

# Curbing Medical Malpractice Costs: An Empirical Investigation Across States

By Elizabeth Conway

## Introduction

In the past few decades, our nation has experienced a state of crisis in the medical malpractice insurance system. While both sides of the political spectrum have campaigned heavily on various policy initiatives and tort reform programs to combat the skyrocketing insurance premium rates, I believe they have ignored best solution. After a thorough analysis of the relevant factors contributing to the rising insurance premium rates, I strongly advocate for the implementation of state compensation funds throughout the nation.

The crisis has created epidemic problems for doctors, patients, and insurers. The median annual premium increase for internists, general surgeons, and obstetricians/gynecologists increased from 0-2 percent in 1996-97 to 17-18 percent in 2003, climbing to 60 percent in some states in 2001-02, after adjusting for inflation (Danzon, Patricia, Andrew Epstein and Scott Johnson, 2004). Many insurance companies have had to exit the market, because they were unable to cover their costs. This has left many patients without adequate care and many doctors without insurance coverage. There are many factors affecting the rise in premium rates throughout our country. Although many factors affect the rates, the use of the state compensation fund appears to be the most significant in this study.

The insurance companies, doctors and the Republican Party explain the malpractice “crisis” by referring to the frivolous lawsuits by patients and excessive jury awards. The patients, lawyers and the Democratic Party argue it is more complicated than jury awards and lawsuits; they claim that failing investments in the insurance market coupled with many other

confounding factors have contributed to this nationwide problem. In response to the past problems in medical malpractice, many states have adopted reforms of tort law, intended to reduce the level and unpredictability of claims, including caps on awards for noneconomic damages, collateral source off-set and short statutes of limitations. Some states focused on measures to assure the availability of insurance and reduce the costs to physicians through joint underwriting associations and patient compensation funds (Danzon et al., 2004). But have these reforms actually led to lower premium rates for doctors? Does tort reform solve the problem? Determining the factors that affect premium rates will allow policy makers to develop and implement policy that will decrease premium rates and lead the nation towards a more affordable and available healthcare system.

## Literature Review

Many scholars have proposed a series of different rationales for the difficulties of the system, which have only led to continued debate on the best policy action to take. The liability system is a primary political concern, especially as it was a key issue in the 2004 presidential election between President George W. Bush and U.S. Senator John Kerry. The opposing viewpoints of President Bush and Senator Kerry clearly illustrate the more general perspectives on this issue.

### The Case for Damage Limits

#### **President George W. Bush's Proposal**

President Bush strongly stands behind the claim that “junk lawsuits” are the main cause of rising medical liability premiums and consequently the source of skyrocketing healthcare costs (Office of the Press Secretary, 2003). He believes that limiting the claims made against

doctors and hospitals and enforcing strict tort reform will create a more efficient healthcare system. The specific proposals the President has made to Congress include the following:

- Secure the ability of injured patients to get quick, unlimited compensation for their “economic losses,” including the loss of ability to provide unpaid services for care for children or parents.
- Ensure that non-economic damages do not exceed \$250,000.
- Reserve punitive damages for cases where they are justified and limit punitive damages to reasonable amounts.
- Provide for payments of judgments over time rather than in a single lump sum.
- Ensure old cases cannot be brought forward years after the event.
- Reduce the amount that doctors must pay if a plaintiff has received other payments from an insurer to compensate for their losses.
- Provide that defendants pay judgments in proportion to their fault. (Office of the Press Secretary, 2003).

### Articles Supporting Bush’s Proposal

The Republican doctrine strongly maintains the belief that our medical malpractice insurance premiums are rising because of frivolous lawsuits and excessive jury rewards. If the government regulates the amount of money available to plaintiffs, through the use of damage caps, the Administration believes the crisis will be solved. Not only do they believe it will solve the medical malpractice crisis, but President Bush claims that these regulations will decrease the overall cost of healthcare in our nation and allow healthcare access to all patients. While speaking to a group in Scranton, Pennsylvania, the President said, “For the sake of affordable and accessible health care in America, we must have a limit on non-economic damages.... Excessive jury awards will continue to drive up insurance costs, will put good doctors out of business or run them out of your community, and will hurt communities like Scranton,

Pennsylvania” (2003). Many scholars and advocacy groups have agreed with the President’s proposals and conducted studies to prove the viability of his plan.

A 2002 study, *Confronting the New Health Care Crisis: Improving Health Care Quality and Lowering Costs by Fixing Our Medical Liability System*, agreed with the President’s plan. This study emphasized, “Americans spend proportionally far more per person on the costs of litigation than any other country in the world. The excesses of the litigation system are an important contributor to “defensive medicine.” As multi-million dollar jury awards have become more commonplace in recent years, these problems have reached epic proportions. Insurance premiums for malpractice are increasing at a rapid rate, particularly in states that have not taken steps to make their legal systems function more predictably and effectively. Doctors are facing much higher overall costs and some cannot obtain insurance despite having never lost a single malpractice judgment or even faced a claim (“Confronting the New Health,” 2002).

By analyzing data published by the Medical Liability Monitor, this study confirmed that medical malpractice insurance premiums have been rapidly increasing in many states. Rates have increased excessively for doctors who are in a specialty practice such as internal medicine, general surgery, and obstetrics/gynecology. The average increases ranged from 11% to 17% in 2000 and are continuing to rise. A recent special report revealed that rate increases are averaging 20% (“Confronting the New Health,” p. 12). The report by Department of Health and Human Services (HHS) further reported findings regarding the comparison of states with caps with states without noneconomic caps. The overall increases in the states without caps are greater than those with damage limits. The states with limits of \$250,000 or \$350,000 on non-economic damages have an average combined lowest premium increase of 12-15%, compared to 44% in states without caps on non-economic damages (“Confronting the New Health,” p. 12).

Therefore, the conclusions made by the HHS during this investigation strongly favor the proposals made by the President.

A 2004 study done by Emory Professor Kenneth E. Thorpe comes to the same conclusion regarding tort reform. Thorpe used data from the National Association of Insurance Companies (NAIC) to study state-level trends in insurance premiums earned and loss ratios experienced by insurers for 1985-2001. Thorpe compared the trends for those states that capped non-economic damages, modified joint-and-several liability, capped attorneys' fees, or changed collateral-source rules, with those that did not. He also controlled for a number of state characteristics, including the degree of competition in the insurance market of the state and the number for physicians practicing ("The Effects of Tort Reform," p. 18).

Thorpe found that the medical community is experiencing a true crisis. As seen on the next page, the malpractice premiums are continuously rising in all specialties (Thorpe, 2004, pg. 21). From 2001-2002 there was a percentage change of 14.2 for OB/GYN, 20.0 percent change for internal medicine and even a 21.9 percent increase for general surgery.

