

Civil Justice Subcommittee

April 1, 2013

4:00 AM

404 HOB

Action Packet

Will Weatherford
Speaker

Larry Metz
Chair

COMMITTEE MEETING REPORT

Civil Justice Subcommittee

4/1/2013 4:00:00PM

Location: 404 HOB

Summary:

Civil Justice Subcommittee

Monday April 01, 2013 04:00 pm

HB 103 Workshopped

HB 897 Workshopped

Committee meeting was reported out: Monday, April 01, 2013 5:47:24PM

COMMITTEE MEETING REPORT

Civil Justice Subcommittee

4/1/2013 4:00:00PM

Location: 404 HOB

Attendance:

	<i>Present</i>	<i>Absent</i>	<i>Excused</i>
Larry Metz (Chair)	X		
Jim Boyd	X		
Michael Clelland	X		
Daniel Davis	X		
Tom Goodson	X		
Bill Hager	X		
Jose Oliva			X
Kathleen Passidomo	X		
José Rodríguez	X		
Ross Spano	X		
Cynthia Stafford	X		
Charlie Stone	X		
James Waldman	X		
Totals:	12	0	1

Committee meeting was reported out: Monday, April 01, 2013 5:47:24PM

COMMITTEE MEETING REPORT

Civil Justice Subcommittee

4/1/2013 4:00:00PM

Location: 404 HOB

Workshop

HB 103:

Workshopped

Appearances:

Breneman, Diane (General Public) - Opponent

929 Walnut

Kansas City MO 64106

Phone: 816-421-0114

Padgett, Samantha (Lobbyist) - Proponent

Florida Retail Federation

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Tallahassee FL 32301

Phone: 850-222-4082

HB 897:

Workshopped

Appearances:

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Vice President, Government Affairs, Florida Chamber of Commerce

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Tallahassee FL 32301

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Jess, Paul (Lobbyist)

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Lowell, Paul (Lobbyist) - Proponent

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Committee meeting was reported out: Monday, April 01, 2013 5:47:24PM

COMMITTEE MEETING REPORT

Civil Justice Subcommittee

4/1/2013 4:00:00PM

Location: 404 HOB

Workshop (continued)

O'Hara, Rebecca (Lobbyist) - Information Only

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White, Robert (General Public) - Opponent

President, First Professional Insurance Company

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Jacksonville FL 32224

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Committee meeting was reported out: Monday, April 01, 2013 5:47:24PM

HB 897

Patient Injury Act

Civil Justice Subcommittee

April 1, 2013

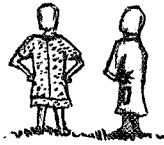
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THE PATIENTS' COMPENSATION SYSTEM



A Medical Liability System



That Works For Patients

And Our Economy



Patients
For Fair Compensation

The medical malpractice tort system in the United States is based on three main goals:

Deterrence of Unsafe Practices

Compensation for Injured Persons, and Corrective Justice

The tort system is not accomplishing these goals.

Sarah Z. Hoffman, Attorney at Law
Annals of Health Law
Winner of the 2008 Illinois
Association of Healthcare Attorneys
Law Student Writing Competition

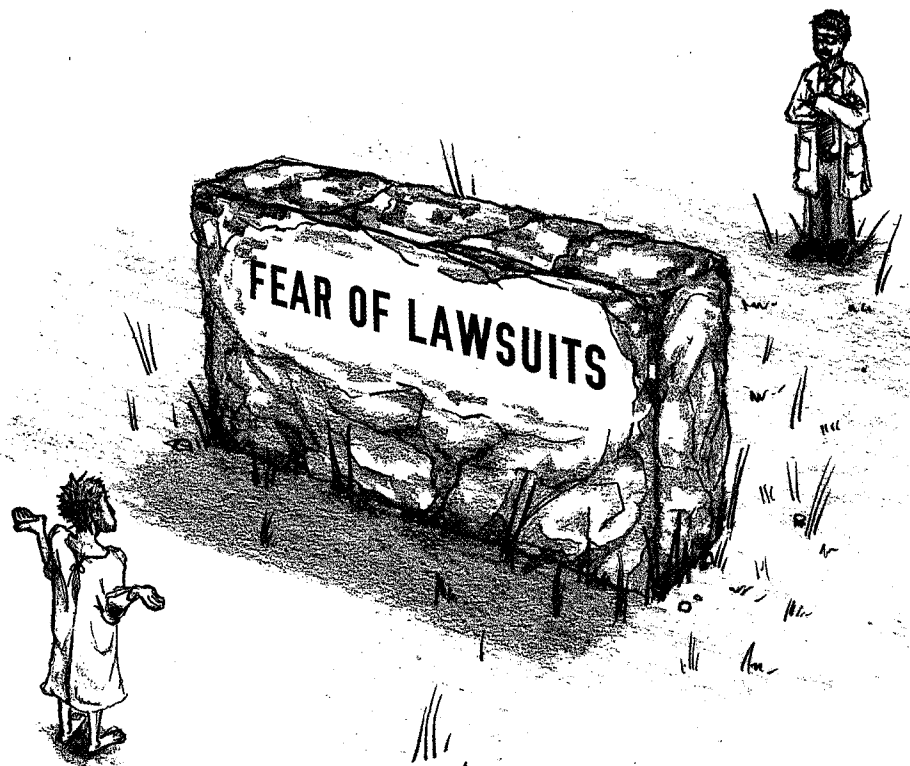
¹University of Puget Sound Law
Review, 1993

