

NELCO  
**NELCO Legal Scholarship Repository**

---

New York University Law and Economics Working  
Papers

New York University School of Law

---

2-19-2009

# What Drives the Passage of Damage Caps?

Jonathan Klick

*University of Pennsylvania*, [jklick@law.upenn.edu](mailto:jklick@law.upenn.edu)

Catherine M. Sharkey

*NYU School of Law*, [catherine.sharkey@nyu.edu](mailto:catherine.sharkey@nyu.edu)

Follow this and additional works at: [http://lsr.nellco.org/nyu\\_lewp](http://lsr.nellco.org/nyu_lewp)



Part of the [Law and Economics Commons](#), [Litigation Commons](#), and the [Torts Commons](#)

---

## Recommended Citation

Klick, Jonathan and Sharkey, Catherine M., "What Drives the Passage of Damage Caps?" (2009). *New York University Law and Economics Working Papers*. Paper 172.

[http://lsr.nellco.org/nyu\\_lewp/172](http://lsr.nellco.org/nyu_lewp/172)

This Article is brought to you for free and open access by the New York University School of Law at NELCO Legal Scholarship Repository. It has been accepted for inclusion in New York University Law and Economics Working Papers by an authorized administrator of NELCO Legal Scholarship Repository. For more information, please contact [tracy.thompson@nellco.org](mailto:tracy.thompson@nellco.org).

# WHAT DRIVES THE PASSAGE OF DAMAGE CAPS?

Jonathan Klick\* & Catherine M. Sharkey\*\*

## Abstract

A number of states have passed caps on non-economic and punitive damage awards in civil cases. The conventional wisdom is that the passage of these caps is driven by “out-of-control” jury awards that need to be reigned in. However, it could be the case that voters harboring anti-litigation, pro-tort reform sentiments are more likely to support the passage of caps even in the absence of an upsurge in awards. To examine the effect of jury awards on the passage of caps, we estimate semi-parametric hazard models of cap passage using data from the Jury Verdict Research Reporter.

---

\* Professor of Law, University of Pennsylvania School of Law.

\*\* Professor of Law, New York University School of Law.

## I. Why Do Legislatures Enact Punitive Damage Caps?

Reports of state legislatures acting in response to out-of-control jury awards are legion. The Mississippi legislature passed a broad-based tort reform initiative during a 2004 special session.<sup>1</sup> Prior to the enactment of punitive damages caps in Mississippi, numerous scholars called attention to the size and frequency of jury verdicts in the state.<sup>2</sup> Former Supreme Court Justice Reuben Anderson lamented: “Nowhere is this need [for reform] more apparent than in the area of punitive damages. . . Mississippi punitive damages doctrines have bankrupted one national corporation, almost caused the bankruptcy of another and, today, threaten to bankrupt many more. The punitive damages awards are unpredictable and grossly out of proportion to the offenses [businesses] have caused.”<sup>3</sup> The perceived crisis was so dire that the U.S. Chamber of Commerce warned its members against doing business in the state, bestowing a distinction on Mississippi hitherto never deployed by the Chamber in its ninety year history.<sup>4</sup>

Alabama’s reputation throughout the 1990s as a “tort hell” hostile to business interests, coupled with the widely held perception that jury awards were out of control, similarly led to the passage of tort reform in 1999.<sup>5</sup> According to one study, “[c]ivil awards in Alabama increased four-fold from \$51 million in 1985 to \$210 million in 1994”; a law professor commented: “[W]e’ve never at any time in the nation’s history seen anything like what has been going on in Alabama over the past seven or eight years.”<sup>6</sup> *Forbes Magazine* designated Alabama the “worst place in America to be a civil defendant.”<sup>7</sup> A *New York Times* article proclaimed “Alabama Acts to Limit Huge Awards,” highlighting how a \$581 million jury award to a family that had been overcharged \$1,200 for two satellite dishes fueled calls for the legislature to enact caps on damages.<sup>8</sup> And with this

---

<sup>1</sup> House Bill 13 enacted product liability reform, joint liability reform, jury service reform, medical liability reform, noneconomic damages reform, venue reform, premises liability reform and punitive damages reform. See ATRA, Mississippi Reforms, <http://www.atra.org/states/index.php?state=MS&display=bydate> (last visited May 22, 2008). The bill’s punitive damages reform sets a cap on punitive damages that is proportional to the net worth of the defendant. Miss. Code Ann. 11-1-65(3).

<sup>2</sup> Judge Louis Guirola and Thomas Carpenter, Jr., *Punitive Damages in Mississippi: What Has Happened, What is Happening and What is Coming Next*, 73 Miss. L.J. 135, 171; see also Reuben V. Anderson, *Litigation in Mississippi Today: A Symposium: Why Mississippi Needs to Pay Attention to National Trends on Punitive Damages*, 71 Miss. L.J. 579, 579 (2002).

<sup>3</sup> *Id.* at 171-72.

<sup>4</sup> Editorial and Comment, *Southern-Style Tort Reform*, Columbus Dispatch, December 14, 2002 at 6A.

<sup>5</sup> Ala. Code §6-11-21(a) reads that “no award of punitive damages shall exceed three times the compensatory damages of the party claiming punitive damages or five hundred thousand dollars (\$500,000), whichever is greater.” Ala. Code §6-11-21(a) (2008). Senate Bill 137, codified in §6-11-21, also prohibited application of the rule of joint and several liability in actions for punitive damages, with a few exceptions, and two other tort reform bills passed in 1999 addressed class action reform and venue reform. See ATRA, Alabama Reforms, <http://www.atra.org/states/index.php?state=AL&display=bydate> (last visited May 22, 2008). See also Chad Stewart, *Damage Caps in Alabama’s Civil Justice System: An Uncivil War Within the State*, 29 Cumb. L. Rev. 201, 213 (1998); Alabama Facing Tort Reform Due to Lawsuit Abuses (National Public Radio broadcast, Jan. 9, 1996), available in 1996 WL 2813973, at \*3.

<sup>6</sup> *Id.* at 213-14.

<sup>7</sup> *Id.* at 215; David Frum, *Unreformed: Tort Reform in Alabama*, *Forbes*, Feb. 1, 1993, at 82.