**Table 1.**

**Trends In Medical Malpractice Premiums, As Percentage Change, 1998-2002**

<b>Year</b>	<b>Premiums earned (%)</b>	<b>OB-GYN premiums (%)</b>	<b>Internal medicine premiums (%)</b>	<b>General surgery premiums (%)</b>
1998	9.1	0.3	-2.9	1.0
1999	3.9	2.1	5.1	1.1
2000	5.3	4.8	7.3	7.0
2001	14.1	10.3	9.9	12.0
2002	23.2	14.2	20.0	21.9

**SOURCES:** Premiums earned: National Association of Insurance Commissioners data; and premium increases for physician specialties: tabulations from the Medical Liability Monitor, 8 October 2002.

**NOTE:** OB/GYN is obstetrician/gynecologist.

As seen in Table 2 below, loss ratios in states capping awards were 11.7% lower than in states without caps (Thorpe, 2004, pg. 26). In addition, there were significant decreases from the

implementation of discretionary collateral offset. This offset means that some states have adopted a rule whereby the amount a plaintiff receives is reduced by the amount he/she receives from other sources. This is to avoid a plaintiff receiving the amount asked for from several different sources. Thorpe also controlled for competition in the insurance market, which indicated that a 10% increase in the index (less competition) is associated with a 2% increase in premiums ( $p < .05$ ). The results found by Thorpe indicated that capping non-economic damages would help to decrease premium rates, supporting the President's tort reform package.

**Table 2.**

**Impact Of State Medical Malpractice Tort Reforms On Loss Ratios And Premiums, Relative To No Tort Reforms**

<b>Performance measure</b>	<b>Awards caps</b>	<b>No punitive damage or punitive cap</b>	<b>Mandatory collateral offset rule</b>	<b>Discretionary collateral offset</b>	<b>Attorney fee caps</b>
Loss ratio	-11.7% ( $p = .06$ )	NS	NS	-13.3% ( $p \leq .10$ )	NS
Total earned premium	-17.1% ( $p < .05$ )	NS	NS	NS	NS
Earned premium per physician	-12.7% ( $p < .05$ )	NS	NS	NS	NS

**SOURCE:** Author's analysis (regression results available upon request).

**NOTES:** Statistical findings denote difference from zero. NS is not significantly different from zero.

## The Case Against Damage Limits

### Senator John Kerry's Proposal

Critics of the President's view see alternative explanations to the cause of the medical malpractice crisis and therefore propose a different plan to combat the issue. The Democratic plan is a multi-pronged approach that is based on maintaining and protecting patient rights, while also monitoring the liability system. According to the Democrats, the current Administration appears to have good intentions regarding the elimination of excessive jury awards and frivolous law suits, but they are missing a crucial point. In order to understand the malpractice insurance

system, we must take into account the many causal factors. Senator John Kerry believes that solving the crisis of medical malpractice will not be accomplished by the tort reform proposed by the President. During the 2004 presidential campaign, the Democratic nominee advocated the following:

- Eliminate the special privileges that allow insurance companies to fix prices and collude in ways that increase medical malpractice premiums.
- Require that individuals making medical malpractice claims first go before a qualified medical specialist to make sure a reasonable grievance exists
- Require states to ensure the availability of non-binding mediation in all malpractice claims before cases proceed to trial.
- Support sanctions against plaintiffs and lawyers who bring frivolous malpractice claims, including a “three strikes and you’re out” provision preventing lawyers who file three frivolous cases from bring another suit for ten years.
- Oppose punitive damages – unless intentional misconduct, gross negligence, or reckless indifference to life can be established (“Real Plan to Lower,” 2004).

### Articles Supporting Kerry’s Position

Many scholars agree with the stance taken by the Senator John Kerry and the Democratic Party and have analyzed all facets of the situation in order to understand its complexity. Scott Harrington and Robert Litan extensively researched the cause of the medical malpractice insurance crisis. In their article, *Causes of the Liability Insurance Crisis*, these two scholars examined available data on industry premiums, losses, and expenses in order to understand the dramatic premium increase. They concluded that the total increase in general liability insurance premiums since 1980 can be largely explained by growth in the discounted value of expected future losses. The evidence further suggests that liability insurers failed to anticipate rapid growth in losses in recent years. The growth in premiums was also aggravated by the reductions in interest rates that led to an even greater increase in the discounted value of losses (Harrington

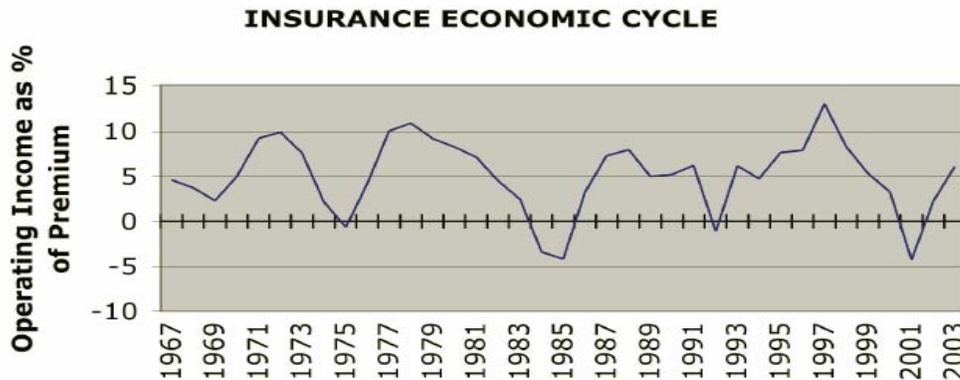
& Litan, 1988, pg. 741). Harrington and Litan identify an important point that is crucial to Senator Kerry's proposal; the insurance market is partially to blame. It is more complicated than an abundance of lawsuits bombarding our courtrooms.

Specifically looking at the effect of jury awards and tort litigation on medical liability insurance, Harrington and Litan found no significant evidence to determine a direct relationship. Admitting that standards of proof have been relaxed within the legal system, and a variety of legal doctrines have made it easier for accident victims to recover damages for their injuries (Harrington & Litan, 1988, pg. 740), they still determine little correlation. The jury award data from Cook County, Illinois and San Francisco, California shows that the average awards for both product liability and medical malpractice cases have grown significantly faster than the GNP and CPI for medical care. The award data also overstates the amount plaintiffs eventually receive because they do not reflect reductions in verdicts by appellate courts (Harrington & Litan, 1988, pg. 740). In short, Harrington and Litan found that the picture of medical malpractice was more complicated than it initially appeared and merely capping damages would not solve the problem; a multi-pronged approach was needed.

