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# UNCOVERING THE “INVISIBLE” PROFILE OF MEDICAL MALPRACTICE LITIGATION: INSIGHTS FROM FLORIDA

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## INTRODUCTION

Around the year 2000, physicians and health care providers began experiencing difficulties in obtaining or affording professional liability insurance,<sup>1</sup> a problem that also arose in the mid-1970s and mid-1980s.<sup>2</sup> In some states, insurers have either discontinued writing new policies or have left the market altogether, making coverage unavailable at any price for some physicians.<sup>3</sup> In other states, the cost of malpractice

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1. For background information, see Press Release, American Medical Association (AMA), Massachusetts Becomes 20th State in a Medical Liability Crisis (June 14, 2004), *available at* <http://www.ama-assn.org/ama/pub/category/13964.html> [hereinafter AMA Press Release]. See also Neil Vidmar & Leigh Anne Brown, *Tort Reform and the Medical Liability Insurance Crisis in Mississippi: Diagnosing the Disease and Prescribing a Remedy*, 22 Miss. C. L. REV. 9, 46 (2002); cf. W. Kip Vicusi & Patricia Born, *Medical Malpractice Insurance in the Wake of Liability Reform*, 24 J. LEGAL STUD. 463, 464 (1995).

2. David M. Studdert et al., *Medical Malpractice*, 350 NEW ENG. J. MED. 283, 284 (2004).

3. GOVERNOR'S SELECT TASK FORCE ON HEALTHCARE PROFESSIONAL LIABILITY INSURANCE (Jan. 29, 2003), *available at* <http://www.doh.state.fl.us/myflorida/DOH-Large-Final%20Book.pdf> [hereinafter TASK FORCE REPORT].

insurance has risen dramatically in the last four years. As in the past,<sup>4</sup> this recurring problem has been labeled a “crisis,” prompting calls for “tort reform.”<sup>5</sup> The problems have far-reaching consequences for the affordability and accessibility of health care, as well as the interests of persons who suffer injuries as a result of medical negligence.

Task forces and legislative hearings have been held in numerous states (including but not limited to Florida,<sup>6</sup> North Carolina,<sup>7</sup> Mississippi,<sup>8</sup> and Pennsylvania<sup>9</sup>) and in a congressional House subcommittee<sup>10</sup> in attempts to better understand the problem and to devise solutions to the liability insurance crisis. Some states have adopted caps on non-economic damages and other reforms in an attempt to deal with the problem.<sup>11</sup>

Debate about the nature, extent, and causes of this crisis is bitter. Proponents of tort reform, particularly health care providers and business organizations, blame the tort system as the principal culprit.<sup>12</sup> They assert that both the frequency of claims and the average number of medical negligence claims payments have increased over the years and that juries tend to favor plaintiffs and give excessive verdict awards.<sup>13</sup> Further, they believe that the “shadow effect” from large jury awards inflates the size of settlements because the risk of being subjected to excessive awards forces insurers to settle cases that may otherwise be defensible.<sup>14</sup> Tort reform proponents also aver that the contingent fee system provides a “lottery” effect that contributes to

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4. See generally Stephen Daniels & Joanne Martin, “*The Impact That It Has Had Is Between People’s Ears*”: Tort Reform, Mass Culture, and Plaintiffs’ Lawyers, 50 DEPAUL L. REV. 453 (2000).

5. See AMA Press Release, *supra* note 1.

6. See TASK FORCE REPORT, *supra* note 3.

7. See, e.g., North Carolina Society of Anesthesiologists, 2004 Legislative Summary, Medical Liability Reform, at <http://www.ncsoa.com/2004legsummary.htm> (last visited Feb. 16, 2005); Patricia Yancey, *Legislative Update: Medical Malpractice – What’s at Stake?*, Friends of Residents in Long Term Care (Newsletter Fall 2003), <http://www.forltc.org/PDF%20Fall%2003%20Newsletter.pdf>.

8. Reed Branson, *Healthcare Crisis Feeds Mississippi Tort Reform Fight* (Aug. 21, 2002), available at <http://www.stateline.org/stateline/?pa=story&sa=showStoryInfo&id=255325>.

9. Highlights from the Senate Appropriations Committee Budget Hearings (Feb. 24, 2004), available at <http://www.pasenategop.com/news/budghrgs/022404hearings.htm>.

10. See generally *The Medical Liability Insurance Crisis: A Review of the Situation in Pennsylvania: Hearing Before the Subcomm. on Oversight and Investigations of the House Comm. on Energy and Commerce*, 108th Cong. (2003).

11. Adam D. Glassman, *The Imposition of Federal Caps in Medical Malpractice Liability Actions: Will They Cure the Current Crisis in Health Care?*, 37 AKRON L. REV. 417, 462 (2004).

12. See, e.g., Stuart Taylor, Jr. & Evan Thomas, *Civil Wars*, NEWSWEEK, Dec. 15, 2003, at 42, 46–48. See also Vidmar & Brown, *supra* note 1, at 46.

13. See CONG. WATCH, PUB. CITIZEN, MEDICAL MALPRACTICE BRIEFING BOOK: CHALLENGING THE MISLEADING CLAIMS OF THE DOCTORS’ LOBBY (2004).

14. *Id.*

the filing of frivolous lawsuits, since some insurers may settle suits for an amount less than the costs of mounting a defense.<sup>15</sup>

In contrast, consumer groups and the plaintiffs' bar say that the problem is not with the tort system.<sup>16</sup> In their view, the problem has several sources. First, they believe that there is a high incidence of negligent medical mistakes leading to claims and serious injuries with large economic losses incurred by the patients.<sup>17</sup> Second, they contest the assertions that claim frequency is increasing and that the awards to plaintiffs are inappropriate.<sup>18</sup> Third, they contend that the real cause of rising malpractice premiums lies with insurer underpricing of policies in the past, poor insurer investments, and downturns in the business cycle.<sup>19</sup>

Angry rhetoric and poorly substantiated claims often substitute for systematic data that could provide a picture of what actually occurs when patients make claims against medical providers. Moreover, experience with tort reforms of various kinds has shown that reforms are often ineffective,<sup>20</sup> or worse, produce results that are counterproductive.<sup>21</sup> Attempts to adequately understand the problem and promote effective solutions require an understanding of how the medical malpractice tort litigation system actually operates. Yet, neither researchers nor legislators have a complete profile of the tort system that can identify what occurs at its various stages. For example, as noted above, proponents of tort reform assert that the number of claims has been rising along with the amounts of damages in both jury verdicts and settlements.<sup>22</sup> Opponents of tort reform dispute this view, arguing that when figures are adjusted for population increases, numbers

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15. See generally JEFFREY O'CONNELL, *THE LAWSUIT LOTTERY: ONLY THE LAWYERS WIN* (1979).

16. See generally CONG. WATCH, *supra* note 13. See also CTR. FOR JUSTICE AND DEMOCRACY, *The Eight Biggest Myths About Medical Malpractice—and How to Respond* (2003), available at <http://centerjd.org/private/papers/CJD-MedMalBriefingBook.php> (on file with the authors).

17. See generally INST. OF MED., *TO ERR IS HUMAN: BUILDING A SAFER HEALTH SYSTEM* (Linda T. Kohn et al. eds., 2000); Lucian Leape, *Institute of Medicine Medical Error Figures Are Not Exaggerated*, 284 JAMA 95 (2000).

18. See generally CONG. WATCH, *supra* note 13.

19. *Id.*; see also CTR. FOR JUSTICE AND DEMOCRACY, *supra* note 16.

20. See generally NEIL VIDMAR ET AL., *AN EMPIRICAL EXAMINATION OF A LEGISLATED PROCEDURAL REFORM: COURT-BASED MANAGEMENT OF MEDICAL MALPRACTICE LITIGATION* (1992); Joseph Sanders & Craig Joyce, "Off to the Races": *The 1980s Tort Crisis and the Law Reform Process*, 27 HOUS. L. REV. 207 (1990); David M. Studdert et al., *The Jury Is Still In: Florida's Birth-Related Neurological Injury Compensation Plan After a Decade*, 25 J. HEALTH POL. POL'Y & L. 499 (2000).

21. Glassman, *supra* note 11, at 462.

22. See generally, e.g., Grace Vandecruze, *Has the Tide Begun to Turn for Medical Malpractice?*, HEALTH LAW., Dec. 2002, at 15.

of physicians, and inflation, litigation has remained relatively static over the past decade.<sup>23</sup> As a second example, proponents of reforms point to large jury verdicts,<sup>24</sup> but opponents argue that the awards are commensurate to plaintiff losses.<sup>25</sup>

Until now, obtaining a systematic profile has proven difficult. Pre-trial settlements are typically confidential and researchers cannot gain access to what actually resulted from the litigation. Moreover, if claims are settled without formal litigation they never appear in public court records even though such cases may account for substantial insurer losses. This is true for cases resulting in payment to claimants and for claims resulting in no payment; the latter still result in transaction costs for the defense. Similarly, jury verdicts for plaintiffs may be settled for lesser amounts in post-trial negotiations but the settlements usually remain invisible as confidential post-trial agreements between the parties.<sup>26</sup>

In this Article, we begin to piece together a basic profile of the medical malpractice tort system, including its "invisible" parts, over a fourteen-year period from 1990 through 2003. Our efforts are centered on the State of Florida, one of the states labeled a crisis state by the American Medical Association.<sup>27</sup> A Florida statute, dating back to 1975, has required medical liability insurers to submit detailed reports of all closed claims to the Florida Department of Health.<sup>28</sup> These reports form the backbone of this Article but they are supplemented by a second data source, an archive that we have constructed from jury verdict reports compiled by Westlaw.<sup>29</sup> The Florida closed claims data have been used by other researchers in various investiga-

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23. See generally Mitchell J. Nathanson, *It's the Economy (and Combined Ratio), Stupid: Examining the Medical Malpractice Liability Myth and the Factors Critical to Reform*, 108 PENN. ST. L. REV. 1077 (2004).

24. See *Does Limitless Litigation Restrict Access to Health Care? Oversight Hearing on Health Care Litigation Reform Before Subcomm. on Commercial and Admin. Law of the House Comm. on the Judiciary*, 107th Cong. (June 12, 2002) (statement of the American Medical Association (AMA)), available at [http://commdocs.house.gov/committees/judiciary/hju80193.000/hju80193\\_0.htm](http://commdocs.house.gov/committees/judiciary/hju80193.000/hju80193_0.htm).

25. See CONG. WATCH, *supra* note 13.

26. See generally Neil Vidmar et al., *Jury Awards for Medical Malpractice and Post-Verdict Adjustments of those Awards*, 48 DEPAUL L. REV. 265 (1999) (detailing some data bearing on post-trial adjustments).

27. See AMA, *supra* note 1.

28. The records were formerly compiled and held by the Florida Department of Insurance.

29. These jury verdict reports compiled by Westlaw are found by accessing Westlaw, All Databases, U.S. State Materials, Florida, Jury Instructions Jury Verdicts & Judgments, Florida Jury Verdicts Plus, Standard Search: Terms and Connectors: Med Mal.

tions about medical malpractice litigation, but the previous studies are now dated or are focused on a subset of medical malpractice cases.<sup>30</sup>

Part II summarizes the medical malpractice debate and some controversial attempts to describe the medical malpractice litigation profile in Florida that was submitted to the 2003 Governor's Select Task Force on Healthcare and Professional Liability Insurance (Task Force).<sup>31</sup> In Part III, we describe the data sources we used to develop our profile of Florida medical malpractice litigation. Then, in Parts IV, V, VI, VII, and VIII, we report the basic findings bearing on the litigation profile.

## II. THE CONTROVERSY OVER MEDICAL MALPRACTICE LITIGATION

### A. *The General Problem*

In the current crisis, proponents of tort reform in Florida<sup>32</sup> and elsewhere<sup>33</sup> have stated that the number of medical negligence claims has increased. Some critics assert a continual rise while others suggest a spike beginning in the late 1990s.<sup>34</sup> These claims may or may not be true, but often they are made in the absence of reliable information. Assume, for the sake of argument, that there has been an increase in claims. There are many possible explanations.<sup>35</sup> One is that there has been an increase in litigiousness, that is, an increased willingness of injured patients and their lawyers to pursue claims, regardless of merit. An alternative explanation to meritless litigation is that in the past, there were just as many incidents of true negligence but plaintiffs or their lawyers were, for whatever reasons, reluctant to pursue the claims. Still another hypothesis is that there is an actual increase in incidents of negligence. However, even if total frequency of negligent outcomes has increased, it might be due to increases in the patient population or the number of practicing physicians. In such an event, the incidence of medical negligence per capita for patients or physicians may have remained stable.