<sup>8</sup> David Firestone, *Alabama Acts to Limit Huge Awards*, *N.Y. Times*, June 2 1999, at A16.

tort reform victory in hand, Bill O'Connor, president of the Business Council of Alabama, pressed the link between outrageous verdicts and legislative reform: "We'll never know how many businesses wouldn't consider Alabama because of these outrageous verdicts that have been issued, how often we didn't make the cut."<sup>9</sup>

In similar fashion, the Arkansas legislature, in enacting a broad tort reform package, was perceived as acting in response to high jury awards and in order to prevent a crisis in the medical profession.<sup>10</sup> Once again, a single high-profile jury award garnered a lot of attention: Jim Teeter, president of the Arkansas Hospital Association, a trade association of 104 hospitals, railed against the \$78 million jury verdict against a nursing home for the death of a 93-year-old woman: "How in the world do they come up with \$78 million? Who ever heard of anything like that? . . . The result of these types of jury reactions is higher premiums for doctors and hospitals, physicians dropping their services or retiring early and areas of Arkansas that don't have health-care services."<sup>11</sup> Some more comprehensive data also supported the reform effort: "In May 2000, Jury Verdict Research . . . reported a 46.4 percent jump in medical malpractice cases."<sup>12</sup>

In other states, tort reform measures of all stripes are touted as necessary for a healthy business and manufacturing climate, where the relationship to jury awards of punitive damages is inferred, but not precisely specified. Consider, for example, Ohio, which enacted a broad-based tort reform bill in 2004.<sup>13</sup> Governor Robert Taft advocated the reform as "the number one thing we can do to improve the manufacturing climate in Ohio!"<sup>14</sup> The General Assembly found that "[t]he absence of a statutory ceiling upon recoverable punitive or exemplary damages in tort actions has resulted in occasional multiple awards of punitive or exemplary damages that have no rational connection to the wrongful actions or omissions of the tortfeasor."<sup>15</sup> In Florida, business and health care

---

<sup>9</sup> *Id.*

<sup>10</sup> House Bill 1038, <http://www.arkleg.state.ar.us/ftproot/acts/2003/public/act649.pdf> (last visited May 22, 2008). House Bill 1038 enacted appeal bond reform, comparative fault reform, joint and several liability reform, medical liability reform, venue reform and punitive damages reform. See ATRA, Arkansas Reforms, <http://www.atra.org/states/index.php?state=AR&display=bydate> (last visited May 22, 2008); the punitive damages statute states that an award shall not be more than the greater of \$250,000 or three times the amount of compensatory damages awarded, not to exceed \$1,000,000. Ark. Code 16-55-208 (2008).

<sup>11</sup> Mary Hargrove, *Tort Reform: Collision of Values*, Arkansas Democrat-Gazette, October 6, 2002, at Front Section. This prompted a response from Bob Estes, president of the Arkansas Trial Lawyers Association: "To pick up the [nursing home] verdict and use it as a torch to carry out tort reform is just wrong." *Id.*

<sup>12</sup> *Id.*

<sup>13</sup> Senate Bill 80 included asbestos litigation reform, collateral source rule reform, noneconomic damages reform, punitive damages reform, and several other reforms. See ATRA, Ohio Reforms, <http://www.atra.org/states/index.php?state=OH&display=bydate> (last visited May 22, 2008); Text of SB 80, [http://www.legislature.state.oh.us/bills.cfm?ID=125\\_SB\\_80](http://www.legislature.state.oh.us/bills.cfm?ID=125_SB_80) (last visited May 22, 2008). Senate Bill 80's cap on punitive damages states that punitive damages are capped at two times the amount of compensatory damages award. Ohio Rev. Code Ann. 2315.21(D)(2)(a) (2008).

<sup>14</sup> James O'Reilly, *Tort Reform and Term Limits: The 2004 Ohio Experience*, 33 Cap. U.L. Rev. 529, 532 (2005); Handwritten Note by Gov. Robert Taft to Ohio Rep. Scott Oelslager, Oct. 16, 2003 (on file with author).

<sup>15</sup> Text of SB 80, [http://www.legislature.state.oh.us/bills.cfm?ID=125\\_SB\\_80](http://www.legislature.state.oh.us/bills.cfm?ID=125_SB_80) (last visited May 22, 2008). The General Assembly stated further that it was motivated to enact punitive damage caps by "guidance recently provided by the United States Supreme Court in *State Farm Mutual Insurance v. Campbell*

organizations formed the “Tort Reform United Effort” (“TRUE”) and lobbied legislators for protection from “frivolous lawsuits and outrageous damage awards.”<sup>16</sup> House Judiciary Chairman Johnnie B. Byrd defended tort reform legislation<sup>17</sup> on the ground that it would “enhance the predictability and uniformity of Florida’s civil justice system”; “help stimulate economic development and productivity”; and “enhance Florida’s competitive posture.”<sup>18</sup> New Jersey Governor Christine Todd Whitman proclaimed that a five-bill tort reform package (including a cap on punitive damages<sup>19</sup>) was designed to create incentives for big business to operate in New Jersey.<sup>20</sup> The punitive damages bill was introduced to limit the frequency and amount of punitive damage awards; according to the bill’s sponsor, Senator Gerald Cardinale, members of the public were dismayed by the fact that juries seemed to dole out excessive punitive awards in an arbitrary fashion.<sup>21</sup>

Of course, to enter the realm of reports of state legislative tort reform activity is to dive headlong into the partisan fray. For almost every claim that state legislatures have reacted to credible evidence of a surge in jury awards is a counterclaim that, instead, caps are part of a broader anti-litigation movement, irrespective of any actual experience of higher, or more frequent, jury awards.

In Alaska, “[t]he battle over the 1997 Tort Reform Act’s passage was prolonged, and it was passionate. At times, it took on the characteristics of a mudslinging political campaign.”<sup>22</sup> Governor Anthony Knowles asserted that the state’s broad tort reform bill<sup>23</sup>

---

(2003)”, the fact that “a number of other states have imposed limits on punitive or exemplary damage awards,” and a recognition of “the economic impact of occasional multiple punitive damages awards.” *Id.*

<sup>16</sup> Kenneth Krantz, *Tort Reform 1997-98: Profits v. People?*, 25 Fla. St. U.L. Rev. 161, 165 (1998).

