably, compensatory damages models do not regularly achieve this level of explanatory power.[43] Ironically, in at least one

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[41]For the narrow purposes of this discussion, we construe the models' strength for this purpose solely as a function of the R^2 statistic.

[42]Because our ratio was constructed by dividing the punitive award (log) by the compensatory award (log), a reduced ratio in this context can be achieved by juries awarding either smaller punitive or larger compensatory damages.

[43]For a sampling of studies modeling compensatory damages see, for example, James S. Kakalik et al., Variation in Asbestos Litigation Compensation and Expenses, 56 (RAND, 1984) (model of compensatory awards (log) paid to asbestos case plaintiffs generates an adjusted R^2 of 0.34); Sloan & Hsieh, supra note 40, at 1020–23 (models of medical malpractice award levels achieve adjusted R^2s ranging from 0.22 to 0.51; models limited to jury trials did not exceed 0.47). For a model of punitive damage award levels as a function of compensatory damages with even

respect, therefore, punitive damage levels may be more explainable than compensatory award levels.

B. Modeling the Decision to Award Punitive Damages

As explored in earlier punitive damages research,[44] juries and judges process different patterns of cases. For example, punitive damages tend to be awarded in intentional tort and fraud cases. About 60 percent of plaintiff trial wins in the data's fraud cases are jury trials; about 80 percent of plaintiff trial wins in intentional tort cases are jury trials. For products liability cases, over 90 percent of trial wins are jury trials. Differential case routing across categories may mask a judge-jury difference, rendering similar observed, aggregate rates of awarding punitive damages misleading. More detailed analysis should help account for the makeup of cases by subject area and other factors.

Models of the decision to award punitive damages, reported in earlier work,[45] indicate that the decision should be linked to the nature of the defendant's behavior. The best available proxy for such behavior is the type of case. On average, for example, one expects defendant behavior to have been worse in an intentional tort case than in a case involving mere negligence. Prior empirical work confirms this pattern.[46] Therefore, in modeling the decision to award punitive damages, we include dummy variables for case categories and expect case categories involving intentional misbehavior to have the highest punitive award rates. A second factor that likely influences the punitive award is the level of the compensatory award. Other things being equal, behavior that causes more harm is worse than behavior that causes less harm, and might be expected to be punished more severely. We approximate the degree of harm caused by using the compensatory damages award in each case.

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greater explanatory power than what we report, see Schmit et al., Punitive Damages: Punishment or Further Compensation? 55 J. Risk Insurance 453 (1988).

[44]Eisenberg et al., Juries, Judges, supra note 3.

[45]Eisenberg et al., supra note 8, at 644–47.

[46]Id. at 645.

Evidence exists that jurors react differently to corporate and individual defendants.[47] We include in the models three litigant pairs: actions by individuals only versus individuals only, actions by individuals only versus nonindividuals, and actions by nonindividuals versus nonindividuals. The individuals versus individuals pairing serves as the reference category.

To account for locale in the models that follow, we use statistical models that account for the clustering of the data at the county level. To account for the sample design, we use the BJS designated strata and weight the data in accordance with BJS-provided weights. In some models, we report unweighted results. Since punitive damages law is a state-level factor, we include dummy variables for the states that have more than one county in the data.[48] Figure 5 indicates that punitive damages award rates vary materially across adjudicator in bodily injury and non-bodily-injury cases. We therefore model these classes of cases separately.

Table 6 reports the results. It indicates that, in no-bodily-injury cases, juries award punitive damages more frequently than judges. In bodily injury cases, however, the effect is in the opposite direction. The sign on the jury dummy variable is always negative and sometimes statistically significant, depending on whether Harris County, Texas is included. In the models that most fully account for the full sample and study design, Models (1) and (2), the jury dummy variable points most strongly in opposite directions in the bodily injury and no-bodily-injury cases.

