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# Punitive Damages in Medical Malpractice: An Economic Evaluation

Robert Ward Shaw

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### **INTRODUCTION**

Punitive damages have always had an unusual place in tort law.<sup>1</sup> Occupying the uncertain space between civil actions and criminal sanctions, their justification and purpose are the subjects of an ongoing theoretical debate.<sup>2</sup> In an era in which punitive damage awards have skyrocketed, theoretical debates about punitive damages have become of great interest to legislatures and judges, from the trial

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1. See Robert D. Cooter, *Economic Analysis of Punitive Damages*, 56 S. CAL. L. REV. 79, 79 (1982) ("[I]t is litigating a tort dispute involving punitive damages, much like navigating the Straits of Magellan, runs the risk of incurring grave losses from colliding with unforeseen objects. There is no clear standard for deciding when punitive damages are appropriate or for computing their magnitude when awarded.").

2. See *infra* notes 22–42, 61–62 and accompanying text.

level<sup>3</sup> to the United States Supreme Court.<sup>4</sup> Given the somewhat arbitrary outer bounds of punitive damages, crafting an appropriate definition for this remedy has become an endeavor in which the stakes are high and the solutions difficult. Late in the nineteenth century, Justice Matthews noted that “no precise rule of law fixes the recoverable damages, it is the peculiar function of the jury to determine the amount by their verdict.”<sup>5</sup>

Enter the medical malpractice “crisis.”<sup>6</sup> According to Jury Verdicts Research, median medical malpractice jury verdicts jumped from \$474,536 in 1996 to \$1,000,000 in 2000.<sup>7</sup> These increases have occurred within a more general rising tide of health care costs, both in North Carolina and nationally.<sup>8</sup> As stated by William Pully, President of the North Carolina Hospital Association,

Healthcare [*sic*] costs are rising, again. Yours and ours. For businesses and for hospitals. Okay, that’s not freshly minted news. Healthcare premium increases have sent shock waves through human resource departments, grayed the hair of numerous chief financial officers, created grimaces on the faces of CEOs and prompted some difficult decisions around board tables.<sup>9</sup>

Medical malpractice insurance contributes to the upward trend in health care costs.<sup>10</sup> The North Carolina Hospital Association has

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3. See George L. Priest, *Punitive Damages and Enterprise Liability*, 56 S. CAL. L. REV. 123, 123 (1982) (studying the punitive awards of Cook County, Illinois over a twenty-two year period).

4. Justice O’Connor has written, “[r]ecent years . . . have witnessed an explosion in the frequency and size of punitive damages awards.” *Pac. Mut. Life Ins. Co. v. Haslip*, 499 U.S. 1, 61 (1991) (O’Connor, J., dissenting). See *State Farm Mut. Auto Ins. Co. v. Campbell*, 123 S. Ct. 1513, 1524 (2003) (holding that punitive damage awards generally comport with due process when they are single digit multiples of compensatory awards); *BMW v. Gore*, 517 U.S. 559, 582–83 (1996) (articulating the threshold beyond which punitive damages invoke constitutional due process protections for the defendant).

5. *Barry v. Edmunds*, 116 U.S. 550, 565 (1886).

6. See Stan Swofford, *Malpractice Insurance Might Rise: Costs Could Be Passed Onto Patients as Doctors and Hospitals Scramble to Find Coverage after a Major Insurer Leaves the Market*, GREENSBORO NEWS & REC., Dec. 14, 2001, at 1A (predicting major increases for malpractice insurance coverage because of the loss of an insurance carrier, economic shocks to the economy, and rising jury verdicts).

7. Press Release, Jury Verdict Research, Inc., *Medical Malpractice: Verdicts, Settlements, and Statistical Analysis* (March 22, 2002) (summarizing a commercial report on settlement awards, plaintiff recovery rights, and jury awards in medical malpractice actions) (on file with the North Carolina Law Review).

8. COUNCIL OF ECON. ADVISERS, *ECONOMIC REPORT OF THE PRESIDENT* 149 (2002).

9. William Pully, *Are Hospitals Sick?*, NORTH CAROLINA, Jan. 2003, at 37.

10. Grace Vandecruze, *Has the Tide Begun to Turn for Medical Malpractice?*, 15

estimated that medical malpractice premiums have climbed one hundred twenty-seven percent from 2001 to 2002, and forecasts call for commensurate premiums increases of nearly one hundred percent for 2003.<sup>11</sup> Many hospitals have turned to self-insurance, given the unprecedented rate increases.<sup>12</sup>

North Carolina's General Assembly attempted to address the punitive damages and medical malpractice dilemmas in 1995.<sup>13</sup> Given that punitive damages are not available to plaintiffs suing for breach of contract in North Carolina,<sup>14</sup> the punitive damages statute's limits have principally affected tort actions.

Approaching the issue from a law and economics perspective enables one to devise a formula for optimal punitive damage levels, understand the incentive structure under a given legal regime, and predict the actions of parties in litigating cases with possible punitive damages. The predictions of the economic model allow recommendations about the further refinement of the legal framework in North Carolina and other states with similar statutes.

There is a pervasive feeling among the public that medical malpractice and punitive damages are out of control.<sup>15</sup> Indeed, one might plausibly argue that these two controversial areas are responsible for a portion of the bias against lawyers:<sup>16</sup> 1) actions against doctors, of whom the public is justifiably supportive, and 2) actions for large, speculative damage amounts perceived to be greater than the damage actually caused.<sup>17</sup> Critiquing the law of punitive damages and medical malpractice from an economic standpoint,

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HEALTH LAWYER 15, 15 (2002).

11. N.C. HOSP. ASS'N, HOSPITAL MEDICAL MALPRACTICE INSURANCE SURVEY RESULTS (Dec. 2002) (on file with the North Carolina Law Review).

12. *Id.* See *infra* notes 44–60 and accompanying text.

13. See Act of July 29, 1995, ch. 514, sec. 1, 1995 N.C. Sess. Laws 1825, 1825 (codified at N.C. GEN. STAT. § 1D-1 (2001)). The bill, "An Act to Establish Standards and Procedures for the Recovery of Punitive Damages in Civil Actions," was codified into the General Statutes of North Carolina as sections 1D and 28A-18-2(b). *Id.*

14. N.C. GEN. STAT. § 1D-15(d) (2001).

15. See generally NEIL VIDMAR, MEDICAL MALPRACTICE AND THE AMERICAN JURY 254, 266–77 (1995) (discussing the various opinions of malpractice verdicts).

16. See Leonard E. Gross, *The Public Hates Lawyers: Why Should We Care?*, 29 SETON HALL L. REV. 1405, 1437 n.153 (1999) (analyzing the public's mistrust of plaintiff attorneys, especially in the area of medical malpractice and its prominence in the popular media due to television advertising). Professor Gross also cites the large jury verdicts and the profits that lawyers make on them through contingency fees as being further black eyes on the profession. *Id.* at 1416, 1445. Medical malpractice contingency fees have also been limited by statute in at least one state. See 735 ILL. COMP. STAT. § 5/2-1114 (2003) (establishing numerical limits on medical malpractice contingency fees).

17. VIDMAR, *supra* note 15, at 253–54.

therefore, is critical to answering the somewhat intuitive nature of popular concerns about these problems. Further, public views are presumably reflected in lawmakers' decisions. For that reason, the popular perception of a legal regime is always important, not just for the public's confidence in the system, but also for the eventual trajectory of the political process as it drives statutory change. This Comment attempts to develop a more comprehensive model of punitive damages in medical malpractice than currently exists in the literature. The goal of this model is to demonstrate the strengths and weaknesses of North Carolina's approach and inductively apply these findings to punitive damages and medical malpractice law across the country. This model will employ concepts of both fairness and efficiency in an attempt to bridge the divide between the two in an economic framework.

Section I provides an overview of the history of punitive damages and medical malpractice law in North Carolina, with a special emphasis on recent tort reform efforts. Section II analyzes some of the economic costs that arise from medical malpractice. Section III constructs a theoretical microeconomic model of malpractice in the nursing home context that potentially justifies punitive liability. Section IV, given the results of Section III, recommends changes in the law to optimize social welfare. Section V predicts how plaintiffs and defendants will act in the legal regime. Lastly, Section VI recommends practical uses of this Comment's economic analysis and touches on the future of the law surrounding these issues at both the state and federal levels.

## I. THE STATUTES AND CASE LAW

### A. *Punitive Damages in North Carolina*

The North Carolina General Assembly enacted broad-based tort reform in 1995<sup>18</sup> after considerable pressure from the conservative caucus in the North Carolina House, which took control of the lower body in the Republican electoral landslide of 1994.<sup>19</sup> As part of the national Republican Party's "Contract with America," the Republican Party proposed a national cap on punitive damages in

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18. § 1D-1; Joseph Neff, *Business Gets Good Feeling on Politics*, NEWS & OBSERVER (Raleigh, N.C.), April 30, 1995, at 1F.

19. Jay Eubank, *General Assembly Beginning New Era Dominated by GOP*, GREENSBORO NEWS & REC., Jan. 22, 1995, at A1.

medical malpractice.<sup>20</sup> North Carolina's Republican Party, likewise had "A New Contract for the People, by the People" which, while less specific, espoused a pro-business platform congruent with the national party's "Contract with America."<sup>21</sup>

The heart of the 1995 tort reform, "the jewel in the business [lobby's] crown,"<sup>22</sup> was the addition of section 1D to the General Statutes of North Carolina.<sup>23</sup> The statute created a punitive damages cap in which no punitive damage award may exceed the greater of either \$250,000 or three times the compensatory damage award.<sup>24</sup> The new statute provided that when punitive damages are at issue, there is a bifurcated trial in which punitive liability is to be determined after compensatory liability has been established.<sup>25</sup> The jury is not to be apprised of this cap prior to its deliberations.<sup>26</sup> If the jury awards punitive damages exceeding the statutory cap, the judge is to reduce the punitive damage amount so as to make it comply with the limitation.<sup>27</sup>

In recent years, North Carolina courts have interpreted the long-standing justification for punitive damages. The North Carolina Court of Appeals has stated that "[t]he purpose of punitive damages is to punish wrongdoers for misconduct of an aggravated, extreme, outrageous, or malicious character."<sup>28</sup> Punitive damages have also been justified under a pseudo-compensatory rationale: punitive damages supplement the compensatory award to cover losses that are not figured into the compensatory damages amount.<sup>29</sup>

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20. Greg Gordon, *Baby Steps: No Giant Strides Expected from Republican Efforts to Reform Health Care System*, MINNEAPOLIS STAR TRIB., Dec. 18, 1994, at 27A; Michael Ross, *Politics: GOP's 10-Point Plan*, L.A. TIMES, Nov. 23, 1994, at A5.

21. See Joe Dew, *Republicans Offer Deal for Voters*, NEWS & OBSERVER (Raleigh, N.C.), Oct. 5, 1994, at 3A; Rob Christenson, *Finally, GOP Taken Seriously*, NEWS & OBSERVER (Raleigh, N.C.), Feb. 19, 1999, at 3A.

22. Mary E. Miller & Joseph Neff, *Legislators Followed Voters' Lead, Shook Up the Status Quo*, NEWS & OBSERVER (Raleigh, N.C.), Aug. 2, 1995, at 1A.

23. N.C. GEN. STAT. § 1D (2001).

24. *Id.* § 1D-25(b). This section forms the heart of the punitive damages tort reform from 1995, and it is the most controversial. Note that this statutory cap does not apply to punitive damages for injury due to driving while impaired. See *id.* § 1D-26.

25. *Id.* § 1D-30.

26. *Id.* § 1D-25(c).

27. *Id.* § 1D-25(b).

28. Nance v. Robertson, 91 N.C. App. 121, 123, 370 S.E.2d 283, 284 (1988); see also Kuykendall v. Turner, 61 N.C. App. 638, 643, 301 S.E.2d 715, 719 (1983) ("The purpose of punitive damages is not to compensate a plaintiff for personal injuries. Instead, they are awarded to punish the defendant's conduct.") (citing Emily Hightower, NORTH CAROLINA LAW OF DAMAGES § 4-1 (1981)).

29. Rhyn v. K-Mart Corp., 149 N.C. App. 672, 679, 562 S.E.2d 82, 91 (2002) (noting the clear distinction between the purposes of and constitutional authority for

In a substantive due process challenge to the punitive damages cap, the North Carolina Court of Appeals held that section 1D of the General Statutes of North Carolina passed constitutional muster, as there was a rational basis for the law.<sup>30</sup> The conceivable rational basis was for “[t]he legitimate public purpose of preserving and furthering the economic development of North Carolina.”<sup>31</sup> In calculating punitive damages, the fact-finder may take the defendant’s wealth into consideration.<sup>32</sup> Further, insurance for punitive damages liability is allowed.<sup>33</sup> Therefore, insurance companies that cover liability for punitive damages will benefit from the cap. Protecting their general economic development interests is the legitimate and conceivable rational basis for the cap.<sup>34</sup>

The statute stipulates that the cap does not apply to “gross negligence.”<sup>35</sup> Additionally, the statute requires clear and convincing evidence to prove punitive liability.<sup>36</sup> In particular, the plaintiff must show fraud, malice, or willful or wanton conduct to establish the prima facie case for punitive liability.<sup>37</sup>

### B. *Medical Malpractice*

Medical malpractice tort reform occurred in North Carolina in 1995. As such, medical malpractice and punitive damages tort reforms should be considered in tandem, as they were passed by the

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compensatory and punitive damage awards).

30. *Rhyne*, 149 N.C. App. at 682–85, 562 S.E.2d at 90–92 (establishing the requirements for punitive damages under the North Carolina Constitution). See *Dept. of Transp. v. Rowe*, 356 N.C. 671, 675–76, 459 S.E.2d 203, 207–08 (2001) (holding that where there are equal protection challenges, formulas for just compensation are governed by rational basis review). Equal protection constitutional analysis requires only that a law have a rational basis in a legitimate governmental interest. *Rhyne*, 149 N.C. App. at 683, 562 S.E.2d at 91. This “rational basis scrutiny” applies when the law does not target a suspect class or impair a fundamental right. *Id.*

31. *Rhyne*, 149 N.C. App. at 683, 562 S.E.2d at 91 (referring to section 1D-25 of the General Statutes of North Carolina).

32. § 1D-35(2)(i). This is generally the case in American jurisdictions. See DAN B. DOBBS, *LAW OF REMEDIES* § 3.11(5) (2d ed. 1993); DAN B. DOBBS, *THE LAW OF TORTS* § 382 (2000).

33. *Mazza v. Med. Mut. Ins. Co.*, 311 N.C. 621, 626–27, 319 S.E.2d 217, 220–21 (1984). But see George L. Priest, *Insurability and Punitive Damages*, 40 ALA. L. REV. 1009, 1033–35 (1989) (arguing against insurance for punitive damages as defeating their purpose). See generally § 58-7-15(13) (authorizing liability insurance for professional negligence).

34. *Rhyne*, 149 N.C. App. at 683, 562 S.E.2d at 91.

35. § 1D-5(7); see also Brian Timothy Beasley, *North Carolina’s New Punitive Damages Statute: Who’s Being Punished Anyway?*, 74 N.C. L. REV. 2174, 2176 (1996) (outlining the general statutory framework of section 1D).