<sup>17</sup> With the support of Governor Bush, the Florida legislature passed HB 775, a tort reform bill that addressed joint and several liability, punitive damages, products liability statute of repose, and motor vehicle vicarious liability. The legislation further restricted punitive damages by limiting them, in most cases, to the greater of \$500,000 or three times compensatory damages. See ATRA, Florida Reforms, <http://www.atra.org/states/index.php?state=FL&display=bydate> (last visited May 22, 2008).

<sup>18</sup> Florida Staff Analysis, H.B. 775, 6/2/1999 (available on Westlaw).

<sup>19</sup> Senate Bill 1496, codified in N.J. Stat. Ann. § 2A:15-5.14, limits the award of punitive damages to the greater of \$350,000 or five times the compensatory damages award. See ATRA, New Jersey Reforms, <http://www.atra.org/states/index.php?state=NJ&display=bydate> (last visited May 22, 2008).

<sup>20</sup> David Berry, *Untwisting New Jersey’s Cap on Punitive Damages*, 27 Seton Hall L. Rev. 167, 181 (1996); see also Michael Booth, Tort Reform Bill Signed, N.J. L.J., July 3, 1995, at 8, 8; Tom Hester, Business leaders say laws to halt “frivolous” suits will help consumers, Star-Ledger, June 29, 1994, at 23.

<sup>21</sup> Sponsor’s Statement Summary to S. 292, 206<sup>th</sup> N.J. Leg., 2<sup>nd</sup> Reg. Sess. (1994); see also William Matsikoudis, Tort Reform New Jersey Style: An Analysis of the New Laws and How They Became Law, 20 Seton Hall Legis. J. 563, 578 (1996) (“This [bill] is intended to limit the use and amount of punitive damages which may be awarded in a lawsuit. . . . [M]any persons believe that in recent years these damages have been awarded indiscriminately for actions that are merely careless. This has increased the number of punitive damages claims and contributed to the high cost of litigation.”).

<sup>22</sup> Christopher Stridvent, *Tort Reform in Alaska: Much Ado About Nothing?*, 16 Alaska L. Rev. 61, 71 (1999). Businessmen and trial lawyers staked out their usual opposing positions:

Those businesses and industries supporting the bill’s passage argued that it would make Alaska’s business environment much more secure, because businesses no longer would have to operate in fear of potentially devastating damage awards entered against them. Opponents of the bill, mostly trial lawyer groups and coalitions with a direct stake in seeing large jury awards continue, argued that the new bill was special interest legislation whose sole purpose was to erode the

represented “a realistic compromise on the important issue of civil justice reform for Alaskans.”<sup>24</sup> The bill’s sponsor, Representative Brian Porter, was at a loss when asked how many cases in previous years would have brushed up against the proposed cap on punitive damages.<sup>25</sup> Ross Mullins, a plaintiff’s group’s representative, questioned the necessity of the bill “when even Representative Porter agreed only 5 percent of cases go to trial and of those, one in twenty results in punitive awards.”<sup>26</sup> Moreover, Mr. Mullins continued, “it was unclear if the few punitive awards [had] exceeded the proposed caps.”<sup>27</sup>

Texas enacted tort reform measures in 1995.<sup>28</sup> In the words of lead Senate sponsor David Sibley, “Our goal and our aim was to see that people who are injured got a fair shot, but people ought not to retire if they spill coffee in their lap.”<sup>29</sup> At the time, several researchers reported that jury awards were not out of control; as expected, business interests criticized these studies, in particular for not taking into account settlements.<sup>30</sup>

A similar dearth of evidence emerged during the legislative debate over punitive cap legislation in Idaho.<sup>31</sup> Ken McLure, a representative of the Idaho Liability Reform

---

rights of Alaska tort victims by offering unethical blocks against the recovery of damages to which victims might be entitled.

*Id.* at 79.

<sup>23</sup> The bill’s legislative intent reads: “To encourage the efficiency of the civil justice system by discouraging frivolous litigation and by decreasing the amount, cost, and complexity of litigation without diminishing the protection of innocent Alaskans’ rights to reasonable, but not excessive, compensation for tortuous injuries caused by others.” Judiciary Committee Minutes, February 21, 1997, [http://www.legis.state.ak.us/basis/get\\_single\\_minute.asp?session=20&beg\\_line=0161&end\\_line=2021&time=1304&date=19970221&comm=JUD&house=H](http://www.legis.state.ak.us/basis/get_single_minute.asp?session=20&beg_line=0161&end_line=2021&time=1304&date=19970221&comm=JUD&house=H) (last visited May 22, 2008).

<sup>24</sup> House Bill 58 enacted comparative negligence reform, medical liability reform, noneconomic damages reform, punitive damages reform, product liability reform and a few other reforms. See ATRA, Alaska Reforms, <http://www.atra.org/states/index.php?state=AK&display=bydate> (last visited May 22, 2008). The punitive damages statute modified through House Bill 58 reads that for most actions “an award of punitive damages may not exceed the greater of three times the amount of compensatory damages... or the sum of \$500,000.” Alaska Stat. 09.17.020(f) (2008).

<sup>25</sup> Judiciary Committee Minutes, February 21, 1997, TAPE 97-23, SIDE B, Number 0155, [http://www.legis.state.ak.us/basis/get\\_single\\_minute.asp?session=20&beg\\_line=0161&end\\_line=2021&time=1304&date=19970221&comm=JUD&house=H](http://www.legis.state.ak.us/basis/get_single_minute.asp?session=20&beg_line=0161&end_line=2021&time=1304&date=19970221&comm=JUD&house=H) (last visited May 22, 2008).

<sup>26</sup> *Id.* at TAPE 97-24, SIDE B, Number 0001

<sup>27</sup> *Id.* at TAPE 97-24, SIDE B, Number 0001

<sup>28</sup> Tort reform bills passed in 1995 included measures addressing joint and several liability reform, medical liability reform, punitive damages reform, venue reform, and various other reforms. See ATRA, Texas Reforms, <http://www.atra.org/states/index.php?state=TX&display=bydate> (last visited May 22, 2008). Senate Bill 25, codified in Tex. Civ. Prac. & Rem. Code §§ 41.008, limits awards of punitive damages for most actions to the greater of \$200,000 or two times the award of economic damages plus non-economic damages, up to \$750,000. Tex. Civ. Prac. & Rem. Code §§ 41.008(b) (2007).