Many civic organizations, such as the Americans for Insurance Reform (AIR) have also looked beyond damage caps and into the cyclical nature of the insurance companies. In their publication, *Medical Malpractice Insurance: Stable Losses/Unstable Rates 2004*, the AIR examined the trends in medical malpractice insurance – both premiums and claims – over the past 30 years. They found that the amount that medical malpractice insurers have paid out, including jury awards and settlements, directly track the rate of medical inflation. On the other hand, medical malpractice premiums charged by insurers have not corresponded to increases or decreases in payouts. Rather, they have moved in sync with the state of the economy, reflecting

gains or losses experienced by the insurance industry's market investments. Figure 1 shows the market in the past few decades; the recent medical malpractice crises exactly corresponds with the cycles in the market (Americans for Insurance Reform, 2004)

**Figure 1.**



In this study, the AIR examined the medical malpractice insurance market and found that it operated in cycles of “hard” and “soft” markets. A “soft” market is when the market experiences high interest rates, excellent insurer profits, and high competition within the insurance market. Insurers severely under price their policies and insure very poor risks just to get premium dollars to invest. When investment income decreases – because interest rates drop or the stock market plummets – the industry responds by sharply increasing premiums and reducing coverage, creating a “hard” insurance market, usually designated a “liability insurance crisis” ((Americans for Insurance Reform, 2004, pg. 3-4). The market has gone through periods of economic growth and many periods of hardship, which we have found ourselves in once again.

Loss ratios are the percent of premiums that insurers pay out in claims. These ratios will drop during hard market years reflecting sudden rate hikes, as they did during the years 1985-1987, and as they did again after 2001. Table 3 shows the exact phenomenon at hand regarding

the market. Insurers did not respond to higher loss ratios during these years by raising rates because they were making significant money from investments. In fact, during the soft market, insurers are expected to take a larger underwriting loss (a combined loss ratio over 100 percent) than during the hard market as they benefit from more investment during these times. As shown below, when the income drops, insurers will then raise rates and loss ratios will drop as well (Americans for Insurance Reform, 2004, pg. 7-8). This study concluded that insurance payouts may follow the track of medical inflation, but premiums rise and fall in relationship to the state of the economy. Capping non-economic damages would not remedy the situation of medical malpractice; rather, the overall economy must improve and insurance companies must have less latitude to arbitrarily change rates.

**Table 3. Loss Ratios from 1975 to 2003**

Year	Written Premiums (thousands)	Paid Losses (thousands)	Loss Ratio	Number of Doctors (Non-federal)	Medical Care Inflation (CPI-U)	Direct Premiums Written per Doctor	Direct Losses Paid per Doctor	Direct Premiums Written per Doctor-2003 Dollars	Direct Losses Paid per Doctor-2003 Dollars
1975	\$865,208	\$190,867	0.221	366,425	47.5	\$2,361.21	\$520.89	\$14,793.63	\$3,263.51
1976	\$1,187,978	\$188,545	0.159	381,000	52	\$3,118.05	\$494.87	\$17,844.85	\$2,832.17
1977	\$1,423,091	\$248,969	0.175	395,575	57	\$3,597.53	\$629.39	\$18,782.87	\$3,286.05
1978	\$1,412,555	\$294,456	0.208	410,151	61.8	\$3,443.99	\$717.92	\$16,584.64	\$3,457.17
1979	\$1,405,991	\$391,800	0.279	424,726	67.5	\$3,310.35	\$922.48	\$14,594.96	\$4,067.10
1980	\$1,493,543	\$521,849	0.349	439,301	74.9	\$3,399.82	\$1,187.91	\$13,508.49	\$4,719.91
1981	\$1,616,470	\$665,570	0.412	455,904	82.9	\$3,545.64	\$1,459.89	\$12,728.37	\$5,240.81
1982	\$1,815,056	\$847,543	0.467	472,507	92.5	\$3,841.33	\$1,793.72	\$12,358.71	\$5,770.92
1983	\$2,033,911	\$1,079,862	0.531	489,109	100.6	\$4,158.40	\$2,207.81	\$12,301.59	\$6,531.27
1984	\$2,282,590	\$1,197,979	0.525	505,712	106.8	\$4,513.62	\$2,368.90	\$12,577.27	\$6,600.97
1985	\$3,407,177	\$1,556,300	0.457	522,315	113.5	\$6,523.22	\$2,979.62	\$17,104.06	\$7,812.64
1986	\$4,335,863	\$1,709,883	0.394	547,222	122	\$7,923.41	\$3,124.66	\$19,327.92	\$7,622.12
1987	\$4,781,084	\$1,905,491	0.399	556,647	130.1	\$8,589.08	\$3,423.16	\$19,647.27	\$7,830.38
1988	\$5,166,811	\$2,128,281	0.412	566,072	138.6	\$9,127.48	\$3,759.74	\$19,598.40	\$8,072.85
1989	\$5,500,540	\$2,273,628	0.413	575,496	149.3	\$9,557.91	\$3,950.73	\$19,051.81	\$7,874.99
1990	\$5,273,360	\$2,415,117	0.458	584,921	162.8	\$9,015.51	\$4,128.96	\$16,480.44	\$7,547.78
1991	\$5,043,773	\$2,423,418	0.480	609,384	177	\$8,276.84	\$3,976.83	\$13,916.31	\$6,686.47
1992	\$5,228,362	\$2,808,838	0.537	633,846	190.1	\$8,248.63	\$4,431.42	\$12,913.17	\$6,937.35
1993	\$5,469,575	\$3,028,086	0.554	648,662	201.4	\$8,432.09	\$4,668.20	\$12,459.73	\$6,898.00
1994	\$5,948,361	\$3,174,987	0.534	661,960	211	\$8,985.98	\$4,796.34	\$12,674.07	\$6,764.89
1995	\$6,107,568	\$3,326,846	0.545	689,121	220.5	\$8,862.84	\$4,827.67	\$11,961.82	\$6,515.71
1996	\$6,002,233	\$3,556,151	0.592	717,335	228.2	\$8,367.41	\$4,957.45	\$10,912.09	\$6,465.10
1997	\$5,864,218	\$3,587,566	0.612	737,263	234.6	\$7,954.04	\$4,866.06	\$10,090.03	\$6,172.80
1998	\$6,040,051	\$3,957,619	0.655	757,865	242.1	\$7,969.82	\$5,222.06	\$9,796.86	\$6,419.19
1999	\$6,053,323	\$4,446,975	0.735	778,491	250.6	\$7,775.71	\$5,712.30	\$9,234.05	\$6,783.64
2000	\$6,303,206	\$4,988,474	0.791	793,211	260.8	\$7,946.44	\$6,288.96	\$9,067.72	\$7,176.36
2001	\$7,288,933	\$5,424,197	0.744	814,776	272.8	\$8,945.93	\$6,657.29	\$9,759.20	\$7,262.49
2002	\$8,928,252	\$5,806,463	0.650	831,645	285.6	\$10,735.65	\$6,981.90	\$11,186.73	\$7,275.26
2003	\$10,142,575	\$5,622,377	0.554	848,514	297.1	\$11,953.34	\$6,626.15	\$11,973.46	\$6,637.30

Sources: A.M. Best and Co. special data compilation for AIR, reporting data for as many years as separately available (premiums and losses); American Medical Assoc. (number of non-federal doctors, 1975, 1980, 1985, 1986, 1990, 1992-2002; other years estimated); Bureau of Labor Statistics (CPI).