EXECUTIVE OVERVIEW: PATIENTS' COMPENSATION SYSTEM

Patients for Fair Compensation is seeking to replace our broken medical liability system with a no-blame, administrative compensation system. The Patients' Compensation System will lower healthcare costs by eliminating the practice of defensive medicine, saving up to \$650 billion per year nationally in unnecessary costs. By assuring access to real justice for injured patients and increasing patient safety, the system is one that works for patients and our economy.

Patients are losing in the current litigation system.

The current medical liability system isn't working for patients. It is adversarial, expensive and inefficient. The system drives a wedge between patients and physicians and forces the practice of defensive medicine. Furthermore, 90 percent¹ of legitimate medical injuries are not compensated. That leaves many patients - especially the poor, minorities and elderly - without the compensation they desperately deserve.



THE PROBLEM

Our dysfunctional medical liability system isn't working for patients or our economy.

Why Isn't The Current System Working For Patients?

Limits Access to Justice and Doesn't Provide Enough Compensation

The current system limits fairness to injured patients because lawyers can only financially justify the largest cases.

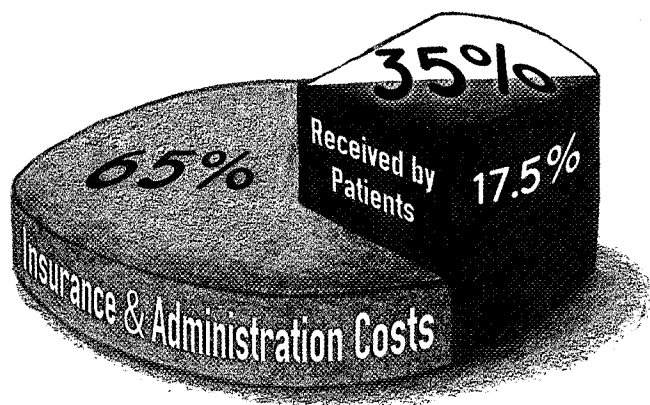
For a sample of 1,000 claims, the figure below depicts how they are processed by the system^{[3][4]}.

No *Real* Access to Justice

1,000	Legitimate medical claims
100	Have sufficient value to engage a lawyer and file a claim
72	Dismissed without payment or trial
20	Cases settled without a trial
8	Go to court
7	Decided in favor of the defendant
1	Patient receives a jury award

Even when a lawyer agrees to take a case, patients receive only 17.5% (after paying their legal fees) of malpractice costs paid by physicians⁵.

Malpractice Cost



- 17.5% Patient Compensation
- 17.5% Patient Attorney & Litigation Costs

The practice of ordering medical tests, procedures, or consultations of doubtful clinical value in order to protect the prescribing physician from malpractice suits.
- Merriam-Webster

³ Physicians Insurance Association of America, 2011
⁴ University of Puget Sound Law Review, 1993
⁵ Towers Watson Study, 2011

Why Isn't The Current System Working For Patients? (Continued)

Complicated & Slow Process

Filing a medical malpractice case is a complicated process involving lawyers, expert witnesses, court services and intricate paperwork. For the few who are able to navigate the system, it can take up to five years to receive the compensation they desperately need.