<sup>29</sup> Ross Ramsey, *The 74<sup>th</sup> Legislature; “This is it,” Lawsuit Reform On Way; Final Touches Are Being Put on Bills*, The Houston Chronicle, May 7, 1995, at 1.

<sup>30</sup> Bruce Hight, *Personal Injury Awards Stable Researchers Say; Findings Appear to Contradict Complaints That Texas Civil Justice System is Out of Control*, Austin American-Statesman, April 8, 1995, at D1.

<sup>31</sup> House Bill 92 enacted appeals bond reform, noneconomic damages reform and punitive damages reform. See ATRA, Idaho Reforms, <http://www.atra.org/states/index.php?state=ID&display=bydate> (last visited May 22, 2008). The punitive damages measure, codified in Idaho Code 6-1604(3), limits punitive damages awards to the greater of three times compensatory damages or \$250,000. Idaho Code 6-1604(3) (2008).

Coalition, asserted, “Without a cap on damages, you have no way of knowing what the jury award will be. Without a cap, people are encouraged to litigate.”<sup>32</sup> But, in rebuttal, attorney Ken Holzer presented data from a survey of Idaho judges that “indicated in all the cases presided over by judges in 235 years of combined experience, there were a total of 20 cases in which punitive damages were awarded.”<sup>33</sup> Over the past two years punitive damages were awarded in less than one case in a thousand.”<sup>34</sup>

In some states there is recognition that punitive cap legislation may be preventative, as opposed to palliative, medicine. John Trimble, a lobbyist for the Indiana Defense Lawyers Association, readily conceded, “What we are doing in the Indiana legislature is preventative medicine. . . . We see a problem coming in Indiana tort law. There is no question that in major cities around us like Chicago, Detroit, St. Louis, Atlanta, Louisville . . . that they are seeing more multi-million dollar awards. And we are certainly seeing a few more in Indiana.”<sup>35</sup> North Carolina enacted tort reform in 1995, with pressure coming from the conservative caucus in the House, which took control in 1994.<sup>36</sup> North Carolina State Representative Charles Neely, the sponsor of the cap on punitive damages in that state,<sup>37</sup> likewise praised the new laws as a form of preventative

---

<sup>32</sup> House Judiciary, Rules and Administration Committee, 2003 Minutes, <http://www.legislature.idaho.gov/sessioninfo/2003/StandingCommittees/hjudmin.html> (last visited May 22, 2008). McClure later conceded, at a Senate Judiciary and Rule Committee meeting, that the house was “not on fire,” but that the Idaho legislature should take action before it got to that point. Senate Judiciary and Rules Committee, 2003 Minutes, <http://www.legislature.idaho.gov/sessioninfo/2003/StandingCommittees/sjudmin.html> (last visited May 22, 2008).

<sup>33</sup> House Judiciary, Rules and Administration Committee, 2003 Minutes, <http://www.legislature.idaho.gov/sessioninfo/2003/StandingCommittees/hjudmin.html> (last visited May 22, 2008).

<sup>34</sup> *Id.* The surveyed judges (32 of 38 judges with combined 235 years of experience) were able to identify only three punitive damages verdicts in their careers that exceeded \$1 million. Senate Judiciary and Rules Committee, 2003 Minutes, <http://www.legislature.idaho.gov/sessioninfo/2003/StandingCommittees/sjudmin.html> (last visited May 22, 2008). Along the same lines, Dave Kerrick, legislative affairs counsel for the Idaho Trial Lawyers Association, noted that while doctors were supporting the tort reform bill, there had never been a single punitive damage award against a doctor in the state of Idaho, nor did any data show the existence of out-of-control jury awards. House Judiciary, Rules and Administration Committee, 2003 Minutes, <http://www.legislature.idaho.gov/sessioninfo/2003/StandingCommittees/hjudmin.html> (last visited May 22, 2008).

<sup>35</sup> Greg Kueterman, *Tort Reform Package On Tap for Legislative Conference Committee*, Indiana Lawyer, April 19, 1995, at 8. Trimble nevertheless suggested that overblown publicity over multi-million dollar verdicts led to the enactment of the bill: “[W]e are living in an age of sensationalism where every bizarre jury verdict or bizarre lawsuit is front page news in the media.” *Id.*

House Bill 1741, passed in 1995 and codified in Ind. Code 34-51-3-4, limits punitive damages to the greater of three times the amount of compensatory damages awarded in the action or \$50,000. Ind. Code 34-51-3-4 (2008). House Bill 1741 also included products liability reform. See ATRA, Indiana Reforms, <http://www.atra.org/states/index.php?state=IN&display=bydate> (last visited May 22, 2008).

<sup>36</sup> North Carolina implemented product liability reform and punitive damages reform in 1995. See ATRA, North Carolina Reforms, <http://www.atra.org/states/index.php?state=NC&display=bydate> (last visited May 22, 2008). The punitive damages measure limits the award of punitive damages in most actions to the greater of \$250,000 or three times the award of compensatory damages. N.C. Gen. Stat. 1D-25(2007).

Robert Shaw, *Punitive Damages in Medical Malpractice: An Economic Evaluation*, 81 N.C.L. Rev. 2371, 2374 (2003); see also Joseph Neff, *Business Gets Good Feeling on Politics*, News & Observer (Raleigh, N.C.), April 30, 1995, at 1F.

<sup>37</sup> House Bill 729, <http://www.ncleg.net/gascripts/BillLookUp/BillLookUp.pl?Session=1995&BillID=HB729> (last visited May 22, 2008).

medicine.<sup>38</sup> He acknowledged the public's perception that damages are out of control: "People read about [verdicts like the one in the McDonald's coffee case] and they say the system is not working."<sup>39</sup> Neely conceded that "[t]here have been few huge punitive damage awards so far in North Carolina," but warned, "We need to fix this ship before it sinks."<sup>40</sup>

Amidst all the political rhetoric, it is difficult to sort out the correlation, if any, between rising jury damage awards and the enactment of punitive damage cap legislation. Do state legislatures react to an increasing tide in jury awards or, alternatively, to a misguided public perception of such a crisis, driven more by voters' anti-litigation, pro-business sentiments?