Table 6 also shows that the size of the compensatory award relates differently to the existence of a punitive award depending on the bodily injury status of the case. In non-bodily-injury cases, the coefficient is substantial and highly significant in all models, as one would expect. Greater harm is associated with an increased likelihood of a punitive award. In bodily injury

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[47]Valerie P. Hans & Williams S. Lofquist, Jurors' Judgments of Business Liability in Tort Cases: Implications for the Litigation Explosion Debate, 26 L. & Soc'y Rev. 85 (1992); Robert J. MacCoun, Differential Treatment of Corporate Defendants by Juries: An Examination of the "Deep-Pockets" Hypothesis, 30 L. & Soc'y Rev. 121, 140 (1996). However, this difference does not necessarily translate into hostility to corporations. Lempert, supra note 3, at 455. Jurors may react especially negatively to misbehavior by insurance companies. Valerie P. Hans & Nicole Vadino, Whipped by Whiplash? The Challenges of Jury Communication in Lawsuits Involving Connective Tissue Injury, 67 Tenn. L. Rev. 569, 580–82 (2000); Eisenberg & Wells, Predictability on Appeal, supra note 8, at 67 (punitive/compensatory damages ratios are highest in insurer misbehavior cases). But juries generally are skeptical about plaintiffs' claims. Hans & Vadino, supra, at 572–77.

[48]To save space we do not report results for the state dummy variables in Table 6.

Table 6: Logistic Regression Models of Whether Punitive Damages Were Awarded—Bodily Injury and No-Bodily-Injury Cases

	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*
	Account for Sample Design		*Account for Sample Design; Harris County Excluded*		*Ignore Weighting*		*Ignore Weighting; Harris County Excluded*	
	Bodily Injury	*No Bodily Injury*	*Bodily Injury*	*No Bodily Injury*	*Bodily Injury*	*No Bodily Injury*	*Bodily Injury*	*No Bodily Injury*
Jury trial dummy (1 yes)	−0.804* (2.10)	0.898** (4.66)	−0.423 (0.93)	1.017** (6.09)	−0.733 (1.92)	0.881** (4.93)	−0.503 (1.09)	0.968** (5.90)
Compensatory damages (log)	0.240 (1.16)	0.434** (3.98)	0.063 (0.37)	0.419** (3.62)	0.151 (0.84)	0.441** (3.77)	0.050 (0.30)	0.428** (3.53)
2001 dummy	0.556 (1.54)	0.122 (0.79)	0.896** (2.72)	0.225 (1.62)	0.665 (1.88)	0.140 (0.95)	0.938** (2.86)	0.216 (1.54)
Party Status								
Individual vs. nonindividual	−0.086 (0.22)	−0.596* (2.40)	−0.427 (1.41)	−0.650* (2.40)	−0.259 (0.75)	−0.595* (2.40)	−0.473 (1.53)	−0.614* (2.30)
Nonindividual vs. nonindividual	−0.434 (0.51)	−1.103** (4.47)	−0.143 (0.15)	−1.020** (3.91)	−0.669 (0.81)	−1.061** (4.55)	−0.430 (0.48)	−0.995** (4.09)
Selected Case Types								
Products liability (incl. asbestos)	0.275 (0.47)		0.144 (0.21)		0.210 (0.33)		0.302 (0.44)	

Premises liability	−0.491		−0.674		−0.635		−0.688	
	(1.08)		(1.46)		(1.40)		(1.44)	
Intentional tort	2.534**	2.254**	2.194**	2.324**	2.346**	2.164**	2.209**	2.238**
	(4.25)	(8.28)	(4.48)	(7.87)	(4.41)	(7.33)	(4.30)	(7.32)
Medical and prof. malpractice	−0.311	−0.191	−0.528	−0.099	−0.480	−0.130	−0.484	−0.071
	(0.51)	(0.33)	(0.84)	(0.17)	(0.79)	(0.23)	(0.75)	(0.13)
Employment discrim. or dispute	4.863**	0.758**	4.962*	0.808**	4.235*	0.788**	4.353*	0.804**
	(2.82)	(3.60)	(2.63)	(3.71)	(2.30)	(3.67)	(2.18)	(3.61)
Fraud		0.920**		1.029**		0.962**		1.047**
		(4.78)		(5.59)		(5.06)		(5.53)
Rental/lease agreement		−0.360		−0.277		−0.349		−0.286
		(0.71)		(0.55)		(0.70)		(0.57)
Constant	−4.960**	−4.734**	−4.246**	−4.849**	−4.344**	−4.806**	−4.069**	−4.888**
	(3.88)	(8.42)	(3.53)	(8.06)	(3.81)	(7.99)	(3.41)	(7.74)
N	1,742	3,174	1,651	3,007	1,742	3,174	1,651	3,007