36. § 1D-15(b).

37. *Id.* § 1D-15(a).

same legislature and sponsored by Republican Representative Charles Neely.<sup>38</sup> The General Assembly added medical malpractice to the list of pleadings that must be pled specially under Rule 9(j).<sup>39</sup> This amendment to Rule 9 mandates that the plaintiff specify in his pleadings the names of witnesses reasonably expected to testify as experts at trial under Rule 702 of the North Carolina Rules of Evidence.<sup>40</sup>

Evidence Rule 702 sets out a series of requirements for an expert witness in a medical malpractice case.<sup>41</sup> This rule has the cumulative effect of holding the medical expert to a higher professional standard than the typical expert witness qualification standard.<sup>42</sup> Read together, Rule of Civil Procedure 9(j) and Rule of Evidence 702 are designed to lower the number of malpractice cases actually filed, let alone actually litigated.<sup>43</sup>

## II. MEDICAL MALPRACTICE AND ECONOMIC COST

Medical malpractice litigation has become such a lightening rod because of the extraordinary cost of health care and the potential for large damages associated with physical injuries.<sup>44</sup> The costs associated with health care have risen rapidly in the last few decades.<sup>45</sup> In the last twenty years, health care expenditures in the

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38. See Joseph Neff, *In N.C., Lawsuit Reforms Would Affect Only a Few Cases*, NEWS & OBSERVER (Raleigh, N.C.), June 11, 1995, at 1A; see also Act of June 20, 1995, ch. 309, sec. 2, 1995 N.C. Sess. Laws 309 (codified at N.C. GEN. STAT. § 1A-1, Rule 9 (1996)) (documenting the General Assembly's passage of the amendment to Rule 9, requiring specificity in medical malpractice suits).

39. Sec. 2, 1995 N.C. Sess. Laws at 309 (codified at N.C. GEN. STAT. § 1A-1, Rule 9(j)).

40. § 1A-1, Rule 9(j).

41. *Id.* § 8C-1, Rule 702.

42. *Id.* § 8C-1, Rule 702; see also Neff, *supra* note 38. (reporting on the proposed bills relating to tort reform and medical malpractice).

43. See *Keith v. N. Hosp. Dist. of Surry County*, 129 N.C. App. 402, 405, 499 S.E.2d 200, 202 (1998) (discussing the policy objectives of medical malpractice reform in these statutes); see also David Burt Arrington, Comment, *Keith v. Northern Hospital District of Surry County and Rule 9(j): Preventing Frivolous Medical Malpractice Claims at the Expense of North Carolina Courts' Equitable Powers*, 77 N.C. L. REV. 2303, 2309-19 (1999) (commenting on the *Keith* court's interpretive approach to statutory construction in reference to Evidence Rule 702 and Civil Procedure Rule 9(j) and its usage of legislative history and policy objectives).

44. PAUL C. WEILER ET AL., *MEASURE OF MALPRACTICE: MEDICAL INJURY, MALPRACTICE LITIGATION, AND PATIENT COMPENSATION* 2-5 (1993).

45. See NATIONAL CENTER FOR HEALTH STATISTICS, *HEALTH, UNITED STATES* 287 (2002) (comparing the rise in United States expenditures on health care with that of other industrialized countries).



United States have quintupled,<sup>46</sup> reaching \$1.3 trillion in 2000.<sup>47</sup> Given that the gross domestic product amounted to approximately \$9.8 trillion that year,<sup>48</sup> this figure represents a staggering 13% of the activity in the formal economy. Further, the high compensatory damage awards that are possible in malpractice cases reflect the importance of medicine to the rest of the economy in terms of its fundamental impact on worker productivity, quality of life, and individual independence.<sup>49</sup>

Not surprisingly, medical malpractice insurance costs have risen along with the trend in health care costs.<sup>50</sup> For example, obstetrics and gynecology, a particularly vulnerable specialty, currently struggles with insurance premiums that can sometimes reach 20% or more of gross revenues.<sup>51</sup> More generally, the increase in malpractice insurance rates in the last few years has become a minor crisis in medicine:

Medical malpractice premiums are soaring at the highest rate since the mid-1980s, adding to rising health care costs. Insurers say the increases, typically in the double digits, result mainly from a rise in jury awards now averaging \$3.45 million. Some of the biggest insurers are raising rates in many states more than 30 percent. Even insurers owned by doctors and hospitals, which strive to keep rates low, are increasing prices 10 percent to 18 percent . . . . Phico, which sells malpractice insurance nationally but concentrates on New Jersey and Pennsylvania, was taken over in August by regulators in Pennsylvania, where it is based, when claims threatened to outrun the company's ability to pay. Later in the month, another big company, the

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46. See *id.* at 291 (reporting that national health expenditures rose from \$245.8 billion in 1980 to \$1.299 trillion in 2000).

47. *Id.*

48. OFFICE OF MGMT. & BUDGET, FISCAL YEAR 2002 HISTORICAL TABLES, BUDGET OF THE U.S. GOV'T, H.R. DOC. NO. 107-3, vol. IV, at 182 (2001) (on file with the North Carolina Law Review); Richard L. Gundling, *Rising Healthcare Spending Gives Pause to Congress and the Public*, 56 HEALTHCARE FIN. MGMT. 76, 76 (2002).

49. See, e.g., HARVEY F. WACHSMAN, *LETHAL MEDICINE: THE EPIDEMIC OF MALPRACTICE IN AMERICA* 1-3 (1993) (illustrating the personal impact that health care has on all areas of life). See generally CHARLES E. DAYE & MARK W. MORRIS, *NORTH CAROLINA LAW OF TORTS* § 16.91-92 (2d ed. 1999) (providing an overview of the damages available in negligence actions in North Carolina).

50. See WEILER ET AL., *supra* note 44, at 2-5.

51. Diane Levick, *Insurers Squeeze State's Doctors: Malpractice Rates Increasing*, HARTFORD COURANT, Nov. 17, 2002, at A1 (reporting that Connecticut's malpractice insurance experience follows the national trend upward); see also Joseph B. Treaster, *Malpractice Rates Are Rising Sharply: Health Costs Follow*, N.Y. TIMES, Sept. 10, 2001, at A1 (discussing the increasing rates nationwide); NORTH CAROLINA HOSPITAL ASSOC., *supra* note 11 at 1 (reporting the rise in premiums faced by hospitals in 2002).

Frontier Insurance Group, based in Rock Hills, N.Y., was taken over by New York regulators.<sup>52</sup>

Opinions differ on the economic basis of malpractice premium increases. Tort reform advocates often point to rising jury verdicts in malpractice cases as the fundamental reason for the malpractice insurance rate surges. According to Michael Klein, Vice-President of Underwriting for Global Health Care of St. Paul, “[r]ates are rising so sharply because soaring jury awards and settlement amounts are driving up insurers’ losses . . . . ‘[b]oth verdicts and settlements have more than doubled between 1994 and 1999 . . . .’ ”<sup>53</sup>

Plaintiff advocates explain the trend differently. Much of the extraordinary increase has come after a multiple year bear market that played havoc with the forecasts of so many financial products companies.<sup>54</sup> This may partially explain the malpractice insurance rate increases. Medical malpractice insurers used their pools of reserve cash to invest aggressively during the 1990’s.<sup>55</sup> This allowed the insurance carriers to lower premiums, based on the erroneous belief that the market would stay high.<sup>56</sup> According to this theory, when the market dropped, this poor planning resulted in sharply increasing premiums.<sup>57</sup>

The actual explanation probably lies somewhere between these two theories. In the short run, insurance costs are greatly impacted by sudden, unexpected changes in the economic environment.<sup>58</sup> In the long run, though, malpractice premiums will be fundamentally

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52. Treaster, *supra* note 51; see also Kevin M. Bingham, *Risk Retention in a Hardening Insurance Market*, CONTINGENCIES, May/June 2002, at 66 (describing the impact of the deterioration of the “insurance industry financial results” on a “tough insurance purchasing environment”).

53. Michael Prince, *Rate Hikes Symptomatic*, BUS. INS., June 11, 2001, at 3 (quoting Michael Klein, Vice President of Global Health Care in St. Paul, Minnesota).

54. See *PHICO Insurance Co. Ordered into Liquidation in Pennsylvania*, MEALEY’S LITIGATION REPORT: INSURANCE INSOLVENCY, Feb. 14, 2002, at 3 (analyzing the financial history of an insurance company that went insolvent as a result of poor forecasting).

55. Christopher Oster & Rachel Zimmerman, *Insurers’ Missteps Helped Provoke Malpractice Crisis*, WALL ST. J., June 24, 2002, at A1.

56. *Id.*

57. See Mark Hollis, *Doctors: Patients Paying for Crisis*, ORLANDO SENTINEL, Jan. 2, 2003, at B1 (“[M]any consumer advocates and trial lawyers say bad medical care and bad business practices of insurance companies are mostly to blame for skyrocketing insurance rates—and limiting jury awards, they say, won’t solve those problems.”); Pully, *supra* note 9, at 37 (blaming the poor financial markets and medical malpractice insurance industry “failures” for part of the increases in premiums).

58. See generally WEILER ET AL., *supra* note 44, at 3 (describing the short run effects of industry-wide decisions and market changes on premiums).

dependent on malpractice liability figures and not macroeconomic or economic forecasting trends.<sup>59</sup> Regardless of the exact balance of factors, medical malpractice litigation is an important part of an industry that now, on the whole, claims well over ten percent of the gross domestic product.<sup>60</sup>

### III. MODELING PUNITIVE DAMAGES

#### A. *Goals of the Model*

Modeling punitive damages in malpractice actions requires finding the optimal level of deterrence to induce the health care provider to act efficiently. This means that the marginal social costs should equal the marginal social benefits in the best policy formulation.<sup>61</sup> The model should also take into account the practicalities of litigation costs, victims' incentives to act responsibly, the public's confidence in the system, the defendant health care provider's wealth, and the current state of North Carolina law.

There are several basic economic models of punitive damage regimes.<sup>62</sup> All of the models involve generic tort situations. None specifically address any of the unique issues of medical malpractice, such as the professional standard of care, the lack of any provision in the statute for providers and patients to contract for a lower level of service,<sup>63</sup> the substantial information asymmetry between the

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59. *Id.* at 3–4.

60. See Russell Korobkin, *The Efficiency of Managed Care "Patient Protection" Laws: Incomplete Contracts, Bounded Rationality, and Market Failure*, 85 CORNELL L. REV. 1, 5 n.24 (1999) (reporting various studies that peg health care as currently exceeding ten percent of the national economy); *supra* notes 45–47 and accompanying text.

61. Jason S. Johnston, *Punitive Liability: A New Paradigm of Efficiency in Tort Law*, 87 COLUM. L. REV. 1385, 1393 (1987). See generally RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* § 1.2 (6th ed. 2003) (defining social optimality as occurring when marginal social costs equal marginal social benefits).

62. See generally A. Mitchell Polinsky & Steven Shavell, *Punitive Damages: An Economic Analysis*, 111 HARV. L. REV. 869 (1998) (arguing for the use of punitive damages when the risk of liability for the defendant is less); David D. Haddock et al., *An Ordinary Economic Rationale for Extraordinary Legal Sanctions*, 78 CAL. L. REV. 1 (1990) (justifying punitive damages in the case where it is cheaper for defendant to take property than negotiate); Robert D. Cooter, *Punitive Damages for Deterrence: When and How Much?*, 40 ALA. L. REV. 1143 (1989) (presenting a basic model for defining the scope of punitive damages); David Friedman, *An Economic Explanation of Punitive Damages*, 40 ALA. L. REV. 1125 (1989) (modeling a justification for punitive damages); Johnston, *supra* note 60 (theoretically justifying the use of punitive damages to create an efficient tort system); Cooter, *supra* note 1 (defining the role of punitive damages in creating an efficient result); Priest, *supra* note 3 (justifying punitive damages theory under enterprise liability theory).

63. See N.C. GEN. STAT. § 90-21.12 (2001) (including no provision for lowering this

providers and patients in the technical details of and expectations about medical care, and the potential for medical trauma to affect the patient's strength and will to pursue claims.<sup>64</sup> Further, economic modeling of specific state punitive damages laws has not yet become part of the law and economics literature, so this Comment will attempt a number of novel projects while seeking a deeper understanding of this issue.

While the reasonable person standard in negligence cases explicitly takes into account the efficiency of the defendant's precautionary burden, the malpractice standard defines the precautionary measure by statute. Thus, the efficiency of the defendant's behavior is not generally litigated in determining liability in a malpractice case. Generic models of negligence law, of which professional malpractice is a part,<sup>65</sup> make the assumption that the applicable legal standard is Judge Learned Hand's formula that if the burden of precaution is lower than the probability of punishment multiplied by foreseeable harm, the defendant is liable.<sup>66</sup>

This model operates under the assumption that juries are rational if evidence law and jury instructions accurately reflect good law and policy. Professor Neil Vidmar argues that juries tend to reach the right conclusion, as based on the Hand formula standard, especially in the area of compensatory liability assessment, more often than may be commonly believed.<sup>67</sup>

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baseline level of care by contract).

64. See *infra* notes 170–85.

65. William O. Morris, *The Negligent Nurse—The Physician and the Hospital*, 33 BAYLOR L. REV. 109, 109–10 (1981); see DOBBS, *THE LAW OF TORTS*, *supra* note 32, § 242 (stating that medical malpractice is a negligence action).

66. See *United States v. Carroll Towing Co.*, 159 F.2d 169, 173 (2d Cir. 1947). Professor Cooter, for example, uses the Hand formula in his negligence model. Cooter, *supra* note 1, at 1151.

67. VIDMAR, *supra* note 15, at 266–77 (attempting an explanation as to why “the widespread claims of jury errancy [are] so out of line with empirical reality”). Vidmar's study of North Carolina juries asserts that the evidence suggests juries assess damages relatively accurately. *Id.* at 234–35. Likewise, based on studies in North Carolina and other states, punitive damage awards do not appear to be out of the bounds of rationality. *Id.* at 254–57. But see U.S. Gen. Accounting Office, *Medical Malpractice: Six State Case Studies Show Claims and Insurance Costs Still Rise Despite Reforms* 1, 40 (1986) (Sup. Docs. No. GA1.13:HRD–87-21) (reprinting an assertion made by the North Carolina Hospital Association Trust Fund that “[o]ften awards have little relationship to the seriousness of the injury. This is no way to predict how a jury will rule on a particular set of facts. Often awards bear no relationship to economic losses. . . . [t]oday juries often make awards regardless of the ‘fault’ of anyone . . .”).

*B. The Model*

With the above concerns in mind, Professor Robert D. Cooter's basic model of punitive damages in negligence law<sup>68</sup> serves as a convenient starting point for modeling punitive damages in a malpractice case. In his more general study on punitive damage theory, Cooter includes a model of negligent behavior within a typical American negligence liability system. He begins with the Hand formula:

(1)  $B < pL \rightarrow \text{liable}$ , or (2)  $B > pL \rightarrow \text{not liable}$ ,<sup>69</sup> where  $B$  is the marginal burden of precaution taken by the defendant,  $p$  is the probability of harm to the plaintiff, and  $L$  is the plaintiff's loss due to negligence.