## II. *Data*

Systematic data on litigation awards is relatively difficult to obtain. As discussed in Helland, Klick, and Tabarrok (2005), the best dataset offering measures of civil litigation awards, The Civil Justice Survey of State Courts, only provides data from cases decided in 1992, 1996, and 2001 and does not contain data from every state. Because of this, we rely on data from the Jury Verdict Research (JVR) dataset which provides details of thousands of decided cases beginning in 1988 and covers every state. Although there are some concerns about the representativeness of the data, it is the most comprehensive dataset in terms of coverage across years, states, and case types. Further, to the extent that commentators have suggested that the JVR provides a skewed picture of liability trends, most indicate that it is biased toward large plaintiff victories, which may not be problematic for a study such as ours which attempts to discern whether state policymakers respond to increases in jury awards by adopting punitive damage caps. Other potential data sources are limited to certain case types (e.g., medical malpractice or automotive) or individual jurisdictions.

From the JVR, we develop series at the state by year level from 1988 to 1997 capturing the mean dollar amount awarded (compensatory plus punitive damages), the median dollar amount awarded, the 25<sup>th</sup> and 75<sup>th</sup> percentile dollar amounts awarded, as well as the variance in awards in dollar terms.<sup>41</sup> We examine these different indicators to get an idea of whether policymakers respond to different characteristics of the award distribution. While mean (or median) award may seem to be the most natural indicators, perhaps policymakers' attention is most engaged by blockbuster awards. Also, some commentators have suggested that caps are primarily meant to reduce variability. While, ideally, we would like to examine the effects of changes in punitive and compensatory awards separately, the JVR does not provide a breakdown of awards by category.

---

<sup>38</sup> Robert Shaw, *Punitive Damages in Medical Malpractice: An Economic Evaluation*, 81 N.C.L. Rev. 2371, 2375 (2003).

<sup>39</sup> Eleanore Hajian, *Legal Damages: Will Tort Reform Hinder Frivolous Lawsuits or Will It Reduce Consumers' Rights*, The Herald Sun, May 21, 1995, at E1.

<sup>40</sup> Punitive Damages Bill Debated, Greensboro News & Record, June 22, 1995, at B2.

<sup>41</sup> We investigated other points in the distributions as well as various combinations of these measures, finding results similar to those presented below regardless of the indicators used.

We examine the effects of changes in nominal awards as well as real changes. While it might seem reasonable to focus only on real changes, because policymakers are likely to recognize that changes in award levels driven entirely by price level changes do not reflect fundamental problems in the tort system, perhaps people do not engage in implicit price normalization when making judgments about the evolution of the civil justice system. We use the Consumer Price Index for all goods for all urban consumers at the national level (1982 base year) to deflate the award metrics in some specifications.

Data on the passage of punitive damage caps come from Klick and Sharkey (2008). Because there is no particularly principled way to date the beginning point of when a state could have possibly adopted a punitive damage cap, we assume a common starting point for all states and measure duration in discrete yearly periods. Individual states remain in the risk set until they adopt a punitive damage cap. Our analysis ends in 1997, and any state remaining in the risk set at that point is treated as right censored in the duration analysis.

### III. *Models*

We examine the adoption of punitive damage caps in a discrete duration or survival analysis framework. Specifically, we examine the probability that a given state adopts a cap in a given year, where time is measured relative to the beginning of our JVR data in 1988, conditional on that state not having adopted a punitive damage cap before that year. This approach allows us to treat states not adopting caps by the end of our analytical period as censored and it allows us, but does not require us, to parameterize the time component of the adoption process in various ways. States remain in our risk set until adoption of the cap at which point they leave the risk set.

The first model we estimate is the discrete time period analogue of the Cox semi-parametric hazard model. The Cox model does not impose any particular form on the hazard function. Indeed, it does not even require continuity. In the discrete time case, this approach is approximated by including separate dummy variable controls for each year period. This approach does not impose any assumptions about the adoption pattern followed by states on average, but it does control for temporal bunching across states. That is, perhaps states look to each other for innovations in their civil justice systems, which would lead to multiple states adopting the same reforms effectively simultaneously. Another possibility is that organizations lobbying for reforms use a generic strategy across states, leading to simultaneous adoptions.

We also estimate duration models imposing more structure on the underlying hazard function. In one set of models, we require that each period presents the same baseline probability of adoption. We also present another set of models which allow the probability of adoption to be increasing or decreasing as time goes on. These models are the discrete time counterpart to the Weibull hazard models frequently used in epidemiology.

As indicated above, we investigate the possibility that policymakers react either to nominal award amounts or to deflated award amounts. Either is possible *a priori*. We also examine multiple metrics of award severity. While the mean award may be the most representative metric, in some sense, perhaps policymakers disregard “outlier” cases and focus on a measure that is not unduly influenced by such egregious cases, such as the median award. We also examine the 25<sup>th</sup> and 75<sup>th</sup> percentile awards to allow for the possibility that policymakers are influenced by relatively small or large cases. Lastly, we examine variance in awards in case policymakers view caps as a way to add predictability to the civil justice system in their state.

The last dimension in which we vary our empirical specification is through the time lag between award changes and policymaker action. We examine awards in the current year to allow for the possibility that policymakers move swiftly, or, perhaps, that they accurately predict what is currently happening in the state courts. We also examine the award metrics at a one year lag to reflect the possibility that it takes time for legislatures to react to changes in the courts. Lastly, we examine a moving average over the previous three years to allow for the possibility that legislatures only act on the basis of sustained trends.

All models cluster standard errors at the state level to recognize the necessary temporal dependence that exists in the process we are examining.

#### IV. *Results*

As seen in Tables 1-18, there is no systematic relationship between any award metric and adoption of punitive damage caps. This is true regardless of the assumptions we make about the underlying adoption process in terms of functional form or in terms of how quickly legislatures respond to changes in award levels. Further, there appears to be no difference between the specifications using nominal award amounts and those using deflated award amounts. In essentially no case is the relationship between the award metric and adoption statistically significant.

Further, while the lack of significance could be generated by the limited time frame we examine with fewer data points leading to a lack of statistical precision, in almost all cases, the sign of the coefficient is negative. This implies that as the award metric increases, the likelihood of cap adoption declines. Phrased in the language of duration models, states with relatively high awards take longer to adopt punitive damage caps. These results are virtually unchanged if we include various covariates (not presented) such as indicators of state economic conditions, demographic controls, and the like. Perhaps even more surprisingly, we find that political controls (not presented), such as Republican control of the upper and lower state houses or the governorship in the state, not only do not change the estimated coefficients on our award measures, they themselves are not predictive of cap adoption. That is, there does not appear to be any systematic relationship between political control and cap adoption.