NOTE: Absolute value of *t* statistics in parentheses. *$p < 0.05$; **$p < 0.01$. Dependent variable is punitive damages awarded. Cases are those won at trial by plaintiffs in 1996 or 2001. Reference category for litigant pairs is individual vs. individual; reference category for case types is the aggregate of all case types not represented by dummy variables. State dummy variables for those states with more than one county in the data are in the models but not reported.

SOURCE: Civil Justice Survey of State Courts 1996, 2001.

cases, however, the compensatory award coefficient is small and insignificant. Greater harm plays little role in explaining whether a punitive award was given. This stronger relation in no-bodily-injury cases between the compensatory award and whether punitive damages are awarded persists in both judge and jury trials.

In all relevant models, intentional torts, fraud, and employment cases are associated with increased frequency of punitive awards. Neither products liability nor medical malpractice cases are associated with high rates of punitive awards. These case-category findings echo findings in virtually all other studies of punitive damages.

The negative signs on the litigant pair dummy variables indicate that punitive damages are most likely in cases involving individuals suing individuals.

V. Discussion

Both core results from Section III survive in Section IV's regression analyses. Juries and judges award about the same amount of punitive damages per dollar of compensatory damages. The simplest explanation of this similarity is that judges and juries behave similarly. This section suggests that this simple explanation likely survives selection effects considerations, as best we can model them. However, the simple explanation seems less satisfactory in explaining juries' and judges' facially different treatment of bodily injury cases and no-bodily-injury cases. Here, selection effects seem a likely part of the explanation. An additional new result is the absence of evidence that compensatory awards influence the decision to award punitive damages in bodily injury cases. This section also discusses that result.

A. Selection Effect Considerations

Interpreting our results requires considering the nonrandom routing of cases between judges and juries. Table 1 suggests that large-stakes cases tend to be adjudicated by juries. Analysis of the 1996 Civil Justice Survey data suggested that one expects juries to see a sample of cases that is biased in favor of strong candidates for punitive awards.[49] A study in which the higher

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[49]Eisenberg et al., Juries, Judges, supra note 3.

stakes, more punitive damages prone cases are in fact being routed to judges should be regarded as more remarkable than any of our findings.

1. Selection Attributable to Case Routing Between Judge and Jury

If plaintiffs select juries for cases with high probabilities of punitive awards, our results may overstate the juries' propensity to award punitive damages and could be interpreted as precluding rejection of the hypothesis that judges are more likely than juries to award punitive damages. If judges saw the same group of high punitive probability cases that juries likely see, analysis might reveal a greater tendency by judges to award punitive damages, and to award higher punitive damages.

Another possible routing effect relates to the perceived greater reliability of judges compared to juries. Plaintiffs may regard judges as more reliable, and thereby opt for trial before judges in their strongest cases on the merits.[50] Similarly, the plaintiff with a strong punitive damages case may opt for a judge trial to avoid the less reliable jury because the jury might refuse to grant a punitive award in a case that merits an award. If such routing occurs, then one might observe judges awarding punitive damages at a greater rate than juries across all cases and defendants opting for jury trials when the case for punitive damages is strongest. However, perceptions that juries are more likely to award punitive damages, and more likely to award more in punitive damages, are widespread. Indeed, until the 1996 Civil Justice Survey data were gathered and first analyzed, the surprisingly prominent role of judges in the punitive damages area was largely unknown. Systematically seeking the reliable judge to obtain a punitive damages award, when judges are not perceived as even awarding punitive damages, seems an unlikely effect. But, as before, this explanation cannot be eliminated based on our data and could mask real judge-jury differences.