A second assertion is that the amounts of jury awards have increased. This alleged increase, it is claimed, also has two resultant

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30. See, e.g., FRANK SLOAN ET AL., *SUING FOR MEDICAL MALPRACTICE* (1993); David Nye et al., *The Causes of the Medical Malpractice Crisis: An Analysis of Claim Data and Insurance Company Finances*, 76 GEO. L.J. 1495 (1988); Studdert et al., *supra* note 20, at 499.

31. See generally TASK FORCE REPORT, *supra* note 3.

32. *Id.* at 1-5, 33-144.

33. See *id.* at 6-23; Taylor & Thomas, *supra* note 12, at 42, 46-48; Vidmar & Brown, *supra* note 1.

34. TASK FORCE REPORT, *supra* note 3, at 15.

35. See Nye et al., *supra* note 30, at 1560; Vidmar & Brown, *supra* note 1, at 46.

"shadow effects." First, tort system critics say that the amounts of settlements have increased because jury awards serve as a standard of expected values of claims: as amounts of verdicts increase, the expected value of settlements increase because settlement negotiations center around likely trial outcomes.<sup>36</sup> The second "shadow effect" relates to frequency of claims. Large awards, it is believed, increase the likelihood of frivolous claims among patients and their lawyers looking for a "lottery jackpot" suggested by the jury verdicts.<sup>37</sup> In contrast, one alternative explanation is that the costs of medical injuries have increased. Another hypothesis is that there has been a change in the types of claims, such that there are more cases with severe injuries and consequent economic losses and fewer cases with less severe injuries and losses. This last hypothesis, if true, could account for an increase in mean payments even if the total frequency of claims remained unchanged.

A related issue involves the transaction costs of defending claims. Even if claimants are unsuccessful and ultimately receive no payment, liability insurers incur legal costs defending such claims. Insurers have said that their transaction costs have increased, another element negatively affecting the financial well being of insurers.<sup>38</sup> Procedural stages in the dispute resolution process are often ignored or underplayed in public discussion about transaction costs. The point at which disputes are resolved affects transaction costs. Normally, a case that proceeds to trial will incur more legal transaction costs than one that is settled without resort to trial.<sup>39</sup> Claims settled without the claimant even filing a lawsuit should result in still lower transaction costs than a settlement after a lawsuit. While there are academic writings and some empirical research on the various resolution stages of

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36. TASK FORCE REPORT, *supra* note 3, at 71 (Doctor Richard Anderson's Testimony).

37. Taylor & Thomas, *supra* note 12, at 42, 46-48. See generally PETER HUBER, *LIABILITY: THE LEGAL REVOLUTION AND ITS CONSEQUENCES* (1988).

38. TASK FORCE REPORT, *supra* note 3, at 48; Med. Mutual Ins. Co. of N.C., Presentation to the North Carolina Blue Ribbon Task Force on Medical Malpractice (2003) (unpublished presentation on file with author).

39. There might be occasional exceptions to this general rule. Defense lawyers might expend more time negotiating a pretrial settlement than they would if the case went directly to a short trial.

disputes,<sup>40</sup> there is little information about these processes in medical malpractice litigation.<sup>41</sup>

Perhaps other explanations explain the conflicting positions in the liability insurance debate about frequency of claims, amounts of payments, and transaction costs. The various alternative hypotheses are not necessarily mutually exclusive; all could be correct to some degree. The above discussion is intended to highlight the complexity of the issues and set the stage for a neutral investigation of the facts. A first step in addressing the controversy is to determine whether, and to what degree, the number of claims, the mean and median payouts, and insurers' transaction costs changed in recent years.

### *B. Recent Attempts at Describing the Medical Malpractice Litigation Profile in Florida*

The State of Florida serves as an example for the medical malpractice controversy. In the midst of rising concerns about the availability of liability insurance, in 2002 Governor Jeb Bush formed the Governor's Select Task Force on Health Care Professional Liability Insurance that held hearings across the state.<sup>42</sup> On January 29, 2003, the Task Force submitted a 341-page report accompanied by thirteen volumes of presentations, letters, and testimony.<sup>43</sup> The Task Force Report documents the history of medical liability insurance problems and tort reforms in Florida from 1975 to 2003.<sup>44</sup> In addition to surveying the various claims and counterclaims, the Report also discusses two attempts to describe the medical malpractice litigation profile of Florida.<sup>45</sup> Both reports were commissioned by interested parties: the

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40. See generally HERBERT KRITZER, RISKS, REPUTATIONS AND REWARDS: CONTINGENCY FEE LEGAL PRACTICE IN THE UNITED STATES (2004); William Felsteiner et al., *The Emergence and Transformation of Disputes: Naming, Blaming, Claiming . . .*, 15 LAW & SOC'Y REV. 631 (1980-81); Marc Galanter, *Real World Torts: An Antidote to Anecdote*, 55 MD. L. REV. 1093 (1996); Herbert Kritzer et al., *The Aftermath of Injury: Societal Factors in Compensation Seeking in Canada and the United States*, 25 LAW & SOC'Y REV. 449 (1991).

41. See NEIL VIDMAR, MEDICAL MALPRACTICE AND THE AMERICAN JURY 69-92 (1995).

42. TASK FORCE REPORT, *supra* note 3, at 56, 145.

43. See generally *id.*

44. *Id.* at 33-56.

45. The Task Force Report describes several surveys undertaken by The Florida Hospital Association, the Florida Medical Association, and Floridians for Quality Affordable Healthcare that purported to describe, among other issues, how physicians had changed their practice in relation to fear of being sued, the incidence of being sued, and other responses to the perceived threats, including "defensive medicine." Defensive medicine refers to unnecessary tests undertaken to avoid any claim that they had not exercised professional responsibility. In 2002, the Florida Medical Association conducted a survey that purported to describe how physicians had changed their practice to cope with the high cost and lack of available medical negligence insurance. These surveys suffer from the problems often associated with surveys, particularly unrep-



Florida Hospital Association and the Florida Academy of Trial Lawyers.<sup>46</sup> Both reports utilized the closed-claim databases that were compiled and maintained by the Florida Department of Insurance, which we use in the present research.<sup>47</sup>

The Florida Hospital Association hired Milliman USA, Inc. to evaluate the insurance problem and formulate recommendations to be used in tort reform.<sup>48</sup> The Milliman Report examined data from the Florida closed-claim files as well as from the National Practitioner Data Bank, the Texas Department of Insurance closed-claims files, and other sources.<sup>49</sup> Among other findings, the Milliman Report concluded that the total amount of paid claims in Florida for the year 2000 was more than 150% higher than the amount paid in 1991.<sup>50</sup> Paid losses between 1999 and 2000 increased 28%.<sup>51</sup> The Milliman Report further concluded that while claims frequency nationally remained relatively stable since 1991, Florida claims frequency per 100,000 population increased over the same period from a low of 4.82 in 1991 to a high of 7.56 in 2000.<sup>52</sup> The report also concluded that non-economic damages constituted approximately 75% of awards.<sup>53</sup>

The deHaven-Smith Report for the Florida Academy of Trial Lawyers also used the Florida closed-claims database, but excluded hospitals from the analysis.<sup>54</sup> This report concluded that closed-claims peaked in 1996, but dropped in 1997 and 1998 before beginning an upward climb again in 1999.<sup>55</sup> While the report concluded that the amount for paid claims increased 24% between 1999 and 2001, after-adjustments for medical care inflation costs were similar to 1991 levels.<sup>56</sup> This report further concluded that the average claim value, adjusted for medical inflation, was below that for 1991.<sup>57</sup> The deHaven-Smith Report also concluded that there was a 0.11 correlation be-

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representative data due to selective response rate and lack of empirical validation of the respondents' asserted behavior. The Governor's Task Force recognized these weaknesses and we give them no attention in this Article. *See generally id.*

46. *Id.* at 117, 124.

47. *Id.* at 124-34.

48. *See* TASK FORCE REPORT, *supra* note 3, at 117 (describing the report of RICHARD S. BIONDI, MILLIMAN USA, INC., MEDICAL MALPRACTICE ANALYSIS (2002)).

49. *Id.*

50. *Id.* at 117-23, 131-32.

51. *Id.*

52. *Id.* at 121.

53. *Id.* at 134.

54. TASK FORCE REPORT, *supra* note 3, at 124.

55. *Id.*

56. *Id.*

57. *Id.*

tween economic and non-economic damages, and that claims involving large payments were rare.<sup>58</sup>

The Task Force independently examined these two reports and identified a number of methodological differences between them, including methodological flaws.<sup>59</sup> The Milliman Report focused primarily on the time period from 1999 through April 2002 and considered only claims involving indemnity payments.<sup>60</sup> In contrast, the deHaven-Smith Report included claims resulting in no payment, but methodological details of how this was accomplished, the Task Force concluded, were not reported.<sup>61</sup> The Task Force also concluded that the inflation adjustments in the deHaven-Smith Report probably overstated the cost of medical care by using the Medical Care Cost Index.<sup>62</sup> Additionally, the use of Pearson correlations to assess the relation between economic costs and non-economic costs did not take into account the influence of correlated variables or prove causation.<sup>63</sup>

We do not propose to offer additional methodological critiques of either of these studies. The major methodological problems in these two studies and their generally opposite conclusions clearly demonstrate the need to obtain a neutral and accurate picture of how the medical malpractice litigation system actually operates in Florida.

### III. THE DATA

#### A. *Florida Closed Claims Files*

Since 1975, the State of Florida has required medical liability insurers to file a report on the closing of each claim file. The resulting database is maintained by the Florida Department of Health.<sup>64</sup> The files are public information. The original archive file, which covered the time period from 1975 through the first half of 1999, consists of 59,573 closed claims.<sup>65</sup> The second file, starting in the second half of 1999 and continuing through 2002, consists of 4,798 cases.<sup>66</sup> Our present research is based on reported closed claims for the fourteen-year period from 1990 through 2003, a total of 31,521 cases.

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58. *Id.* at 124, 127. The deHaven-Smith Report labeled them "severe claims." *Id.*

59. TASK FORCE REPORT, *supra* note 3, at 129–44.

60. *Id.* at 128.

61. *Id.*

62. *Id.* at 131.

63. *Id.* at 129–44.

64. Nye et al., *supra* note 30, at 1512.

65. *See supra* note 29.

66. *Id.*

Until 1997, insurers were required to report claims resulting in no payment to the claimant as well as report paid claims.<sup>67</sup> After 1997, they were required to report only paid claims,<sup>68</sup> although some insurers continued to report the no payment claims.<sup>69</sup> The original statute and the reporting form based on the statute contained sixty-three items bearing on the claim.<sup>70</sup> A series of minor revisions were made in the 1990s and in the early part of the 2000s.<sup>71</sup> It now contains over seventy items, although a few of the items are typically left blank.<sup>72</sup> A listing of the variables contained in the two databases are contained in Appendices A and B to this Article.

The files contain both numeric ratings, or codes, and prose descriptions of certain events relevant to the lawsuit. In addition to basic information about the health care provider, insurer, location, and date of the injury, the files contain information about the nature of the claimant's injury, age, and gender. For privacy reasons, the files omit the names of patients. Of particular interest to the present Article, the data also contain information about how the claim was resolved and the procedural stage at which it was resolved, including claims settled without resort to a formal lawsuit. The files contain data bearing on not only the amount of payment made by the primary liability insurer to the claimant, but also deductibles paid by the health care provider and amounts paid by excess insurers. A portion of the files<sup>73</sup> contains separate estimates of the claimant's past as well as future medical expenses, and past as well as future income losses and non-economic losses (these latter costs are often called "pain and suffering").<sup>74</sup> The data also contain information on how much the insurer

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67. FLA. STAT. ANN. § 627.912 (West 1996) ("Each self-insurer under s. 627.357 . . . shall report in duplicate to the Department of Insurance any claim or action for damages for personal injuries claimed to have been caused by error, omission, or negligence in the performance of such insured's professional services or based on a claimed performance of professional services without consent . . .").

68. In May 1998, Florida section 627.912 was changed to eliminate the reporting requirement for claims with "a final disposition of a medical malpractice claim resulting in no indemnity payment on behalf of the insured." FLA. STAT. ANN. § 627.912 (West Supp. 1999). The statute was amended again in September 2003 to reinstate the requirement; the current version can be found at FLA. STAT. ANN. § 627.912 (West Supp. 2005).

