The Determinants of the Incidence and Magnitude of Punitive Damages

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Abstract

This paper investigates the determinants of the incidence and magnitude of punitive damage awards in a nationally representative sample of US State Courts in 2005. I evaluate the impact of the compensatory award, disposition type, claim type, the presence of caps, and permanence of injury on the incidence and magnitude of punitive damages in tort and contract cases. A lack of federal regulation and a wide range of state regulation can be attributed as the primary cause of the large variation in punitive damages. Incidence of punitive damages is consistently high in intentional tort, fraud and employment cases. Juries award higher damages than judges, and are more likely to suffer from hindsight bias when awarding damages ex-ante. Caps provide jurors with an anchor, and may cause a higher incidence and magnitude of punitive damages. Incidence is more predictable than magnitude, which is primarily because jurors can rank behavior based on ‘how bad it is’, but struggle to put a monetary value while awarding deterrence awards.
Acknowledgments

This is my first shot at an Oscar speech (and the only shot of insertion of humor in this paper).

But no, seriously, to Bryn Mawr and Haverford Colleges, for being the most supportive community I could ask for. This paper would not have been possible without the guidance of my advisor Dr. Kontorovich, or without the insights of Dr. Cichello and Dr. Stahnke. And to my writing partner Sundes, without whose help this thesis would be full of grammatical errors.

To my parents and friends, for encouraging my interest in law and economics, believing in me, and keeping me on track. Thank you for reading 35 pages of analysis on punitive damages and regression outputs, just because I wanted you to. I owe a lot of dinners.

And lastly, my mother reminded me to acknowledge myself for my hard work. So thank you, me. You can sleep now.
# TABLE OF CONTENTS

I Key terms defined...........................................................................................................5

II Introduction..................................................................................................................7

III Literature Review......................................................................................................13

(i) *The Importance of Punitive Damages and its Relation to Compensatory Damages* ........................................................................................................ 13

(ii) *The Effect of Punitive Damages on Specific Claim Types* ........................................ 16

(iii) *The Effects of Caps on Punitive Damages* ............................................................. 17

(iv) *Effects of disposition type on punitive damages* .................................................... 18

(v) *Appeals and Reversals of large Punitive Damages* .............................................. 21

IV Data Description.......................................................................................................22

V Hypotheses..................................................................................................................24

VI Methodology..............................................................................................................26

VII Results.......................................................................................................................30

VIII Conclusion..............................................................................................................35

IX References................................................................................................................37
KEY TERMS DEFINED

**Alternative Dispute Resolution**- A procedure for settling a dispute by means other than litigation, such as arbitration or mediation. Abbr. ADR

**Bench trial**- A trial before a judge without a jury. The judge decides questions of fact as well as questions of law.

**Cap**- An upper limit, such as a statutory limit on the recovery in a tort action or on the interest a bank can charge.

**Compensatory damages**- 1. Damages sufficient in amount to indemnify the injured person for the loss suffered. 2. An amount awarded to a complainant to compensate for a proven injury or loss; damages that repay actual losses

**Contract**- An agreement between two or more parties creating obligations that are enforceable or otherwise recognizable at law <a binding contract>. The writing that sets forth such an agreement

**Intentional tort**- A tort committed by someone acting with general or specific intent. Examples include battery, false imprisonment, and trespass to land.

**Jury trial**- A jury is a group of persons selected according to the law and given the power to decide questions of fact and return a verdict in the case submitted to them. In certain contexts, jury embraces any fact trier, including an arbitrator or a trial judge sitting in a nonjury preceding. A trial in which the actual issues are determined by the jury is termed as a jury trial.

**Punitive Damages**- Damages awarded in addition to actual damages when the defendant acted with recklessness, malice or deceit, specif., damages assessed by way of penalizing the wrongdoer or making an example to others. Punitive damages, which are intended to punish and thereby deter blameworthy conduct, are generally not recoverable for breach of contract. The Supreme Court has held that three guidelines help determine whether a punitive- damages award violates constitutional due process- (1) the reprehensibility of the conduct being punished; (2) the reasonableness of the relationship between the harm and the award; and (3) the difference between the award and the civil penalties authorized in comparable cases.

**Torts**- A civil wrong, other than breach of contract, for which a remedy may be obtained, usu. in the form of damages; a breach of a duty that the law imposes on persons who stand in a particular relation to one another.

**Directed Verdict**- A ruling by a judge taking a case from the jury because the evidence will permit only one reasonable verdict.

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1 All definitions are directly from Black’s Law Dictionary (1990) unless otherwise specified
JNOV- **Judgement notwithstanding the verdict**- A judgement entered for one party even though a jury verdict has been rendered for the opposing party.

**Buyer Contract**\(^2\)- the case where the buyer claims no delivery or delivery of incomplete, incorrect, or poor quality goods or services.

**Fraud**\(^2\)- Claim of negligent or intentional misrepresentation of the nature of a person, product, or service within a legal contract.

**Intentional Tort**\(^2\)- Personal injury, death, or property damage caused by the intentional act of another, e.g., assault & battery, vandalism.

\(^2\) Civil Justice Survey of State Courts, [2005], US Department of Justice. Bureau of Justice Statistics. Codebook
I. INTRODUCTION

Individual rights take precedence over societal rights in a capitalist economy such as that of the United States of America. Individuals believe that they should be adequately compensated when they have been wronged and thus, they turn to our formal and rational legal system as a redress for legal disputes. Everyone in the United States of America is entitled to a trial before a jury unless both parties waive this right and agree to proceed either via a bench trial or through Alternate Dispute Resolution (ADR). According to the Bureau of Justice Statistics, in 2005 alone, there were approximately 7.4 million civil cases filed in all unified and general jurisdiction courts nationwide.