Suppose, then, that not all tortfeasors who fail the Hand rule are caught. The probability of the defendant being held liable is  $q$ .<sup>70</sup> Therefore, the tortfeasor will face an expected liability of  $pLq$ , where  $pL \geq pLq$ .<sup>71</sup> The first potential justification for punitive damages to achieve optimal deterrence follows from this inequality. By adding a "punitive multiple,"<sup>72</sup> equal to the inverse of  $q$ , the potential tortfeasor once again faces the standard Hand formula:

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68. Cooter, *supra* note 1, at 1149–59.

69. *Id.* at 1151; *see also Carroll Towing Co.*, 159 F.2d at 173 (explaining Judge Hand's formulation of the negligence standard).

70. Cooter does not empirically justify that the probability of being held liable is less than one. Cooter, *supra* note 1, at 1151. However, common sense says that the chances of being caught for negligence are less than one hundred percent. *See* Robert J. Blendon et al., *Patient Safety: Views of Practicing Physicians and the Public on Medical Errors*, 347 NEW ENG. J. MED. 1933, 1935 (2002) (surveying physicians and laypersons regarding their experience with what they consider medical errors and reporting that medical errors are infrequently followed by malpractice lawsuits); *see also* David Brown, *Checking Up on Medical Mistakes*, WASH. POST, Dec. 12, 2002, at A6 (reporting on the New England Journal of Medicine study). The *Washington Post* article discusses some of the main survey results succinctly:

About seven percent of physicians and ten percent of the general public say that someone in their family has died as the result of preventable errors in their medical care, according to a new survey.

A higher fraction of each group—twelve percent of doctors and seventeen percent of the public—reported that they or a relative had suffered a medical error serious enough to cause them to lose time from school or work.

In all, thirty-five percent of physicians and forty-two percent of the public said they had experienced a medical error themselves, or had one affect a family member. Eighteen percent of physicians and twenty-four percent of the public said the errors had serious consequences.

*Id.*

71. *See* Cooter, *supra* note 1, at 1151.

72. *Id.*

(3)  $B < pLqm$ ,<sup>73</sup> where  $m=1/q$ .

Tort law does not, as a general matter, include the likelihood of being caught in formulating damage awards.<sup>74</sup> Interestingly, this differs significantly from criminal liability regimes. In criminal law, the State generally assigns a punishment based on the severity of the offense. However, the State also imposes punishment greater than the severity of the offense for offenders who have a low probability of being caught.<sup>75</sup> Imposing a high punishment in this regard compensates for the State's failure to catch all offenders.<sup>76</sup> For example, if the chance of being caught cheating on one's taxes were lower than one hundred percent, the optimal punishment would be higher than the amount the taxpayer filched from the government.<sup>77</sup> The goal of this Comment's tort law model will, like the criminal law model, be to induce the self-interested profit maximizer<sup>78</sup> to act efficiently so as never to commit gross negligence.

Medical malpractice introduces a twist into this generic concept. The North Carolina malpractice statute, like medical malpractice law around the nation,<sup>79</sup> requires that the health care provider act according to the standard practice for the given health care service.<sup>80</sup> Therefore, the defendant is not required to guard against  $pL$ , but it must meet the burden of complying with an acceptable local<sup>81</sup> practice,  $\epsilon$ . Patients implicitly contract with the health care provider, expecting that the provider will faithfully follow standard procedures. Few patients have the expertise necessary to determine which provider is providing an optimal level of care for a given medical ailment, so a statutory standard of care may be the most efficient way to define the parties' expectations.<sup>82</sup>

The nursing home, for example, will profit maximize at a level that satisfies the inequality.

73. See *id.* ( $m = 1/q$ ).

74. See *United States v. Carroll Towing Co.*, 159 F.2d 169, 173 (2d Cir. 1947) (failing to include any provision in the negligence standard for the probability of being caught).

75. POSNER, *supra* note 61, §7.2; Cass R. Sunstein et. al., *Assessing Punitive Damages (with Notes on Cognition and Valuation in Law)*, 107 YALE L.J. 2071, 2082 (1998).

76. See *id.*

77. See *id.*

78. The self-interested profit maximizer in this model acts rationally to maximize its own self-interest when faced with a given set of budget-limiting cost constraints.

79. See DOBBS, *THE LAW OF TORTS*, *supra* note 32, § 244.

80. N.C. GEN. STAT. § 90-21.12 (2001).

81. See *id.* (requiring the medical provider to comply with "standards of practice . . . in the same or similar communities).

82. See POSNER, *supra* note 61, § 6.3.

$$(4) \quad B \geq \mathcal{E}qm.$$

By satisfying this condition, it will avoid liability that results in lower net profits either through payment of damages or increased insurance premiums. The next step in modeling the nursing home's incentive structure is to design an equation for its total expected costs (EC), in order to assess how the nursing home will respond to the liability exposure. Let  $b$  denote the "unit cost of precaution" and  $x$  denote the amount of precaution the nursing home takes.<sup>83</sup> This becomes a more explicit function for  $B$ , the home's total burden:

$$(5) \quad B = bx.^{84}$$

For example, if a disabled nursing home patient is at risk for bed sores,  $b$  would be the cost to the home of turning the patient, checking for sores, and so on. The variable  $x$  would be the number of times per day this precautionary procedure is done. The probability of an accident,  $p$ , is a function of  $x$ <sup>85</sup> and the victim's precautions,  $v$ . In other words, the likelihood of a painful bed sore developing is related to the number of times the patient is turned as well as any precautionary conduct the patient might take, such as ringing for the nurse if the patient notices a symptom of a developing bed sore.

The negligent nursing home will, viewing its obligations prospectively, face the cost of its care plus the probability of being held liable:

$$(6) \quad EC = bx + \mathcal{E}qm,^{86} \text{ where } \mathcal{E} = p(x, v)L, \text{ and } EC \text{ is the nursing home's expected cost of providing care. } \mathcal{E} = pL \text{ in this model by definition.}$$

This equation reflects an assumption that the legislature successfully created a statutory standard of care that, from an efficiency prospective, mimics the general Hand formula standard. In other words,  $\mathcal{E} = pL$  where the accepted practice for a particular medical field is for the health care provider to take precautions that are equal to or greater than the probability times the magnitude of harm to the patient. Relaxing the assumption would require analyzing whether the invisible hand of the free market guides the medical field at issue to act efficiently, which is what the legislature presumably hopes will happen.

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83. Cooter, *supra* note 1, at 1158 n.24.

84. *See id.*

85. *See id.*

86. *See id.*

The two costs in Equation 6 are added together, because, whether or not the nursing home is held liable ( $\text{\pounds}qm$ ), it is guaranteed to incur the cost of doing business ( $bx$ ).

Up to this point in the model, the cost to society when negligence occurs, or the social cost ( $SC$ ), will be similar to the defendant's own—the costs of providing the care to the defendant plus the probability times magnitude of harm. Given that the punitive multiple ( $m$ ) is one under the above regime (no provision for damages larger than the compensatory loss),  $\text{\pounds}qm$  is equal to the potential plaintiff's loss. However, society, which is essentially the injured party, faces neither a probability of being caught nor a punitive multiplier. Regardless of whether the plaintiff ever recovers, the plaintiff, a member of society, will suffer the loss. Likewise, a punitive multiplier is irrelevant at this point to total social cost, because it is merely a wealth transfer from the defendant to the plaintiff. Overall, whether the plaintiff or the defendant has that sum of money does not impact total social welfare. Total social welfare generally decreases when an inefficient number of actual injuries occur, not when there are only wealth transfers, assuming the marginal utility of money is similar between parties. Therefore,

$$(7) \quad SC = bx + pL.$$

The costs to society are fully internalized by the potential defendant when  $SC = EC$ . The nursing home will act to minimize all the costs to society when it is ultimately responsible for all of the costs of negligent injury and not just the costs of avoiding medical negligence:

$$(8) \quad bx + \text{\pounds}qm = bx + pL.$$

Simplifying the equation gives:

$$(9) \quad \text{\pounds}qm = pL.^{87}$$

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87. Canceling out the expression  $bx$  involves the assumption that the nursing home's activity is never illegitimate in the way that the common law intentional tort of battery often is. Many standard models of punitive damages justify punitive liability as being necessary to offset a negative  $B$ , this is generally an activity in which the defendant goes out of his way to create the harmful event and actually derives personal gain from prosecuting the tort, such as the satisfaction of revenge or sadism. This differs from ordinary negligence, which involves a positive but insufficiently large  $B$ . See, e.g., POSNER, *supra* note 61, § 6.15 (defining the optimal punitive award as one that offsets a negative  $B$ ). The desire to deter intentional torts lies behind the common law tradition of North Carolina, as well as the statutory standard for recovery of punitive damages. See *supra* notes 28–29. This model is largely inapplicable to medical malpractice. Medical practitioners almost never go out of their way to hurt patients. See, e.g., Tom Zucco, *The Sleepless Eye*, ST. PETERSBURG TIMES, April 18, 2002, at 1D (reporting that “abuse and



If  $qm = 1$ , costs are internalized to the home when the statutory level of care  $\mathcal{L}$  equals the loss  $pL$ , which was Judge Hand's objective in his formula. However, when there are no punitive damages available to the plaintiff, as when the plaintiff cannot demonstrate fraud, malice, or willful or wanton conduct as required by statute,<sup>88</sup> the optimal standard of care is the following:

$$(10) \quad \mathcal{L} = pL/q.$$

Only when "the standards of practice among members of the same health care profession"<sup>89</sup> are  $pLq$ , or the invisible hand pushes the standards of practice to a high enough standard that they account for individual acts of negligence that go uncompensated will the local practice standard ( $\mathcal{L}$ ) be at an efficient level. At an intuitive level, this seems unlikely to happen. In addition to the basic difficulty of a prospective patient assessing the known limits of the provider's precautions against negligence, the uncompensated or unknown negligence cannot be a factor in a patient's choice of providers. As an illustration, a nursing home that gets away with negligence one hundred percent of the time without any loss of reputation faces no penalty in the market for new patients, so its lower standards would bring down "the standards of practice"<sup>90</sup> for its area of health care. In other words, this scenario would create a serious impediment to the free market, guiding the malpractice standard to an efficient level of care.

Even when the plaintiff can prove an aggravating factor that allows the jury to award punitive damages, the punitive damages cap will limit the punitive multiplier that the trial court can apply. If the amount of the punitive multiplier is greater than the larger of three

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neglect" is a serious problem, however, the instances of "abuse" reported are generally extreme neglect as opposed to intent to cause harm).

In any event, an intentional harm would be a separate tort from malpractice. In a model of intentional torts, in which the benefit that the tortfeasor gains from the tort is considered illegitimate and, thus, of zero value, there would be no  $bx$  on the right, social cost side of the equation. This is because  $bx$  would be negative; the tortfeasor would be gaining instead of losing and so offsetting the victim's loss with his benefit. However, because most accepted notions of human value would regard that benefit to be quite worthless, the standard economic model of social utility does not include the tortfeasor's gain in its computation of total social welfare. See POSNER, *supra* note 61, § 6.15. But see Friedman, *supra* note 62, at 1128-32 (criticizing the assigning of zero benefit to "illegitimate satisfactions" as "simply defining the problem out of existence").

88. N.C. GEN. STAT. § 1D-15(a) (2001) (requiring plaintiffs to show fraud, malice, or willful or wanton conduct).

89. *Id.* § 90-21.12.

90. *Id.*

times compensatory damages  $L$  or \$250,000,<sup>91</sup> the optimal standard of care should be:

(11)  $\mathcal{L} = pL/qm$ , where  $m$  is the maximum punitive multiplier allowed.<sup>92</sup>

The significance of this result is that when there is a punitive damage cap, the medical malpractice standard of care needs to be adjusted to achieve optimal deterrence in this model. Without making that initial result of the model a policy recommendation, it reflects the basic point that there is an integrated relationship between the standard of care and recovery amounts that can be expressed mathematically.

Social cost, however, is not limited to the victim's injury. Both society and the parties themselves incur substantial litigation costs. These costs are essential to the policy underpinnings of many tort reform advocates.<sup>93</sup> So, adding them to the model, while not a typical feature of punitive damages models, is important to the analysis:<sup>94</sup>

(12)  $bx + \mathcal{L}qm + c_d(x) = bx + pL + [c_p(x) + c_d(x) + c_g(x)]$ , where  $c_d(x)$  is the cost to the defendant of handling a claim,  $c_p(x)$  is the cost to the plaintiff of handling a claim, and  $c_g(x)$  is the cost to the government of handling a claim, through court costs and enforcement of the result.

91. *Id.* § 1D-25(b).

92. The punitive damage award in the absence of the cap would be  $mL$ , or  $(1/q)L$ . However,  $mL$  cannot be more than the greater of \$250,000 or  $3L$ . *Id.* Therefore,  $m$  will either be  $\$250,000/L$  or 3, depending on which kind of punitive damages cap the particular case triggers.

93. See, e.g., Lloyd M. Krieger, Editorial, *Doctors Belong in Hospitals, Not Courtrooms*, N.Y. TIMES, Jan. 6, 2003, at A21 (citing the expense of dealing with potential malpractice liability as part of the need for reform); Richard G. Roberts, *Understanding the Physician Liability Insurance Crisis*, FAM. PRAC. MGMT., Oct. 2002 at 47 ("Physicians who are sued for malpractice spend an average one week of their professional life dealing with the claim."). But see *id.* ("The most important factor in rising medical liability premiums appears to be the size of the awards, rather than the frequency of lawsuits.") The Supreme Court of North Carolina has also noted the importance of minimizing litigation expenses in the legislature's approach to medical malpractice tort reform, lending this aspect of the model further support. See *Black v. Littlejohn*, 312 N.C. 626, 636, 325 S.E.2d 469, 476-77 (1985) (noting the importance of efficiency in litigation while also not deterring valid claims); see also *Rhyne v. K-Mart*, 149 N.C. App. 672, 683-84, 562 S.E.2d 82, 91 (2002) (rejecting a due process challenge to the punitive damages cap because the legislature could reasonably have believed that N.C. GEN. STAT. § 1D-25 bore a rational relationship to promoting economic development by limiting punitive damages).

94. See generally POSNER, *supra* note 61, § 21.4 (including litigation costs in a model of how claims settle in tort law).

C. *Existence Value, the Other Social Cost*

Finally, social cost also involves the effect of the injury on others. There are two types of costs associated with an injury. First, there are liabilities that can be recovered under the rubric of compensatory damages, such as medical expenses, lost wages, loss of consortium, pain and suffering, and wrongful death.<sup>95</sup> However, injuries have many other social costs beyond those incurred directly by the plaintiff. Most of the other social costs, like the pain and suffering of family and friends in response to a loved one's injury, are not recoverable because there is no duty to prevent the pain and suffering of third persons.<sup>96</sup> But, there is an added layer of social cost that is recoverable when the injury occurs in particularly egregious situations. Those familiar with an injury not only feel sorrow for the victim, they also tend to feel a sense of outrage toward the defendant.<sup>97</sup> In the nursing home hypothetical, if the health care facility exhibits particularly wanton neglect of a patient or fraudulently withholds services or information, such behavior shocks the conscience of those who discover it. This sort of shocking behavior, perhaps not coincidentally, also gives rise to potential liability for punitive damages in North Carolina.<sup>98</sup>

Societal outrage is generally couched in terms of fairness, not efficiency. As such, it is the type of justification for punitive damages that economists tend to ignore or criticize as muddling economics' central issue, optimized allocation of resources.<sup>99</sup> Unfortunately, however, the standard economic response to fairness arguments is patently inadequate. Breaches of fairness are real, tangible costs to society, and fully deserve to be part of an economic model.