69. In September of 2003, insurers resumed reporting the nonpaid claims. However, the results from the change will not be visible until one full year of such reporting has occurred.

70. See *infra* app. A.

71. See *infra* app. B.

72. See *infra* app. B.

73. Under the statute, this information should be in all files, but apparently, strict adherence to this aspect of the statutory requirement is not enforced. See *infra* note 84 and accompanying text.

74. FLA. STAT. ANN. § 766.202(7) (West 1996). The statute defines non-economic damages as "nonfinancial losses which would not have occurred but for the injury giving rise to the cause of

paid for legal representation. Other legal costs, including the costs of experts, are reported as a separate variable.

### B. Limitations of Closed Claims

It is important to outline some of the limitations of the closed-claim files. They are not comprehensive of claims involving all health care providers. The Task Force reported that some parties claim that not all insurers comply with the statute.<sup>75</sup> Certain health care professions are not covered.<sup>76</sup> Certain neurological injuries sustained during birth are diverted to the Birth-Related Neurological Injury Compensation Plan.<sup>77</sup> Not all physicians are represented in the data because they have opted not to buy liability insurance by signing a nonrevocable letter of credit to cover any medical negligence injuries suffered by their patients.<sup>78</sup> In 2003, over 600 Florida doctors opted for this alternative means of maintaining a medical license.<sup>79</sup> As already mentioned, after 1997, insurers were no longer required to report claims resulting in nonpayment, although the requirement was reinstated with an amendment in 2003. For this Article we have not separated hospitals or other institutional health care providers from individual health care providers.<sup>80</sup>

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action, including pain and suffering, inconvenience, physical impairment, mental anguish, disfigurement, loss of capacity for enjoyment of life, and other nonfinancial losses." *Id.* Pain and suffering is often a mischaracterized synecdoche for non-economic damages. See generally Vidmar et al., *supra* note 26. In some states, they are synonymous. In Florida, however, non-economic damages represent all the elements above. Therefore, we will continue to use the label non-economic damages.

75. TASK FORCE REPORT, *supra* note 3, at 135.

76. For a full list of what is included, see FLA. STAT. ANN. § 627.912(1) (West 1996).

77. See David M. Studdert et al., *The Jury Is Still In: Florida's Birth-Related Neurological Injury Compensation Plan after a Decade*, 25 J. HEALTH POL. POL'Y & L. 499, 500 (2000).

78. See FLA. STAT. ANN. § 458.320(i)(c) (West, Supp. 2005).

79. TASK FORCE REPORT, *supra* note 3, at 108 (stating that 600 Doctors and 128 Osteopathic Physicians also opted to sign a nonrevocable letter of credit).

80. Claims frequently involve more than one health care provider. Before July 1999, the closed-claim data reported each health care provider as a separate claim, although it arose out of the same incident. This was true whether any payment was made on behalf of the provider and even if the same insurer represented the providers. This would, of course, inflate the number of claims while decreasing the average indemnity paid. Consequently, we identified some claims using the Office of Insurance file number, and combined all providers affected by a single claim into one claim. After June 1999, each separate provider's claim file reflected the *total* amounts for the claim regardless of the number of professionals involved or the apportionment of the claim. Again, this would result in an over-counting of claims. In these cases, all duplicate files were identified by the insurers' claim number, marked, and removed from the analyses. However, it has become evident that duplicates remain within the dataset, and that meticulous line-by-line assessment will be necessary to cull additional errors. However, for the purposes of this Article, we have decided to remove only exact matches for the sake of consistency. In short, there is an unquantifiable amount of noise in the data.

In carefully scrutinizing the data, we found coding errors and cases involving several defendants coded as separate cases, and we corrected for these redundancies. A close inspection of the files indicated that either the majority of closed-claim files do not contain a breakdown of payouts into medical, income, and non-economic losses or that the data were incompletely reported or entered despite the fact that they are included in the list of variables provided by the Florida Department of Insurance.<sup>81</sup> Only 2,117 files of 21,116 paid claims—10%—contained a breakdown of the elements of the damages that include both economic (i.e., past and future medical costs, past and future income losses, and other losses) and non-economic losses. For a disproportionate number of cases, including cases that were labeled as having Permanent Severe and Permanent Major physical injuries (Levels 7, 8, and 9 on the National Association of Insurance Commissioners (NAIC) scale),<sup>82</sup> the data listed only non-economic damages, raising questions about accuracy of reporting since logically severe injuries would entail, at minimum, medical losses and more than likely income losses in many instances. In fact, while 15,409 files showed some amount in the breakdown columns, in only 10,201 claims—48%—did the figures report equal the amount of payment. Of these, 7,717 reported *only* non-economic damages and 367 reflected *only* economic damages. Of the 7,717 cases reporting only non-economic damages, 42%, or 3,247 cases, involved ratings indicating major permanent injuries or death, that is, cases rated as a 7, 8, or 9 level of injury severity. While minor injuries might result in a payment only for non-economic losses, it is highly unlikely that a successful claimant who suffered from paraplegia because of an adverse incident would *only* receive non-economic damages. Medical losses, at a minimum, would comprise some fraction of the award and in many instances there would also be income and other losses, including nonmedical expenses such as modified vehicles or wheelchairs. These discrepancies constitute a major deficiency in the closed-claim database because we do not know if these cases are different in important ways from cases without such data. This insight also raises very

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81. See *infra* apps. A & B. Subsequent to our own cleaning of the files we learned that the Florida Auditor General also found similar problems with the data. See WILLIAM O. MONROE, OFFICE OF INS. REGULATION, CLOSED CLAIM DATABASE: OPERATIONAL AUDIT (Report No. 2005-031, Sept. 2004), available at [http://www.state.fl.us/audgen/pages/pdf\\_Files/2005-031.pdf](http://www.state.fl.us/audgen/pages/pdf_Files/2005-031.pdf). We have corrected many of these deficiencies in our sample. Although the database is not perfect, it provides a very detailed look at the overwhelming majority of closed claims. Nevertheless, our own findings, along with those of the Auditor General, offer a caution to other researchers who might use the raw database for research.

82. For a description of these categories, see *infra* tbl. 6.

serious problems for the Milliman Report claim that non-economic damages constituted approximately 75% of awards,<sup>83</sup> since the calculations in that report were based on a small subsample of cases that may not be representative of all cases.

Even for the small number of cases reporting breakdowns of the elements of the damages payment, there are a few major qualifications that have not, to our knowledge, been clearly identified in previous writings about closed-claim files.<sup>84</sup> Future medical and income losses are estimates and almost invariably contestable. The closed-claim estimates of economic and non-economic losses suffered by patients are estimates made by the insurers and their legal counsel. Legal claims and potential legal claims take place in the context of the American adversarial system. Insurers and defense lawyers seek experts who are conservative in estimating medical and income losses while claimants/plaintiffs and their lawyers seek estimates on the generous side.<sup>85</sup> Therefore, it is likely that when insurers report damages, the estimates are conservative estimates that might well be contested by claimants and their legal counsel.<sup>86</sup> This insight has a further ramification because non-economic losses are typically calculated by subtracting economic losses from the claimant's total payment. To the extent that the economic losses are underestimates, the non-economic payment to the claimant will be inflated.<sup>87</sup>

Similar arguments about reporting deficiencies might be made about insurer estimates of the severity of the injury suffered by the claimant, information also provided in the closed-claim data. The evaluations are made according to a version of the NAIC scale.<sup>88</sup> The

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83. TASK FORCE REPORT, *supra* note 3, at 2.

84. One subject for future study is the effect of subrogation and insurance liens on plaintiff awards. Often, insurance companies or Medicare will have a lien on any payment made to plaintiffs at the end of litigation or settlement. This may greatly affect the overall payment to plaintiffs. Further exploration of this subject is left to a future article.

85. See VIDMAR, *supra* note 41, at 72–76.

86. To test this hypothesis for the present Article, two experienced plaintiffs' attorneys from North Carolina who were unfamiliar with the Florida statute were provided with a bare oral description of the reporting requirement and asked to comment on the probable accuracy of the figures. Both immediately offered the view that the economic damages would be biased toward the defense perspective of low economic losses and gave explanations consistent with the adversary bias hypothesis.

87. Additionally, different insurers may make these estimates differently, adding some unreliability into the data that is above and beyond any systematic biases.

88. The NAIC scale was created by the International Standards Organization (ISO) for statistical reporting on the closed claims studies they do for the NAIC every two years. The NAIC publishes the reports, which is why their name is associated with the scale. While more than one scale exists, the scale used in the Florida closed-claim reports is the most widely used. Another article on the nuances of the scale and its application will be forthcoming.

scale is based on physical injury. A patient who suffered a severe psychological trauma or even psychosis might be classified as suffering "emotional trauma only" and receive a rating of 1,<sup>89</sup> but in reality the medical and income losses may be very high. Moreover, the insurer's closed-claim data rating involves only the "most severe injury." The patient may suffer from multiple injuries that, in total, render the injury more serious than even the most severe injury. In short, the severity rating entered by the insurer might be contestable as overly conservative.

Finally, and critically, the data do not speak directly to the contemporary crisis involving assertions by liability insurers that claims started increasing around the year 2000. As documented below in Table 1, there is a substantial lag time of between three and six years, and sometimes longer, between a patient's injury, filing of a claim, and final settlement of the claim.<sup>90</sup> Any increase in claims and the payouts for those claims beginning in 2000 may not be fully reflected in closed-claim data until the second half of the decade.

All of the above qualifications are important to keep in mind. Nevertheless, the data are the best available and they provide important insights into the profile of medical negligence claims in Florida. And to the extent that the contemporary debate revolves around payouts that liability insurers are making today, the data do speak to the "crisis."

### C. *The Westlaw Florida Jury Verdict File*

Westlaw maintains several databases reporting jury verdicts in Florida, including medical malpractice cases.<sup>91</sup> The data report whether the plaintiff or defendant prevailed at trial, the amounts of verdicts, and in many instances, the jury's breakdown of the separate elements of the verdict, such as the specific amount for non-economic damages.<sup>92</sup> They occasionally also report any judicial *remittitur* or "Judgment Not Withstanding the Verdict" (JNOV). Of particular importance, the Westlaw Data also contain the court docket number, allowing us to link these cases to the Florida closed-claim files.<sup>93</sup> This linking will eventually lead us to ask questions about whether and to what extent eventual payments to claimants are less than the jury ver-

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89. For further illustrations of the NAIC scale, see *infra* note 124.

90. See *infra* note 93 and accompanying text; tbl. 1.

91. See *supra* note 29.

92. Florida juries are required to return itemized verdicts in most civil cases. FLA. STAT. ANN. § 768.77 (West 1996).

93. Since 2001, the docket numbers have been omitted from the files released to the public.

dicts. Additionally, in some cases with multiple defendants a jury verdict may not fully describe the results of the litigation. For instance, a plaintiff who failed to prevail against one defendant at trial may still have received a settlement from a co-defendant who agreed to settle before trial.

For the present Article, we use these additional data only to illustrate the hypothesis that the NAIC rating of the severity of the patient's injury may underestimate the actual seriousness of the injury.

#### *D. Summary of Data Limitations*

The databases that we use in this Article cannot answer all of the questions raised in the debate about medical malpractice litigation. In particular, they cannot address the question of whether medical negligence actually occurred, nor can they provide definitive information according to some standard on the correctness of settlements or jury verdicts with respect to liability and amount of damages awarded to prevailing claimants. The data can, however, develop the major outlines of medical negligence claiming and litigation, including frequencies, costs, and stages at which disputes are resolved. The profile developed from these data provides answers to many questions from the current debate—at least as it pertains to the State of Florida—regarding the frequency of claims and costs associated with claims of medical negligence. We proceed in this task by addressing various questions related to litigation patterns and outcomes. Throughout, we will note qualifications imposed by deficiencies in the data sets.

#### IV. PRELIMINARY ISSUE: TIME FROM CLAIM TO DISPOSITION

The time from the injury to a final disposition for the claimant is interesting in its own right. It reveals important information regarding the time elapsed between the injury occurrence and receipt of payment. This information also bears directly on ancillary issues such as business cycles and the profits of medical liability insurers,<sup>94</sup> although that topic is not pursued in this Article. The information also sets the stage for interpreting other analyses that follow in this Article. Table 1 reports the distribution of times to disposition for cases in which a payment was made to the claimant. Information on claims closed without payment was not calculated because data on nonpayment claims were not reported past 1998. Disposition time has been rounded up to the next year to simplify the data. Almost half (46%)

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94. See generally TOM BAKER, *INSURANCE LAW AND POLICY* (2003).



of cases were closed within three years and 96% were closed within six years.