*Time Magazine* has written many articles on this subject, one citing relevant data from a well-known independent insurance-rating agency, Weiss Ratings. In a study done in 2003, they found that in states without non-economic caps, median annual premiums for standard medical-malpractice coverage rose 36 percent between 1991 and 2002. But in states with caps, premiums rose even more, 48 percent. In the two groups of states, median 2002 premiums were about the same. Weiss found nine states with flat or declining premiums; two of them had caps, and seven didn't. They further speculated that regulation of premium increases made the difference (Thottam, 2003).

## Data and Methodology

In order to determine the causes of medical malpractice premiums in the United States, three multivariate regressions were performed using premium rates from the Medical Liability Monitor (MLM), a newsletter publishing malpractice information since 1975. The panel data sets included rates from three different practice specialties (internal medicine, general surgery, and obstetricians/gynecologists) and two different years (1993 and 2003). The thirteen independent variables were tested against each of the three different rates included the following: insurance market competition, mean family income, incarceration rates, politics, educational attainment, race, non-economic damage limits, patient compensation funds, and year.

The MLM is a general survey used to assess the medical liability condition of each state. Each year the Monitor surveys major writers of professional liability insurance for physicians. They ask for mature claims-made manual rates with limits of \$1 million/\$3 million for each specific specialty and report those companies that maintain filed and approved rates (Dillard, 2003). The survey also reports the states that have implemented patient compensation funds, which are currently only a handful. Physicians in these states pay surcharges to the state funds that can range from a modest percentage to a relatively large percentage. In addition to varying surcharges, each state varies in the limit of coverage that the fund will provide for.

Although this newsletter is the most comprehensive report of medical liability rates, accounting for 65 to 70 percent of the insurance market, there are several flaws in it. Because much of the insurance and claim information is private and difficult to determine, the Monitor is unable to account for a few factors. They do not reflect credits, debits, dividends or other factors that may reduce or increase final premiums. Rates reported also do not include underwriting factors that can increase rates (Dillard, 2003). Several state premiums were also unavailable for

lack of information; this was more likely in the 1993 survey. Despite the shortcomings of using the premium rates from the MLM, the survey provided the most comprehensive data available.

The independent variables were compiled from the United States Census of 2000 and 1990, along with information from the National Conference of State Legislatures and the American Tort Reform Association. Much of the Census data created a demographic and socioeconomic picture of each state, using mean family income, population, educational attainment and race. Each variable was placed into the regression for a unique and different purpose. 'Educational attainment' was the percentage of the state population that had received a bachelor's degree or more. I included education because it may have an impact on the actions of the doctors and patients. If the education level is low, patients may not know their rights and may be less likely to bring about a lawsuit. If the education level is high, doctors may be less likely to be found of malpractice.

Race was broken into percentage of Blacks, Whites, Asians, and Hispanics in each state. This variable was included to see if there were any variations among racial lines. The 'competition' variable was comprised of the actual number of insurance companies who reported to the MLM for that state. This variable may indicate whether increased competition will help decrease rates in this market or maybe there is no effect. The 'politics' variable accounted for the party affiliation of the Congressional Delegation of the specific year (2=Republican, 1=Equal, 0=Democratic). I incorporated this variable with the hope of determining if the political affiliation of a state would have any effect. The politics of a state could affect the laws enacted and/or regulations put forth. The incarceration rates were obtained from *Felon Disenfranchisement: Causes and Consequences*, a study done by Hamilton College Student Sean Thorsen. This variable was included to reflect the nature of the court system of the state. I

hypothesized that a state with a high level of incarceration would be seen as relatively harsh, therefore not allowing for frivolous suits that may affect a states rates. On the other hand, a lenient court system may afford plaintiffs money more often.

The last two independent variables included in this multivariate regression were the actual limits on non-economic damages of each state and the existence and condition of a state patient compensation fund. In order to account for the different limits of each state the following scale was created, placing each state in a category.

1 = no limit on noneconomic damages

2 = \$1 million limit

3 = \$750,000 limit

4 = \$500,000 limit

5 = \$250,000 limit

The comprehensive and complicated nature of the last variable, the patient compensation fund, called for several measures to be taken into account. The first regressions were performed using a dummy variable for each state that had a state fund (1 = fund in effect, 0 = no fund), with data provided by the National Conference of State Legislatures. Upon further investigation of the complexity of state compensation funds, three more regressions were performed to account for the differences in each state fund. Each state had varying requirements and limits concerning the participation requirements, primary coverage required and the maximum fund coverage. The following scale was created to reflect the variations in each fund.

0 = no state fund

1 = weak state fund; has none of the following: mandatory participation, primary coverage required is low, and maximum fund coverage is high

- 2 = moderate state fund; has one of the following: mandatory participation,  
primary coverage required is low, and maximum fund coverage is high
- 3 = strong state fund; has two of the following: mandatory participation,  
primary coverage required is low, and maximum fund coverage is high

Mandatory participation means that each person is mandated to participate, or pay into, in the state fund, as well as their own specific insurance carrier. Primary coverage signifies when the fund will “kick in” and begin paying a patient. If the primary coverage is low, then the private insurance carrier will only pay a small amount and then the state will begin payment. As seen in Table 13 of the Appendix, Louisiana has the lowest primary coverage required; only \$100,000 paid by the carrier and then the state will start to pay. The maximum fund coverage indicates the amount the state fund will cover. For example, some states will cover an unlimited amount of money (South Carolina and Wisconsin), while others will only pay up to a certain amount (Louisiana, Nebraska, etc.). Therefore, a state receives a “1” if they have none of the three outlined characteristics, signifying that their state fund is not well established, having a small impact on the state. A “strong” state fund has two of the characteristics, meaning the fund has a larger impact on the state.

## Results

The six regressions performed in this study seek to determine the significant factors that affect the medical malpractice premium rates set by insurance companies across the nation. In order to account for the vast difference in rates between internal medicine, general surgery, and obstetricians/gynecologists, separate regressions were computed for each specialty. The first set of regressions was computed using a dummy variable for “patient compensation fund,” while the second set used the above-mentioned scale to indicate differences between each state fund. The

computations revealed the significance of many important variables that may help to determine future policy action.