In awarding damages to offset the harm caused to plaintiffs, two kinds of damages are awarded, compensatory and punitive (see key terms defined). The compensatory award is total compensation for the harm caused to the plaintiff, including economic damages as well as non-economic damages like emotional distress. Punitive damages are meant to punish the corporation for acting negligently.

Compensatory damages can be thought of as the shift along the individual indifference curve where compensation offsets any damages that the plaintiff suffered. Punitive damages are awarded over and above the compensatory damage for between 3-5% of cases (Eisenberg et al. (2010)).

This paper looks at the determinants of the incidence and magnitude of punitive damages in tort and contract cases in a nationally representative sample of US State Courts in 2005.

Punitive damages have been a controversial subject since the 1970’s as there is much uncertainty on how to compute these damages and there is a large variability in the values these awards can take. Priest (1996, Page 830) argues that as punitive damages claims increase, the
magnitude of the ultimate settlement increases as does the likelihood of litigation, even in cases that are settled out of court.

Cooter and Ulen (2008) state that the guideline for awarding punitive damages is broad and simply stated as when the “defendant’s behavior is malicious, oppressive, gross, willful and wanton, or fraudulent.”

Punitive damages are under state jurisdiction, and there is a wide variability in state laws. Sunstein et al. (1998, Page 87) highlight that no specific instructions are contained in state statutes for awarding punitive damages, and thus while it is easy to rank cases based on how ‘bad’ the conduct of the defendant is; it is difficult to put a monetary value on that action. Since the 1970’s, many cases have come to public attention due to outrageous amounts that were awarded, and several cases have been appealed at the Supreme Court. Since the 1980’s many state courts have been compelled to institute caps on punitive damages. As of 2005, 29 states had caps on these damages, whether in absolute dollar or percentage terms; or as a complete ban on awarding these damages.

To better understand the distinction between punitive and compensatory damages, consider a hypothetical example: the case of product malfunction where the plaintiff suffers from an injured eye. Make the following assumptions- the plaintiff is indifferent between receiving $100,000 and having the perfect vision that they did before the accident occurred, medical expenses amount to $5,000 and work missed for a week amounts to a loss in income of $4,000. The total compensatory award should equal $109,000. It is assumed that the injured party has been adequately compensated such that they have been put back in the place that they were in before the accident occurred.

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3 Page 394, Cooter and Ulen (2008)
Now, assume that this harm could have been prevented by taking sufficient precautions, say by installing extra safety equipment that cost $500 per piece, and the probability of someone getting injured is 1/218. The firm may consider that even if one in 218 people gets injured, they would have to pay $109,000 in compensation which is the same amount as they would have saved by not installing this equipment, which makes the risk of not installing the equipment worth it. They might also assume that not every injured plaintiff will file, and often the compensation award can be settled for less out of court for risk-averse plaintiffs (Karpoff et al. 1993). Thus, the benefits of the risk taken by not installing the equipment offset the potential harm caused by the action, and the firm may choose to act in a manner that maximizes their profits; even if a small percentage of people will be injured from their negligent actions.

Thus, in addition to compensatory damages, punitive damages may be awarded by the court to the plaintiff over and above compensatory awards. These awards act as both a deterrent and as punishment. (Polinsky et al. 1997, Page 873). Say the determined level of punitive damages is $50,000 in the case above. The total payout would be $159,000.

Polinsky (1997) also argues that punitive damages should be given if and only if the injury could have been prevented by taking additional precautions, i.e. if the firm took all necessary precautions and the incident was an accident that could not have been foreseen, the firm should not have to pay punitive damages.

I created a matrix to show the various combinations with which a firm can act. The firm can take adequate measures, in which case they will be operating at the socially optimal level. Alternatively, they may take excessive measures (say for the purpose of this example buy insurance for protection against product malfunction cases) or take no measures.


The box shaded purple is socially optimal—this is where society is operating at its maximum efficiency. Here damages are prevented and all actors are responsible and the cost of the product reflects that the corporation is being safe without taking unnecessary precautions.

The boxes shaded in pink are the nash equilibria. The most common solution for any given firm is either to take no measures and install no insurance if competitors are not, as these will reflect in higher prices as the firm internalizes the extra cost; or to take measures and buy insurance because that is what competitors are doing and the firm does not want to have the image of being unsafe. This also reflects the risk averse behavior of firms that do not want to gamble with the $1/218$ probability of injuring someone. These are not the most socially optimal outcomes. In scenario 1, prices are low but products are unsafe, and there is a burden on the legal system with an increased number of trial cases. In scenario 2, the system is very safe, but firms are being
overcautious and this might reflect in higher prices, and this in turn might discourage competition.

Not taking adequate precautions can lead to significant damage to the injured parties. Often negligence of corporations hurts not just the plaintiffs, but also several other buyers of the product. An example of this is Philip Morris USA v Williams, where Mr. Williams died from several years of cigarette smoking. Mrs. Williams alleged that Mr. Williams had been misinformed about the harms of cigarette smoking by the cigarette brand Philip Morris. Jurors considered harm not only for the plaintiffs present before them but also for harm that had been caused to other victims of cigarette smoking. The Supreme Court on appeal ruled against doing so, to minimize variability in damage awards. Since each state independently determines its guidelines on determining punitive damages, it can be expected that both plaintiffs and defendants forum shop; i.e. seek the forum where their outcome will be maximized, and a decision in their favor most likely delivered.