TABLE 1: YEARS TO DISPOSITION (ROUNDED) AND NUMBER OF CLAIMS RESULTING IN PAYMENT (1990–2003)

Years to Disposition	Number of Claims	Cumulative Number of Paid Claims	Cumulative Percent of Claims
1	1,773	1,773	8.40%
2	3,354	5,127	24.28%
3	4,703	9,830	46.55%
4	4,841	14,671	69.48%
5	3,170	17,841	84.49%
6	1,644	19,485	92.28%
7	822	20,307	96.17%
8	430	20,737	98.21%
9	161	20,898	98.97%
10	83	20,981	99.36%
11	69	21,050	99.69%
12	34	21,084	99.85%
13	14	21,098	99.91%
14	5	21,103	99.94%
15	6	21,109	99.97%
16	4	21,113	99.99%
17	1	21,114	99.99%
18	1	21,115	99.99%
21	1	21,116	100.00%
Grand Total*	21,116	21,116	100.00%

\*Two cases lack injury date.

There is reason to be suspicious about cases recorded as taking a decade and a half or longer to resolve. Some of these may be a result of recording errors. It is possible, however, that some injuries that were not subject to tolling under a statute of limitations might be represented in some of those claims. For example, there is a case involving a birth injury that took twenty-one years to resolve. A young adult probably discovered that a health care provider was negligent at her birth, but only filed a claim many years later. On the other hand, for some cases, the apparent length of time could be the result of a coding error regarding the time of the incident. Regardless of these outlier cases, Table 1 shows that the mean and median times to close

cases were just slightly over three years and more than 92% of claims resulting in payment were closed at the end of five years.

It is also important to ask if disposition time varied by year. Table 2 reports average annual disposition times for all paid claims. Further, Table 2 shows that disposition times for all paid claims averaged about three and one-third years from the reported date of the incident to a closed claim. Disposition times did not change substantially over the fourteen-year period. The standard deviations indicate that two-thirds of these claims were settled between approximately 1.5 and 5.2 years.<sup>95</sup>

TABLE 2: AVERAGE ANNUAL DISPOSITION TIME FROM INCIDENT TO DISPOSITION: PAID CLAIMS (1990–2003)

Disposition Year	Number of Cases	Mean Number of Years to Disposition	Standard Deviation
1990	1,289	3.58	2.07
1991	1,328	3.48	1.86
1992	1,191	3.30	1.86
1993	1,231	3.30	1.85
1994	1,321	3.31	1.85
1995	1,640	3.23	1.80
1996	1,807	3.23	1.81
1997	1,758	3.19	1.81
1998	1,713	3.20	1.76
1999	1,470	3.29	1.83
2000	1,538	3.39	1.93
2001	1,552	3.36	1.96
2002	1,620	3.29	1.70
2003	1,658	3.50	1.78
Grand Total	21,116	3.32	1.85

95. The standard deviation is a statistical measure that describes the variability of a distribution of scores around the mean, or average, score. One standard deviation encompasses two thirds of the scores on either side of the mean. *See generally* David H. Kaye & David A. Freedman, *Reference Guide on Statistics*, in FED. JUDICIAL CTR., REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 174 (2d ed. 2000).

## V. FREQUENCY OF CLAIMS AND AMOUNTS OF PAYOUT TO CLAIMANTS

### A. *Frequency of Claims: 1990–2003*

To obtain a complete picture of medical negligence claims, we would like to learn about not only the total number of claims, but also the frequency of claims in which the claimant/plaintiff received money versus claims resulting in no payment to the claimant/plaintiff. Table 3 reports the nonpaid claims through 1996 and the paid claims through 2003. Unfortunately, beginning in 1998, nonpaid claims were no longer systematically reported in the database.<sup>96</sup> We hypothesize that some insurers started to omit reporting of nonpaid claims in 1997 in anticipation of the 1998 changes. But as of this writing, we have not found enough data to confirm our hypothesis, and thus include the 1997 data in Table 3. We therefore ask questions about nonpaid claims from 1990 through 1997.

TABLE 3: FREQUENCY OF CLAIMS BY YEAR AND PERCENTAGE OF  
CLAIMS RESULTING IN PAYMENT

Year	Reported Total Claims	Percent of Claims Resulting in No Payment	Total Paid Claims
1990	2,776	53%	1,289
1991	2,383	44%	1,328
1992	2,293	48%	1,191
1993	2,148	43%	1,231
1994	2,394	45%	1,321
1995	2,831	42%	1,640
1996	3,093	42%	1,807
1997	2,882	39%	1,758
1998	2,289*	*	1,713
1999	1,510*	*	1,470
2000	1,577*	*	1,538
2001	1,609*	*	1,552
2002	1,673*	*	1,620
2003	2,063*	*	1,659

\* After 1997 the total claims data and the no payment claims data become unreliable because claims resulting in no payment were not required to be reported from 1998 through 2002.<sup>97</sup>

96. See *supra* note 68 and accompanying text. Close examination of the data indicates that claims of no payment are reported for those cases that resulted in extended litigation even if the final outcome was favorable to the defense.

97. If we assume that the insurance companies are dropping the reporting of nonpaid claims over time, then the increase between 1999 (two years after mandatory reporting) and 2003 may

Table 3 indicates that there was no consistent increasing trend in total claims between 1990 and 1997 (the last year for reporting all claims), although there was fluctuation from year to year.<sup>98</sup> For this period, the mean frequency of total claims was 2,600 cases per year. The reported nonpaid claims during the period averaged approximately 45% per year and show a slight, but statistically significant decrease in their proportion of total claims between 1990 and 1997.<sup>99</sup> It is tempting to extrapolate and argue that the same paid to unpaid relationship existed in subsequent years, but it is also possible that it changed. The data do not allow us to go further on this matter.<sup>100</sup>

Next consider only paid claims. Table 3 reports these data for all fourteen years. The average number of paid claims was 1,508 per year. From 1990 through 1996, the number of paid claims increased steadily but then began a modest decline. Comparing the first four years of the 1990s decade (i.e., 1990–1993) with the first four years of the 2000 decade (i.e., 2000–2003) shows that the annual number of paid claims moved from an average of 1,260 paid claims to an average of 1,592, an increase in frequency of 26%. Thus, there was an increase in the number of claim payments.<sup>101</sup>

However, this percent increase needs to be compared to increases in population and number of health care providers. Table 4 reports the number of paid claims by settlement date and paid claims by date of injury adjusted by annual population.<sup>102</sup> First, consider settlement date. Calculating the population change from 12,938,071 in 1990 to 17,019,068 in 2003 yields a population growth of 4,080,997 persons, or

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be an early sign that there is going to be a real rise in claims during the next few years. *But cf.* Stephen L. Goldstein, *Refreshing Honesty*, SUN SENTINEL (FORT LAUDERDALE, FL.), July 23, 2003, at 21A, LEXIS, News, Sun Sentinel (Fort Lauderdale).

98. Pearson's correlation coefficient:  $r = 0.53$ ,  $t$ -test of correlation coefficient:  $t = 1.54$ ,  $df = 6$ ,  $p < 0.20$  n.s.

99. Pearson's correlation coefficient:  $r = -0.84$ ,  $t$ -test of correlation coefficient:  $t = 3.78$ ,  $df = 6$ ,  $p < 0.01$ . The 1990 figure appears aberrant. We have no verifiable explanation for the aberration, but suspect it is related to a change in data submission or data entry rather than a substantive difference in claims outcomes.

100. Florida DOI file "#MPL\_Readme.doc" provided with the database states: "Neither the Department of Financial Services nor the State of Florida accepts legal liability or responsibility for the accuracy, completeness or usefulness of this information on closed claim reports filed by insurers. This information is unaudited. Any conclusions drawn from it should be sensitive to the fact that the Department of Financial Services does not attest to its completeness or accuracy." #MPL\_Readme.doc (on file with the DePaul Law Review).

101.  $t$ -test for two means:  $t = 7.94$ ,  $df = 6$ ,  $p < 0.001$ .

102. Population data were obtained from the U.S. Census Bureau. See <http://www.census.gov/popest/archives/1990s/ST-99-03.txt>; <http://www.census.gov/popest/states/tables/NST-EST2004-01.pdf> (last visited Jan. 26, 2005).

31.5%. The fourth column in Table 4 reports the payment cases per 100,000 persons by year.

TABLE 4: ANNUAL PAID CLAIMS BY SETTLEMENT DATE AND BY DATE OF INJURY PER 100,000 POPULATION

Year	Florida Population	Paid Claims Frequency by Settlement Date	Paid Claims per 100,000 Persons by Settlement Date	Paid Claims Frequency by Injury Date	Paid Claims per 100,000 Persons by Injury Date
1990	12,938,071	1,289	9.96	1,336	10.33
1991	13,258,732	1,328	10.02	1,442	10.88
1992	13,497,541	1,191	8.82	1,501	11.12
1993	13,730,115	1,231	8.97	1,582	11.52
1994	14,043,757	1,321	9.41	1,624	11.56
1995	14,335,992	1,640	11.44	1,768	12.33
1996	14,623,421	1,807	12.36	1,703	11.65
1997	14,938,314	1,758	11.77	1,559	10.44
1998	15,230,421	1,713	11.25	1,398	9.18
1999	15,580,244	1,470	9.44	1,317	8.45
2000	15,982,378	1,538	9.62	—	—
2001	16,355,193	1,552	9.49	—	—
2002	16,691,701	1,620	9.71	—	—
2003	17,019,068	1,658	9.74	—	—

These data show that while the per capita payment fluctuated over the period, with an apparent increase starting about 1995 and a decrease beginning in 1999, the per capita number of paid claims dropped. In fact, during the first four years of the twenty-first century, per capita paid claims were at approximately the same level as a decade before.<sup>103</sup>

The settlement date could possibly be misleading because, as Tables 1 and 2 illustrated, settlements occur in most cases between three and six years after the injury. We conducted an additional analysis comparing actual injury dates against size of population. The most recent years (1998 forward) cannot be analyzed reliably because a substantial number of claims arising out of injuries during those years are still

103. The mean claims for 1990–1994, 1995–1998, and 1999–2003, respectively, were 9.44, 11.71, and 9.60 per 100,000 persons. The 1990–1994 means and the 1999–2003 means were not statistically different from one another as assessed by *t*-test comparisons but each was statistically significant from the 1995–1998 mean at the 0.001 level of probability. We do not at this time have an explanation for the increased claims frequency during the 1995–1998 period.

awaiting settlement. These data are reported in the last two columns of Table 4. The basic per capita pattern is approximately the same as for settlement date except shifted back in time.

Another criterion by which changes in payment frequency can be assessed is the number of licensed doctors in Florida.<sup>104</sup> Table 5 reports these data, although the statistics were missing for 1991 and are not yet available for 2003. These data show that the number of licensed doctors in Florida increased annually at an average rate of 3.5%. Payments per 100 doctors were at their highest in the years 1995 to 1997 but in the first three years of the twenty-first century, the payments per 100 doctors were fractionally lower than a decade before.<sup>105</sup>

Figure 1 graphically reports the data discussed in Tables 3 through 5. One line shows the population growth in Florida from 1990 through 2003. Another shows the frequency of payments per 100,000 persons, and the third line shows the frequency of payments per 100 doctors.

The conclusion to be drawn from Tables 3 through 5 and Figure 1 is that paid claims frequency increased over the period examined in this Article. When the frequency of paid claims is compared to the increases in population and in doctors, the data indicate that, except for a period in the mid-1990s, paid claims frequency actually remained stable.

Keep in mind the caveat, discussed earlier, that the data involve closed claims. As a result, any increase in claims beginning in 2000 will not be fully reflected in closed claims until the second half of the decade, that is, beginning about 2006, because of the time lag between filing and closing of claims.

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104. *PHYSICIAN CHARACTERISTICS AND DISTRIBUTION IN THE U.S.* (AMA Press 1991–1992, 2003–2004). Two caveats are necessary in interpreting this table. First, the number of licensed doctors may be higher than the number of practicing doctors, but we treat licensed doctors as an imperfect proxy for the number of practicing doctors. Second, hospitals and other health care facilities also become defendants in malpractice suits. We acknowledge this fact and simply use number of doctors as a surrogate for those corporate defendants.