In order to provide a perspective when reading the following regressions, it is helpful to have a grasp on the range of premium rates used. Table 4 below outlines the average premium rates in 1993 and 2003 for each specialty. As shown, the rates have significantly increased over the span of ten years and in some cases almost doubled.

**Table 4.**

<b>Year</b>	<b>Internal Medicine</b>	<b>General Surgery</b>	<b>OBG/YN</b>
1993	\$6,127	\$22,668	\$38,310
2003	\$11,181	\$39,651	\$59,680

### Regressions Using Dummy Variable for Patient Compensation Fund

#### Regression 1: Internal Medicine (Dummy Variable)

The coefficients below express the effect of the independent variable on the dependant variable, while holding all other things constant. Therefore, if the year in question is 2003, versus 1993, there is a 1743 dollar increase in the dependant variable, the premium rate for internal medicine. The following equation represents the results of testing the internal medicine premium with all of the independent variables and a dummy variable for the compensation fund.

#### Regression 1: Internal Medicine (Dummy Variable)

$$\begin{aligned}
 \text{Internal Medicine} &= -21791 + 1743\text{Yr} - 326\text{Comp} + 0\text{Pop} + .34\text{Income} + \\
 \text{Premium rate} & \quad 53143\text{Incarc} + 1104\text{Pol} - 400\text{Educ} + 236\text{White} + 251\text{Blk} + \\
 & \quad 236\text{Asian} + 283\text{His} + 160\text{Limit} - 944\text{Funddummy} + e
 \end{aligned}$$

Although the coefficients are important in a regression equation, the more important indicator is the p-value. This value is used to indicate the statistical significance of a given

variable. A variable is considered significant if its p-value is less than or equal to 5%, indicating that there is a less than 5% chance that the estimated coefficient would have occurred by chance.

The p-values for this regression are shown in Table 5 below and those values considered significant are in bold.

**Table 5.**

Regression Statistics: Internal Medicine (Dummy Variable)

<i>Regression Statistics</i>				
Multiple R	0.712451047			
R Square	0.507586494			
Adjusted R Square	0.426556424			
Standard Error	4428.649428			
Observations	93			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	-17917.47934	12241.2814	-1.46369	0.147246
Year	2424.101831	1669.45545	1.452031	0.150453
Competition	-281.1476528	391.604024	-0.71794	0.474913
<b>Population</b>	<b>0.000322897</b>	<b>0.00010289</b>	<b>3.138339</b>	<b>0.002389</b>
<b>Mean Family Income</b>	<b>0.268937079</b>	<b>0.1194612</b>	<b>2.25125</b>	<b>0.027148</b>
Incarceration Rate	240978.4176	375562.721	0.641646	0.52296
<b>Politics</b>	<b>1121.69772</b>	<b>576.251829</b>	<b>1.946541</b>	<b>0.055145</b>
Educ. Attain.	-340.4513248	194.112215	-1.75389	0.083328
RaceWhite	203.2464199	120.646591	1.684643	0.096004
RaceBlack	201.4755908	122.503694	1.644649	0.104016
RaceAsian	236.9270887	150.815929	1.570969	0.120187
RaceHispanic	185.2024633	98.9561521	1.871561	0.064969
Limits	-102.2428047	327.410477	-0.31228	0.755653
<b>Patient Comp. Fund (dummy)</b>	<b>-2749.127409</b>	<b>1426.59543</b>	<b>-1.92705</b>	<b>0.057568</b>

The most noteworthy variable is ‘mean family income’ (p = 2.7%), which found that for every dollar increase in the mean family income of each state, there was a 0.27 cent increase in the premium charged to internal medicine doctors. Other significant variables were ‘population’ (p = 0.2%), ‘politics’ (p = 5.5%), and ‘patient compensation fund’ (p = 5.7%). The latter two are just over the important 5% mark; however, I thought they were worth mentioning. ‘Politics’ accounts for the political affiliation of the Congressional delegation of that specific year, which in this case increased the premium rate. The existence of a patient compensation fund decreased

the premium rate by 2,749 cents ( p = 5.7%), significantly bringing down premium rates.

Interesting in this regression is the insignificance of the independent variable of interest, noneconomic damage caps.

Regression 2: General Surgery (Dummy Variable)

The following equation is the result of the general surgery regression:

$$\begin{aligned}
 \text{General Surgery} &= -52852 + 8298\text{Yr} - 1581\text{Comp} + 0\text{Pop} + 1.03\text{Income} + 132174\text{Incarc} \\
 \text{Premium Rate} &+ 4105\text{Pol} - 1473\text{Educ} + 925\text{White} + 1176\text{Blk} + 900\text{Asian} + 1101\text{His} \\
 &+ 1010\text{Limit} - 3618\text{FundDummy} + e
 \end{aligned}$$

The second regression resulted in somewhat different results, placing importance on various other independent variables used in the equation, as shown in the table below. ‘Race’ and ‘educational attainment’ were statistically significant when tested against general surgery premium rates. In terms of education in each state, for every additional person who attained a bachelor’s degree or more, the premium rates decreased by 1,354 cents (p = 4.3%). Also, if a state has more Black and Hispanic people, the premium rate will increase. ‘Mean family income’ (p = 5.2%), ‘politics’ (p = 2.6%), and ‘population’ (p = 2.4%) also had significant positive effects on the premium rates. Surprisingly, the existence of a patient compensation fund had no significant effect on the rates of general surgery doctors and the non-economic damage caps (limits) also had no significant effect.

**Table 6.**

Regression Summary for General Surgery (Dummy Variable)

<i>Regression Statistics</i>	
Multiple R	0.70068412
R Square	0.490958237
Adjusted R Square	0.40719187
Standard Error	15083.364
Observations	93

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	-52852.1798	41692.10187	-1.26768	0.208637
Year	10824.55749	5685.933086	1.903743	0.060585
Competition	-959.402633	1333.74884	-0.71933	0.474062
<b>Population</b>	<b>0.000804336</b>	<b>0.000350422</b>	<b>2.295336</b>	<b>0.024367</b>
<b>Mean Family Income</b>	<b>0.802559957</b>	<b>0.406868246</b>	<b>1.97253</b>	<b>0.052048</b>
Incarceration Rate	207664.8172	1279114.393	0.16235	0.871444
<b>Politics</b>	<b>4448.297305</b>	<b>1962.633582</b>	<b>2.266494</b>	<b>0.026156</b>
<b>Educ. Attain.</b>	<b>-1354.024175</b>	<b>661.1192075</b>	<b>-2.04808</b>	<b>0.043875</b>
RaceWhite	701.4062078	410.9055105	1.706977	0.091754
<b>RaceBlack</b>	<b>881.8716916</b>	<b>417.2305442</b>	<b>2.113632</b>	<b>0.037702</b>
RaceAsian	764.6138521	513.6580788	1.488566	0.140583
<b>RaceHispanic</b>	<b>883.9570518</b>	<b>337.0308908</b>	<b>2.622778</b>	<b>0.010462</b>
Limits	-320.3436467	1115.114546	-0.28727	0.774655
Patient Comp. Fund (dummy)	-7108.359365	4858.785609	-1.46299	0.147437