Fortunately, fairness and outrage can in fact be accounted for under what is generally known as "existence value."<sup>100</sup> Existence value typically shows up in economic modeling of environmental issues. For instance, the value of preserving the Alaska National

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95. See generally DAYE & MORRIS, *supra* note 49, § 16.91-92 (providing an overview of damages allowed in North Carolina for negligence actions).

96. See generally W. PAGE KEETON ET AL., PROSSER & KEETON ON THE LAW OF TORTS § 56 (5th ed. 1984) ("[I]t is necessary to find some definite relation between the parties, of such a character that social policy justifies the imposition of a duty to act.").

97. See Sunstein et al., *supra* note 75, at 2075.

98. See N.C. GEN. STAT. § 1D-15(a) (2001).

99. See POSNER, *supra* note 61, § 2.2. Judge Posner notes that "justice and fairness are not economic terms" and that concepts of fairness surrounding any particular case are generally subordinated to overall fairness for an entire legal system. *Id.*

100. Paul R. Portney, *The Contingent Valuation Debate: Why Economists Should Care*, 8 J. OF ECON. PERSP. 3, 4-5 (1994).

Wildlife Refuge is principally a question of existence value. Few Americans ever visit this refuge, and it is not a particularly critical area in terms of its ecological impact on the contiguous forty-eight states. Nevertheless, despite the valuable oil that lies below the surface, Congress has considered the refuge sufficiently important to be preserved intact.<sup>101</sup> Probably the most accurate economic explanation for this policy choice is existence value—while very few Americans will ever get any tangible benefit from the preservation of the Alaska National Wildlife Refuge, many feel good knowing that it has been safeguarded.

Likewise, there can be existence value for patients in the nursing home. Friends, family, and the public at large, value that the elderly are well cared for in the home. When this expectation of care is breached, they feel terrible for the victim. When the breach is aggravated, the feeling that someone has been wronged is often palpable and acute. Like the positive existence value that many people have for environmental preservation, the negative existence value when there is an outrageous breach of “fairness” should have a place in the economic analysis of torts. At present, the scholarly literature regarding economic analysis of punitive damages, and even criminal law, does not employ the concept of existence value in its efficiency discussions, even though this is a critical part of the punitive damages statute.<sup>102</sup> The neglect of existence value as a concept in tort and criminal law may largely explain the wide gulf between advocates for economic efficiency and those who critique them on fairness grounds. This Comment’s model seeks to begin to bridge that gap in a legal area that has a great need for unifying the concepts of fairness and efficiency.

The question, then, is where does one draw the line about how much the law should account for existence value in meting out damage awards? In modeling the statutory framework, the answer comes from the legislature. Because North Carolina allows punitive damages only for egregious conduct and not ordinary negligence,<sup>103</sup> the legislature has implied that moral outrage is the threshold for

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101. See Richard J. Fink, *The National Wildlife Refuges: Theory, Practice, and Prospect*, 18 HARV. ENVTL. L. REV. 1, 30–32 (1994) (outlining the history of the preservation of lands in the National Wildlife Refuge System, including the Alaska National Wildlife Refuge and quoting one proponent’s assertion that preserving it was “perhaps the greatest conservation achievement of this century”).

102. Cf. § 1D-35. (listing factors the state considers important in determining punitive damages awards).

103. *Id.* § 1D-15(a).

awarding damages.<sup>104</sup> Ordinary unhappiness associated with another's injury would be incredibly difficult to quantify and articulate, either by theorizing or by the jury in a real case.<sup>105</sup> On the other hand, moral outrage is something that a jury may feel more personally and, in a sense, be able to quantify more precisely than ordinary unhappiness. The jury, for example, acts as the conscience of the community in criminal cases when considering the death penalty.<sup>106</sup> Punitive damages are awarded in a similar manner in that the jury is asked to bring its own moral valuation into its deliberations when assessing the punishment.<sup>107</sup> Further, the sense that the community's moral law has been broken is a more objective criterion, such that existence value begins to acquire a structure that a jury could articulate in its deliberations.

Probably for this reason, the General Assembly, following the common law of the state,<sup>108</sup> has allowed punitive awards in the case of willful or wanton behavior while prohibiting punitive damages in ordinary negligence cases.<sup>109</sup> Moral outrage,<sup>110</sup> or negative existence value, is a decreasing function,  $\mu$ , of the defendant's level of care  $x$ .<sup>111</sup> As defined by the statute,<sup>112</sup>  $\mu$  is to be zero unless  $x$  is below the level

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104. *See id.*

105. Cf. William H. Desvousges, et al., *Measuring Natural Resource Damages with Contingent Valuation*, in *CONTINGENT VALUATION* 91, 91-93 (Jerry A. Hausman ed., 1993) (critiquing the accuracy of attempts to quantify empirically the existence value of natural resources).

106. *See Jones v. United States*, 527 U.S. 373, 382 (2001) (discussing the role of the jury in a death penalty case).

107. § 1D-35(2)(a); David Kahneman et al., *Shared Outrage, Erratic Awards*, in *PUNITIVE DAMAGES: HOW JURIES DECIDE* 31, 31-32 (2002) (presenting the results of a study that found that juries have difficulty putting a dollar value on outrage in a controlled experimental setting).

108. *See Holloway v. Wachovia Bank & Trust Co.*, 339 N.C. 338, 348-49, 452 S.E.2d 233, 239 (1994) (discussing the aggravation element required to obtain punitive damages for the torts of assault and battery).

109. *See* § 1D-15 (specifying the standards for requiring punitive damages); Cass R. Sunstein, *To Punish or Not?*, in *PUNITIVE DAMAGES: HOW JURIES DECIDE* 75, 75 (2002) (noting the general rule that ordinary negligence does not create a cause of action for punitive damages).

110. *See generally* *Little v. Holmes*, 181 N.C. 413, 416-17, 107 S.E. 577, 578-79 (1921) (associating outrage with punitive damages); *Snyder v. Newell*, 132 N.C. 614, 622, 44 S.E. 354, 357 (1903) (Clark, C.J., concurring) (stating that "exemplary damages" are really grounded not in the loss of honor to the plaintiff but "the outrage perpetrated"). These cases exemplify North Carolina's long-standing common law position that punitive damages are not super-compensatory damages for the plaintiff but damages that reflect a more general moral outrage.

111. The level of care can be considered to encompass a sliding scale of behavior from extraordinary care (a high value for  $b$ ) to intentional harm (a negative value for  $b$ ).

112. *See* § 1D-1.

that triggers a valid claim for punitive damages. In other words, any negative existence value resulting from ordinary negligence is irrelevant, but once the defendant's conduct becomes sufficiently offensive, punitive damages come into play.

Existence value tort law can also be found in another important form. A critical part of understanding the tort reform statutes involves the support in the legislature for business generally and, in particular, health care providers.<sup>113</sup> Achieving an efficient damage award should take into account the general support in the community for businesses not having to pay enormous punitive damage awards or face routine exposure to the threat of punitive damages when they commit torts. Medical malpractice statutes reflect the general recognition of the difficulty of providing health care and a desire that providers not be subjected to constant litigation.

This analysis raises the question of what constitutes the best punitive damage award. If one defines the optimal punitive damages regime as that which the legislature has enacted, an existence value component in the model might negate any reason for using an economic model to make policy recommendations. This is because the public's perception of what would be most efficient, as expressed in the legislature's decision, becomes the definition of efficiency. If the legislature expresses the community's values accurately, any departures that the statute might have from pure economic efficiency, in terms of costs to the defendant versus risks and magnitude of harm to the plaintiff, would tend to be explained by this vague fairness consideration. If the statute punished the defendant by more than the actual harm to the plaintiff, for example, one could explain it as the legislature wanting to punish the defendant more based on the negative impact its tort had on the existence value cost to the community.

The proper way to evaluate existence value is not to go so far as to create that tautology,<sup>114</sup> but merely to account for the desires of the public to foster a society in which medical malpractice litigation is

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113. Presumably, the legislature's policy preferences and "existence value" reflects those of the people. Indeed, the whole point of the national "Contract with America" and the state "Contract for the People, by the People" was to set a mandate for the new representatives. *See supra* notes 20–22 and accompanying text. As such, North Carolina tort reform laws, among the first to be passed after the 1994 elections, are a particularly convenient case study in the existence values of the electorate finding their way into new laws.

114. In other words, it is important that existence value not automatically be used to explain all divergences between what juries do and what the efficient result would be when only analyzing the private welfare of the plaintiff and defendant.

relatively minimal.<sup>115</sup> The rest of the public's concern for efficiency should be modeled more explicitly in terms of the standard variables for loss due to injury, litigation costs, the burden on the defendant, etc.<sup>116</sup> Legislating is neither a perfect science nor always a process creating perfect consistency across all the statutes that govern any particular area of law. Hopefully, designing economic models of law that include existence value can still be a useful project, even as they acquire an extra layer of deference to the popular view that produced any given legislation.

The fact that the entire punitive damages amount goes to the plaintiff and not to other members of society is problematic. One explanation for this approach is that those who are outraged would want the plaintiff to receive the damages when the defendant is held liable. Existence value is a peculiar phenomenon in that it, by its very nature, involves valuation of goods from which the person does not expect to derive any benefit. This theory is unique in that it involves valuation of a harm, not a good. In the case of goods, such as an environmental good, efficient social policy can account for existence value by protecting the resource. In the case of a harm, such as injuries caused by outrageous acts, the injury to society involves society's moral code and the acute concern that others have for the injured party. Society's concern for the plaintiff supports the community's preference that the plaintiff receive the damages.

The injury to society's moral fiber reflected in the jury's decision on awarding punitive damages is of a slightly different nature. Insofar as the defendant's breach of the moral code is rooted in a concrete injury to the plaintiff, that supports the plaintiff receiving the punitive damages penalty. However, there remains the basic point that the

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115. Accounting for negative existence value due to outrage toward a defendant without also including the negative existence value resulting from general litigiousness would stack the analytical deck unfairly. While existence value analysis is unpleasantly imprecise and threatens the fundamental economic project of lending methodical clarity to policy discussion, omitting it entirely would likewise inhibit truly comprehensive economic modeling. Indeed, critics, such as Professor Singer of Harvard Law School, attempt to limit the extent of the applicability of law and economics on fairness grounds. See Joseph William Singer, *Something Important in Humanity*, 37 HARV. C.R.-C.L. L. REV. 103, 103-30 (2002) (attacking major scholars in the field of law and economics as unacceptably disregarding fairness). But see Louis Kaplow & Steven Shavell, *Fairness Versus Welfare*, 114 HARV. L. REV. 961, 967 (2001) (defending the law and economics perspective and arguing that welfare, not fairness, should govern legal policy analysis). The position of this Comment is that law and economics critics are too quick to criticize a mode of analysis that is not inherently flawed but rather too often improperly put into practice.

116. Stated in econometric terms, if the model were to account for economic efficiency in both the explicit terms and in the  $\mu$  function, it would fail because of the colinearity error; multiple independent variables would be accounting for the same phenomenon.

defendant's conduct is fundamentally a public cost to society. There are two ways to award punitive damages—allowing the plaintiff to keep the entire award, and allocating all or a portion of the award to a public coffer,<sup>117</sup> such as one designed to prevent future medical errors. The former solution has the advantage of simplicity and ease of administration, while the latter has the advantage of avoiding unjust enrichment and compensating society for what is in essence a public cost. Answering that question is beyond the scope of this model, which is focused on optimal deterrence and economic efficiency.

The function for society's existence value,  $\mu$ , should include the public's concern for the expense that health care professionals incur as a result of medical malpractice suits,  $c_d$ , as well as the public's outrage at instances of reckless medical malpractice,  $x$ . Thus, the basic model for setting private expected costs equal to social costs becomes:

(13)  $bx + \mathcal{L}qm + c_d = bx + pL + c_p + c_g + c_d + \mu(x, c_d)$ , where  $\mu(x, c_d)$  is the negative existence value associated with both the egregious nature of the tort itself and the undesirable expense of medical malpractice litigation.<sup>118</sup>

#### D. Deterrence Benefits, the Other Externality

One of the fundamental purposes of the tort system is deterring future negligent acts.<sup>119</sup> Deterrence, however, is rarely a benefit to

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117. See *Bass v. Chicago & N.R. Co.*, 42 Wisc. 654, 678 (1877) (Ryan, C.J., concurring). Chief Judge Ryan commented that "it is equally difficult to understand why, if the tortfeasor is to be punished by exemplary damages, they should go to the compensated sufferer, and not to the public in whose behalf he is punished." *Id.* Plans to award a percentage of punitive damage awards to the state have met with mixed success in constitutional challenges. See generally *Snepp v. United States*, 444 U.S. 507 (1980) (holding that a defendant's wrongful acts warranted a deterrent remedy; but, affirming the district court's imposition of a constructive trust over the defendant's profits instead of a punitive damages remedy to avoid unjust enrichment); *Kirk v. Denver Pub. Co.*, 818 P.2d 262 (Colo. 1991) (holding that a Colorado statute reserving one-third of punitive awards to the state violates the Takings Clause of both the federal and state constitutions); *Gordon v. State*, 585 So. 2d 1033 (Fla. Ct. App. 1991) (upholding Florida law requiring that sixty percent of punitive awards go to the state under the Takings Clause and Due Process Clause analysis).

118. By definition,  $\mu'(x) \leq 0$ , and  $\mu'(c_d) \leq 0$ . This means that both functions are decreasing functions.

119. See *St. Paul Mercury Ins. Co. v. Duke Univ.*, 670 F. Supp. 630, 636–37 (M.D.N.C. 1987) (noting that deterrence is a fundamental policy justification for punitive damages in medical malpractice), *aff'd in part and rev'd in part*, 849 F.2d 133 (4th Cir. 1988); see also *Carruthers v. Tillman*, 2 N.C. (1 Hayw.) 501, 501 (1797) (constituting the Supreme Court of North Carolina's first pronouncement on the reasons for "exemplary damages")



the plaintiff, nor is it an explicit part of tort litigation,<sup>120</sup> aside from punitive damage trials, which in North Carolina are authorized to account for deterrence issues in litigating punitive damages.<sup>121</sup> If there were no deterrence effect, tort litigation would largely be an expensive and wasteful method of wealth transfer from defendants to plaintiffs and from both parties to their lawyers. The deterrence value of a lawsuit, or even the threat of a suit, is an essential justification for devoting so many costly resources to tort litigation.<sup>122</sup> In health care tort litigation, the deterrence of a defendant being held liable is mainly a benefit to potential future patients, not the plaintiff patient, who has already suffered the loss.