The results do not change if we examine multiple award metrics in the same specification (not reported). That is, while it is possible *a priori* that policymakers follow a more complex decision rule regarding adoption that hinges on conditional effects of mean and variance simultaneously, the data indicate no such relationship.

While none of these indicators is predictive of the timing of adoption, the individual year dummies are highly predictive, suggesting that states either mimic each other in these decisions or the policy decisions are driven by generic economic, political, or legal forces at the national level. Further, it is interesting to note that whether or not a state has a non-economic damage cap in effect is also strongly and positively predictive of the adoption of a punitive damage cap.

### V. *Shortcomings*

While our results universally suggest that punitive damage cap adoption is largely unaffected by the dynamics of awards in the courts, there are a number of concerns with the foregoing analysis. First, because of data limitations, we are not able to analyze the effects of compensatory and punitive damage awards separately. Perhaps punitive damage caps do respond systematically to punitive damage awards, but our general award metric is not precise enough to tease this relationship out of the data. While there is no way for us to surmount this concern, it is interesting to note that if we perform the same analysis on the adoption of non-economic damage caps (not presented), we continue to find no relationship between awards and adoption. We believe this suggests, though certainly does not prove, that our inability to parse the awards is not driving our results.

Second, we are limited to a relatively short time period given the coverage of the JVR data. Perhaps our lack of results is peculiar to the period studied. Although we are not aware of a different dataset that would allow a researcher to examine earlier cap adoptions, analyzing pre 1988 adoptions would be very helpful in determining the out of sample validity of our results.

Perhaps more generally the JVR data are not sufficiently representative of the state court experience to determine the relationship we intended to analyze. As indicated in Helland, Klick, and Tabarrok (2005), this is a concern. However, intuitively, the biases that have been identified in the JVR (e.g., oversampling plaintiff wins, oversampling large awards, etc.) would seem to coincide with the (biased) data legislators themselves have when making policy decisions in this area. With available data, however, it is not possible to rule this out.

Although our empirical analysis is severely limited due to data availability problems, the best available data indicate that there is little relationship between the passage of caps and underlying trends in awards in civil cases.

Table 1: Determinants of Punitive Damage Cap Passage 1988-1997  
Semi-Parametric Discrete Hazard Model  
Current Year Award Amounts  
(standard errors clustered by state)

	Nominal Award Values			
Mean Award	-0.138 (0.351)			
Median Award		0.081 (0.446)		
25 <sup>th</sup> Percentile Award			0.132 (0.197)	
75 <sup>th</sup> Percentile Award				0.054 (0.140)
Award Variance				-0.023 (0.143)

Note: Model reflects a complementary log-log regression in which the outcome variable is the Prob(state  $s$  passes a punitive damage cap in year  $t$  | state  $s$  has not passed a punitive damage cap in any year before  $t$ ). Year dummies and a constant term are included and states are removed from the risk set after they pass a punitive damage cap. Award data calculated from Jury Verdict Research Reporter.

Table 2: Determinants of Punitive Damage Cap Passage 1988-1997  
Semi-Parametric Discrete Hazard Model  
Current Year Award Amounts  
(standard errors clustered by state)

	Deflated Award Values			
Mean Award	-0.211 (0.478)			
Median Award		0.182 (0.690)		
25 <sup>th</sup> Percentile Award			0.215 (0.283)	
75 <sup>th</sup> Percentile Award				0.104 (0.203)
Award Variance				-0.089 (0.288)

Note: Model reflects a complementary log-log regression in which the outcome variable is the Prob(state  $s$  passes a punitive damage cap in year  $t$  | state  $s$  has not passed a punitive damage cap in any year before  $t$ ). Year dummies and a constant term are included and states are removed from the risk set after they pass a punitive damage cap. Award data calculated from Jury Verdict Research Reporter. Awards deflated by the national level CPI.

Table 3: Determinants of Punitive Damage Cap Passage 1988-1997  
Semi-Parametric Discrete Hazard Model  
Award Amounts Lagged One Year  
(standard errors clustered by state)

Nominal Award Values			
Mean Award	-0.564 (0.578)		
Median Award		-0.133 (0.666)	
25 <sup>th</sup> Percentile Award			-0.310 (0.568)
75 <sup>th</sup> Percentile Award			
Award Variance			-0.141 (0.250)
			-0.327 (0.204)

Note: Model reflects a complementary log-log regression in which the outcome variable is the Prob(state  $s$  passes a punitive damage cap in year  $t$  | state  $s$  has not passed a punitive damage cap in any year before  $t$ ). Year dummies and a constant term are included and states are removed from the risk set after they pass a punitive damage cap. Award data calculated from Jury Verdict Research Reporter.

Table 4: Determinants of Punitive Damage Cap Passage 1988-1997  
Semi-Parametric Discrete Hazard Model  
Award Amounts Lagged One Year  
(standard errors clustered by state)

Deflated Award Values			
Mean Award	-0.973 (0.933)		
Median Award		-0.024 (0.110)	
25 <sup>th</sup> Percentile Award			-0.467 (0.795)
75 <sup>th</sup> Percentile Award			
Award Variance			-0.252 (0.427)
			-0.849 (0.527)

Note: Model reflects a complementary log-log regression in which the outcome variable is the Prob(state  $s$  passes a punitive damage cap in year  $t$  | state  $s$  has not passed a punitive damage cap in any year before  $t$ ). Year dummies and a constant term are included and states are removed from the risk set after they pass a punitive damage cap. Award data calculated from Jury Verdict Research Reporter. Awards deflated by the national level CPI.