Through my thesis, I investigated whether these damages follow a pattern based on type of claim, number of plaintiffs, seriousness of injury and existence of a state cap. I found that intentional torts are punished severely, while temporary injuries and deaths together are more severely punished than permanent injuries. Most interestingly I found a strong anchor effect, where juries are more likely to give a punitive damage award when a percentage or dollar cap exists, and these awards are on average higher than damages awarded in states with no cap.

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4 Phillip Morris v Williams – A state negligence lawsuit where smoking cigarettes was found to be the primary cause of death of Jesse Williams. $821,000 were awarded in compensatory damages while $79 million were awarded in compensatory damages. While Philip Morris objected to the jury’s use of judging widespread damage caused to all people like Jesse Williams in determining the punitive damage award, the State Supreme Court of Oregon upheld the lowest court’s decision and did not reduce this award.
My research paper is in two parts

1. What determines the incidence of punitive damages? i.e. what determines the probability of receiving a punitive damage award?

2. What determines the magnitude of punitive damages? i.e. how much are they when they are given?
II. LITERATURE REVIEW

The Importance of Punitive Damages and its Relation to Compensatory Damages

In considering the justification for awarding punitive damages, Polinsky and Shavell (1999, Page 873) refer to two broad social goals: deterrence and punishment. By deterrence they mean the use of sanctions to influence behavior, so as to maximize the following measure of social welfare: the benefits parties obtain from their actions, less the costs of precautions, the harm done, and the expenses due to use of the legal system. By punishment, they mean the imposition of sanctions to satisfy a desire for retribution against wrongdoers.\(^5\)

 Assuming that the level of negligence determines the compensatory award, punitive awards in ratios excessive of single digit numbers (a limit set by the Supreme Court following BMW v Gore\(^6\)) are considered a violation of the “Due Process clause” of the Fourteenth Amendment of the US Constitution; as these awards are too grossly excessive to be just and would deprive the plaintiffs of their property.\(^7\) Numerous studies have been conducted which attempt to determine the importance of punitive damages as a deterrent for bad behavior by corporations. Following the vast criticism on punitive damage awards, scholars have studied the variability of awards and the effect of state attempts to limit these awards.

Cooter (1997) explains that state statues that do allow punitive damages establish that these damages should bear a ‘reasonable relationship’ to compensatory damages, and these awards should only be given when the case is ‘bad enough’. However, this poses a problem as ‘bad enough’ is a difficult attribute to quantify. Cooter further illustrates that, “social norms

\(^6\) BMW v Gore- A repainted car was sold without informing the buyer, where the initial punitive damage award was 500 times the compensatory award.

\(^7\) http://www.thefederation.org/documents/myles.htm, State Response to BMW v Gore
provide a better guide for the need for punitive damages than their extent [page 2]… Thus, juries’ intuitions determine damages [page 4]”.

Even if juries were presented with a percentage that the punitive damage should be of the compensatory damage, non-economic damages like ‘emotional distress’ and ‘pain and suffering’ can take a large range of values, and thus there would still be a great deal of variability in determining appropriate damage awards.

The compensatory award is the price of committing the wrong. It is referred to as a ‘liability right’, i.e. the price where the injured party would theoretically be indifferent between where he/she was in before the breach occurred, and where he/she is after being monetarily compensated for the harm. The injurer is free to decide whether or not to take the action that would cause the harm, provided he pays damages. With a liability right, perfect compensation internalizes the harm caused to the injurer. Cooter describes perfect disgorgement as being on the same indifference curve as when no injury had occurred.

However, a prohibition award (punitive damages) is punishment that deters wrongdoing. This is over and above the liability right (compensatory damages). This ensures that corporations do not just act negligently because they have the ability to do so by internalizing the cost of potential harm, with the knowledge that they would have to pay exact expenses of damages.
Liability v Prohibition: Table 2 below is as used by Cooter(1997, Page 77). It is a useful tool in understanding the difference between the goal of punitive damages and compensatory damages.

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Liability Right versus Prohibition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Injurer’s act</td>
</tr>
<tr>
<td>Liability right</td>
<td>Permitted</td>
</tr>
<tr>
<td>Prohibition</td>
<td>Forbidden</td>
</tr>
</tbody>
</table>

He describes the distinction for when a prohibition award is given in society by considering two scenarios, when community standard existed for taking precautions and when it didn’t exist. If no community standard on taking precautions existed, then the actor should take precaution until the burden is at least as great as the reduction in expected liability. If a community standard did exist but the harm is uncompensable, the court should use a ‘risk equivalence method’, i.e. equalize between the money and risk, not between the money and the loss. He explains that at this standard rationally self interested actors decide whether or not to conform to the legal standard of care by balancing the costs of the precaution and the expected costs of liability. The risk equivalent method sets liability at the level that causes such actors to conform to the legal standard (Cooter (1997), Page 11)

Eisenberg et al. (2010) state that greater harm corresponded to a greater probability of an award: the size of the compensatory award was significantly associated with whether punitive damages were awarded, with a rate of approximately 60 percent for cases with compensatory
awards of $1 million or more. They find that the award of punitive damages is significantly associated with the level of the compensatory award. For compensatory award cases exceeding $1 million, won by plaintiffs with punitive damages requested, the punitive damages award rate exceeded 50 percent. The rate is also sensitive to case category and varies across judge and jury trials.

*The Effect of Punitive Damages on Specific Claim Types*

Eisenberg et al. (2010) found that in all relevant models from civil courts surveys spanning 10 years, 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.

Tort cases are more likely to receive punitive damages than any other claim type. Although punitive damage awards are most commonly disallowed in contract cases, it is a grey area in cases that can be classified as ‘bad-faith contracts’. The South Carolina case, Harper v. Ethridge (1986), stated that a breach of contract that is accompanied by a fraudulent act may recover punitive damages.