The value of a defendant being held liable in a particular case provides a critical link to the success of the tort system in that successful lawsuits signal the cost of tortious activity to the health care provider. It also may notify potential patients that the provider is an undesirable source of treatment. If there was a statute recognizing a victim of abuse's right of action under which no victims had ever sued, the statute would provide some deterrence to the health care provider because the right of action still exists. This illustrates the independent deterrent value of a successful tort action. However, the statute would be far less successful in its deterrent effect if the providers knew that no one had ever prevailed and thus perceived it to be powerless. Therefore, a successful claim benefits people other than the plaintiff both by alerting them to a provider's tort, alerting them to an information benefit, and sending a warning to other providers as to the potential costs of negligent care. The deterrence benefit is relevant to this Comment's model because one of the model's fundamental goals is to create an optimal incentive structure when there is potential that some negligence will be unremedied, as discussed in Section III.B. Nursing homes are a potential problem area in this respect because of the great knowledge gap between

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according to the state's common law, including deterrence of future wrongful conduct).

120. See *United States v. Carroll Towing Co.*, 159 F.2d 169, 173 (2d Cir. 1947) (explaining that negligence weighs risks and burdens of the parties, not the value of future deterrence).

121. See N.C. GEN. STAT. § 1D-1 (2001) ("Punitive damages may be awarded . . . to punish a defendant for egregiously wrongful acts and to deter the defendant and others from committing similar wrongful acts."); *id.* § 1D-35 (requiring the fact finder to consider the purposes of punitive damages as codified in § 1D-1, but not including a subsection that authorizes the admission of evidence to prove the possibility of punitive damages deterring future wrongful activity).

122. See Steven Shavell, *The Fundamental Divergence Between the Private and the Social Motive to Use the Legal System*, 26 J. LEGAL STUD. 575, 578-79 (1997) (pointing out that deterrence is a social benefit of litigation).

providers and patients.<sup>123</sup> Therefore, whether or not a nursing home has suffered an adverse judgment in a medical malpractice trial would be particularly useful to prospective residents. The deterrence function,  $D$ , depends primarily on the probability of liability for negligence,  $q$ , and the damage award when that occurs,  $mL$ , in this model. Because this deterrence offsets the social costs of litigation, it is subtracted from the social cost side of the equation:

(14)  $bx + \text{£}qm + c_d = bx + pL + c_p + c_g + c_d + \mu - D(q, m, L)$ ,  
where  $D(q, m, L)$  equals deterrence as a function of the probability of being held liable, the punitive multiplier, and compensatory damage liability.<sup>124</sup>

#### IV. THE BOTTOM LINE: FINDING THE RIGHT POLICIES

A state has several policy choices in the medical malpractice model: it can set the standard of care,<sup>125</sup> the rules for pleading claims,<sup>126</sup> the rules of evidence,<sup>127</sup> a standard for punitive damages,<sup>128</sup> and a limit on punitive damages.<sup>129</sup> In addition to the victim's injury, medical malpractice also has two types of social costs: (1) litigation and enforcement costs that accrue to the parties and the government and (2) the deterioration of existence value. North Carolina's approach for minimizing these social costs has been to control litigation and enforcement costs with medical malpractice statutes that restrict access to the courts.<sup>130</sup> Other existence values that the legislature has acted on, pro-business sentiment and public moral outrage, are codified in the punitive damage statutes that recognize, but limit, punitive damage recovery.<sup>131</sup>

123. See COUNCIL OF ECON. ADVISERS, *supra* note 8, at 147.

124.  $D' \geq 0$  for all three independent variables.

125. *E.g.*, § 90-21.12 (codifying a professional standard of care for medical malpractice claims).

126. *E.g.*, *id.* § 1A-1, Rule 9(j) (setting special pleading requirements for malpractice claims).

127. *E.g.*, *id.* § 8C-1, Rule 702 (defining who may give expert testimony in a medical malpractice action).

128. *E.g.*, *id.* § 1D-15 (requiring clear and convincing evidence of fraud, malice, or willful or wanton conduct).

129. *E.g.*, *id.* § 1D-25(b) (limiting punitive damages to the greater of three times compensatory damages or \$250,000).

130. See *supra* notes 38-43 and accompanying text. There also may be some measure of pro-defendant sympathy or existence value associated with these statutes.

131. See *supra* notes 18-37.

### A. *Defining the Standard of Care*

For the present purpose, court costs should be factored into the optimal standard of care analysis,<sup>132</sup> as opposed to the optimal punitive liability analysis. The goal of the standard of care, again, is to deter defendants from acting inefficiently.<sup>133</sup> The Hand formula balances the burden of the defendant against the potential injury of the plaintiff. The malpractice standard merely employs another mechanism to push injuries down to an efficient level, considering that only these two parties in privity with each other. The Hand formula does not account for litigation costs or the utility of the defendant's conduct.<sup>134</sup>

Equation (12) fulfills this purpose. It includes court costs, given their impact on the parties directly involved—plaintiff, defendant, and government—while not including the existence value externalities.<sup>135</sup> The following equation represents the most efficient standard of care, evaluated only in the context of the parties involved.

Solving for  $\mathcal{L}$ , the statutory standard of care that the health care provider must meet, and defining  $m$ , for the moment, to be one, gives:

$$\mathcal{L} = \frac{pL + (c_p + c_g)}{q}.$$

Subtracting the deterrence value of the lawsuit from the social costs side of the equation yields the following standard of care:

$$(15) \quad \mathcal{L} = \frac{pL + (c_p + c_g) - D}{q}.$$

This expression is fairly clear: the statutory level of care should be the Hand formula's  $pL$ , or potential injury to the patient, plus net court costs minus the deterrence value of the case to society. The

132. See *supra* notes 93–94. Professor Shavell attacks the current tort law system as not sufficiently internalizing the costs of litigation. Shavell, *supra* note 122, at 579. In particular, he points out litigation and enforcement costs to society and the value of deterrence are externalities or values outside the contract's control. *Id.* at 579–80.

133. See *supra* note 61 and accompanying text. (articulating the deterrence goals of the model's standard of care); see also Bruce Chapman & Michael Trebilcock, *Punitive Damages: Divergence in Search of a Rationale*, 40 ALA. L. REV. 741, 743 (1989) (contending that an economic approach to tort law must assume that deterrence is a "singular policy concern" of tort laws and discussing the economic approach to tort law).

134. See DOBBS, *THE LAW OF TORTS*, *supra* note 32, §§ 144–45.

135. An externality is any cost or benefit that accrues to someone who is not a party to a particular transaction. Mauro Bussani, et al, *Liability for Pure Financial Loss in Europe: An Economic Restatement*, 51 AM. J. COMP. L. 113, 131 (2003). Existence value is, virtually by definition, an externality.

effect of  $q$  would be to increase the optimal level of care, as it will be less than one in the real world.<sup>136</sup> However, there is a good argument that  $q$ , which again is the probability that the negligent nursing home will actually be held liable, should not be included in the optimal level of care analysis.<sup>137</sup> The formulas for  $\mathcal{L}$  determine when there is compensatory damage liability. The dilemma is whether accounting for enforcement shortfalls should raise the level of care or raise the punitive liability exposure. If the latter, the vast majority of medical malpractice cases, which do not involve punitive liability awards,<sup>138</sup> would under-deter negligence.<sup>139</sup> Further, the State's punitive damages cap restricts the ability of the courts to craft punitive damage awards so as to achieve optimal deterrence.

On the other hand, accounting for enforcement shortcomings by requiring a higher standard of conduct raises serious issues of fairness. The purpose of medical malpractice tort reform in North Carolina was some combination of lowering the level of litigation and freeing health care providers from the constant threat of liability that

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136. Would  $q$  ever be *greater than one*? Potentially, it might, if defendants are held liable more often than they are negligent. If juries were really irrational and subjected health care providers to liability far more often than they deserved,  $q$  might well be greater than one, if that phenomenon outweighed the instances of negligence untouched by legal liability. However, as an empirical matter, most studies indicate that this is unlikely to be the case. See VIDMAR, *supra* note 15 at 191–220 (discussing jury verdicts).

137. See Cooter, *supra* note 1, at 1149–59. Professor Cooter includes the probability that the tortfeasor will be caught in his punitive damage equations, so it is not a part of his definition of liability, which he takes to be exogenously given by the Hand formula. See *id.* at 1151. His model therefore seems to call for punitive damages to be a regular feature of liability, given that  $q$  is rarely one, though he does note the counterargument that, as a practical matter, this may not be necessary. *Id.* at 1158. Of course, his model is very basic and does not include other countervailing considerations, but, nevertheless, the model implies that a much broader punitive damage regime than the one currently in place would be more efficient. See generally Chapman & Trebilcock, *supra* note 133, at 742–43 (noting the similarities between tort law and criminal law but emphasizing that private remedies are not intended to be all-encompassing as a general matter).

138. See Stephen Daniels & Joanne Martin, *Myth and Reality in Punitive Damages*, 75 MINN. L. REV. 1, 37–38 (1990) (reporting the results of a study that found that less than three percent of successful malpractice verdicts include punitive damages awards); Jonathan Turley, Editorial, *Turning Patients into Hostages*, L.A. TIMES, Jan. 6, 2003, at B11 (noting that only three percent of all medical malpractice cases end up with punitive damages awarded).

139. This point operates under the assumption that expanding punitive liability would involve awarding higher punitive damage awards to reflect a  $q < 1$ . Of course, another method of accounting for  $q < 1$  might be to lower the threshold for punitive liability, whether by relaxing the “clear and convincing standard” or the required aggravating factors. At this point, because a defendant can move for a bifurcated trial for punitive damages, the added cost of the trial for punitive damages would offset to some extent the social welfare gains from added deterrence. N.C. GEN. STAT. § 1D-30 (2001).

would result from high standards of conduct.<sup>140</sup> For that reason, let  $q = m = 1$  for the purpose of defining the optimal liability threshold.<sup>141</sup> Therefore, it is not necessary to require health care providers to conform to higher standards because there may be uncompensated negligence.

$$(16) \quad \mathcal{L} = pL + (c_p + c_g) - D.^{142}$$

This definition of  $\mathcal{L}$  stands contrary to the current statute. Deterrence is an explicit part of punitive damage assessment in North Carolina,<sup>143</sup> but it is largely absent from the medical malpractice standard of care.<sup>144</sup> If changing the behavior of health care providers is a primary function of medical malpractice law, the “local practice” standard,<sup>145</sup> is a poor mechanism for achieving that goal.<sup>146</sup>

140. See *supra* notes 38–43 and accompanying text. The statutory standard of care is, of course, a much blunter instrument than the above formulaic analysis. The best way to account for the relationship of the formula to the real world of statutory construction is to conceive of litigation costs,  $c_p$ , as incorporating the costs of learning what the standard of care is and predicting malpractice exposure. For example, if the state specified by statute a level of care for every medical procedure in existence, it would cost potential defendants enormous resources in navigating such a framework. It would also cost the government enormously in maintaining such a system, so this cost would be reflected in  $c_g$ , also. For that reason, the uniform standard approach may be the most efficient design for  $\mathcal{L}$ . If the statutory standard chronically underdeterred or overdeterred, it would be grounds for adjusting the standard, even given its generic approach.

141. See Cooter, *supra* note 1, at 1151.

142. This standard of care definition defines a bit more precisely both the general perception that malpractice litigation is out of control by controlling for the litigation costs to the parties and the externality of enforcement costs. Thus, it attempts to turn the critiques of Professor Shavell, who argues that the tort system inadequately accounts for externalities, see Shavell, *supra* note 122, at 579, and the malpractice crisis critiques into a new definition of care. Medical malpractice statutes afford the legislature the ability to adjust the common law standard of care to achieve greater economic efficiency.

143. § 1D-1.

144. See *id.* § 90-21.12.

145. *Id.*

146. See N.C. PATTERN JURY INSTR.—CIVIL 809.00-809.90 (1996) (providing jury instructions for medical negligence, none of which includes any mention of the deterrence function of the law in applying the standard of care). The North Carolina Pattern Jury Instruction 809.00 reads, in relevant part, “Every health care provider is under a duty . . . to provide health care in accordance with the standards of practice among members of the same health care profession with similar training and experience situated in the same or similar communities at the time the health care is rendered.” *Id.* at 809.00; see also Mark A. Hall & Michael D. Green, *Empirical Approaches to Proving the Standard of Care in Medical Malpractice Cases: Introduction*, 37 WAKE FOREST L. REV. 663, 670 (2002) (noting the problem of “standard practice” standards of care is that they base “the standard of care purely on how physicians actually behave will enshrine or immunize medical practices that everyone agrees are bad and should be changed”).

### B. Defining the Punitive Damages Multiplier

Having attempted to define liability, the optimal punitive damage multiplier is represented by the following formula:<sup>147</sup>

$$(17) \quad m = \frac{[pL + (c_p + c_g) - D] + \mu(c_d)}{[pL + (c_p + c_g) - D]q}.$$

The optimal punitive award will be  $mL$ , or the compensatory liability multiplied by the punitive multiplier. This mathematical definition of the optimal punitive multiplier would seem to suggest that punitive liability should be a regular feature of jury awards. In reality, the expression will tend to be less than or equal to one, which implies no punitive damages. Where there is no outrageous conduct,<sup>148</sup> the formula reduces to the following expression:

$$(18) \quad m = \frac{pL + (c_p + c_g) - D + \mu(c_d)}{(pL + (c_p + c_g) - D)q}.$$

Because the trigger for awarding punitive damages is when  $m > 1$ , this occurs only when<sup>149</sup>

$$(19) \quad \frac{pL + (c_p + c_g) - D + \mu(c_d)}{pL + (c_p + c_g) - D} > q.$$

This inequality illustrates how the negative existence value ( $\mu$ ) associated with high litigation diminishes the likelihood that the multiplier will be greater than one. As long as the left side of Inequality (19) is not greater than the probability of being held liable

147. In order to arrive at this formula for  $m$ , take Equation 12:

(11)  $bx + \text{£}qm + c_d(x) = bx + p(x, v)L + c_p(x) + c_g(x)$ , and solve for  $m$ :

$$m = \frac{pL + (c_p - c_d) + c_g + \mu(x, c_d)}{\text{£}q}$$

Next, eliminate reference to court and litigation costs, as they are accounted for in the standard of care. Last, substitute the formula for  $\text{£}$ , Equation 14, into the equation to get Equation (16).

148.  $\mu'(x) = 0$ , where  $x$  is greater than the punitive liability threshold in cases of ordinary negligence.

149. The punitive multiplier is greater than one when the numerator is greater than the denominator, or  $pL + (c_p + c_g) - D(q, m, L) + \mu(c_d) > [pL + (c_p + c_g) - D(q, m, L)]q$ . The above formula is derived by algebraically solving for  $q$ .

( $q$ ), there is no need for a multiplier in order to make the system efficient.<sup>150</sup> Because  $q$  will generally be less than one, this only occurs when  $\mu$  is large.

How does this balancing act comport with North Carolina law? That question depends at least in part on an empirical question about the values of each variable. If, for example, there is a chronic problem of nursing homes acting negligently without detection, such that  $q$  is particularly low, there would be an argument that punitive liability should be expanded by increasing the types of behavior that would trigger liability, decreasing the burden of proof required, and/or increasing the amount of damages available to the plaintiff.