### Regression 3: Obstetricians/Gynecologists (Dummy Variable)

The Obstetrician/Gynecologist regression somewhat differs from the previous regressions in variable significance. The regression equation is the following:

$$\begin{aligned}
 \text{Obstetricians/Gynecologists} = & -94,288 + 9,065\text{Yr} - 2,956\text{Comp} + 0\text{Pop} + 1.67\text{Income} - \\
 \text{Premium Rate} & 430,221\text{Incarc} + 2,799\text{Pol} - 1,530\text{Educ} + 1,406\text{White} + \\
 & 1,854\text{Blk} + 1,314\text{Asian} + 1,684\text{His} + 1,130\text{Limit} - \\
 & 6,347\text{Funddummy} + e
 \end{aligned}$$

While political affiliation was a significant factor in the first two regressions, it was insignificant here ( $p = 28\%$ ), as seen in Table 7. Mean family income seems to again hold a significant statistic ( $p = 2.1\%$ ) calculating that with every dollar increase in the state's mean family income, there is a \$1.36 increase in the premium rate. The R-squared is .44 (44%), which means that 44% of the deviation in the premium rates is explained by the independent variables present in the regression. Although a higher R-squared is ideal, accounting for 44% of the changes in premium rates is significant. What is once again interesting in this equation is the insignificance of the independent variable of interest, non-economic damage caps. The patient compensation fund also had no significance in this regression, resulting in a p-value of 14%.

**Table 7.**

## Regression Summary for OBG/YN (Dummy Variable)

<i>Regression Statistics</i>	
Multiple R	0.664361424
R Square	0.441376101
Adjusted R Square	0.34945065
Standard Error	21652.4601
Observations	93

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	-94288.4695	59849.82	-1.57542	0.119156
Year	11044.35071	8162.267	1.353098	0.179884
Competition	-2239.211805	1914.622	-1.16953	0.245706
<b>Population</b>	<b>0.00103453</b>	<b>0.000503</b>	<b>2.056567</b>	<b>0.043029</b>
<b>Mean Family Income</b>	<b>1.36719918</b>	<b>0.584067</b>	<b>2.340825</b>	<b>0.021764</b>
Incarceration Rate	307349.3715	1836193	0.167384	0.867496
Politics	3041.428535	2817.398	1.079517	0.283642
Educ. Attain.	-1307.898056	949.0494	-1.37811	0.172059
<b>RaceWhite</b>	<b>1129.855003</b>	<b>589.8628</b>	<b>1.915454</b>	<b>0.059053</b>
<b>RaceBlack</b>	<b>1354.324514</b>	<b>598.9425</b>	<b>2.261193</b>	<b>0.026498</b>
RaceAsian	1187.153521	737.3661	1.609992	0.111388
<b>RaceHispanic</b>	<b>1115.424466</b>	<b>483.8143</b>	<b>2.30548</b>	<b>0.023764</b>
Limits	-549.6406473	1600.768	-0.34336	0.732239
<b>Patient Comp. Fund (dummy)</b>	<b>-15163.201</b>	<b>6974.881</b>	<b>-2.17397</b>	<b>0.032701</b>

## Regressions (Using Patient Compensation Fund Scale)

The next three regressions were performed using the patient compensation fund scale outlined in the previous section. In order to control for the various confounding factors of the state funds, the scale was created for this study.

## Regression 4: Internal Medicine (Fund Scale)

$$\begin{aligned} \text{Internal Medicine} &= -17,382 + 2,275\text{Yr} - 232\text{Comp} + 0\text{Pop} + 0.25\text{Income} + \\ \text{Premium Rate} & 269,755\text{Incarc} + 1,070\text{Pol} - 312\text{Educ} + 192\text{White} + \\ & 193\text{Blk} + 228\text{Asian} + 183\text{His} - 96\text{Limit} - 817\text{FundScale} + e \end{aligned}$$

Using the scale for the patient compensation fund variable resulted in a lower number of significant variables in the internal medicine regression. The only two independent variables that

were significant were ‘population’ (p = 0.3%) and ‘mean family income’ (p = 3.4%).

Interestingly the population continued to have a very small coefficient, meaning there is a zero unit increase in dependant variable with each unit increase in the population. Unfortunately there was no significance in either variable of interest, non-economic damage limits (p = 77%) or patient compensation fund (p = 15.9%). The full regression summary output is displayed below.

**Table 8.**

Regression Summary for Internal Medicine (Fund Scale)

<i>Regression Statistics</i>	
Multiple R	0.705174374
R Square	0.497270898
Adjusted R Square	0.414543324
Standard Error	4474.796999
Observations	93

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	-17382.73982	12398.70662	-1.40198009	0.164838232
Year	2275.421041	1686.211996	1.34942762	0.181054261
Competition	-232.508449	394.8031443	-0.588922486	0.557593526
<b>Population</b>	<b>0.00031151</b>	<b>0.000104116</b>	<b>2.991938347</b>	<b>0.003697239</b>
<b>Mean Family Income</b>	<b>0.259642775</b>	<b>0.120958845</b>	<b>2.146538151</b>	<b>0.03489829</b>
Incarceration Rate	269755.0344	379890.9983	0.710085355	0.479742062
Politics	1070.448099	581.9470931	1.839425116	0.069609465
Educ. Attain.	-312.6865328	195.241356	-1.60153842	0.113249145
RaceWhite	192.3331501	121.9394115	1.577284552	0.118726267
RaceBlack	193.2844364	124.4834857	1.552691389	0.124494055
RaceAsian	227.618914	152.4838489	1.492741137	0.139488018
RaceHispanic	182.9759796	100.4805862	1.821008282	0.072391732
Limits	-96.22870569	335.3016859	-0.286991416	0.774870287
Patient Comp. Fund (scale)	-817.3256191	575.5921925	-1.419973429	0.159549792

Regression 5: General Surgery (Fund Scale)

$$\begin{aligned}
 \text{General Surgery} &= -51,361 + 10,423\text{Yr} - 828\text{Comp} + 0\text{Pop} + 0.77\text{Income} + \\
 \text{Premium Rate} & \quad 281,055\text{Incarc} + 4,316\text{Pol} - 1281\text{Educ} + 671\text{White} + \\
 & \quad 859\text{Blk} + 739\text{Asian} + 877\text{His} - 309\text{Limit} - 2,080\text{FundScale} + e
 \end{aligned}$$

As shown in the regression equation and below in the Output Summary, there are many more significant variables than in the last regression using the fund scale. With a negative effect (1,281), educational attainment was almost significant with a p-value of 5.6%. This means that for every increase in the percentage of the population that holds a bachelor's degree or more, there is a 1,281 dollar decrease in the premium rate charged to general surgeons. 'Population' ( p = 3.1%), 'politics' ( p = 3.1%), 'Race Black' ( p = 4.5%) and 'Race Hispanic' ( p = 1.1%) are also significant variables in this equation, all having positive effects on the dependant variable. There is still no importance in the variable of interest, patient compensation fund ( p = 28.9%).