In order to state a claim for breach of contract accompanied by a fraudulent act, a plaintiff must plead facts establishing three elements: (1) a breach of contract; (2) fraudulent intent relating to the breaching of the contract and not merely to its making; and (3) a fraudulent act accompanying the breach.8

“The Restatements of Contracts [Second] §344 (a) states that, “In some situations a court will recognize (an) interest and grant relief to prevent unjust enrichment. This may be done if a

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party has not only changed his own position in reliance on the contract but has also conferred a benefit on the other party by, for example, making a part payment or furnishing services under the contract. The court may then require the other party to disgorge (emphasis added) the benefit that he has received by returning it to the party who conferred it.”

Thus, while punitive damages are more common in tort cases, they are also sometimes awarded in contract or malpractice cases where there was an intentional bad faith action like fraud.

*The Effect of Caps on Punitive Damage Awards*

As of 2005, 29 states have instituted statutory caps on punitive damages, and 34 states have amended their state codes to reduce the magnitudes and frequencies of punitive-damage awards.9

To understand behavior of jurors when presented with a punitive damage cap, Greene, Coon and Bornestein (1999) conducted a behavioral study using mock jurors where they based case patterns after real cases and divided the mock jurors up into four different groups. One group had damages capped at $200,000, another group were told that punitive damages could not exceed compensatory damages; the third group had no limitation on damage cap, and the last group could not award punitive damages at all. Greene et al. also wanted to test the effect of reprehensibility of conduct on awarding damages, especially what happens to compensatory damages when punitive damages are disallowed. They predicted that compensatory damage awards would increase as limits on punitive damage awards became more restrictive.

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They claim that (i) banning the use of punitive damage awards would lead to higher compensatory awards as jurors try to punish defendant firms for their reprehensible conduct, (ii) having the availability of punitive damage caps anchors the jurors perception on how much the award should be, and they consistently award damages around that figure. Daniels and Martin (1995, Page 2), defend the institution of uncapped punitive damages as good social policy, as capping them would not adequately serve the deterrence objective these prohibition awards have. However, they also present that it is feared if there were no caps whatsoever, there would be a “race to the court house” and the first plaintiffs there would deplete all the resources available to compensate wronged parties.

Thus, the effectiveness of caps in lowering variability of punitive damage awards is undetermined and controversial. It is believed that they provide an anchor, but is also believed to restrict awards to some extent.

The Effect of Disposition Type on Punitive Damages

Viscusi (2004) finds that juries are more likely to award higher punitive damages than benches and also award them with a higher frequency. However, Eisenberg et al. (2002) concluded that there are no significant differences in results between jury and bench awards. Interestingly, they both concluded their opposing results using the same data set, but with slightly different approaches. While Eisenberg et al. (2002) included an interaction term that was the product of the logarithm of compensatory damages and the dummy for the jury trial, Viscusi et al. included dummies for counties where the trial was held and no interaction term.

Eisenberg explained that the interaction term monitors whether juries are more likely than judges to award punitive damages as compensatory awards increase. (Eisenberg 1997, Page 759) These opposing results are striking and have been evaluated by other scholars as well who
believe that juries being less experienced should in effect mean that they are more susceptible to be swayed by attorneys suggestions on award amounts; and are more likely to suffer from the hindsight bias, as explained below.

Jurors may be subject to a variety of hindsight biases in which they are unable to take themselves back to the pre-accident situation in assessing whether the defendant has been reckless and punitive damages are warranted, with jurors with a hindsight bias awarding punitive damages with almost twice as frequency than the jurors with a foresight bias, even when they had been instructed against doing so (Hastie et al. 1999, 605)

Jurors may be swayed by plaintiffs’ suggestions on plausible damage awards. These suggested amounts act as anchors to create a focal point for jury decision-making and to boost the value of the award. (Sunstein et al., 228). Jurors have often taken perceivable harm, harm to society, and considered caps, defendant wealth and other factors when determining the punitive damage amount.

Specific effects of having a jury versus a bench on punitive damages are unpredictable. Using the same dataset, i.e. the Civil Justice Survey of State Courts, 1996, Viscusi and Hersch find that juries award punitive damages more frequently than judges; these damages are of a higher value and the excessive punitive damages can be attributed primarily to juries.

In a study conducted on hindsight effects by jury, Hastie, Schkade and Payne (1999) investigated whether jurors suffered from a hindsight bias when determining liability for punitive damages. When the plaintiff seeks punitive damages, a jury or judge is asked to decide whether the defendant should have known that the action they were taking could result in significant damage. Since the fact-finder is asked to find an ex-ante view of whether the defendant’s conduct could have been expected to lead to the damages that resulted,
Hastie et al. (Pages 597-602) investigated the hindsight effect of punitive damages by selecting 277 Jury-eligible adult citizens for an ‘opinion study’. They were shown a videotaped summary of the circumstances surrounding an environmental damage lawsuit from a 1990 accident where the Southern Pacific train dumped wastes into the Sacramento River. Some subjects were presented a foresight perspective and asked to judge whether or not a railroad should comply with an order to stop operations on a section of track that had been declared hazardous. Other subjects were asked to judge whether the railroad was liable for punitive damages after an accident occurred. Three independent variables were manipulated: temporal perspective with one-third of the subjects assessing risks in foresight and two-thirds assessing risks in hindsight; subject role with one-half of the subjects asked to assume the role of a juror rendering a verdict and one-half the role of a citizen whose personal opinion was solicited; and, in the hindsight conditions only, the amount of damage ($240,000 versus $24,000,000) caused by the accident.