The expression that represents negative existence value presents a dilemma for policy analysis. One could assume its existence and recommend the best policy based on that assumption. Alternatively, one could ignore existence value and attempt to create the most efficient policy based on the other factors, and then seek to change the public's "existence values" by advocating the new efficient policy.<sup>151</sup> This Comment takes the position that some measure of the public's values should be respected and duly entered into the model. At the same time, one should not overestimate these fairness variables. It is plausible that most of what the public considers to be fair is actually what it considers to be most efficient from a utilitarian, not a deontological perspective.<sup>152</sup> Punitive liability, typically justified

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150. As a review, the way in which to make the malpractice tort system efficient is to set  $EC = SC$ , or the health care provider's expected costs equal to social costs associated with its actions, which means that the potential tortfeasor is responsible for all of the costs it would impose on society for being negligent or abusive. When few tortfeasors are caught, the punishment for wrongdoing may need to be greater than the actual harm caused in that particular case in order to deter fully, as in the criminal law system. Equation (17), the definition of that multiple, simply defines when this occurs. This Comment does not recommend that liability in the average malpractice case be greater than compensatory liability. See *supra* notes 112–15 and accompanying text (defining the standard of care issues beyond money damages should be considered).

151. This type of analysis is the bread and butter of economics: seeking the efficient result and then attempting to change the public's attitude based on appeals to the desire for efficiency. However, this approach may do violence to the often entirely valid values that laypersons may have. Tort law, which includes fundamental concepts of justice and morality, would be missing a critical piece of the puzzle if it were to ignore such non-economic notions of value entirely.

152. In other words, the public wants the most efficient result and forms its concepts of fairness based on its perception of what is most efficient. See Friedman, *supra* note 62, at 1129–30 (arguing that more of tort law than is commonly believed may be the intuitive attempt to create efficient incentive structures). Sometimes this perception is accurate, and sometimes it is based on factual inaccuracy. *Id.* However, fairness as a value should be considered to be more than simple financial efficiency. For more on the difference between utilitarianism and deontological approaches to ethics and policy, see generally

using fairness arguments, is in part designed to hold the defendant accountable for the outrage of others.

*C. Defining the Multiplier under North Carolina's Punitive Damages Cap*

If compensatory damages are greater than \$83,333,<sup>153</sup> the punitive damage cap limits  $m$  to no more than three times compensatory liability. If Equation (17) results in  $m$  having a value greater than 3, this indicates that the punitive damages cap has inefficiently constrained the trial court. By setting  $m = 3$ , the point beyond which the statute ceases to become efficient, this region of inefficiency may be defined.

$$(20) \quad 3q < \frac{pL + (c_p + c_g) - D + \mu}{pL + (c_p + c_g) - D}.$$

A few conclusions may be drawn from this expression. When compensatory liability, ( $L$ ), is particularly low, or the probability that the negligence will be discovered is low, there is an increased likelihood that a multiplier higher than the statutory cap would be necessary to achieve optimal deterrence.<sup>154</sup> Currently, though, the punitive damages mechanism is precisely the opposite: in order to get access to higher punitive damages when the cap is triggered, the plaintiff must prove more, not less, compensatory damages.<sup>155</sup>

Second, when activity occurs that seriously offends the community, this high existence value cost,  $\mu$ , may call for a multiplier greater than that imposed by the statutory cap. The right side of Inequality (19) shows how high court costs and a high burden to the

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IMMANUEL KANT, *GROUNDWORK OF THE METAPHYSICS OF MORALS* (Mary Gregor trans. 2001) (presenting the classic exposition of an entirely deontological approach to moral law framed in terms of duties and rights); JOHN STUART MILL, *UTILITARIANISM* (George Sher ed., 2d ed. 2001) (1863) (discussing the British empirical approach to utilitarian thinking based on a "theory of higher pleasures").

153. Punitive damages may not exceed the greater of \$250,000 or three times compensatory liability. N.C. GEN. STAT. § 1D-25 (2001). Therefore, compensatory damages greater than \$250,000/3 are subject only to the multiplier cap.

154. See *supra* notes 86–88 and accompanying text (setting up the model so as to optimize the deterrence of socially inefficient behavior).

155. § 1D-25; see also POSNER, *supra* note 61, § 6.15 (discussing the relationship of compensatory and punitive damages and rhetorically asking whether the two might better be related inversely).



plaintiff,  $pL$ ,<sup>156</sup> decrease the relative importance of existence value cost in how the trial court should assess the appropriate level of punitive liability,  $m$ .

These equations also suggest how the tort law system should account for its own failures as captured in  $q$ , the fraction of negligence actually held liable. In the above definition for the punitive multiplier ( $m$ ),  $q$  need only become a factor in a court's assessment of damages when that multiplier is greater than 1. This will not be the case at most trials. Although the model calls for punitive liability to be expanded somewhat to account for this issue, as well as providing a substantive criticism of the State's punitive cap,<sup>157</sup> it does not suggest that punitive damages should be assessed every time there is evidence that the negligence may not have been uncovered. Rather, if there is an overarching reason for conducting the bifurcated trial on punitive damages, or situations in which there is a prima facie case for  $m > 1$ , the possibility that the negligence was some sort of hidden or difficult-to-deter brand of malfeasance<sup>158</sup> should be a valid argument in the punitive damages trial, as Equation (17) demonstrates. Under the present regime, it is not. Of course, if it can be demonstrated that  $q$  is chronically very low, it may more properly be a part of the statutory standard of care, both because it would be a common feature of negligence cases and because punitive liability is currently capped and may for political reasons not be adjustable.

This model also suggests that while the pro-business aims of punitive damage and medical malpractice reform included concern for the defendants' litigation costs,<sup>159</sup> there are no overall efficiency gains from designing the standard of care to lower these costs. This conclusion assumes that defendants' litigation costs are essentially the same as plaintiffs' litigation costs. Lowering defendants' litigation costs should therefore be tailored to deterring unnecessary litigation,

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156. See *supra* notes 68–69 and accompanying text (defining the cost to the plaintiff using the common law Hand formula).

157. For a criticism of North Carolina's cap on punitive damages, see Burton Craige, Editorial, *Winners in Reform: Sexual Harassers*, NEWS & OBSERVER (Raleigh, N.C.), June 28, 1995, at A9.

158. To be clear, evidence on this point would need to relate specifically to the probability that the specific act in question could be easily concealed or unlikely to be uncovered, thus reinforcing the legislature's desire, expressed in section 1D-1 of the General Statutes of North Carolina, that punitive damages be used by the jury for deterrence purposes. Turning the trial into a general indictment of the defendant for other acts of negligence not directly related to this evidentiary point could potentially create Due Process problems with the trial.

159. See *supra* notes 38–43 and accompanying text.

not to lowering the standard of care. Equation (14) demonstrates that the two terms cancel each other out in the overall social cost equation. The reason for this is that whether or not a potential plaintiff receives compensation for the injury, the injury will impose a cost on society.

## V. THE INCENTIVE STRUCTURE CONSIDERED

Having explored some of the economic features of North Carolina's laws in this field, discussion of how the various economic actors will react is warranted. How each side acts to maximize its utility, subject to the legal constraints, uncovers other important effects of tort reform. Again, a nursing home remains the example, although the analysis is applicable beyond that particular type of health care practice.

### A. *The Plaintiff's Perspective*

The plaintiff in a nursing home medical malpractice case will generally be a patient, a decedent's estate, or those relatives with standing to sue. Many types of nursing home malpractice give rise to valid claims. Recent examples of nursing home problems include inaccurate doses of medication,<sup>160</sup> poor hygiene,<sup>161</sup> poor nutrition,<sup>162</sup> failure to communicate medical information,<sup>163</sup> failure to monitor a patient's condition,<sup>164</sup> misrepresentations and fraud concerning conditions,<sup>165</sup> and failure to diagnose an illness.<sup>166</sup> Injuries may include ulcer sores on a patient's feet,<sup>167</sup> amputation of limbs,<sup>168</sup> malnourishment,<sup>169</sup> depression,<sup>170</sup> and so on.

Several of the conclusions from Section IV are relevant to this

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160. See *Black v. Dept. of Mental Health*, 100 Cal. Rptr. 2d 39, 42 (Cal. Ct. App. 2000).

161. See *Carl MacIntyre v. Transitional Health Servs.*, No. 2:96CV00424, 1998 U.S. Dist. LEXIS 13965, at \*2-3 (M.D.N.C. May 20, 1998).

162. See *id.*

163. See *id.*

164. See *Fairfax Nursing Home, Inc. v. United States Dept. Health & Human Servs.*, 300 F.3d 835, 839 (7th Cir. 2002).

165. See *Clarinda Home Health v. Shalala*, 100 F.3d 526, 527 (8th Cir. 1996).

166. See *Estate of Waters v. Jarman*, 144 N.C. App. 98, 98-99, 547 S.E.2d 142, 143 (2001).

167. See *Cnty. Care of Am. of Ala., Inc. v. Davis*, No. CV-2000-1188, 2002 Ala. LEXIS 281, at \*1 (Ala. Nov. 27, 2002).

168. See *id.* at \*2.

169. See *Mundell v. Beverly Enterprises-Indiana, Inc.*, 778 F. Supp. 459, 461 (S.D. Ind. 1991).

170. See Barbara J. Burns et al., *Mental Health Service Use by the Elderly in Nursing Homes*, 83 AM. J. PUB. HEALTH 331, 336 (1993).

area of malpractice. First, the likelihood that a plaintiff will sue for negligence is arguably lower in the case of nursing homes than it is in other areas of medical malpractice.<sup>171</sup> Residents may feel like they are lost, become depressed or suicidal, or acquire other mental illnesses that might severely hinder their ability to rationally understand their legal opportunities or realize the nature of their neglect.<sup>172</sup> In this respect, many of the traditional assumptions behind American tort law, which is designed to provide private incentives in the form of extensive compensatory damages for plaintiffs to bring suit, do not hold.<sup>173</sup> Indeed, one of the fundamental assumptions of economics, that participants are rational welfare maximizers,<sup>174</sup> begins to break down in critical ways. The mathematical interpretation of this real world problem is that the probability of being held liable ( $q$ ) may become alarmingly small. At the same time, the punitive damages cap combined with lack of a provision for admitting evidence of a low  $q$  in a punitive damages hearing<sup>175</sup> means that there are major shortcomings in the current law, according to this model. The plaintiff is limited by the size of punitive damages available to offset this problem and entirely prevented from presenting evidence on the defendant's low likelihood of liability.

Closely related to the problem of a low  $q$  is the size of compensatory liability itself. The punitive liability cap grows in proportion to the compensatory liability,<sup>176</sup> so plaintiffs who can recover substantial compensatory damages have a major advantage when punitive damages are justifiable. Within the area of medical malpractice, average jury awards have certainly ballooned to unprecedented heights.<sup>177</sup> However, while there are no recent, general studies on malpractice verdicts for nursing homes that have been published widely, it is at least tenable that awards in that context

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171. See Press Release, Nat'l Citizens' Coalition for Nursing Home Reform, Tort Reform would Deny Nursing Home Residents Basic Legal Protections and Access to the Courts (July 17, 2002) (saying that nursing homes that have been successfully cited by state authorities for violations represent only "the tip of the iceberg") (on file with the North Carolina Law Review).

172. See *infra* note 185.

173. See DOBBS, *THE LAW OF TORTS*, *supra* note 32, § 11.

174. See POSNER, *supra* note 61, § 1.4.

175. See N.C. GEN. STAT. § 1D-35 (2001) (listing factors to be considered in determining the amount of punitive damages; consideration of barriers to plaintiff's claims is not contemplated by the statute).

176. *Id.* § 1D-25.

177. See Leigh Hopper, *Insurance Crisis Hits Nursing Homes*, HOUSTON CHRON., Aug. 11, 2002, at A1 (detailing a recent study by Jury Verdict Research showing that medical malpractice awards tripled from 1994 to 2000 to an average of \$3.5 million).

are less than their medical malpractice verdicts overall,<sup>178</sup> because the average prospective length of life for the elderly in a nursing home is generally going to be low. Often, the largest medical malpractice verdicts come from prenatal care cases, which feature damage awards that can be extrapolated to the entire expected life span of the infant,<sup>179</sup> and emergency care cases, in which the average age of the plaintiff is probably younger than in nursing home cases.<sup>180</sup> In cases such as bedsores, dehydration, and other mild neglect, the need for ongoing, expensive medical care resulting from the injury may be minimal, and demonstrating substantial compensatory liability difficult. However, the cap also allows for punitive damages up to \$250,000 without regard to its multiple.<sup>181</sup> That figure, combined with the costs of litigation,  $c_a$ , may well be high enough for most cases. In other words, the deterrence potential of \$250,000 punitive damage penalties may be big enough to deter most egregious conduct. This assumes, however, that the probability of punishment is sufficiently high to deter egregious conduct in nursing homes. Perhaps the best argument that the current tort system does not fully deter abuse, whether because jury awards are too low or because the probability of punishment is minimal, is the apparent fact that nursing home abuse remains a serious problem.<sup>182</sup>

Potential punitive liability of a defendant nursing home enhances the incentive to pursue claims. While evidence of insurance coverage is not generally admissible to prove liability,<sup>183</sup> evidence of net worth is admissible in a punitive damages hearing.<sup>184</sup> Thus, if the nursing

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178. *But see id.* (noting a 2001 jury verdict against a nursing home for \$312.8 million in Texas).

179. *See, e.g.,* *Ensor v. Wilson*, 519 So. 2d 1244, 1245 (Ala. 1987) (awarding \$2.5 million in damages); *Koehler v. Neighbors*, 751 N.E.2d 149, 154 (Ill. App. Ct. 2001) (awarding \$1.8 million to injured infant in a medical malpractice action).

180. *See* Robert J. Buchanan et al., *Analysis of Nursing Home Residents in Hospice Care Using Minimum Data Set*, 16 *PALLIATIVE MEDICINE* 465, 466 (2002).

181. § 1D-25(b).

182. *See* Karl Pillemer & David W. Moore, *Abuse of Patients in Nursing Homes: Findings from a Survey of Staff*, 29 *GERONTOLOGIST* 314, 316-17 (1989); Ellen J. Scott, *Punitive Damages in Lawsuits Against Nursing Homes*, 23 *J. OF LEGAL MED.* 115, 115-18 (2002).

183. *See* N.C. GEN. STAT. § 8C-1, Rule 411 (2001) (stating that evidence of liability insurance is not admissible to prove liability, though it may be used for other matters asserted).

184. *Id.* § 1D-35(2)(i). The Supreme Court of North Carolina has not ruled on the question of whether this evidentiary rule allows liability insurance to be considered as part of a defendant's net worth for the purpose of advocating for punitive damages. *See Mazza v. Med. Mut. Ins. Co.*, 311 N.C. 621, 631, 319 S.E.2d 217, 223 (1984) (holding that insurance against punitive awards for wanton or gross medical malpractice is not against public policy in North Carolina).

home has a high net value, its net worth will be an added litigation incentive to the plaintiff and her attorney. The critical step is a victim seeking legal counsel. The dehumanization that victims of abuse suffer, whether it be domestic violence, prisoner abuse, or nursing home abuse, acts in some cases as a counterweight to the added incentive to litigate because that abuse can cripple the victim's motivation to act.<sup>185</sup>

### B. *The Defendant's Perspective*

Tort reform creates incentives to increase both the standards of and the access to medical care in the community. Chiefly, medical providers will contend that tort reform expands coverage to low-income patients and increases the types of medical care available in the market.