Table 5: Determinants of Punitive Damage Cap Passage 1988-1997  
Semi-Parametric Discrete Hazard Model  
Three Year Moving Average Award Amounts  
(standard errors clustered by state)

Nominal Award Values			
Mean Award	-0.181 (0.338)		
Median Award		-0.417 (0.758)	
25 <sup>th</sup> Percentile Award			-0.598 (0.476)
75 <sup>th</sup> Percentile Award			-0.079 (0.142)
Award Variance			-0.113 (0.171)

Note: Model reflects a complementary log-log regression in which the outcome variable is the Prob(state  $s$  passes a punitive damage cap in year  $t$  | state  $s$  has not passed a punitive damage cap in any year before  $t$ ). Year dummies and a constant term are included and states are removed from the risk set after they pass a punitive damage cap. Award data calculated from Jury Verdict Research Reporter.

Table 6: Determinants of Punitive Damage Cap Passage 1988-1997  
Semi-Parametric Discrete Hazard Model  
Three Year Moving Average Award Amounts  
(standard errors clustered by state)

Deflated Award Values			
Mean Award	-0.358 (0.604)		
Median Award		-0.068 (0.123)	
25 <sup>th</sup> Percentile Award			-0.823 (0.629)
75 <sup>th</sup> Percentile Award			-0.158 (0.279)
Award Variance			-0.330 (0.426)

Note: Model reflects a complementary log-log regression in which the outcome variable is the Prob(state  $s$  passes a punitive damage cap in year  $t$  | state  $s$  has not passed a punitive damage cap in any year before  $t$ ). Year dummies and a constant term are included and states are removed from the risk set after they pass a punitive damage cap. Award data calculated from Jury Verdict Research Reporter. Awards deflated by the national level CPI.

Table 7: Determinants of Punitive Damage Cap Passage 1988-1997  
 Constant Discrete Hazard Model  
 Current Year Award Amounts  
 (standard errors clustered by state)

	Nominal Award Values		
Mean Award	-0.139 (0.272)		
Median Award		-0.130 (0.236)	
25 <sup>th</sup> Percentile Award			-0.491 (0.893)
75 <sup>th</sup> Percentile Award			-0.335 (0.596)
Award Variance			-0.023 (0.114)

Note: Model reflects a complementary log-log regression in which the outcome variable is the Prob(state  $s$  passes a punitive damage cap in year  $t$  | state  $s$  has not passed a punitive damage cap in any year before  $t$ ). To allow for a constant hazard rate, no time controls are included. A constant term is included and states are removed from the risk set after they pass a punitive damage cap. Award data calculated from Jury Verdict Research Reporter.

Table 8: Determinants of Punitive Damage Cap Passage 1988-1997  
 Constant Discrete Hazard Model  
 Current Year Award Amounts  
 (standard errors clustered by state)

	Deflated Award Values		
Mean Award	-0.248 (0.417)		
Median Award		-0.189 (0.387)	
25 <sup>th</sup> Percentile Award			-0.063 (0.147)
75 <sup>th</sup> Percentile Award			-0.416 (0.923)
Award Variance			-0.112 (0.267)

Note: Model reflects a complementary log-log regression in which the outcome variable is the Prob(state  $s$  passes a punitive damage cap in year  $t$  | state  $s$  has not passed a punitive damage cap in any year before  $t$ ). To allow for a constant hazard rate, no time controls are included. A constant term is included and states are removed from the risk set after they pass a punitive damage cap. Award data calculated from Jury Verdict Research Reporter. Awards deflated by the national level CPI.

Table 9: Determinants of Punitive Damage Cap Passage 1988-1997  
Constant Discrete Hazard Model  
Award Amounts Lagged One Year  
(standard errors clustered by state)

Nominal Award Values				
Mean Award	-0.628 (0.551)			
Median Award		-0.040 (0.136)		
25 <sup>th</sup> Percentile Award			-0.584 (0.787)	
75 <sup>th</sup> Percentile Award				-0.256 (0.360)
Award Variance				-0.294 (0.181)

Note: Model reflects a complementary log-log regression in which the outcome variable is the Prob(state  $s$  passes a punitive damage cap in year  $t$  | state  $s$  has not passed a punitive damage cap in any year before  $t$ ). To allow for a constant hazard rate, no time controls are included. A constant term is included and states are removed from the risk set after they pass a punitive damage cap. Award data calculated from Jury Verdict Research Reporter.

Table 10: Determinants of Punitive Damage Cap Passage 1988-1997  
Constant Discrete Hazard Model  
Award Amounts Lagged One Year  
(standard errors clustered by state)

Deflated Award Values				
Mean Award	-0.114 (0.082)			
Median Award		-0.091 (0.280)		
25 <sup>th</sup> Percentile Award			-0.098 (0.121)	
75 <sup>th</sup> Percentile Award				-0.521 (0.670)
Award Variance				-0.848 (0.413)

Note: Model reflects a complementary log-log regression in which the outcome variable is the Prob(state  $s$  passes a punitive damage cap in year  $t$  | state  $s$  has not passed a punitive damage cap in any year before  $t$ ). To allow for a constant hazard rate, no time controls are included. A constant term is included and states are removed from the risk set after they pass a punitive damage cap. Award data calculated from Jury Verdict Research Reporter. Awards deflated by the national level CPI.

Table 11: Determinants of Punitive Damage Cap Passage 1988-1997  
 Constant Discrete Hazard Model  
 Three Year Moving Average Award Amounts  
 (standard errors clustered by state)

	Nominal Award Values			
Mean Award	-0.465 (0.498)			
Median Award		-0.120 (0.181)		
25 <sup>th</sup> Percentile Award			-0.886 (0.591)	
75 <sup>th</sup> Percentile Award				-0.281 (0.358)
Award Variance				-0.172 (0.177)

Note: Model reflects a complementary log-log regression in which the outcome variable is the Prob(state  $s$  passes a punitive damage cap in year  $t$  | state  $s$  has not passed a punitive damage cap in any year before  $t$ ). To allow for a constant hazard rate, no time controls are included. A constant term is included and states are removed from the risk set after they pass a punitive damage cap. Award data calculated from Jury Verdict Research Reporter.

Table 12: Determinants of Punitive Damage Cap Passage 1988-1997  
 Constant Discrete Hazard Model  
 Three Year Moving Average Award Amounts  
 (standard errors clustered by state)

	Deflated Award Values			
Mean Award	-0.871 (0.742)			
Median Award		-0.219 (0.278)		
25 <sup>th</sup> Percentile Award			-0.132 (0.084)	
75 <sup>th</sup> Percentile Award				-0.559 (0.596)
Award Variance				-0.518 (0.411)

Note: Model reflects a complementary log-log regression in which the outcome variable is the Prob(state  $s$  passes a punitive damage cap in year  $t$  | state  $s$  has not passed a punitive damage cap in any year before  $t$ ). To allow for a constant hazard rate, no time controls are included. A constant term is included and states are removed from the risk set after they pass a punitive damage cap. Award data calculated from Jury Verdict Research Reporter. Awards deflated by the national level CPI.