Almost all measures of participants' judgments about the case showed dramatic foresight-hindsight differences. The participants' role had an effect on some measures, for example, participants in the juror role exhibited slightly smaller hindsight effects when judging liability than did those in the citizen role. The magnitude of the damage caused by the accident had no effects on any measures.

Hastie et al. (1999) found that juries react very strongly to awards suggested by plaintiffs, which also act as an anchor in determining awards.
Appeals and Reversals of large Punitive Damages

In his study, ‘The Blockbuster Punitive Damages Awards’, Viscusi (2004) analyzes 64 ‘blockbuster’ punitive damage awards, i.e. awards exceeding $100 million. He analyzes awards when they get reduced and the implications of large punitive damage awards. He states that “with the exception of Bullock v Philip Morris, the damages award that had been at least $1 billion had failed to reduce the punitive award to under $100 million. One possibility is that the large initial award does in fact reflect more serious harm and greater degrees of reckless behavior. An alternative hypothesis is that very large jury awards have an anchoring effect in the subsequent appeals process, thus providing a reference point for the punitive damages amounts that will be set after being reduced by the appeals court.”

The literature almost always concludes that damages are unpredictable, and even caps may not have the effect that is hoped, and only leads to more variation, and perhaps even acts as an anchor to what awards should be, leading to higher awards than loss in value created by the defendant.
IV DATA DESCRIPTION:

The Civil Justice Survey of State Courts (CJSSC) (2005) found using the Interuniversity Consortium of Political and Social Research (ICPSR) database was my data source.

General information is contained for civil cases disposed of by bench or jury trial in a national sample of counties in 2005. There are a recorded 8,872 cases with 238 variables in the study across a nationally representative sample of 75 most populous counties across urban, rural and suburban counties.

The 2005 CJSSC was designed and carried out by the National Center for State Courts. Westat designed the national sampling framework for this survey. They found that a jury decided almost 70% of the civil trials in 2005; and 9 out of every 10 tort cases. Each participating jurisdiction was asked to identify manner in which cases had been disposed i.e. jury or bench trial between January 1 2005 – December 31 2005.

The sample design for the 2005 Civil Justice Survey of State Courts was required to meet the following objectives:

1) Provide nationally representative estimates of the number of general civil cases (tort, contract and real property) that were disposed of bench or jury trial within the year 2005.

2) Preserve analytic trends for the nation’s 75 most populous counties between the 2001 and 2005 sample designs. The 2005 Civil Justice Survey of State Courts used a stratified two stage sample design.

Primary sampling units (i.e., PSUs, which were counties or small groups of adjacent counties) were selected at the first stage and cases were selected at the second stage within the courts serving the relevant counties. Each PSU was assigned to one of fifty-five strata. The first five strata contained the 75 most populous counties that were subject to and included in the
previous civil trial study. The remaining fifty strata contained the balance of counties in the U.S. and were defined by census region, urbanicity and population size (the square root of estimated 2004 PSU population). Some jurisdictions produced a list covering 12 months of trials, but could not identify bench trials ending on a particular date and thus the only point entered into their case management system was when the announcement of the judgment was made. Thus, some general civil trial cases end in 2004 while others end in 2006. The number of counties in each PSU was between 1 – 5, with a mean of 1.22 counties per PSU. Punitive damages were awarded in 5% of the civil cases in 2005, based on this data set.

The methodology section below contains a more detailed tabulation of specific trial and disposition types, seriousness of injury, and permanence of injury.
V HYPOTHESIS

Consistent with the literature, I hypothesized that compensation strongly drives the punitive damage award. I expected that as the compensatory award goes up, so does the punitive damage award. Additionally, I expected that a higher compensatory award will warrant a higher punitive damage award as well.

I was unsure about the effect a cap would have on punitive damages; as while it should limit the variability in punitive damages, the ‘anchor’ effect seemed plausible. The observed punitive damage awards could, potentially, be largely constituted around the cap. Whether awards increase or decrease after the cap was instituted would depend on how conservative or liberal juries were in the first place. Viscusi (2004) in his study of blockbuster cases, i.e. cases with punitive damage awards over $100,000,000 found that they are geographically concentrated in California and Texas (Page 34), both are states with damage caps. This was interesting and something I was curious to investigate.

I expected juries to be more sympathetic to injured parties than benches. I also expected that if a grossly injured party comes into court, the jury will have more sympathy for them as they see the harm that has been presented to them. While a death causing injury is worse than one that has caused permanent damage, I was curious as to whether seeing a gross permanently injury as evidence strikes the juries’ sympathies’ more than when the ancestors of a deceased file that on their behalf for a wrongful death lawsuit.

As for claim type, I expected intentional tort to be most harshly punished, and contract cases to be least likely to be punished. I also expected cases of fraud will be punished severely, as even from the initial tabulation, it was clear that the incidence of punitive damages for cases where the claim type is fraud is high.
I hoped that the interaction terms would be significant and explain variability in cases that they jury is partial to.
VI METHODOLOGY:

I worked with a two-part model to answer my two questions. The first part was a probit model to determine the probability of being awarded punitive damages (incidence), while the second part was a tobit model to determine the magnitude of these awards, when they are given.

For the first part, i.e. determining incidence of punitive damages, I created a dummy variable for whether or not a punitive damage is awarded, which was my dependant variable. For my independent variable, I tabulated the different claim types in Table 3 below and found only the ones highlighted in pink to have a sufficient number of observations to be used as independent variables. I used the threshold of a minimum 15 punitive awards with 5 of each disposition type, (jury and bench) to include them in my regression.