105. The mean claims for 1990–1994, 1995–1998, and 1999–2003, respectively, were 3.60, 4.21, and 3.31 per 100 physicians. A *t*-test on the means revealed that the difference between the 1990–1994 mean and the 1995–1998 mean was statistically significant at the 0.01 level; the difference between the 1995–1998 and the 1999–2003 mean was significant at the 0.001 level. The difference between the 1990–1994 mean and the 1999–2003 mean was significant at the 0.06 level, just missing the commonly accepted standard of 0.05. It is appropriate to conclude that there was a trend toward a slightly lower number of claims per 100 physicians in 1999–2003 than during the 1990–1994 period.

TABLE 5: NUMBER OF DOCTORS, PAID CLAIMS, AND PAID CLAIMS PER 100 DOCTORS

Year	Number of Doctors	Percent Increase in Doctors over Previous Period	Payment cases	Payment cases per 100 Doctors
1990	32,425	—	1,289	3.98
1991	*	—	1,328	—
1992	34,690	7.0%*	1,191	3.43
1993	36,142	4.2%	1,231	3.41
1994	36,821	1.9%	1,321	3.59
1995	38,918	5.7%	1,640	4.21
1996	40,450	3.9%	1,808	4.47
1997	41,855	3.5%	1,758	4.20
1998	43,297	3.4%	1,713	3.96
1999	44,917	3.7%	1,470	3.27
2000	46,013	2.4%	1,538	3.34
2001	47,305	2.8%	1,552	3.28
2002	48,706	3.0%	1,620	3.33

\*Data not available for 1991, and thus, the 7% increase between 1990 and 1992 represents two years.

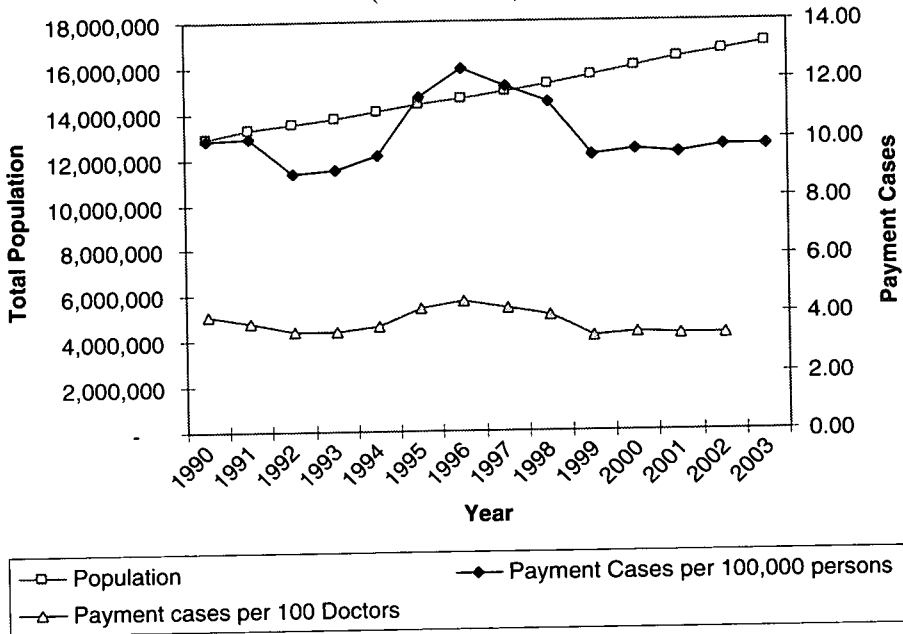
*B. Mean and Median Amount of Payment for Paid Claims: 1990–2003*

Even if paid claim frequency, adjusted for population and physician growth, did not increase over the period, the mean and median amount of payment per year for paid claims may have increased. In calculating these amounts, we consider not only the amount paid by the primary insurer but also any deductible paid by the insured and any amount paid by an excess insurer.<sup>106</sup> Table 6 reports the mean, standard deviation, and median total amount paid per paid claim by year. The amounts are converted by the Consumer Price Index to 2003 dollars.<sup>107</sup>

106. The closed claims from 1975 through the first half of 1999 each report the amount paid by the primary insurer, any deductible paid by the health care provider, and any amount paid by the excess insurer.

107. Inflation adjustments are difficult to calculate in a totally satisfactory way. While past medical and economic losses are straightforward—they can be adjusted by the Consumer Price Index (CPI)—future economic and medical costs are problematic because the inflation rate for medicals is higher than for other economic losses. Each figure could be adjusted separately in the data, that is, the medical inflation rate for future medical losses and the CPI for other economics. However, this is problematic for two reasons. First, the majority of the closed claims do not separate medical from lost income and the non-economic portion of awards. Second, when

FIGURE 1: POPULATION, AND PAID CLAIMS BY DATE OF SETTLEMENT PER CAPITA AND PER PHYSICIAN BY YEAR (1990-2003)



First, consider changes in mean payments. There is some fluctuation from year to year, but there is an unmistakable upward trend in mean payments. For instance, if we consider the three-year period of 1991 through 1993, the average mean payment to paid claimants was \$217,597. A decade later, the mean payment in a similar three-year period (i.e., 2001 through 2003) was \$275,496. This is a 27% inflation-adjusted increase.<sup>108</sup> Mean statistics can be influenced by outlier payments that are very large or very small. Median statistics are not influenced by outlier payments and provide an alternative way of looking at changes in payments. The median payments averaged over 1991 through 1993 amounted to \$78,860, while the median payments for 2001 through 2003 averaged \$128,789, a 63% increase.<sup>109</sup> Both mean and median statistical results indicate that the payouts increased substantially since the early 1990s.

plaintiff and defense experts assess future economic and non-economic costs, they often adjust for inflation. Recognizing the potential error in any adjustment, we settled for using the CPI as our index of inflation and set it in terms of 2003 dollars. Data from the Bureau of Labor Statistics is available at <http://www.bls.gov/cpi/home.htm> (last visited Nov. 1, 2004).

108. *t*-test for two means:  $t = 3.02$ ,  $df = 4$ ,  $p < 0.05$ .

109. *t*-test for two means:  $t = 3.62$ ,  $df = 4$ ,  $p < 0.05$ .



TABLE 6: FREQUENCY, MEAN PAYMENT PER PAID CLAIM,  
STANDARD DEVIATION, AND MEDIAN: BY YEAR

Year	Frequency	Mean Payment	Standard Deviation	Median Payment
1990	1,289	\$176,603	\$347,401	\$ 48,517
1991	1,328	\$218,140	\$392,774	\$ 80,046
1992	1,191	\$222,428	\$424,260	\$ 74,687
1993	1,231	\$212,223	\$449,379	\$ 81,848
1994	1,321	\$211,262	\$344,579	\$ 91,898
1995	1,640	\$228,919	\$473,973	\$ 89,243
1996	1,807	\$240,841	\$497,220	\$113,699
1997	1,758	\$224,674	\$410,308	\$101,700
1998	1,713	\$191,834	\$320,371	\$ 83,685
1999	1,470	\$268,955	\$635,770	\$109,440
2000	1,538	\$259,837	\$804,428	\$106,040
2001	1,552	\$238,288	\$515,508	\$103,362
2002	1,620	\$287,920	\$554,220	\$133,033
2003	1,658	\$300,280	\$617,673	\$150,000

### C. *Alternative Explanations for Payment Increases*

One hypothesis to explain this finding is that settlements and jury verdicts have increased independently of any reasonable cause. That is, juries became more generous and the generosity inflated settlement values. A second hypothesis is that the actual costs of injuries increased, possibly because the costs of future medical care increased (e.g., treatments cost more; patients are expected to live longer following the injury, thus affecting both medical care and lost income estimates).

There is, however, another possible explanation involving the types of claims that were closed. Assume that the number of claims involving more serious injuries increased during the period. Even with no increase in the amount paid for each level of injury, we should expect amounts of damages to increase.<sup>110</sup>

Consider a simple example by way of illustration: Make the assumptions that economic losses are paid directly in proportion to severity of injury and that there is no inflation over time. Level 4 claims are

110. Case mix is an important consideration in asking about changes in claim and verdict patterns. See generally Neil Vidmar, *Pap and Circumstance: What Jury Verdict Statistics Can Tell Us About Jury Behavior and the Tort System*, 28 SUFFOLK U. L. REV. 1205 (1994).

worth \$100 and level 8 claims are worth \$1000. At Time 1, there are eleven claims to be paid. Six of the claims are at severity level 4 and five are at severity level 8. The mean payout for all eleven cases would be:  $(6 \times \$100 = \$600) + (5 \times \$1000 = \$5000)$  divided by eleven claims = \$509 per claim. At Time 2, the rate of payment per claim has not changed and there are still only eleven cases but the mix of severity has changed; now there are five cases at severity level 4 and six cases at severity level 8. The mean payout for all eleven cases would be:  $(5 \times \$100 = \$500) + (6 \times \$1000 = \$6000)$  divided by eleven claims = \$590 per claim. The mean payment per claim increased 16% between Time 1 and Time 2, even though there was no change in payment rate per case. In short, the 16% jump in mean payment can be attributed to the changing mix of cases. Note also that the median for the eleven cases changed. At Time 1, it was \$100, and at Time 2, it was \$1000.

Using the logic of the above example, we can ask if there was a change in the mix of claims that resulted in payments. The data set allows a test of the change hypothesis because each case contains the NAIC rating of injury seriousness. We initially consider the relationship between injury severity and amount of payment. Table 7 shows that both median and mean payments had a strong positive relationship to severity of injury, except for death cases (Category 9), when the amount declined.<sup>111</sup> The lesser payment for death cases has been shown in other studies<sup>112</sup> and reflects, in part, the fact that deceased patients do not have expensive future medical bills. Nevertheless, while death cases tended to result in lower payments than level 6, 7, or 8 injuries, they still tended to involve substantial payments. There were more death paid claims than any other category, constituting 26.3% of all paid claims. The simple and obvious conclusion to be drawn from Table 7 is that greater injuries result in larger payments than lesser injuries (death being a partial exception).

Now we can ask about changes in the pattern of paid claims over time. Table 8 shows the frequency of each rating of seriousness by year. The bottom row shows the average percent that each injury level represents for all years. Interpreting Table 8 is less confusing than it appears. Reading down column 1, representing "emotional injuries," we see that in the years 2000, 2002, and 2003, the number of paid claims of level 1 injuries was below the mean of 2.8% for all years

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111. Pearson's correlation coefficient:  $r = 0.91$ ,  $t$ -test of correlation coefficient:  $t = 5.41$ ,  $df = 5$ ,  $p < 0.001$ ; Pearson's correlation coefficient:  $r = 0.94$ ,  $t$ -test of correlation coefficient:  $t = 6.69$ ,  $df = 5$ ,  $p < 0.001$ .

112. See generally Randall R. Bovbjerg et al., *Valuing Life and Limb in Tort: Scheduling "Pain and Suffering"*, 83 Nw. U. L. Rev. 908 (1989).