2. Selection Attributable to Case Settlement

As noted in analyzing the CTCN 1996 data, since juries are believed to be more unpredictable than judges, especially in high-award cases, defendants may choose to settle cases that have high probabilities of large punitive

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[50]Id.

awards.[51] Trials in cases in which jurors' propensity to award punitive damages is strongest may never be observed. Juries are viewed as so much wilder than judges that they only rarely get to act in those cases in which their behavior would be expected to be wildest.[52]

The most important empirical development on this front is a study of the effect of punitive award requests on settlement in Georgia tort cases.[53] Eaton et al. assessed the impact of punitive damages claims on the processing of tort cases. They found little impact on case processing.

> The results show that contrary to the expectation of many critics (e.g., Polinsky, 1997; Priest, 1996) the decision to seek punitive damages has no statistically significant impact on most phases of the litigation process. Specifically, we found that the decision to seek punitive damages had no effect on (1) whether a case filed in any given year was disposed or pending; (2) whether a case that was disposed was done so by trial or by some other procedure, including settlement; (3) whether a case that was disposed by means other than a trial was more likely to have been settled; and (4) whether a case that was disposed by means other than a trial was more likely to have been disposed by a voluntary dismissal without prejudice so that it could be re-filed.[54]

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[51]Id.

[52]E.g., David Segal, Tag-Team Lawyers Make Businesses Blink; HMOs Latest to Grapple with Threat of Investor-Scaring Mega-Verdicts, Wash. Post, Nov. 12, 1999, at A1, 1999 WL 23314332. Studies funded by industry or tort reform groups, which find evidence that punitive damages often are requested, conclude that the frequency of such requests poses a serious problem. J. Clark Kelso & Kari C. Kelso, An Analysis of Punitive Damages in California Courts, 1991–2000, at 5 n.3 (unpublished manuscript); John H. Sullivan, New State Data Confirms Runaway Abuse of Punitive Damages (1997), available at <http://www.cjac.org/research/punitivedamages.pdf>. A study that followed up the tallying of claims for punitive damages by studying whether awards were in fact obtained suggests the need for caution in interpreting the effect of punitive damages claiming rates. Eaton et al. found that 3,763 of 25,560 (14.7 percent) tort cases in Georgia state courts involved claims for punitive damages. These 3,763 cases yielded 15 punitive damages awards, with the awards being disproportionately made by judges, not juries. Thomas A. Eaton, Susette M. Talarico & Richard E. Dunn, Another Brick in the Wall: An Empirical Look at Georgia Tort Litigation in the 1990s, 34 Ga. L. Rev. 1049, 1094 (2000). See also Eaton et al., supra note 8. Sullivan, supra, for example, reports high rates of claims for punitive damages but does not report the resulting yield in actual punitive awards.

[53]Eaton et al., supra note 8.

[54]Id.

The authors noted the consistency of their findings with those of three other articles.[55] In addition, analysis of the 1996 CTCN data concluded that little evidence existed to support the belief that the threat of punitive damages cast a detectably long shadow.

So we doubt that case selection and the settlement process explain our core punitive damages filings. For award levels, the finding of judge-jury similarity may present no analytic difficulty. Judges and juries tend to award similar amounts of punitive damages per compensatory dollar awarded. For the decision to award, however, while the overall punitive award rates are not substantially different, significant difference does exist in subclasses of cases—notably bodily injury and non-bodily-injury cases.

3. The Bodily Injury Finding

A facial explanation of judge-jury similarity is less plausible in explaining Figure 5 and Table 6's finding that juries award punitive damages less often than judges in bodily injury cases and more often in no-bodily-injury cases. Since, unlike the punitive-compensatory relation results, the core finding is of difference, not similarity, something must help explain the difference. One explanation is that judges are in fact more prone to award punitive damages in bodily injury cases and less prone to do so in financial injury cases. But that explanation seems counterintuitive. Whatever their approach to financial injury cases, conventional wisdom is that juries, not judges, should be the relative pushovers for injured plaintiffs.