<table>
<thead>
<tr>
<th>Trial type</th>
<th>Number of punitive awards &gt;0</th>
<th>Jury</th>
<th>Bench</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor Tort</td>
<td>19</td>
<td>17</td>
<td>2</td>
</tr>
<tr>
<td>Seller Contract</td>
<td>11</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Premises Liability</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Prod Asbestos</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Intentional Tort</td>
<td>29</td>
<td>22</td>
<td>7</td>
</tr>
<tr>
<td>Medical Malpractice</td>
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<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Other malpractice</td>
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<td>0</td>
</tr>
<tr>
<td>Slander</td>
<td>11</td>
<td>8</td>
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<td>Conversion</td>
<td>9</td>
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<td>Negligent act</td>
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<td>Fraud</td>
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<td>28</td>
<td>9</td>
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<td>Buyer contract</td>
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<td>9</td>
</tr>
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<td>Employment discrim</td>
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<tr>
<td>Employment other</td>
<td>16</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>Rental agreement</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Intentional Interference</td>
<td>7</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Partnership</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Other contract</td>
<td>7</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Boundary Dispute</td>
<td>7</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL</td>
<td>204</td>
<td>147</td>
<td>57</td>
</tr>
</tbody>
</table>
Again, in the table below, the one highlighted in pink is the independent variable I used in my regression, as it was the only one with 5 observations for both jury and bench types, a minimum threshold I determined in the interest of statistical significance:

<table>
<thead>
<tr>
<th>[Table 4] Tabulation of permanence type against disposition type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanence</td>
</tr>
<tr>
<td>--------------------</td>
</tr>
<tr>
<td>Death</td>
</tr>
<tr>
<td>Perm Injury</td>
</tr>
<tr>
<td>Temp Injury</td>
</tr>
<tr>
<td>Death2</td>
</tr>
<tr>
<td>Perm Injury2</td>
</tr>
<tr>
<td>Temp Injury2</td>
</tr>
</tbody>
</table>

The baseline equation I used was

dummypunawarded = β0 + β1(jury) + β2(cap) + β3(perminj) + β4(intentionaltort) + β5(fraud) + β6(buyercontract) + β7(emplother) + β8(TOTCOMP) + ε

Jury = dummy for whether or not the disposition type was jury. 10
Cap = whether or not the case was guided by a cap, again a dummy
Permanent injury = dummy for whether the injury was permanent
Intentionaltort = dummy; whether or not the injury was permanent (not resulting in death)
Fraud = dummy; whether or not the claim type was fraud, i.e. Claim of negligent or intentional misrepresentation of the nature of a person, product, or service within a legal contract.

---

10 The disposition types like jnov, directed verdict, absence of defendants was dropped for one or both of the following reasons, as the case may be.
   1. endogeneity: if the judge is overturning or telling the jury what to do, there is an obvious case of endogeneity and I would not be able to tell affects on punitive damages based on disposition type
   2. The observations were too few to have statistical relevance
Buyercontract= dummy; whether or not the claim type buyer contract: Buyer claims no delivery or delivery of incomplete, incorrect, or poor quality goods or services.

Emplother= dummy; whether or not the claim type was a (non- discrimination) based employment claim

TOTCOMP= total compensation= economic+ non- economic compensation; I included this variable to see the correlation between having a higher compensation and the probability of being awarded a damage award.

I further built in interaction terms into the baseline equation to determine the specific impact of a jury on claim type, and furthermore on the probability of being awarded punitive damages.

\[ \text{dummypunawarded} = \beta_0 + \beta_1 \text{(jury)} + \beta_2 \text{(cap)} + \beta_3 \text{(perminj)} + \beta_4 \text{(intentionaltort)} + \beta_5 \text{(fraud)} + \beta_6 \text{(buyercontract)} + \beta_7 \text{(emplother)} + \beta_8 \text{(TOTCOMP)} + \beta_9 \text{(jury*intentionaltort)} + \beta_{10} \text{(jury*fraud)} + \beta_{11} \text{(jury*buyercontract)} + \epsilon \]

Although I wanted to include the variables to test the effect of seriousness of injury on being awarded punitive damages, there were not enough observations under any claim type, and thus excluded them from my model. The same problem occurred with percentage negligence of plaintiffs. There were only four tabulated instances of punitive damages against negligence amounts ranging from 0% negligence (no negligence) to 100% negligent (plaintiff is solely responsible for injury).

The second part of my research question was “how much are awards when they are awarded?” i.e. what factors lead to higher awards? For this, my dependant variable was PUNAMT, i.e. punitive damage award amount. My independent variables were similar to the ones that I had used in the first part of the regression.
Accounting for the fact that punitive damages are given in a very small percentage of cases, i.e. only 204 of the 8872 cases in this dataset had been awarded with these damages, I used a tobit regression model, such that it would be left censored at punitive damage award $\leq 0$ to make it unbiased and consistent.

A similar approach was used by Vicusi(2004) in his study of blockbuster punitive damage awards.\textsuperscript{11} Tobit regression estimates an equation for the positive observations while at the same time taking into account the probability of a positive observation. Thus, the tobit is a normal distribution curve, that is truncated at the value of 0.\textsuperscript{12}

The basic regression model that I used was:

\[
PUNAMT = \beta_0 + \beta_1(\text{jury}) + \beta_1(\text{cap}) + \beta_2(\text{TOTCOMP}) + \beta_3(\text{perminj}) + \beta_4(\text{intentionaltort}) + \beta_5(\text{fraud}) + \beta_6(\text{buyercontract}) + \beta_7(\text{emplother}) + \varepsilon
\]

Where PUNAMT = punitive award amount and TOTCOMP = total compensation, economic and non-economic.