TABLE 7: INJURY SEVERITY, PAID CLAIM FREQUENCY, MEDIAN AND MEAN PAYMENT PER CLAIM AND STANDARD DEVIATION (1990–2003)

Injury Severity Code	Number of Paid Claims	Median Payment per Claim	Mean Payment per Claim	Standard Deviation
Unrated	18	\$ 90,923	\$174,227	\$ 230,269
1	577	\$ 16,737	\$ 55,298	\$ 163,468
2	1,173	\$ 11,158	\$ 34,631	\$ 183,064
3	3,484	\$ 28,332	\$ 66,379	\$ 120,821
4	2,131	\$ 59,100	\$127,399	\$ 297,729
5	3,407	\$ 85,384	\$159,129	\$ 367,082
6	2,417	\$226,000	\$306,209	\$ 397,189
7	1,294	\$297,475	\$601,828	\$1,135,010
8	1,063	\$324,725	\$694,427	\$ 981,995
9	5,552	\$194,835	\$289,675	\$ 415,472
Grand Total	21,116	\$137,163	\$236,119	\$ 506,635

(although 2001 was above the mean). Column 2 shows that since 1999, the number of level 2 injuries resulting in paid claims was below the mean of 5.6% for all years. Moving to level 6 injuries, we see a slight decline below the mean of 11.5% beginning in the year 2000. Level 7 injuries in 2002 and 2003 constituted more than two percentage points above the mean of all years. Level 8 injuries for those two years remained at average frequencies for the period. Level 9 injuries showed a very substantial change in frequencies in the years 2002 and 2003. Whereas injuries resulting in death over the whole fourteen-year period constituted 26.1% of paid claims, that figure jumped to 30.1% in 2002 and to 31.4% in 2003. Put differently, from 1990 through 2001, the percentage of level 9 injuries averaged 25.5% of paid claims, but in 2002 to 2003, the percentage of paid claims averaged 30.7%. The 5.2% jump in level 9 claims is statistically significant.<sup>113</sup>

One hypothesis to explain the increase in the more serious injuries, particularly at levels 7 and 9, is that there were more injuries and deaths resulting from medical incidents. An alternative hypothesis, however, is that there was a shift in the selection, litigation, and negotiation of claims. Plaintiffs' lawyers, for example, might have changed the strategies they used in selecting cases to pursue against health care

113. Z-test of two properties:  $Z = -6.29$ ,  $n = 21,120$ ,  $p < 0.001$ .

TABLE 8: ANNUAL SEVERITY OF INJURY BY PERCENT AND TOTAL FOR PAID CLAIMS (1990-2003)

Year/ Severity*	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Level 9	Total
1990	3.0%	9.8%	18.7%	10.5%	15.2%	9.9%	6.2%	4.2%	22.4%	100.0%
1991	2.4%	5.7%	15.7%	11.4%	18.2%	13.0%	5.6%	6.3%	21.7%	100.0%
1992	3.4%	6.0%	17.5%	9.1%	16.0%	12.1%	5.9%	5.6%	23.9%	100.0%
1993	3.0%	6.3%	18.8%	8.0%	16.1%	12.2%	6.0%	3.7%	25.9%	100.0%
1994	2.6%	6.9%	15.3%	8.6%	15.5%	14.2%	4.7%	5.3%	27.0%	100.0%
1995	3.2%	5.9%	15.3%	10.6%	15.6%	12.8%	5.9%	4.2%	26.4%	100.0%
1996	3.2%	5.6%	15.1%	12.0%	14.4%	12.5%	5.9%	5.9%	25.2%	100.0%
1997	2.6%	5.5%	15.6%	10.6%	16.7%	11.9%	6.0%	4.9%	26.1%	100.0%
1998	3.2%	5.8%	16.1%	10.7%	15.6%	10.2%	4.6%	5.3%	28.5%	100.0%
1999	2.3%	3.9%	20.1%	11.2%	13.7%	9.6%	7.2%	5.2%	26.7%	100.0%
2000	2.6%	5.3%	17.2%	10.4%	19.1%	11.1%	5.4%	5.1%	23.9%	100.0%
2001	3.5%	4.0%	16.5%	10.2%	20.2%	10.3%	5.3%	3.5%	26.5%	100.0%
2002	1.9%	4.6%	15.1%	9.0%	15.2%	10.4%	8.0%	5.9%	30.1%	100.0%
2003	1.7%	3.6%	15.6%	8.3%	14.7%	10.7%	8.8%	5.2%	31.4%	100.0%
<b>All Years</b>	<b>2.8%</b>	<b>5.6%</b>	<b>16.6%</b>	<b>10.0%</b>	<b>16.2%</b>	<b>11.5%</b>	<b>6.1%</b>	<b>5.0%</b>	<b>26.1%</b>	<b>100.0%</b>

\* 1: Emotional Only - Fright, no physical damage.

2: Temporary: Slight - Lacerations, contusions, minor scars, rash. No delay.

3: Temporary: Minor - Infections, mis-set fracture, fall in hospital. Recovery delayed.

4: Temporary: Major - Burns, surgical material left, drug side effect, brain damage. Recovery delayed.

5: Permanent: Minor - Loss of fingers, loss or damage to organs. Includes non-disabling injuries.

6: Permanent: Significant - Deafness, loss of limb, loss of eye, loss of one kidney or lung.

7: Permanent: Major - Paraplegia, blindness, loss of two limbs, brain damage.

8: Permanent: Grave - Quadriplegia, severe brain damage, lifelong care, or fatal prognosis.

9: Permanent: Death.

providers.<sup>114</sup> In turn, these changes in selection strategies might have been in response to the way that defendants and their insurers contested claims or a reaction to subtle and unknown changes in the legal environment, including the cultures of law firms and courts.

To clarify the picture further, Table 9 reports the annual average injury severity levels of paid claims and the average payment per claim. The data show that average severity of injuries increased more or less consistently over the period.<sup>115</sup> Similarly, the average payment also showed a positive change over the period.<sup>116</sup> Severity and payment were positively correlated over the period and the correlation of 0.82 is statistically significant at the 0.01 level of probability.

TABLE 9: ANNUAL MEAN SEVERITY OF INJURY AND AVERAGE PAYMENT OF PAID CLAIMS (1990–2003)

Year	Average Severity Code	Average Payment
1990	5.34	\$176,603
1991	5.60	\$218,140
1992	5.59	\$222,428
1993	5.62	\$212,223
1994	5.77	\$211,262
1995	5.70	\$228,919
1996	5.70	\$240,841
1997	5.73	\$224,674
1998	5.76	\$191,834
1999	5.74	\$268,955
2000	5.62	\$259,837
2001	5.69	\$238,288
2002	6.04	\$287,920
2003	6.12	\$300,280
Overall Average	5.74	\$236,119

For further explication, Figure 3 shows the relationship in graph form.<sup>117</sup>

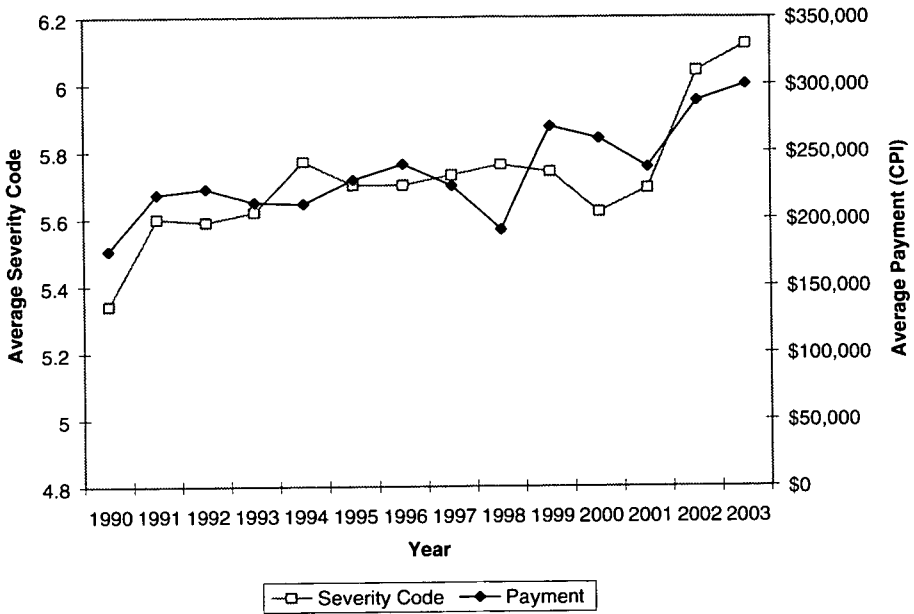
114. See generally KRITZER, *supra* note 40.

115. The Pearson correlation between year and average severity: coefficient:  $r = 0.77$ ,  $t$ -test of correlation coefficient:  $t = 4.26$ ,  $df = 12$ ,  $p < 0.001$ .

116. The Pearson correlation between year and average payment:  $r = 0.79$ ,  $t$ -test of correlation coefficient:  $t = 4.53$ ,  $df = 12$ ,  $p < 0.001$ .

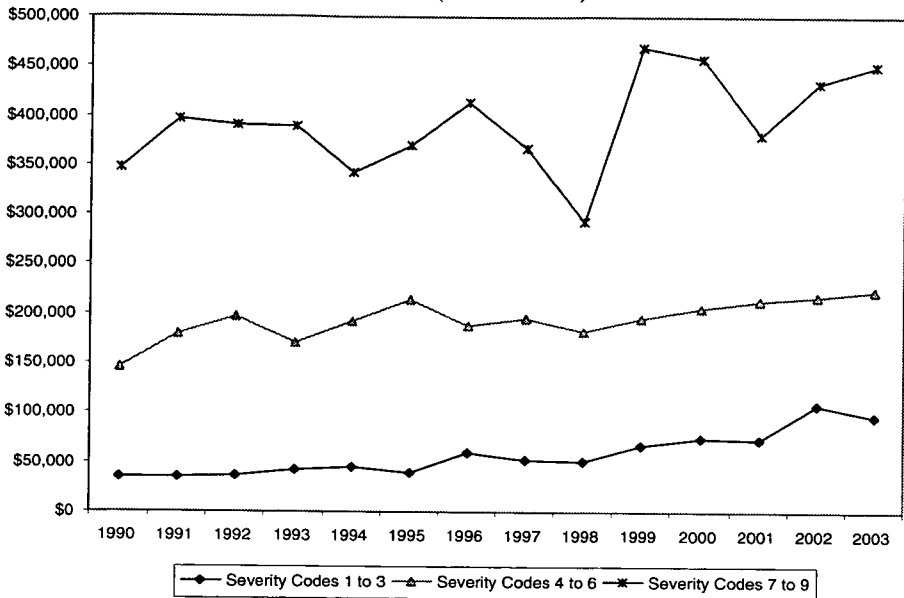
117. Another way to look at the data is to compare the first seven years (1990–1996) with the last seven years (1997–2003). If we do that, we find that for level 9 injuries during the first seven years, death claims constituted 24.6% of paid claims, whereas in the last seven years they constituted 27.6% of paid claims, a 3% increase.

FIGURE 3: ANNUAL MEAN INJURY SEVERITY AND ANNUAL MEAN PAYMENT PER CLAIM



This finding can be explored further by asking if the amounts paid for different levels of severity changed over the period. To simplify the data, severity codes 1 through 3 were combined, severity codes 4 through 6 were combined, and codes 7 through 9 were combined to represent least, moderate, and most serious levels of rated injury, respectively, and the mean amounts of payment for each level were compared over the period. Figure 4 presents the results.

FIGURE 4: ANNUAL INFLATION-ADJUSTED MEAN PAYMENT FOR LEAST, MODERATE, AND MOST SERIOUS LEVELS OF INJURY (1990–2003)



All three levels show an upward trend in the mean amount of payment. For less severe injuries (levels 1–3) and moderately severe injuries (levels 4–6), the trends were statistically significant.<sup>118</sup> For the most severe injuries (levels 7–9), the upward trend fell just short of statistical significance.<sup>119</sup> At present, we cannot explain the more erratic levels of payment for severe injuries compared to the relatively smooth upward progression of lesser severity injury payments.

The cause of the upward trend in payments is uncertain. Our decision to adjust the data according to the Consumer Inflation Index rather than the Medical Inflation Index may account for some of the trend.<sup>120</sup> Medical inflation has increased at a faster rate than the CPI.<sup>121</sup> Using medical inflation would over-inflate lost income and other losses. In any event, medical inflation cannot be ruled out as an explanation of the upward trend in payments. Another possible ex-

118. For severity codes 1–3, the Pearson correlation is:  $r = 0.92$ ,  $t$ -test of correlation coefficient:  $t = 7.86$ ,  $df = 12$ ,  $p < 0.001$ . For moderately severe injuries, the Pearson correlation is:  $r = 0.77$ ,  $t$ -test of correlation coefficient:  $t = 4.23$ ,  $df = 12$ ,  $p < 0.01$ .

119. Pearson's correlation coefficient:  $r = 0.47$ ,  $t$ -test of correlation coefficient:  $t = 1.82$ ,  $df = 12$ ,  $p < 0.10$  n.s.

120. See *supra* note 107.

121. The following table shows yearly percentage increase in CPI and Medical CPI from 1991 through 2003:

planation is that since 1990, plaintiffs' lawyers have progressively found ways of better documenting, and thus negotiating, losses. This explanation would suggest that earlier claimants were under-compensated rather than later claimants being over-compensated. The other explanation has already been mentioned, namely that juries have become more generous in their awards and the "shadow effect" of these awards has also increased settlement values. At this point, we cannot distinguish the validity of the alternative hypotheses or the degree to which each might have contributed to the increase in payments. Nevertheless, we have identified the change in case mix as a heretofore unidentified factor that probably explains at least some of the upward trend in the amounts of paid claims.