**Table 9.**

Regression Summary for General Surgery (Fund Scale)

<i>Regression Statistics</i>	
Multiple R	0.696115317
R Square	0.484576535
Adjusted R Square	0.399760015
Standard Error	15177.61729
Observations	93

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	-51361.14573	42053.93539	-1.221316037	0.225598666
Year	10423.55333	5719.29416	1.82252443	0.072159232
<b>Competition</b>	<b>-828.8532477</b>	<b>1339.093378</b>	<b>-0.618965982</b>	<b>0.537719593</b>
<b>Population</b>	<b>0.000775229</b>	<b>0.000353142</b>	<b>2.195233483</b>	<b>0.031082175</b>
Mean Family Income	0.778976773	0.410268232	1.89870117	0.061255101
Incarceration Rate	281055.5386	1288514.358	0.218123715	0.827895176
<b>Politics</b>	<b>4316.253987</b>	<b>1973.848258</b>	<b>2.186720266</b>	<b>0.031721775</b>
<b>Educ. Attain.</b>	<b>-1281.805074</b>	<b>662.2196672</b>	<b>-1.935619157</b>	<b>0.05649214</b>
RaceWhite	671.8698147	413.5941185	1.624466559	0.108259742
<b>RaceBlack</b>	<b>859.0290313</b>	<b>422.2231098</b>	<b>2.034538166</b>	<b>0.045252577</b>
RaceAsian	739.3046858	517.1947467	1.429451267	0.156817239
<b>RaceHispanic</b>	<b>877.2273112</b>	<b>340.8100707</b>	<b>2.57394774</b>	<b>0.0119239</b>
Limits	-309.1720552	1137.27632	-0.271853067	0.786444197
Patient Comp. Fund (scale)	-2080.549407	1952.293705	-1.065694881	0.289807824

Regression 6: Obstetricians/Gynecologists (Fund Scale)

$$\begin{aligned} \text{Obstetricians/Gynecologists Premium Rate} = & -92,673 + 10,428\text{Yr} - 2,029\text{Comp} + 0\text{Pop} + 1.31\text{Income} + \\ & 478,588\text{Incarc} + 2,752\text{Pol} - 1,160\text{Educ} + 1,085\text{White} + \\ & 1,329\text{Blk} + 1,151\text{Asian} + 1,115\text{His} - 462\text{Limit} - 4911\text{Fundscale} + e \end{aligned}$$

Unlike the previous regression, there are few significant variables in the OBG/YN regression. Once again, ‘mean family income’ ( p = 2.9%), ‘Race Black’ ( p = 3.1%) and ‘Race Hispanic’ ( p = 2.5%) are all significant values. With a coefficient of 1.31, mean family income has a larger effect on the OBG/YN premium rate than the two previous specialties. Similar to the other specialties, the variable of interest, patient compensation fund, has no significant effect on the premium rates of this specialty. Also, the original variable of interest, damage cap limits remains insignificant in each of the three regression equations.

**Table 10.** Regression Summary for OBG/YN (Fund Scale)

<i>Regression Statistics</i>	
Multiple R	0.655706074
R Square	0.429950456
Adjusted R Square	0.336144835
Standard Error	21872.77032
Observations	93

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	-92673.75098	60604.77427	-1.52915	0.130222
Year	10428.28126	8242.190139	1.265232	0.209507
Competition	-2029.857143	1929.794468	-1.05185	0.296075
Population	0.000967571	0.00050892	1.901225	0.060919
<b>Mean Family Income</b>	<b>1.310406382</b>	<b>0.591245822</b>	<b>2.216348</b>	<b>0.029544</b>
Incarceration Rate	478588.6066	1856904.023	0.257735	0.797282
Politics	2752.944148	2844.552525	0.967795	0.3361
Educ. Attain.	-1160.032217	954.3381156	-1.21554	0.227782
RaceWhite	1085.896508	596.038824	1.821855	0.072262
<b>RaceBlack</b>	<b>1329.626669</b>	<b>608.4742374</b>	<b>2.185182</b>	<b>0.031839</b>
RaceAsian	1151.100202	745.3397784	1.544397	0.126489
<b>RaceHispanic</b>	<b>1115.124904</b>	<b>491.1482651</b>	<b>2.270445</b>	<b>0.025905</b>
Limits	-462.5367707	1638.951837	-0.28221	0.778517
Patient Comp. Fund (scale)	-4911.948558	2813.489824	-1.74586	0.084724

The results found in this study significantly differ from those of previous studies, especially regarding the outcome of patient compensation funds. There are many reasons why this study may have resulted in a different product. This study used a multivariate regression including many socioeconomic variables that may have an impact on premium rates. Few other studies I have encountered used a comprehensive multivariate regression including a wide variety of independent variables. The Thorpe article was the only article that controlled for many independent variables, but did not include a variable for patient compensation fund. What was interesting from the Thorpe article was the significance he also found in market competition. He found that a 10% increase in the index (less competitive) is associated with a 2% increase in premiums ( $p = .05$ ). This study found competition to have no significant effect. Also, the R-squared results throughout the study were somewhat low ( $\sim .40-.50$ ), meaning there are other relevant factors that play a role in the premium rates. Other factors may include specific state data beyond the scope of this study or market factors that I was unable to account for. Differences in results such as this may be attributed to the other confounding factors used in each study. Thorpe failed to account for the patient compensation fund states, which definitely proved to have an effect. Other articles failed to use multivariate regressions, instead using “raw” figures and percentages and case studies, which are the lowest on a hierarchy of statistical information (Wyckoff, 2004). However, this study accounted for an array of possible contributing factors and therefore has led to interesting and promising results.

## Conclusion

The results of the six regressions performed in this study have the ability to have a major effect on the future of the medical malpractice crisis. Even though each of the regressions had a

distinct and individual result, they painted a picture of the current malpractice situation in our nation and pointed us in the right direction.

The results of all the regressions counter President Bush's main tort reform to place significant damage caps (limits) on the noneconomic damages of medical malpractice cases. This independent variable of interest had no significant effect in any regression performed in this analysis, resulting in exceptionally high p-values (77%). The insignificance of limits in this study speaks to the importance of Senator Kerry's stance on not limiting the noneconomic damages awarded to patients. If caps have no significant effect on decreasing the overall malpractice premiums, there is no reason to restrict the patients who deserve such awards.