Table 13: Determinants of Punitive Damage Cap Passage 1988-1997  
Discrete Hazard Model (Weibull Analogue)  
Current Year Award Amounts  
(standard errors clustered by state)

	Nominal Award Values		
Mean Award	-0.135 (0.231)		
Median Award		-0.194 (0.284)	
25 <sup>th</sup> Percentile Award			-0.737 (0.943)
75 <sup>th</sup> Percentile Award			-0.460 (0.648)
Award Variance			-0.025 (0.107)

Note: Model reflects a complementary log-log regression in which the outcome variable is the Prob(state  $s$  passes a punitive damage cap in year  $t$  | state  $s$  has not passed a punitive damage cap in any year before  $t$ ). To allow for increasing or decreasing hazard rates, similar to the continuous time Weibull hazard model, models include a  $\ln(t)$  term. A constant term is included and states are removed from the risk set after they pass a punitive damage cap. Award data calculated from Jury Verdict Research Reporter.

Table 14: Determinants of Punitive Damage Cap Passage 1988-1997  
Discrete Hazard Model (Weibull Analogue)  
Current Year Award Amounts  
(standard errors clustered by state)

	Deflated Award Values		
Mean Award	-0.194 (0.320)		
Median Award		-0.249 (0.381)	
25 <sup>th</sup> Percentile Award			-0.090 (0.144)
75 <sup>th</sup> Percentile Award			-0.524 (0.862)
Award Variance			-0.076 (0.239)

Note: Model reflects a complementary log-log regression in which the outcome variable is the Prob(state  $s$  passes a punitive damage cap in year  $t$  | state  $s$  has not passed a punitive damage cap in any year before  $t$ ). To allow for increasing or decreasing hazard rates, similar to the continuous time Weibull hazard model, models include a  $\ln(t)$  term. A constant term is included and states are removed from the risk set after they pass a punitive damage cap. Award data calculated from Jury Verdict Research Reporter. Awards deflated by the national level CPI.

Table 15: Determinants of Punitive Damage Cap Passage 1988-1997  
Discrete Hazard Model (Weibull Analogue)  
Award Amounts Lagged One Year  
(standard errors clustered by state)

Nominal Award Values			
Mean Award	-0.557 (0.480)		
Median Award		-0.455 (0.969)	
25 <sup>th</sup> Percentile Award			-0.477 (0.585)
75 <sup>th</sup> Percentile Award			-0.217 (0.235)
Award Variance			-0.292 (0.169)

Note: Model reflects a complementary log-log regression in which the outcome variable is the Prob(state  $s$  passes a punitive damage cap in year  $t$  | state  $s$  has not passed a punitive damage cap in any year before  $t$ ). To allow for increasing or decreasing hazard rates, similar to the continuous time Weibull hazard model, models include a  $\ln(t)$  term. A constant term is included and states are removed from the risk set after they pass a punitive damage cap. Award data calculated from Jury Verdict Research Reporter.

Table 16: Determinants of Punitive Damage Cap Passage 1988-1997  
Discrete Hazard Model (Weibull Analogue)  
Award Amounts Lagged One Year  
(standard errors clustered by state)

Deflated Award Values			
Mean Award	-0.913 (0.750)		
Median Award		-0.072 (0.152)	
25 <sup>th</sup> Percentile Award			-0.700 (0.804)
75 <sup>th</sup> Percentile Award			-0.357 (0.390)
Award Variance			-0.737 (0.410)

Note: Model reflects a complementary log-log regression in which the outcome variable is the Prob(state  $s$  passes a punitive damage cap in year  $t$  | state  $s$  has not passed a punitive damage cap in any year before  $t$ ). To allow for increasing or decreasing hazard rates, similar to the continuous time Weibull hazard model, models include a  $\ln(t)$  term. A constant term is included and states are removed from the risk set after they pass a punitive damage cap. Award data calculated from Jury Verdict Research Reporter. Awards deflated by the national level CPI.

Table 17: Determinants of Punitive Damage Cap Passage 1988-1997  
Discrete Hazard Model (Weibull Analogue)  
Three Year Moving Average Award Amounts  
(standard errors clustered by state)

Nominal Award Values			
Mean Award	-0.437 (0.454)		
Median Award		-0.115 (0.142)	
25 <sup>th</sup> Percentile Award			-0.807 (0.511)
75 <sup>th</sup> Percentile Award			
Award Variance			-0.266 (0.287)
			-0.173 (0.174)

Note: Model reflects a complementary log-log regression in which the outcome variable is the Prob(state  $s$  passes a punitive damage cap in year  $t$  | state  $s$  has not passed a punitive damage cap in any year before  $t$ ). To allow for increasing or decreasing hazard rates, similar to the continuous time Weibull hazard model, models include a  $\ln(t)$  term. A constant term is included and states are removed from the risk set after they pass a punitive damage cap. Award data calculated from Jury Verdict Research Reporter.

Table 18: Determinants of Punitive Damage Cap Passage 1988-1997  
Discrete Hazard Model (Weibull Analogue)  
Three Year Moving Average Award Amounts  
(standard errors clustered by state)

Deflated Award Values			
Mean Award	-0.753 (0.725)		
Median Award		-0.182 (0.215)	
25 <sup>th</sup> Percentile Award			-0.114 (0.069)
75 <sup>th</sup> Percentile Award			
Award Variance			-0.467 (0.490)
			-0.460 (0.419)

Note: Model reflects a complementary log-log regression in which the outcome variable is the Prob(state  $s$  passes a punitive damage cap in year  $t$  | state  $s$  has not passed a punitive damage cap in any year before  $t$ ). To allow for increasing or decreasing hazard rates, similar to the continuous time Weibull hazard model, models include a  $\ln(t)$  term. A constant term is included and states are removed from the risk set after they pass a punitive damage cap. Award data calculated from Jury Verdict Research Reporter. Awards deflated by the national level CPI.