#### D. Million-Dollar Awards

Some large payments to claimants occurred in Florida from 1990 through 2003. Large payments are often the focus of debate. Have they increased in numbers? We separate these cases out for examination. Table 10 reports the number of awards equal to or exceeding one million dollars according to the rating of injury severity.

As a preliminary matter, consider the million-dollar payments for claims rated as relatively minor injuries (i.e., severity levels 1–4). While awards exceeding one million dollars may be understandable when a claimant has sustained very severe injuries, how can these be justified with minor injuries? The explanation could lie in simple recording errors misclassifying the case.<sup>122</sup> An alternative explanation is

Year	CPI	Medical CPI
1991	5.2%	14.1%
1992	3.5%	11.2%
1993	4.0%	8.4%
1994	3.4%	6.5%
1995	3.5%	6.8%
1996	3.6%	4.5%
1997	2.4%	3.4%
1998	1.4%	3.6%
1999	2.1%	3.3%
2000	3.4%	4.3%
2001	2.4%	4.0%
2002	1.3%	4.4%
2003	2.3%	4.2%

Data from the Bureau of Labor Statistics is available at <http://www.bls.gov/cpi/home.htm> (last visited Jan. 25, 2004).

122. Scrutiny of the cases indicates occasional recording errors. Ultimately, each of the above cases will be carefully checked against the prose description of the injury and against the Westlaw database (*see supra* note 29), but this is a very labor-intensive process and awaits a later article.



TABLE 10: INJURY SEVERITY CLAIMS OVER ONE MILLION DOLLARS, THEIR PERCENTAGE OF ALL CLAIMS AND MAXIMUM PAYMENT WITHIN EACH CATEGORY (AVERAGED OVER 1990-2003)

Injury Severity	Total Number of Paid Claims	Number of Million-Dollar Paid Claims	Million-Dollar Paid Claims as Percent of all Paid Claims	Mean Payment of Million-Dollar Paid Claims	Maximum Payment of Million-Dollar Claims (Real \$)
1	577	3	0.5%	\$1,809,160	\$ 2,000,000
2	1,173	2	0.2%	\$3,458,223	\$ 5,750,000
3	3,484	12	0.3%	\$1,373,373	\$ 2,145,150
4	2,131	15	0.7%	\$1,938,110	\$10,075,831
5	3,407	36	1.1%	\$2,265,964	\$13,200,000
6	2,417	100	4.1%	\$1,643,062	\$ 7,000,000
7	1,294	203	15.7%	\$2,101,999	\$25,000,000
8	1,063	204	19.2%	\$2,157,869	\$ 9,750,000
9	5,552	226	4.1%	\$1,630,936	\$10,000,000
Total/ Average Payment	21,116	801	3.8%	\$1,921,697	\$25,000,000

that, as described earlier,<sup>123</sup> the NAIC scale focuses on physical injury. If the patient suffered a severe psychological trauma without major physical injuries, the case might be misclassified as minor. In other instances, the recording may be due to the statutory instructions that only the most serious injury need be noted. In some instances, the patient may incur multiple injuries that are cumulatively devastating and warrant a much higher classification. In other instances, professional malfeasance as well as negligence may be at the heart of the claim.<sup>124</sup> A subsequent article will analyze these issues in detail.

123. See *supra* note 88.

124. Some selected examples will help to illustrate this point. They were obtained from a request for a sample of the original sheets submitted by insurance companies to the Florida Department of Insurance.

Example 1. The NAIC rating was 7 (Permanent-Major Injury): Claimant was fourteen to fifteen weeks pregnant. A staff physician indicated that she was larger than her gestational period would indicate, and she was referred to a high-risk clinic for a follow-up sonogram to rule out the existence of twins. Five months later, a sonogram detected massive hydrocephalus. Plaintiff underwent a Caesarian section and delivered a baby boy. The child was born with severe brain damage, resulting in an inability to walk, speak, hold his head up, or perform fine motor movement. Given the profound nature of his physical and mental impairment, he was not expected to live more than a few years, at best. This seems understated at a rating of 7, described as "paraplegia, blindness, loss of two limbs, brain damage." Compare this to the level 8

Next, consider the question of whether million-dollar awards have increased since 1990 after adjustments for inflation. These data are reported in Table 11.

Although annual frequency is uneven, Table 11 shows a substantial increase in the number of million-dollar payments over the period, with a large jump in 2002 and 2003. The percentage of million-dollar claims as a percent of all paid claims for the 1990–2001 period was 3.43%, but for the 2002–2003 period it was 5.76%, a 2.33% increase that is statistically significant.<sup>125</sup> At the same time, the mean million-dollar payment, adjusted for inflation, did not change in a statistically significant way over the period.<sup>126</sup> The average amount of money paid to each claimant for claims equal to or exceeding one million dollars did not increase over the years, but there were more claimants who received million-dollar payments.

Thus, whether we consider all claims or the subset of million-dollar claims, we see that the explanation for the increases in mean and median payments that are reflected in Table 6 must be viewed in the context of a complex claiming environment. That is, the relative envi-

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description, “quadriplegia, severe brain damage, lifelong care or fatal prognosis.” Individually, the injuries might rate as 7s, but taken together, they result in a far more serious condition.

Example 2. The NAIC rating was 1 (Emotional Injury Only): Plaintiff claimed that a broken vascular clamp was left in her ankle area. Defendant claimed that the object was a vascular clip. Plaintiff complained of pain in the ankle on multiple occasions because of the object left inside of her. Both sides agreed that there was some serious physical pain in the woman’s leg, yet this injury was listed as emotional only.

Example 3. The NAIC rating was 3 (Temporary–Minor): Plaintiff had a pre-existing history of depression, unstable and abusive relationships with men, and recurrent migraine headaches. Defendant negligently prescribed unnecessary and addictive medicines to plaintiff. Plaintiff eventually became addicted to these medications and suffered physical and mental impairments. Defendant preyed upon the weakness and addiction of plaintiff and coerced her into sexual relations in exchange for defendant continuing to supply plaintiff with mood-altering prescription drugs. Plaintiff contended that the defendant carelessly and recklessly abused and violated the physician-patient relationship for his own sexual gratification. At trial, defendant admitted sexual relations, but claimed they were only isolated incidents. Plaintiff presented testimony from defendant’s former employees that he sexually harassed them. Considering the egregious behavior of the defendant, the injury was not minor and there is a strong possibility that the psychological injury to a mentally unstable person was not temporary.

Example 4. NAIC rating of 6 (Permanent–Significant): The doctor in this case performed sixteen unnecessary surgeries on a woman’s back. The plaintiff allegedly suffered some neurological deficits as a result. The defendant contended that this was untrue. However, both sides acknowledged that the plaintiff completely lost sexual function, bowel control, and bladder control. Thus, even though she has four separate injuries each severe enough to merit a 6 rating, the four are treated collectively as one 6, when arguably the total damage is much greater. Furthermore, the 6 rating does not take into consideration the emotional and physical complications associated with sixteen unnecessary surgeries and the loss of the ability to have children.

125. Z-test of two proportions:  $Z = -6.43$ ,  $n = 21,120$ ,  $p < 0.001$ .

126. Pearson’s correlation coefficient:  $r = 0.004$ , t-test of correlation coefficient:  $t = 0.012$ ,  $df = 12$ ,  $p < 0.95$  n.s.

TABLE 11: ANNUAL NUMBER OF MILLION-DOLLAR AWARDS,  
MEAN AWARD AND MAXIMUM PAYMENT (1990-2003)

Year	Total Number of Paid Claims	Number of Paid Claims Exceeding One Million Dollars	Million- Dollar Paid Claims as Percent of all Paid Claims	Mean Payment of Million- Dollar Paid Claims	Maximum Payment In Real \$
1990	1,289	29	2.2%	\$1,853,846	\$ 3,170,000
1991	1,328	50	3.8%	\$1,792,060	\$ 3,250,000
1992	1,191	37	3.1%	\$1,991,582	\$ 5,146,500
1993	1,231	28	2.3%	\$2,374,042	\$ 6,000,000
1994	1,321	41	3.1%	\$1,624,361	\$ 3,000,000
1995	1,640	61	3.7%	\$1,909,115	\$ 7,750,000
1996	1,807	68	3.8%	\$1,842,762	\$11,750,000
1997	1,758	52	3.0%	\$2,006,218	\$ 6,000,000
1998	1,713	39	2.3%	\$1,726,268	\$ 4,000,000
1999	1,470	66	4.5%	\$2,276,905	\$10,075,831
2000	1,538	73	4.7%	\$1,990,631	\$25,000,000
2001	1,552	68	4.4%	\$1,743,002	\$13,200,000
2002	1,620	92	5.7%	\$1,902,670	\$ 7,000,000
2003	1,658	97	5.9%	\$1,923,519	\$10,000,000
Total/ Overall Mean	21,116	801	3.8%	\$1,921,697	\$25,000,000

ronment produced greater payments per case, and the pool of cases involving the most serious injuries also increased. Many of these most serious injuries involved payments of one million dollars or more. It is important again to provide a reminder that the data in Tables 6 and 11 do not speak to the question of whether the increased claims or the payments were justified or not justified. On the other hand, they do strongly suggest that at least a significant part of the increase in mean payments in 2002 and 2003 is because a greater percentage of more serious (and, presumably, more costly) paid claims were closed.

## VI. STAGES OF SETTLEMENT

To this point, we have ignored the stages and methods by which claims are settled. These data are also in the closed-claims reports and are described in Table 12 along with the percentage of paid claims

settled at each stage.<sup>127</sup> Table 12 shows that approximately 20% of paid claims were settled without the claimant resorting to a lawsuit and more than 6% of claims were settled in arbitration. Most of the remaining claims were settled before trial. By adding the figures of stages 6 through 9, we see that only 2.3% of all paid claims went to trial. Alternatively, if missing data and pre-suit claims are subtracted from the data, we can conclude that the trial rate for prevailing claimants was 2.9%. Keep in mind that these percentages refer *only* to claims resulting in payment. Thus, the trial rate does not reflect cases in which plaintiffs received no money. Nationwide statistics indicate that defendants prevail in between seven and eight cases out of ten.<sup>128</sup> Trials and trial outcomes will be explored in a subsequent article. The 2.9% figure, however, is important in leading us to consider the role of the jury trial in claims resulting in payments.

Cases involving large payments (i.e., a million dollars or more) are presented in Table 13 and yield some interesting insights. First, eighty-seven claims (10.1% of million-dollar claims) were settled for an average of almost two million dollars (\$1,914,021) without the claimant formally filing a lawsuit, and an additional thirty-eight cases were settled following arbitration. Second, only sixty of the 801 million-dollar payments—just 7.5%—followed a jury trial verdict. Put in the obverse, almost 93% of million-dollar payments to claimants were settled rather than adjudicated. Over the fourteen years examined in this Article, thirty-four of the 801 million-dollar cases resulted in payments over five million dollars. Only two were settled following a jury trial. Five of the 801 cases exceeded ten million dollars but only one was the result of a jury trial. Of the remaining four cases over ten million dollars, one was settled in prelitigation negotiations, and three settled before a trial had commenced. In short, the closing of claims,

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127. The files contained 189 cases that were classified either as paid claims without additional data or as “abandoned” claims. Some of these cases may be results of clerical errors in recording the data. It is also possible that some of the “abandoned” claims were jury trials lost by the plaintiff or cases abandoned at a late stage in the litigation process, possibly in mid-trial due to a summary judgment ruling in favor of the defendant. The statute required reporting of cases with “a final judgment of any amount, but eliminated the requirement for disposition of any amount.” See *supra* note 67. In any event, they constitute a small fraction (less than one tenth of one percent) of the cases and should not have any substantial impact on conclusions. For completeness, however, they are reported in Table 11.