Another possible explanation for the difference in judge versus jury behavior based on the presence or absence of bodily injury may be in the types of cases that are collapsed into the non-bodily-injury category. These include fraud, defamation, professional malpractice, employment discrimination, conversion, rental/lease, tortious interference, and partnership disputes. One of the characteristics that these case types often have in common (compared to bodily injury cases) is the presence of a preexisting relationship of implied trust—fiduciary, employment, or contractual—between the plaintiff and defendant that is less likely to occur in most bodily injury cases (auto tort, premises liability, product liability). It may be that juries, more than judges, perceive the violation of this preexisting relationship as egregious, and thus more deserving of punishment for the defendant, than cases

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[55]Id.

that do not involve a preexisting relationship. We do not have evidence that juries and judges in fact respond differently to breaches of trust but this explanation is worth exploring.

The type of evidence presented in bodily injury versus non-bodily-injury cases may also affect judges and juries differently. Absent egregious circumstances, in many cases, it may not be that easy for juries to distinguish evidence of mere negligence from willful or malicious conduct in cases involving bodily injury. In non-bodily-injury cases, the evidence of willful or malicious conduct (rather than accident) may be more straightforward. Judges' repeated observations of trials, experience that most jurors lack, may enable them to more confidently rank misbehavior in bodily injury cases. However, it is not clear that judges would react less negatively than jurors to evidence of willful or malicious conduct.

Here, then, no readily available explanation seems fully satisfactory and selection may well be at work. If juries are perceived as more likely to award punitive damages than judges in bodily injury cases, perhaps less punitives-worthy cases are routed to juries. When juries turn out to behave similarly to judges, one would observe those less punitive-damages-worthy cases resulting in relatively fewer punitive awards by juries.[56] This does not explain juries' observed higher frequency of punitive awards in financial injury cases. Perhaps the stereotypical view of juries is correct here and less case routing goes on to obliterate that tendency by the time of observed outcomes.

B. The Relation Between the Compensatory Award and the Decision to Award Punitive Damages

Table 6 indicates that, in no-bodily-injury cases, the magnitude of the compensatory award is positively and statistically significantly associated with the existence of an award of punitive damages. This is as expected. As the harm, as represented by the compensatory award, increases, the likelihood of imposing a punitive award should be expected to increase. Perhaps more interesting is the absence of evidence that compensatory awards influence the decision to award punitive damages in bodily injury cases. It may be that physical harm to the victim, regardless of the level of monetary harm, is a sufficient proxy for serious harm so that the amount of compensatory

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[56]Cf. Clermont & Eisenberg, supra note 15 (explaining different win rates before judges and juries on the basis of case routing).

damages no longer influences the decision to award punitive damages. Misbehavior resulting in physical harm is per se sufficient to support a punitive award. Only the quality of the behavior matters at that point, not the level of the monetary harm.

VI. Conclusion

We report evidence across 10 years and three major data sets that: (1) juries and judges award punitive damages in approximately the same ratio to compensatory damages, (2) little evidence of increasing levels of punitive awards exists, and (3) juries' and judges' tendencies to award punitive damages differs in bodily injury and no-bodily-injury cases. The similarity in punitive-compensatory ratios probably suggests that juries and judges behave similarly with respect to award amounts. The differences in punitive award rates more likely are a function of case selection than of jurors' relative harshness in bodily injury cases.