Another independent variable that had a significant positive effect several times was the political factor. The implications of the positive effect from a more Republican congressional delegation are difficult to understand. Although the Republican Party tends to push for tort reform against the lawyers and patients by restricting awards and payments, it seems unlikely that this would result in an increase in premium rates. Traditionally the Republican Party supports "big business" and a free market economy with less interventionist policies. Therefore, it is only logical that their stance on medical malpractice would favor the insurance companies and hospitals. After surveying other studies in the matter of politics and health care policy, I was unable to find a like correlation between politics and premium rates. There are many studies that analyze the success and/or failure of certain health care reforms enacted by the different political sides. However, a link between two factors representing the two discussed in this study was not available. Perhaps a more Republican state has been less focused on insurance regulation and therefore, the rates have failed to decline. Typically Republicans are wealthier than Democrats; maybe a Republican state has high premium rates because of a higher level of income. In any

event, this political factor calls for a more detailed analysis, controlling for other possible factors that may be at play.

The most noteworthy and promising result of this study is the effectiveness of state compensation funds on medical malpractice premium rates. When using a dummy variable to control for a state having any type of patient compensation fund, OBG/YN had a significant negative effect on premium rates. While internal medicine was almost significant ( $p = 5.7\%$ ). Currently there are only seven states across the nation that have working patient compensation funds, each of which is slightly different. Even after controlling for the differences between the state funds, there seemed to only be an effect on the premium rates when there was a dummy variable used. This evidence speaks to the fact that more states should consider implementing patient compensation funds in order to deal with the malpractice crisis. These funds do not erase the costs of healthcare and malpractice; they simply divide the costs between the state and the primary insurer, allowing for a better overall system. Basically, physicians pay a surcharge to the state fund and then pay a fee to their primary carrier. In the case of a suit, the primary carrier will pay the award up to a certain amount, when the state fund will begin payment. The varying conditions for the seven states that have implemented a patient compensation fund are outlined in Table 11 in the Appendix (“South Carolina Legislative,” 2000). The varying spectrum of state funds demonstrates that states do not need to adopt a uniform method; different forms will work to reduce rates.

The medical malpractice system in our country is in dire need of assistance. The rising premiums are causing turmoil in our courtrooms and hospitals. Although the results of this study do not recommend either candidate’s proposal, there is an interesting and promising outcome. The idea of a patient compensation fund may be difficult for states to implement immediately,

but according to the results of this study, a compensation fund will decrease premium rates, creating a more efficient and affordable medical malpractice system for our nation.

**Elizabeth C. Conway**

Born in Lowell, MA, Beth developed a keen interest in government and public policy at a young age, which she carried through to her high school years at North Middlesex Regional High School. She received a Bachelors of Arts from Hamilton College in 2005, with Honors in Public Policy. Her days on The Hill were filled with numerous campus activities including student government, Women's Varsity Field Hockey and membership with Phi Beta Chi. During her senior year, Beth was also Captain of the Field Hockey Team and President of the Class of 2005. She still remains Class President and an active member of the Alumni Council at Hamilton. Throughout college, Beth worked in various positions within the public sector, including the Senate Committee on Health, Education, Labor and Pensions. For the past two years, Beth has worked part-time at an insurance defense firm in Boston, MA, while attending law school at Suffolk University Law School. She is soon moving to New York City to work in the legal department at Bear Stearns, Inc. for a summer internship before the final year of law school.



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# Appendix

**Table 11.**

## State Funds Providing Excess Malpractice Insurance

State Fund	Administrative Structure	Participation Requirements	Providers Eligible <sup>1</sup>	Number of Participants <sup>2</sup>	Primary Coverage Required <sup>3</sup>	Maximum Fund Coverage
<b>South Carolina</b> Medical Malpractice Patients' Compensation Fund	Separate State Agency	Not mandatory	MDs, Nurses, Hospitals, Podiatrists, Dentists, and Other HCPs.	8,400	\$100,000/\$300,000	Unlimited
<b>Indiana</b> Patient's Compensation Fund	Medical Malpractice Division of The Department of Insurance	Not Mandatory	MDs, Nurses, Hospitals, Podiatrists, Dentists, and Other HCPs.	25,000–28,000	\$250,000/\$750,000 <sup>4</sup>	\$1 Million
<b>Kansas</b> Health Care Stabilization Fund	Separate State Agency	Mandatory	MDs, Nurses, Hospitals, DOs, Podiatrists, Dentists, and Other HCPs.	10,000	\$200,000/\$600,000	\$800,000/ \$2.4 Million
<b>Louisiana</b> Patient's Compensation Fund	Separate State Agency	Not Mandatory	MDs, Nurses, Hospitals, Podiatrists, Dentists, and Other HCPs.	12,000	\$100,000 <sup>5</sup>	\$400,000 + future medical expenses
<b>Nebraska</b> Excess Liability Fund	Division of the Department of Insurance	Not Mandatory	MDs, Nurses, Hospitals, DOs, and Other HCPs.	3,000	\$200,000/\$600,000 <sup>6</sup>	\$1.05 Million
<b>New Mexico</b> Patient's Compensation Fund	Division of the Department of Insurance	Not Mandatory	MDs, Nurses, Hospitals, DOs, Podiatrists, and Other HCPs.	2,700	\$200,000	\$400,000 + future medical expenses
<b>Pennsylvania</b> Medical Professional Liability Catastrophe Loss Fund	Separate State Agency	Mandatory	MDs, Nurses, Hospitals, DOs, Podiatrists, and Other HCPs.	35,000	\$400,000/ \$1.2 Million <sup>7</sup>	\$800,000/ \$2.4 Million
<b>Wisconsin</b> Patients Compensation Fund	Under The Office of The Commissioner of Insurance	Mandatory	MDs, Nurses, Hospitals, DOs, and Other HCPs.	12,000	\$1 Million/\$3 Million	Unlimited

- 1 Those providers listed are explicitly stated in law, other HCPs may include: Ambulatory Care Centers, Birth Centers, Chiropractor, Midwives, Nursing Homes, Occupational Therapist, Optometrist, Pharmacist, Physical therapist, Physician assistant and other healthcare organizations as defined by law. A DO is a doctor of Osteopathy. Nurses indicates that some type of nurse is covered.
- 2 Approximate number of annual participants.
- 3 Where there are two numbers, the first is the limit for each occurrence and the second is the aggregate limit for one year.
- 4 Hospital, HMO, health facility higher aggregate.
- 5 \$125,000 if self-insured.
- 6 Hospitals (\$200,000/\$1Million).
- 7 Hospitals (\$400,000/\$2Million).

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