I further added interaction terms just as in the first part to calculate the effect of individual claim types on the magnitude of the award. Thus my more complex equation was as stated below:

\[
PUNAMT = \beta_0 + \beta_1(\text{jury}) + \beta_1(\text{cap}) + \beta_2(\text{TOTCOMP}) + \beta_3(\text{perminj}) + \beta_4(\text{intentionaltort}) + \beta_5(\text{fraud}) + \beta_6(\text{buyercontract}) + \beta_7(\text{emplother}) + \beta_8(\text{jury*intentionaltort}) + \beta_9(\text{jury*fraud}) + \beta_{10}(\text{jury*buyercontract}) + \varepsilon
\]

Lastly, as is explained in the results section, I observed no statistical significance for the effect of jury on punitive damages when using a tobit regression, so I also tested the above equation using a linear probability model.

\textsuperscript{11} Blockbuster awards= awards> $100$ million
\textsuperscript{12} Econometerics
VII RESULTS

A key summary of the results are shown in tables 4 and 5 below:

1. Caps have a strong positive effect on the probability of receiving damages- i.e. the presence of a cap acts as an anchor and this reflects in a higher incidence of punitive damages when a cap does exist.
2. Juries award punitive damages more frequently than benches, at least in fraud cases.
3. A permanent injury causing action is punished less severely than an action that causes death and a temporary injury, presumably death is punished most severely.

As can be expected, plaintiffs seek punitive damages from a jury more frequently than a bench (A quick tabulation of the variable PUNITIVDMG, i.e. punitive damage were sought against disposition type proved this). However, I did not include this variable in my regressions as I expected strong multicollinearity; you are more likely to ask for a punitive damage award if you feel like you have a higher probability of receiving it. From my linear probability regression, on average juries are more likely to award punitive damages than benches. When tabulating disposition type, there were 3 additional types beside jury and bench that came up, namely directed verdict, JNOV and trial in the absence of defendants. I dropped these three types of dispositions for two reasons: the number of observations were too few, and more importantly, endogeneity concerns- if a judge is directing or overturning the jury’s decision, they may appear more or less conservative with giving high awards than they actually are.

The potential problem was the outlier, i.e. the $57 million in compensatory and $115 million in punitive damages for an employment case, which could be skewing “emplother” figures. Thus, to test whether this could be skewing my results, I dropped this outlier and re-ran
my regressions. My results before and after dropping the outlier are summarized in the table below. I used the ‘dprobit’ command, so the results stated are the marginal effects.

While both combinations of results are shown in the table below, I am going to focus much of my analysis on the results observed after dropping the outlier for both the probit and the tobit model.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Before dropping the outlier, without interactions</th>
<th>Before dropping outlier, after the interactions</th>
<th>After dropping the outlier, after the interactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jury</td>
<td>0.0042213 (0.0027824)^</td>
<td>0.00137 (0.00383)^</td>
<td>0.0041883 (0.0027853)^</td>
</tr>
<tr>
<td>Cap</td>
<td>0.2385058 (0.1201418)*</td>
<td>0.2425141 (0.1217865)*</td>
<td>0.241324 (0.1207539)*</td>
</tr>
<tr>
<td>Total Compensation</td>
<td>1.10e-09 (2.14 e-10)*</td>
<td>1.09e-09 (2.13e-10)*</td>
<td>1.05e-09 (2.19e-10)*</td>
</tr>
<tr>
<td>Permanent Injury</td>
<td>-0.00807 (0.00317)**</td>
<td>-0.007141 (0.003285)**</td>
<td>-0.0080176 (0.003178)**</td>
</tr>
<tr>
<td>Intentional Tort</td>
<td>0.1057293 (0.0212679)*</td>
<td>0.0970871 (0.0432556)*</td>
<td>0.1056237 (0.0212547)*</td>
</tr>
<tr>
<td>Fraud</td>
<td>0.0671084 (0.0133)*</td>
<td>0.0244003 (0.0130513)*</td>
<td>0.0670683 (0.0136402)*</td>
</tr>
<tr>
<td>Buyer contract</td>
<td>0.0260186 (0.0088743)**</td>
<td>0.0130513 (0.0104762)**</td>
<td>0.0259671 (0.0088669)*</td>
</tr>
<tr>
<td>Employment Other</td>
<td>0.0720744 (0.0223)*</td>
<td>0.0703814 (0.0218986)*</td>
<td>0.0697705 (0.0221636)*</td>
</tr>
<tr>
<td>Jury*intentional tort</td>
<td>-</td>
<td>0.0027285 (0.0127241)^</td>
<td>-</td>
</tr>
<tr>
<td>Jury* fraud</td>
<td>-</td>
<td>0.044255 (0.0240802)*</td>
<td>-</td>
</tr>
<tr>
<td>Jury* buyer contract</td>
<td>-</td>
<td>0.0151445 (0.0147373)^</td>
<td>-</td>
</tr>
</tbody>
</table>

*significant at the 1% level

** significant at the 5% level

*** significant at the 10% level

^ not significant
As can be observed in the table, having a cap increases the probability that a punitive damage award will be given by 24.65%! Total compensation is largely significant in being awarded a punitive damage, which would mean that as the compensatory award increases, there is a higher likelihood of receiving a deterrence award. Permanent injury is least likely to receive punitive damages than the other possible permanence types like temporary injury and death. I expect that death is most severely punished than temporary injury, however, due to a lacking number of observations of temporary injury and death, I could not test this hypothesis. The result for permanent injury was only significant at the 10% level. Since other permanence types were not sufficient, I know nothing about whether or not repeat offenders are more strictly punished than first time offenders.