Serving low-income patients, often on Medicare or Medicaid, can make it particularly difficult for the health care provider to turn a profit and still meet the required standard of care.<sup>186</sup> Patients who pay less but who expose the nursing home to the same level of liability may impose a severe financial burden on the institution that cares for them.<sup>187</sup> Restricting liability, therefore, lowers the incentive of the nursing home to avoid accepting a low-income patient because of potential malpractice liability. The statutory standard of care does not take into account the particular transaction between health care provider and patient; in other words, low-income patients do not contract for a lower standard of care in return for a lower premium on services.<sup>188</sup> Nevertheless, there is a good argument that, because of

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185. See Seymour Moskowitz, *Saving Granny from the Wolf: Elder Abuse and Neglect-The Legal Framework*, 31 CONN. L. REV. 77, 100 (1998) (describing the psychological limitations on the elderly reporting their abuse and the similarities of elder abuse and battered women's syndrome); Burns et al., *supra* note 170, at 336 (documenting that mentally ill patients in nursing homes have insufficient access to mental health resources and estimating that only 4.5% of mentally ill patients receive mental health care); Buchanan et al., *supra* note 180, at 477 (stating that four in ten nursing home admissions involve patients with "moderately impaired cognitive skills" and one in sixteen have "very severe impairment").

186. See Jerry Allegood, *Hospital on Critical List*, NEWS & OBSERVER (Raleigh, N.C.), June 10, 2001, at 1B (describing the serious financial strains that come from providing medical care to large Medicare and Medicaid patient populations).

187. See *id.* But see U. S. Gen. Accounting Office, *Skilled Nursing Facilities: Medicare Payments Exceed Costs for Most but Not All Facilities* 1-3 (2002) (No. GA0-03-183) (asserting that Medicare payments provided a median profit margin of 19% for nursing homes in the year 2000); U.S. Gen. Accounting Office, *Medical Malpractice: Six State Case Studies Show Claims and Insurance Costs Still Rise Despite Reforms* 1, 40 (1986) (Sup. Docs. No. GA1.13:HRD-87-21)

188. See N.C. GEN. STAT. § 90-21.12 (2001) (making no provision in the statutory

the substantial asymmetry in understanding about health care between the highly knowledgeable provider and the usually lay patient, there should be a statutory standard set under the tort regime and not a contract for a particular level of service quality. The downside of this, however, appears in the extreme low end of the socioeconomic spectrum. One possible solution to this problem would be to build flexibility into the standard. For example, Medicare and Medicaid patients would have standing to sue only if the nursing home failed to meet the standard of care as practiced in the locality by other providers serving Medicare or Medicaid patients.<sup>189</sup> It is unlikely that this approach will gain much popularity, given the perceived unfairness of such a system.

Likewise, allowing insurance companies, including the public Medicare and Medicaid system, to bargain with health care providers on standards of care would give the tort system more flexibility to tailor applicable standards to individual patients. This system might, however, inflate the transaction costs of medical care beyond what the system could tolerate, given the expense of insurance companies bargaining individually with providers. On the other hand, a relationship with a nursing home is generally long-term, as opposed to a routine doctor's visit. Since the relationship between a nursing home and its patient is likely to involve substantial amounts of money, the added negotiation of a particular standard of care would seem to be less prohibitive. For example, if the nursing home industry adopted several different tiers of treatment standards, the paying party would have an opportunity to select the nursing home standard of care that best fits his or her ability to pay. Because of the unique nature of nursing homes in the health care industry, this more contractual approach may be not only more feasible but in fact necessary in an age of increasingly expensive and complicated medical care.

In the area of punitive damage liability, the nursing home may have less of an incentive to guard against malfeasance in the case of low-income patients, suggesting that punitive damage figures may actually need to be quite large in such cases. If the probability that the home will be held accountable for negligence against poor patients<sup>190</sup> is lower than average, given the lower likelihood that the

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standard of care for the value of the contract between provider and patient).

189. In other words, this mechanism would amend the current statutory standard of care in North Carolina to bifurcate private health insurance and public health insurance standards. *See id.*

190. In Section III of the model, this fraction is represented by the variable  $q$ .

poor patient will seek a lawyer or feel empowered enough to sue her nursing home, there is a good reason for expanding, not curtailing, punitive liability when there is egregious conduct.<sup>191</sup> The Supreme Court of North Carolina's pronouncement that insurance against punitive damages for medical malpractice is not contrary to public policy<sup>192</sup> further insulates nursing homes that have such coverage from accountability.<sup>193</sup> The important place that punitive damages have in this Comment's economic model suggests that the North Carolina General Assembly should either limit or bar insurance coverage for punitive damages in the nursing home industry, given that punitive damage remedies are directly tied to creating individually tailored punishment for specific acts.

There is further reason to believe that the fear that the tort system inefficiently takes good medical care off the market may be overstated. The price elasticity for most health care is particularly low.<sup>194</sup> In other words, the percent reduction in the quantity of health care that a consumer demands is substantially less than any given percentage increase in the price of that care. This means that when costs of health care rise, consumers will simply pay the increase. This inelasticity of demand means that the health care provider will be able to pass on the cost of increases in malpractice premiums without much decrease in demand, so there will be comparatively few procedures that will be taken off the market simply because malpractice premiums increase their cost.<sup>195</sup> So, the net effect of malpractice insurance costs is likely to be mostly increased cost, not decreased supply.<sup>196</sup>

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191. See *supra* notes 150–157 (defining the model's punitive multiplier).

192. *Mazza v. Med. Mut. Ins. Co.*, 311 N.C. 621, 631, 319 S.E.2d 217, 223 (1984).

193. Professor Priest makes a compelling case that the *Mazza* rule is bad public policy. See Priest, *supra* note 33, at 1032–35 (1989) (arguing that punitive damages liability insurance negates the deterrence purpose of punitive damages).

194. See René C. J. A. Van Vliet, *Effects of Price and Deductibles on Medical Care Demand, Estimated from Survey Data*, 33 APPLIED ECON. 1515, 1523 (2001) (estimating price elasticities for a variety of health care products and finding most to be under -0.1, with the overall price elasticity of health care estimated to be -.79).

195. But see Hollis, *supra* note 57, at B1 (reporting that doctors are curtailing services because of malpractice costs, though consumer activists criticize the study as politically motivated to generate support for tort reform); Alan C. Miller, *Surgeons in W. Va. Strike over Cost of Malpractice*, L.A. TIMES, Jan. 2, 2003 at A1 (reporting on surgeons striking over the increases in malpractice costs and attempting to influence tort reform relief).

196. M.A. MORRISEY, PRICE SENSITIVITY IN HEALTH CARE: IMPLICATIONS FOR HEALTH CARE POLICY 19 (1992) (estimating the price elasticity of demand for health care to be between -.17 to -.31).

## VI. RECOMMENDATIONS AND THE FUTURE

A. *Economics in Practice*

The economic analysis of this Comment is useful to practitioners in several ways. It can aid in litigation strategy to gauge more precisely how judges and juries will perceive fairness and policy issues in their decisions. Economic understanding can also help articulate why a particular ruling will generate efficiency for the parties in court as well as society in general—especially, rulings on proposed jury instructions, the admission of evidence, and summary judgment motions. On appeal, economic analysis gains even greater currency, given that the parties more thoroughly brief the issues and policy matters are of special importance.<sup>197</sup> Lastly, greater precision in closing arguments about how the various, seemingly independent issues relate economically can help the jury digest all of the issues presented in the trial and craft a judgment with solid economic underpinnings. Because the statutes are relatively vague,<sup>198</sup> trial court rulings will heavily impact their application. Economic approaches to trial practice need not turn the courtroom into an academic seminar. Rather, the intuitive appeal of efficient results can and often does guide court rulings.<sup>199</sup> Therefore, stating efficiency arguments in a palatable manner can bridge the divide between more abstract analysis and the more practical decisions of judges and juries.

For example, take the relationship of litigation costs to the efficient standard of care as expressed in Equation (16).<sup>200</sup> Imagine that the plaintiff offers evidence or expert witness testimony on the standard of care, and the defendant challenges the evidence on the grounds that it is more prejudicial than probative<sup>201</sup> to the local practice standard of care.<sup>202</sup> The defendant nursing home can argue

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197. See, e.g., Robert J. Martineau, *Considering New Issues on Appeal: The General Rule and the Gorilla Rule*, 40 VAND. L. REV. 1023, 1070–71 (1987) (cataloging cases that considered issues of public policy to be especially important to appellate review).

198. See, e.g., N.C. GEN. STAT. § 90-21.12 (2001) (giving the court the guidance of a local practice standard); *Id.* § 1D-15(a)(3) (allowing the court to consider punitive remedies for “willful or wanton conduct”).

199. See Friedman, *supra* note 62, at 1130.

200. See *supra* note 142 and accompanying text.

201. See § 8C-1, Rule 403.

202. *Id.* § 90-21.12; See also *id.* § 90-285.1 (requiring that nursing home administrators must abide by rules promulgated by the State Board of Examiners for Nursing Home Administrators); N.C. ADMIN. CODE tit. 21, 371.0100 (June 2002) (establishing procedures of the State Board of Examiners to ensure compliance with professional standards by administrators).



that the fact that there is evidence in dispute shows that litigation costs for a particular procedure are lower in the health care environment from which the evidence comes. Therefore, in guiding the court to determine the scope of “local,”<sup>203</sup> a deviation in litigation costs between the defendant’s place of work and the place from which the evidence or expert comes would help distinguish between the two environments. This definition makes intuitive sense because it is supported by theoretical economics. One would naturally think that a physician who works in an area of high litigation costs,<sup>204</sup> which are the single biggest contributor to medical malpractice insurance premiums,<sup>205</sup> should not be expected to provide the same level of care as providers without that cost. The litigation environment continues to be a major explanation for how medical malpractice costs influence medical trends across the country.<sup>206</sup> Therefore, considering differences in malpractice costs to be integral to a definition of locality is a logical outgrowth of that economic phenomenon.

The plaintiff can use economic analysis to articulate why punitive damages are necessary. In arguments to the jury, one way to articulate why the jury should award punitive damages because of the “reprehensibility of the defendant’s motives and conduct”<sup>207</sup> is to note the impact that nursing home abuse has on the community’s sense of value and the shock and pain that friends and family feel as a result. By framing reprehensibility in those terms, the term acquires a more concrete meaning—the reason why punitive damages are to be awarded is to deter defendants from acting in a way that inflicts a dehumanizing kind of pain on friends, family, and the community. While North Carolina tort law lacks provisions that would allow the plaintiff to share punitive damages with a public fund,<sup>208</sup> such that the

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203. §90-21.12.

204. See Daniel Eisenberg & Maggie Sieger, *The Doctor Won’t See You Now*, TIME, June 9, 2003, at 46, 55, 58–59 (reporting on the recent substantial divergences in malpractice costs across areas of the country).

205. See Vandecruze *supra* note 10, at 15.

206. *Id.*; see Eisenberg & Sieger, *supra* note 204.

207. § 1D-35(2)(a).

208. Several states have established provisions for public sharing of punitive damages awards. See Marc Galanter & David Luban, *Poetic Justice: Punitive Damages and Legal Pluralism*, 42 AM. U. L. REV. 1393, 1425 n.201 (1993) (cataloging some of the states’ experiences with public sharing of punitive damage awards); see, e.g., FLA. STAT. ch. 768.73 (1995); GA. STAT. ANN. § 51-12-5.1(e)(2) (2002). The recommendations of this Comment lead naturally in that direction. If punitive damages are related to an injury to the community, then damage awards should be paid to the community. The intuitive appeal of economic reasoning may explain why public sharing of damages has become popular. See Friedman, *supra* note 62, at 1130–31 (noting the tendency of popular ethical judgments to mirror the conclusions of economic analysis).

public might receive the compensation from the damage award, the plaintiff can at least make the claim that the injured party should receive the compensation for public injury, as opposed to allowing the injury to remain uncompensated. Enunciating the ideas behind a term as difficult-to-define as “reprehensibility” in a more tangible manner<sup>209</sup> can establish a more constructive relationship between the plaintiff’s claim and the jury’s job of picking a damage award.<sup>210</sup>

Likewise, parties can offer jury instructions<sup>211</sup> to reflect the idea that the jury stands as a proxy for the community in evaluating the loss to the community resulting from abusive conduct. The defendant might use this tactic to counter a plaintiff’s efforts to recover an inflated punitive damages award by taking advantage of the jury’s difficulty with understanding the scope of the specific injury that the “reprehensibility” prong captures.<sup>212</sup> Current pattern jury instructions in North Carolina<sup>213</sup> largely restate the punitive damages statute<sup>214</sup> without much explanation of how to apply it. For example, the pattern instruction charges the jury to consider “the reprehensibility of the defendant’s motives and conduct,”<sup>215</sup> but does not follow with more instructions on how to evaluate or measure reprehensibility. The instructions also provide some minimal guidance towards the end of the punitive damages discussion, but hardly enough to help a jury digest with any real consistency the sometimes astronomical punitive damages requests by plaintiffs.<sup>216</sup>

Finally, if you determine, in your discretion, to award punitive damages, then you may award to the plaintiff an amount which bears a rational relationship to the sum reasonably needed to

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209. See Polinsky & Shavell, *supra* note 62, at 961-62 (suggesting jury instructions to articulate some economic principles underlying punitive damages, though not offering a definition for “reprehensibility”); see also *State Farm v. Campbell*, 123 S. Ct. 1513, 1520 (2003) (emphasizing the importance of accurate jury instructions to the jury’s deliberations on punitive damages).

210. See generally Reid Hastie, *Overview: What We Did and What We Found*, in PUNITIVE DAMAGES: HOW JURIES DECIDE 17, 17-26 (2002) (reporting on a series of experiments designed to discover the processes by which juries pick punitive damages levels).

211. N.C. GEN. STAT. § 1A-1, Rule 51(b).

212. See Kahneman et al., *supra* note 107, at 31-61 (reporting on experimental economics investigations of how punitive awards can inflate during jury deliberations).

213. N.C. PATTERN JURY INSTR.—CIVIL 810.98 (1996).

214. § 1D-35.

215. See *supra* note 213 and accompanying text.

216. See Reid Hastie et al., *Do Plaintiffs’ Requests and Plaintiffs’ Identities Matter?*, in PUNITIVE DAMAGES: HOW JURIES DECIDE 62, 62 (2002) (reporting that test juries in an experimental setting were greatly influenced by plaintiffs that asked for high punitive damage awards).

punish the defendant for egregiously wrongful acts and to deter the defendant and others from committing similar wrongful acts.<sup>217</sup>

Federal pattern jury instructions do not provide any more substantive guidance to the jury on arriving at a damage figure.<sup>218</sup> Attorneys who wish to protect their clients' interests by ensuring that the jury has adequate guidance in an area such as punitive damages<sup>219</sup> have a unique opportunity to do so in a jury instructions conference.<sup>220</sup>

Closely related to the issue of defining "reprehensibility" is the problem of how much punitive liability will "deter"<sup>221</sup> future egregious conduct. Because this Comment contends that a defendant who faces a low probability of being held liable should face higher punitive liability to act as a counterweight, a plaintiff seeking punitive damages can argue for jury instructions and craft closing arguments that take into account the possibility that defendants will be able to escape liability as a routine matter.<sup>222</sup> While there is no specific provision allowing evidence to be admitted on the grounds that it shows the likelihood or unlikelihood of the defendant being caught,<sup>223</sup> evidence that tends to show the frequency of the defendant's past conduct<sup>224</sup> and concealment of that conduct<sup>225</sup> is admissible. That type of evidence would support an argument that this activity has gone unpunished in the past, and thus a higher level of deterrence is needed.