128. THOMAS H. COHEN & STEVEN K. SMITH, U.S. DEP’T OF JUSTICE, CIVIL TRIAL CASES AND VERDICTS IN LARGE COUNTIES 2001, at 1 (NCJ 202803, Apr. 2004), <http://www.ojp.usdoj.gov/bjs/pub/pdf/ctcvlc01.pdf> (stating that plaintiffs won in just over one-fourth of medical malpractice trials); CAROL DEFRAANCES & MARIKA F.X. LITRAS, U.S. DEP’T OF JUSTICE, CIVIL TRIAL CASES AND VERDICTS IN LARGE COUNTIES 1996, at 6 (NCJ 173426, Sept. 1999), <http://www.ojp.usdoj.gov/bjs/pub/pdf/ctcvlc96.pdf> (stating that plaintiffs won in just over twenty-three percent of medical malpractice trials); VIDMAR, *supra* note 41, at 73

TABLE 12: STAGE OF PAID CLAIMS, NUMBER OF CLAIMS, PERCENT SETTLED AT EACH STAGE, AND MEAN PAYMENT

Stage of Claim	Number of Claims*	Percent Resolved	Mean Payment
1-Presuit period	4,216	20.2%	\$147,413
2-After arbitration	1,314	6.3%	\$174,109
3-Within 90 days of suit	830	4.0%	\$196,552
4-After suit	13,683	65.4%	\$257,690
5-During trial, before verdict	382	1.8%	\$454,414
6-After trial	257	1.2%	\$399,855
7-After notice of appeal is filed	64	0.3%	\$555,044
8-During appeal	67	0.3%	\$825,576
9-After appeal	100	0.5%	\$619,649
Grand Total	20,913	100.0%	\$237,581

\* Data were missing for 183 cases and are not included in the Table.

including those involving million-dollar payments, takes place primarily around the private negotiation table rather than in the jury room.

TABLE 13: MILLION-DOLLAR PAID CLAIMS: SETTLEMENT STAGE, NUMBER OF PAID CLAIMS, MEAN PAYMENT, AND MAXIMUM PAYMENT

Stage of Claim	Number of Claims	Percent of All Million-Dollar Paid Claims	Mean Payment
1-Presuit period	81	10.1%	\$1,914,021
2-After arbitration	37	4.6%	\$2,119,068
3-Within 90 days of suit	26	3.2%	\$1,495,296
4-After suit	566	70.7%	\$1,875,881
5-During trial, before verdict	31	3.9%	\$2,391,471
6-After trial	24	3.0%	\$2,054,685
7-After notice of appeal is filed	7	0.9%	\$2,268,228
8-During appeal	12	1.5%	\$2,822,362
9-After appeal	17	2.1%	\$1,883,405
Grand Total	801	100.0%	\$1,921,697

## VII. TRANSACTION COSTS

Transaction costs as well as payments to claimants are an important issue. Did the costs of defending claims increase over the fourteen-

year period? First, consider all cases—those resulting in no payment, as well as in payment, to the claimant. This accounts for the fact that even when the claimant does not prevail, there are often legal transaction costs involved in defending the claim. These costs include lawyers' fees, as well as additional expenses associated with hiring and depositing experts.<sup>129</sup> Because nonpay cases were reported only through 1996, our analysis is limited to the first eight years. These data are reported in Table 14. The average cost of defending both paid and nonpaid claims remained stable over the period. On average, the cost of defending a paid claim was about 1.7 times higher than a claim resulting in no payment. This should not be surprising. Nonpaid claims tend to be settled, on average, at much earlier stages in the dispute process than paid claims. Of the nonpaid claims, 71% were resolved before stage 4 (62% were stage 10—abandoned claims), while only 31% of paid claims were resolved at the same point. In addition, claims that went to jury trial in which the defense ultimately won accrued considerable costs.

TABLE 14: MEAN TRANSACTION COSTS FOR PAID CLAIMS VS. CLAIMS WITH NO PAYMENT

Year	Paid Frequency	Paid Claims: Mean Cost	No Payment Frequency	No Payment: Mean Cost	Total
1990	1,289	\$36,785	1,485	\$14,579	\$24,880
1991	1,328	\$45,826	1,055	\$21,436	\$35,028
1992	1,191	\$38,362	1,102	\$18,926	\$29,021
1993	1,231	\$42,437	917	\$25,987	\$35,415
1994	1,321	\$40,503	1,073	\$25,581	\$33,815
1995	1,640	\$40,265	1,191	\$25,550	\$34,075
1996	1,807	\$38,386	1,285	\$23,704	\$32,311
1997	1,758	\$36,540	1,124	\$24,650	\$31,903
Grand mean	11,565	\$39,719	9,232	\$22,205	\$31,945

It is unfortunate for a further understanding of transaction costs that systematic nonpaid claims reporting was discontinued after 1997 because in the earlier period, nonpaid claims had contributed substantially to liability insurer costs. Table 14 indicates that on average there were 1154 nonpaid claims per year during the eight years. At an average of \$22,205 to defend these nonpaid claims, the estimated annual cost to insurers amounts to \$25,624,570.

129. Legal costs for lawyers and costs for experts are reported separately in the closed-claims files, but for these analyses we combined the two expenses to form a single variable.

It is extremely important to stress here that nonpaid claims should not be labeled frivolous claims. Many claims that ultimately prove to be unfounded begin as credible claims, at least in the eyes of the plaintiff and often in the eyes of the defendant.<sup>130</sup> It is only after a sometimes lengthy period of depositions and other discovery procedures that the evidence causes the plaintiff to abandon the claim. Nevertheless, the fact remains that insurers accrue substantial costs in defending ultimately unsuccessful claims.<sup>131</sup>

Table 15 reports the annual transaction costs for paid claims over the fourteen years. At least insofar as paid claims are concerned, Table 15 provides no support for a hypothesis that insurer transaction costs increased. While they increased somewhat for claims settled in 2003, costs for the immediately preceding years were no different than costs a decade earlier. The mean transaction cost for paid claims from 1990 to 1993 was \$40,853, compared to \$39,158 for the 2000–2003 period, a difference that is not statistically significant,<sup>132</sup> but is in direct opposition to a hypothesis that transaction costs in recent years have increased.

#### VIII. DISPOSITION TIME: SEVERITY AND STAGE OF SETTLEMENT

Time to disposition, as shown in Tables 1 and 2, is substantial. We can now ask some additional questions about the settlement process. Does the severity of the injury affect the time to disposition? These data are reported in Table 16. The table distinguishes between all claims and million-dollar claims. It shows only a modest increase in disposition time as injury severity increased. Generally, severe injury payment claims, including million-dollar claims, tended to take no longer than cases involving lesser injuries.<sup>133</sup>

A further question involves the time to disposition for cases settled at the various stages of the litigation process. These data are reported in Table 17 and show the expected progression.<sup>134</sup> In general, cases that go to trial will take longer to settle than those that settle before

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130. See VIDMAR, *supra* note 41, at 69–92.

131. Of course, plaintiffs' lawyers also incur substantial losses when claims are abandoned or lost at trial. See KRITZER, *supra* note 40, at 89.

132. *t*-test for two means:  $t = 0.60$ ,  $df = 6$ ,  $p < 0.60$ , *n.s.*

133. The average time to settlement for cases involving less than one million dollars was 3.36 years, compared to 3.34 years for cases over one million dollars, a non-significant difference: *Z*-test for two means:  $t = 0.29$ ,  $n = 21,120$ ,  $p < 0.80$  *n.s.*

134. The time to settlement for all paid cases was positively correlated to the stage of settlement: Pearson's correlation coefficient:  $r = 0.98$ , *t*-test for correlation coefficient:  $t = 11.89$ ,  $df = 7$ ,  $p < 0.001$ . Time to settlement for million-dollar cases also yielded a positive correlation: Pearson's correlation coefficient:  $r = 0.91$ , *t*-test of correlation coefficient:  $t = 5.63$ ,  $df = 7$ ,  $p < 0.001$ .

TABLE 15: ANNUAL MEAN TRANSACTION COSTS FOR PAID CLAIMS  
(1990–2003)

Year	Paid Claims
1990	\$36,785
1991	\$45,826
1992	\$38,362
1993	\$42,437
1994	\$40,503
1995	\$40,265
1996	\$38,386
1997	\$36,540
1998	\$37,487
1999	\$39,956
2000	\$36,995
2001	\$36,100
2002	\$39,129
2003	\$44,407
Grand Mean	\$39,413

trial. On the other hand, a great deal of variation might be expected. If the case is complicated, discovery and negotiation might take considerable time even though the case settles without trial. In a less complicated case, the parties might reach an impasse early and proceed to trial on a relatively fast track, ending the case while another case proceeding to trial is still in the discovery stage.

## IX. CONCLUSION

The data reported in this Article constitute a preliminary inquiry into the medical malpractice litigation process in the State of Florida. The findings present some broad outlines relevant to the debate about the role of the tort system and raise many additional questions that await further research.

While the absolute frequency of paid claims increased between 1990 and 2003, when the figures are adjusted for population growth or for number of licensed physicians, per capita claim frequency from 2000 through 2003 was no different than the first four years of the 1990s. Once again it is very important to stress that the data refer to closed claims, not new claims. If numbers of new claims actually increased beginning in 2000, as some sources have said, the payouts for these claims will begin around 2004. The new claims will reach their full



TABLE 16: TIME TO DISPOSITION ACCORDING TO LEVEL OF INJURY SEVERITY (ALL YEARS) OF ALL CASES AND SEPARATELY, MILLION-DOLLAR CASES

Injury Severity	All Paid Cases	Cases > Million-Dollar Only
1	2.76	2.82
2	2.42	5.03
3	2.77	3.10
4	2.92	4.39
5	3.49	3.30
6	3.83	3.96
7	4.01	3.79
8	3.81	3.63
9	3.51	3.16

impact near the end of the decade, since the majority of closed-claim cases take a minimum of three years to conclude, and less than 10% of paid claims require more than six years to disposition.<sup>135</sup>

TABLE 17: DISPOSITION TIME IN YEARS FOR STAGES OF SETTLEMENT (AVERAGED FROM 1990 THROUGH 2003)

Stage of Settlement	All Paid Cases	Cases > Million-Dollar Only
1 Presuit	1.71	1.81
2 After arbitration	1.82	2.03
3 Within 90 days of Suit	2.53	2.71
4 After suit	3.91	3.71
5 During trial	5.01	5.25
6 After trial	4.60	4.34
7 After notice of appeal	5.40	3.70
8 During appeal	5.98	5.62
9 After appeal	6.70	6.26

The data also indicate that the average yearly payouts for closed claims increased, particularly around 2002 and 2003. The analyses indicate that the payouts increased whether the injuries were minor, modest, or major, as assessed by a severity-of-injury scale. This

135. We do not address insurer reserves in this Article; however, Tom Baker's study suggests that the effect of reserves will be felt much sooner since insurers must set aside enough reserves to cover claims. See generally BAKER, *supra* note 94.

change could be due to increased medical costs of injuries or to inflation above and beyond patient economic losses.

However, one of the most interesting and striking findings bearing on increases in average paid claims is the discovery that in recent years there has been an increase in the frequency of claims involving very serious injuries and death. Indeed, in 2002–2003, the number of closed claims involving deaths jumped more than 5% over previous years. One explanation is that there was an increase in more serious medical negligence leading to deaths, but a plausible competing explanation is that around 1996, plaintiffs' lawyers and their clients began to select and pursue more cases involving deaths during medical treatment. Changes in case selection could result in an increase in mean overall payments, reflected about three years later, as the claims began to be resolved. Accompanying the increase in paid claims involving serious injuries and deaths was a large jump in payments equaling or exceeding one million dollars. Of course, if very serious injuries are likely to produce large economic losses, this increase would be expected. The present data do not allow us to test the competing hypotheses regarding what changed but the findings certainly call for research into these phenomena.

Another striking finding is that the vast majority of million-dollar awards were settled around the negotiation table rather than in the jury room. Much of the debate about tort reform involves claims about generous juries and the need for caps on non-economic, or "pain and suffering" components of jury awards. Yet, of a total of 831 million-dollar-plus payments, only sixty-three, just 7.5%, followed a jury trial. The rest were settled prior to trial. Indeed, 125 of the 801 cases (15.1%) were settled prior to litigation or settled in arbitration. Of the thirty-seven claims involving very large awards—payments of five million dollars or more—only two were claims that went before a jury. Future articles in our research will focus on jury verdicts and subsequent settlements, but at this stage, it would seem, debate about the role of juries in so-called "mega awards" is misplaced insofar as Florida is concerned.

Finally, the analyses showed no increase in transaction costs for paid claims over the fourteen-year period. Unfortunately, data on transaction costs for claims resulting in no payment were not reported after 1997.

Our data and the conclusions from those data are limited to the State of Florida. At this point, we have proceeded without attention to many important distinctions; for example, whether the patterns for hospitals and similar institutions are different from the patterns for

individual health care providers. Nevertheless, the present Article provides important background data bearing on the debate about the role of the tort system and its effect on the availability of medical liability malpractice insurance. It sets the stage for additional research, now in progress, and defines parameters around which serious discussion should take place.