Intentional torts are severely punished, as hypothesized, with the probability of being awarded a punitive damage increasing by 9.66%, while a fraud is likely to receive a punitive damage with a probability of 2.43%, and employment cases (other than employment discrimination) with a probability of 6.8%.

The only statistically significant interaction is jury* fraud, which tells us that the specific effect of the jury when judging a fraud case is 4.45% higher than it would be for all cases combined that cannot be categorized as fraud, that are judged by a jury or fraud cases that are not judged by a jury.
Much of the results from this section are consistent with the results from the tobit. The numbers that appear in this table are very high and very widely spread. The standard deviations are abnormally high and the value of the punitive damage fall between a wide range of values, making it difficult to get an accurate average. However, from these results it can be seen that the jury award is not significant. I reran the regression as a linear probability model to see if the impact is significant, with positive results at the 5% level, and a large positive value ($42214.51).
However, the $R^2$ value is very low at .080 which means that only 8% of the variation in values is explained by the regression. Thus, this is not a very accurate estimate. Using the OLS regressions makes all interactions insignificant at the 10% level. Almost all other variables are also insignificant at the 10% level while using the OLS regression. Interestingly, even here the cap strongly determines the value given, with an award with a cap in place receiving $983769 higher than if there were no cap. Clearly, the range of values the punitive award takes is very large. The lowest award >0 is 1 and the highest is 115,000,000. The summary is shown below:

**SUMMARY OF PUNITIVE AMOUNT WHEN PUNAMT>0**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUNAMT</td>
<td>204</td>
<td>2137070</td>
<td>9348443</td>
<td>1</td>
<td>1.15e+08</td>
</tr>
</tbody>
</table>

The results are consistent with the probit:

1. A cap leads to $8,486,586 higher in punitive damages than if there was no cap.
2. A higher total compensation leads to a higher punitive damage award. Presumably, the award is determined by how ‘bad’ the jury perceives the claim is.
3. A permanent injury award receives $1,645,988 less than the temporary injury and death put together.
4. Intentional tort is heavily punished at $5,561,316 more than other claim types.
5. Fraud is punished at $2,335,106 more than other claim types, while other employment cases are punished at $4,256,500. All three are significant at the 5% level, with intentional tort and employment being significant at the 1% level.
6. Jury*fraud has a positive value of $2,904,210, which means that this denotes how much a jury versus other dispositions give for a fraud case specifically, over other claim types.
VIII CONCLUSION

My results are consistent with the literature. As has been stated before, intentional torts, fraud and employment cases have the highest incidence of punitive damages, as well as a high magnitude. This is consistent with the findings of Eisenberg et al. using civil court surveys encompassing 10 years of data, from 1992-2001.

A jury is more likely to give a higher award than a bench. Juries suffer from the hindsight bias, where they cannot tell ex-ante whether the company ‘should have known better’ than taking the action that it took that resulted in the injury before them. While unfortunately, my probit and tobit results did not show any statistical significance of disposition type on punitive damages, the linear probability model did, where it was consistent with previous studies like that of Viscusi (2004) that found juries to be more liberal in awarding these damages.

Having caps on punitive damages had a significant impact on punitive damages, but not in the way policymakers would hope. Damages are more commonly awarded and are higher when there is a cap. This may be attributed to the anchor effect on jury, as is shown by several behavioral studies like that of Greene et al. (1999).

I was unable to include several variables because there was very low number of observations in this year’s dataset. I did not include any litigation pairs (plaintiff-defendant combination) on the probability of winning punitive damages, as these were out of the scope of this study. On a test equation run, the results obtained from litigation pairs were not significant at the 10% level in any type of model-probit, tobit or OLS. I would have benefitted from more data or from collating my data with past CJSSC surveys.

Additionally, it would be interesting to investigate whether the any cases were appealed and whether any punitive damages given the reported cases were reversed. Although punitive
damage cases are appealed more often than they are reversed (Viscusi 2004, Page 18) it would be an interesting extension to see what happened to large punitive damages over time, specially the employment case, which was the outlier in this study.

A potential problem is that a claim could be filed under two different claim types, although from adding the number of claim types and cases, this does not appear to be the case.

As mentioned before, Viscusi (2004) found that they are geographically concentrated in California and Texas; both are states with damage caps. In conclusion, while punitive damages are difficult to predict in value owing to the lack of a clear federal regulation, certain claim types are consistently awarded punitive damages most frequently (my results are similar to Eisenberg et al. (2006)).

Caps may not have the effect that policymakers hoped. Stronger federal regulations may be necessary, with perhaps the judge making all exemplary award decisions, even after a jury trial, or the punitive award completely or in part being shared by the state.

To reiterate, major findings from my analysis were as follows

1. The incidence and magnitude of punitive damages are related.
2. Caps exhibit an anchor effect.
3. Juries award punitive damages more frequently than benches, at least in fraud cases.
4. A permanent injury causing action is punished less severely than an action that causes death and a temporary injury, and presumably death is punished most severely.

Thus while predicting the magnitude of the punitive damage award in the absence of a cap may be difficult, the incidence of punitive damages is consistently awarded most frequently when the permanence type is death; the disposition type is jury and the claim type is employment, fraud or intentional tort.
IX REFERENCES


http://www.nytimes.com/ref/washington/scotuscases_PUNITIVEDAMAGES.html description of landmark supreme court cases wrt punitive damages, links to their briefs

http://www.law.com/jsp/cc/PubArticleCC.jsp?id=1138269913844


http://www.thefederation.org/documents/myles.htm