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217. *Id.*

218. See MODERN FEDERAL JURY INSTRUCTIONS—CIVIL 77-5 (2002) ("The purposes of punitive damages are to punish a defendant for shocking conduct and to set an example in order to deter a defendant and others from committing similar acts in the future."). See generally George L. Priest, *The Problem and Efforts to Understand It?*, in PUNITIVE DAMAGES: HOW JURIES DECIDE 1, 11 (2002) (discussing the typical trial procedures for punitive damages instructions).

219. See Priest, *supra* note 218 at 1–3.

220. N.C. GEN. STAT. § 1A-1, Rule 51 (2001); NORTH CAROLINA RULES OF COURT, Rule 21 (2002). See generally Kenneth S. Broun, *North Carolina Jury Instruction Practice—Is It Time to Get the Judge off the Tightrope?*, 52 N.C. L. REV. 719 (1974) (discussing the features of North Carolina jury instruction practice of the time); Walter W. Steele, Jr. & Elizabeth G. Thornburg, *Jury Instructions: A Persistent Failure to Communicate*, 67 N.C. L. REV. 77 (1988) (arguing for the need to provide more lucid and explanatory jury instructions for juries, and for reform of pattern jury instructions).

221. § 1D-1; see also N.C. PATTERN JURY INSTR.—CIVIL 809.00-809.90 (1996) (including deterrence in the pattern jury instruction on punitive damages).

222. See § 1D-1 ("Punitive damages may be awarded . . . to deter a defendant and others from committing similar wrongful acts").

223. See § 1D-35(2).

224. § 1D-35(2)(g).

225. § 1D-35(2)(f).

Again, one need not employ mathematical economics to make the common-sense point that, like criminal law punishment mechanisms, the need to raise the level of punishment rises when the defendant can easily escape accountability. As this Comment has previously argued, this probability is especially relevant in the area of nursing home malpractice.<sup>226</sup> Moreover, the “local practice” standard,<sup>227</sup> if it creates a situation where egregious acts are less likely to be uncovered, might be less of a deterrent than the Hand rule’s reasonableness standard.<sup>228</sup> The explanation for this scenario, as with the other examples in this Section, makes intuitive sense: if the nursing home does follow the standard practice guidelines,<sup>229</sup> it should be free from having to pay for injuries that occur during medical care that comports to industry standard. However, if the tortfeasor takes advantage of a particular standard procedure to conceal willful or wanton acts,<sup>230</sup> the jury should use the punitive damages remedy to counteract the defendant’s taking advantage of the professional courtesy that the medical malpractice standard of care allows.

*B. Case note: State Farm Mutual Auto Insurance Co. v. Campbell*

The recent case *State Farm Mutual Auto Insurance Co. v. Campbell*,<sup>231</sup> is the latest in a line of U.S. Supreme Court opinions which attempt to craft a workable Due Process framework for evaluating punitive damages awards.<sup>232</sup> *State Farm* has special relevance for the issues that this Comment presents because the opinion tackled more precisely how the jury should define “reprehensibility,”<sup>233</sup> how courts should evaluate the punitive multiplier in Due Process analysis,<sup>234</sup> and the role of jury instructions in ensuring fair play at trial.<sup>235</sup>

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226. See *supra* notes 170–85 and accompanying text.

227. § 90-21.12.

228. *United States v. Carroll Towing*, 159 F.2d 169, 173 (2d Cir. 1947).

229. See generally 42 C.F.R. § 483 (2003) (establishing the national requirements for long-term care facilities).

230. § 1D-15.

231. 123 S.Ct. 1513 (2003).

232. See *Cooper Industries, Inc. v. Leatherman Tool Group, Inc.*, 532 U.S. 424, 431 (2001) (establishing de novo review for punitive damages Due Process issues); *BMW v. Gore*, 517 U.S. 559, 585–86 (1996) (holding that grossly excessive punitive damage awards violate due process); *Pac. Mut. Life Ins. Co. v. Haslip*, 499 U.S. 1, 19 (1991) (emphasizing the “quasi-criminal” nature of punitive penalties and holding that Alabama’s common law punitive damages regime violates due process).

233. *State Farm*, 123 S. Ct. at 1521.

234. *Id.* at 1524–25.

235. *Id.* at 1520.

For the purposes of the present discussion, economic analysis can be used to define more precisely how an advocate's position comports with the requirements of *State Farm*. The Court's definition of reprehensibility appears to include both moral considerations and patterns of egregious activity,<sup>236</sup> though the moral factors predominate in the definition.<sup>237</sup> The guideline can be useful in two principal ways—supporting an argument for a particular jury instruction and supporting arguments in the appellate process. *State Farm* reaffirms the requirement that punitive damage awards not be “grossly excessive or arbitrary.”<sup>238</sup> Thus, appellate challenges to a punitive award will revolve around an award's excessiveness or arbitrariness. The tension between the two standards is palpable; on the one hand, reprehensibility is an incredibly affective and imprecise term. At the same time, the Supreme Court draws an increasingly hard line against awards that do not have a solid, rational basis.<sup>239</sup>

Economic reasoning has the potential to mediate between the two poles. The plaintiff, for example, can anchor its defense of a jury award on the impact that the reprehensible action had on the larger community's desire for fairness through an existence value rationale. Thus, the plaintiff can draw a link between rational social welfare costs and the jury's assessment of “reprehensibility.” The criteria for reprehensibility in *State Farm*<sup>240</sup> provides a Supreme Court-approved framework for further evaluating how egregious activity impacts basic notions of fairness as embodied in the Due Process Clause.<sup>241</sup> The

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236. *Id.* at 1521. The Court reviewed the permissible criteria for assessing punitive damages as follows:

“[t]he most important indicium of the reasonableness of a punitive damages award is the degree of reprehensibility of the defendant's conduct.” We have instructed courts to determine the reprehensibility of a defendant by considering whether: the harm caused was physical as opposed to economic; the tortious conduct evinced an indifference to or a reckless disregard of the health or safety of others; the target of the conduct had financial vulnerability; the conduct involved repeated actions or was an isolated incident; and the harm was the result of intentional malice, trickery, or deceit, or mere accident.

*Id.* (quoting *BMW v. Gore*, 517 U.S. 559, 575 (1996)).

237. *See id.* While mentioning that repeated acts add to reprehensibility, which suggests that the defendant has been able to escape liability frequently, the definition focuses on criteria that tend to have a direct emotional impact, such as physical harm, the mental state of the tortfeasor, and the disregard for other members of the community's health or safety. *Id.*

238. *Id.* at 1519–20.

239. *See id.* at 1526 (holding that the trial court award was “irrational and arbitrary” and therefore unconstitutional).

240. *Id.* at 1521.

241. *See BMW v. Gore*, 517 U.S. 559, 587 (1996) (Breyer, J., concurring) (“This constitutional concern, itself harkening back to the Magna Carta, arises out of the basic

Supreme Court, as a legal authority, establishes basic notions of fairness in its Fourteenth Amendment jurisprudence.<sup>242</sup>

Justice Kennedy's opinion also emphasizes that it is important to have precise jury instructions to ensure due process.<sup>243</sup> Connecting the importance of jury instructions to a rational process guided by more precise formulas, the opinion makes it clear that a well-defined framework for adjudging punitive liability is not just an academic question appropriate for appeal, it also is a necessary component of jury deliberations.<sup>244</sup> While due process discussions tend to be framed in terms of justice and fairness,<sup>245</sup> many of the concepts that they embody have economic underpinnings<sup>246</sup> that largely delineate the outer bounds of economically justifiable law. Given that the punitive damages remedy is a fact-specific legal action as opposed to legislative law that is broadly applicable to a class,<sup>247</sup> effective defense of a client's due process rights intersects with the client's, and society's, economic interests in the codification of jury instructions for the trial.<sup>248</sup>

*State Farm* is perhaps most path-breaking in its opinion on punitive multipliers.<sup>249</sup> The Court cautions that "[f]ew awards exceeding a single-digit ratio between punitive and compensatory damages, to a significant degree, will satisfy due process."<sup>250</sup> For awards greater than \$250,000, North Carolina's punitive damages cap on three times compensatory damages<sup>251</sup> would fall comfortably within this Due Process guideline. For awards under the \$250,000 threshold, where there is no statutory limit on the multiplier,<sup>252</sup>

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unfairness of depriving citizens of life, liberty, or property.").

242. See William Van Alstyne, *Notes on the Constitution: Part II, Antinomial Choices and the Role of the Supreme Court*, 72 IOWA L. REV. 1281, 1283 (1987) ("The Supreme Court . . . has the main role ultimately in attempting to see that the government observes basic justice.").

243. *State Farm*, 123 S. Ct. at 1520.

244. *Id.* (citations omitted).

245. See Van Alstyne, *supra* note 242, at 1283.

246. See Friedman, *supra* note 62, at 1130.

247. See generally Thomas O. McGarity, *Some Thoughts on "Deossifying" the Rulemaking Process*, 41 DUKE L.J. 1385, 1385-87 (1992) (describing the strengths and weaknesses of rule-making law versus adjudicatory law and noting the short-comings of the rule-making process in the administrative law context).

248. See *State Farm*, 123 S. Ct. at 1520.

249. See *id.* at 1524.

250. *Id.*

251. N.C. GEN. STAT. § 1D-25(b) (2001); see also FLA. STAT. ch. 768.73 (2002) (capping punitive damages in Florida at three times the amount of compensatory damages).

252. § 1D-25(b).

economic reasoning would become critical to assessing whether the jury award satisfies *State Farm*.

Economic arguments can be used to support either side. The defendant's appellate argument will tend to focus on the idea that the punitive award resulted more from spite than a careful economic analysis of what added deterrent would be needed to achieve an efficient result,<sup>253</sup> and so was "irrational and arbitrary"<sup>254</sup> in violation of the Due Process Clause. When the defendant's net worth is high, there is a substantial risk that the jury will focus on a desire to shock the defendant in a way that is out of proportion to the appropriate, optimal level of punitive damages.<sup>255</sup> The plaintiff's appellate argument will tend to focus on the externalities that the tort creates in terms of its negative impact on the community as well as, in some cases, the need for a high punitive multiple when actual compensatory damages are low, which can be the case in elderly care cases.<sup>256</sup> *State Farm* recognizes the latter situation.

[B]ecause there are no rigid benchmarks that a punitive damages award may not surpass, ratios greater than those previously upheld may comport with due process where a particularly egregious act has resulted in only a small amount of economic damages. However, the converse is also true. When compensatory damages are substantial, then a lesser ratio, perhaps only equal to compensatory damages, can reach the outermost limit of the due process guarantee. The precise award in any case, of course, must be based upon the facts and circumstances of the defendant's conduct and the harm to the plaintiff.<sup>257</sup>

Thus, while *State Farm* and its predecessor cases on due process limitations of punitive damages<sup>258</sup> are primarily framed in terms of fairness and justice, many of the concepts from these cases are susceptible to economic arguments that are easily grasped by judges and juries.<sup>259</sup> At both the trial and the appellate level, a unified approach to weighing values and efficiencies greatly enhances the prospect that the law will, in practice as well as theory, foster social

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253. See *State Farm*, 123 S. Ct. at 1520 ("punitive damages serve a broader function; they are aimed at deterrence and retribution").

254. See *id.* at 1526.

255. *Id.* at 1520.

256. See *supra* notes 170–85 and accompanying text.

257. See *State Farm*, 123 S.Ct. at 1524 (citations omitted).

258. See *supra* note 236 and accompanying text.

259. See generally POSNER, *supra* note 61, § 2.2.

welfare.

### CONCLUSION

Whatever the future of the nursing home industry, it seems clear that these dilemmas are likely to remain at the forefront of the industry's policy concerns. The population of senior citizens in the United States, particularly in North Carolina, given its high quality of medical care and favorable climate, will rise dramatically in the coming decades.<sup>260</sup> Tort law, especially medical malpractice, will have to grow and develop with these difficult new policy problems. The high financial and human stakes require careful economic consideration of these issues.

This Comment presents the hypothesis that punitive damage liability needs to be considered in concert with medical malpractice statutes in order to achieve an efficient system of private incentives. Jury instructions need to reflect more precisely the economic rationales of standards of care and damage assessment. Evidence law should be modified to allow for a more accurate presentation of the economic issues involved. Moreover, the judicial rule in North Carolina that insurance against punitive liability in medical malpractice is in line with public policy<sup>261</sup> deserves legislative reconsideration.

Just as importantly, this study attempts to articulate how the area of law and economics needs to adapt to grasp more fully the subtle issues involved in solving problems laden with complex value systems. Here, the values of many citizens for fostering a society free of medical malpractice as well as a society free from constant litigation have a place in economic understanding. Likewise, in order to model more fully a real world statutory framework, an inclusive, comprehensive approach to analysis is more likely to produce accurate results. Instead of assuming constant variables while examining a particular economic phenomenon, these variables need to become integrated into the model in order to present a true and accurate picture of a real problem. While this Comment's model by no means achieves this ideal, it attempts to synthesize several different economic theories in coming to grips with North Carolina's laws. It is thus an inductive approach at least in part; by understanding the specifics of a particular legal framework in some

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260. See Ned Glascock, *The Changing Face of the New Century*, NEWS & OBSERVER (Raleigh, N.C.), Jan. 1, 2000, at 2A.

261. *Mazza v. Med. Mut. Ins. Co.*, 311 N.C. 621, 631, 319 S.E.2d 217, 223 (1984).



detail, it may perhaps help explain other, similar legal frameworks in other states. This method differs somewhat from most economic analyses of punitive damages, as well as law and economics approaches in general, which often approach legal issues abstractly through a process more akin to deduction and without much focus on any particular statutory framework.

Finally, tort reform, having undergone a few rounds in recent decades at the state level,<sup>262</sup> may yet see a new, high stakes round at the federal level.<sup>263</sup> There are proposals to enact national caps on damages for business and health care providers, and with the Republican take-over of the Senate, led by physician and Senate Majority Leader William Frist, the issue has gained momentum.<sup>264</sup> The prospect of federal laws on the matter raises questions of federalism, the advantages and disadvantages of acting at the national versus state level in the area of tort law, and the need for federal and state laws to harmonize so as to provide efficient tort regimes. Designing these laws in a comprehensive and integrated fashion is critical to an efficient and humane system of tort law.

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262. See DOBBS, *THE LAW OF TORTS*, *supra* note 32, § 384.

263. See William E. Gibson, *GOP Keeps Goals Modest*, ORLANDO SENTINEL, Jan. 5, 2003, at A1; Press Release, National Citizens' Coalition for Nursing Home Reform, Tort Reform Would Deny Nursing Home Residents Basic Legal Protections and Access to the Courts (July 17, 2002) (criticizing proposed federal tort reform legislation as hurting nursing home patients) (on file with North Carolina Law Review).

264. See Gibson, *supra* note 263, at A1.