Appendix

Appendix Table 1: Full Regression Models of Punitive Damages (log) Levels

Independent Variables	*A*	*B*	*C*
Compensatory damages (log)	0.767** (0.057)	0.767** (0.057)	0.725** (0.103)
Jury trial dummy (1 = yes)	—	0.012 (0.028)	–0.135 (0.250)
Jury trial × log of compensatory	—	—	0.031 (0.051)
Party Status			
Individual vs. nonindividual	0.182* (0.082)	0.188* (0.083)	0.192* (0.084)
Nonindividual vs. nonindividual	–0.036 (0.214)	–0.032 (0.214)	–0.028 (0.213)
Selected Case Types			
Premises liability	–0.466* (0.207)	–0.477* (0.206)	–0.496* (0.210)
Product liability (including asbestos)	–0.070 (0.284)	–0.068 (0.283)	–0.067 (0.280)
Intentional tort	–0.203 (0.101)	–0.206* (0.101)	–0.206* (0.101)
Medical and professional malpractice	–0.320* (0.146)	–0.320* (0.146)	–0.314* (0.144)
Fraud	–0.083 (0.121)	–0.090 (0.127)	–0.098 (0.129)
Employment discrimination or dispute	–0.026 (0.137)	–0.023 (0.135)	–0.019 (0.134)
Rental/lease agreement	–0.339* (0.138)	–0.333* (0.139)	–0.338* (0.142)
Selected Case Characteristics			
Bodily injury (non-motor-vehicle)	0.504** (0.114)	0.502** (0.115)	0.507*** (0.115)
No bodily injury	0.298* (0.123)	0.293* (0.124)	0.293* (0.123)
Constant	0.595* (0.288)	0.574 (0.300)	0.779 (0.499)
Model significance	0.000	0.000	0.000
R^2	0.532	0.532	0.533
N	494	494	494

Note: $*p < 0.05$; $**p < 0.01$. Robust standard errors in parentheses. Reference group for party status is individual versus individual; reference group for selected case type is the aggregate of all case types not represented by dummy variables; reference group for the selected case characteristic is no bodily injury. Models account for clustering at the county-site level and the stratified sampling pattern. State dummy variables for those states with more than one county in the data are included in the models but not reported.

Source: Civil Justice Survey of State Courts 1992–2001.

Appendix Table 2: Full Regression Models of Punitive Damages (Log) Ratios

Independent Variables	*A*	*B*	*C*
Compensatory damages (log)	–0.071* (0.035)	–0.071* (0.035)	–0.112 (0.057)
Jury trial dummy (1 = yes)	—	–0.008 (0.011)	–0.150 (0.109)
Jury trial × log of compensatory	—	—	0.029 (0.021)
Party Status			
Individual vs. nonindividual	0.042 (0.022)	0.037 (0.024)	0.041 (0.023)
Nonindividual vs. nonindividual	–0.001 (0.048)	–0.004 (0.049)	–0.001 (0.048)
Selected Case Types			
Premises liability	–0.074 (0.053)	–0.066 (0.058)	–0.084 (0.052)
Product liability (including asbestos)	0.051 (0.087)	0.050 (0.087)	0.051 (0.085)
Intentional tort	–0.004 (0.053)	–0.002 (0.056)	–0.001 (0.056)
Medical and professional malpractice	–0.037 (0.029)	–0.037 (0.029)	–0.031 (0.028)
Fraud	–0.033 (0.035)	–0.028 (0.032)	–0.036 (0.035)
Employment discrimination or dispute	–0.012 (0.025)	–0.013 (0.025)	–0.009 (0.025)
Rental/lease agreement	–0.099* (0.040)	–0.103* (0.043)	–0.108* (0.047)
Selected Case Characteristics			
Bodily injury (non-motor-vehicle)	0.066 (0.042)	0.067 (0.041)	0.072 (0.038)
No bodily injury	0.069* (0.032)	0.072* (0.034)	0.071* (0.033)
Constant	1.243** (0.178)	1.258** (0.191)	1.456** (0.295)
Model significance	0.000	0.000	0.000
R^2	0.135	0.136	0.150
N	494	494	494

NOTE: *$p < 0.05$; **$p < 0.01$. Robust standard errors in parentheses. Reference group for party status is individual versus individual; reference group for selected case type is the aggregate of all case types not represented by dummy variables; reference group for the selected case characteristic is no bodily injury. Models account for clustering at the county-site level and the stratified sampling pattern. State dummy variables for those states with more than one county in the data are included in the models but not reported.

SOURCE: Civil Justice Survey of State Courts 1992–2001.