Decreases Patient Safety

Patients are not being protected from preventable medical injuries. The adversarial nature of our current system "blames and shames" physicians who admit their mistakes, hindering them from sharing best practices with colleagues.

The current medical liability environment also stifles medical innovation, as the fear of being sued deters healthcare providers from utilizing new life-saving medical techniques and procedures.

Forces Patients to Undergo Excessive Testing

The vast majority of physicians admit they continuously order tests they believe are not in the best interest of patients; they order them to protect themselves from the high number of medical malpractice suits filed each year.

Why Isn't The Current System Working For Our Economy?

Increased Healthcare Costs for U.S. Citizens

Patients are paying up to \$2,000 each year in premiums on unnecessary medical procedures ranging from X-rays, biopsies, CT scans, MRIs and other tests that doctors order to avoid being sued.

High Premiums for Employers

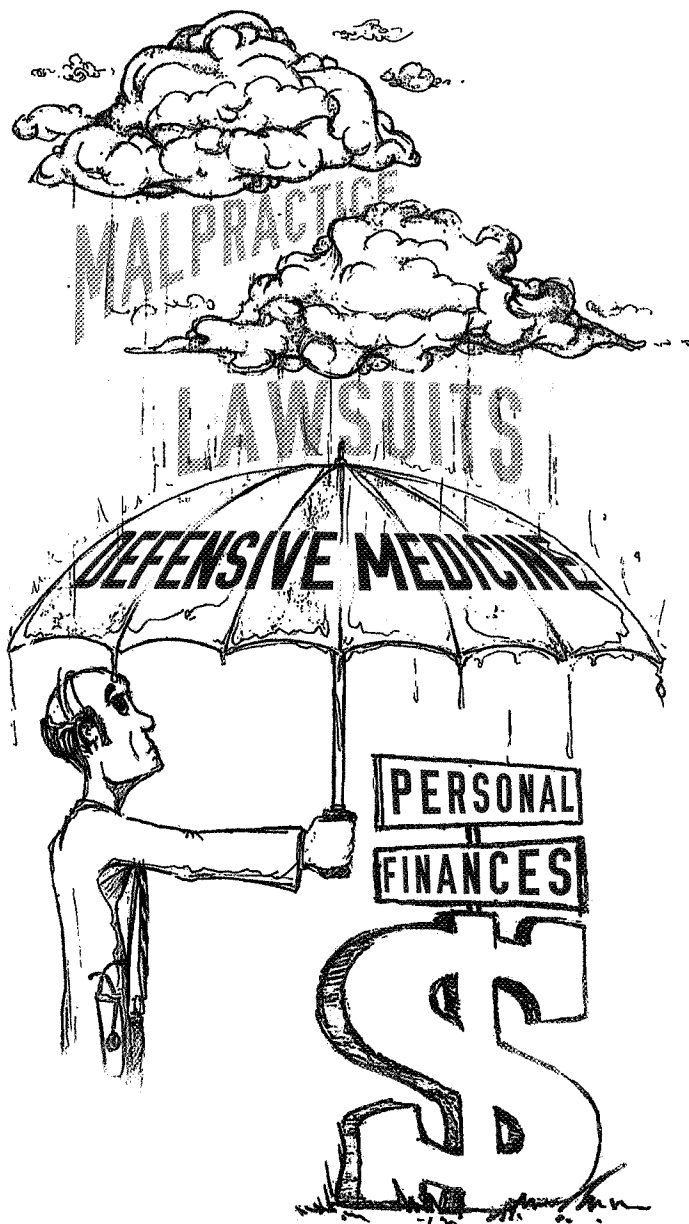
Businesses are currently paying higher healthcare premiums to cover the inefficiencies in the current medical liability system, including up to \$650 billion resulting from defensive medicine. The result: jobs are not being created, as employers must assess the cost of healthcare for each additional worker in their overall operating budgets.

Inflating State and Federal Taxes

The Federal Government is paying \$125 billion in Medicare costs that are directly attributable to the practice of defensive medicine. An additional \$96 billion is being paid by state governments for Medicaid costs.

WHY DO PHYSICIANS PRACTICE DEFENSIVE MEDICINE?

In today's system, physicians risk personal financial exposure with every decision they make. They also abhor the litigation process. These two factors force physicians to eliminate every potential threat of being sued, resulting in the practice of defensive medicine.



In a 2010 Jackson Healthcare Physician Survey one doctor noted:

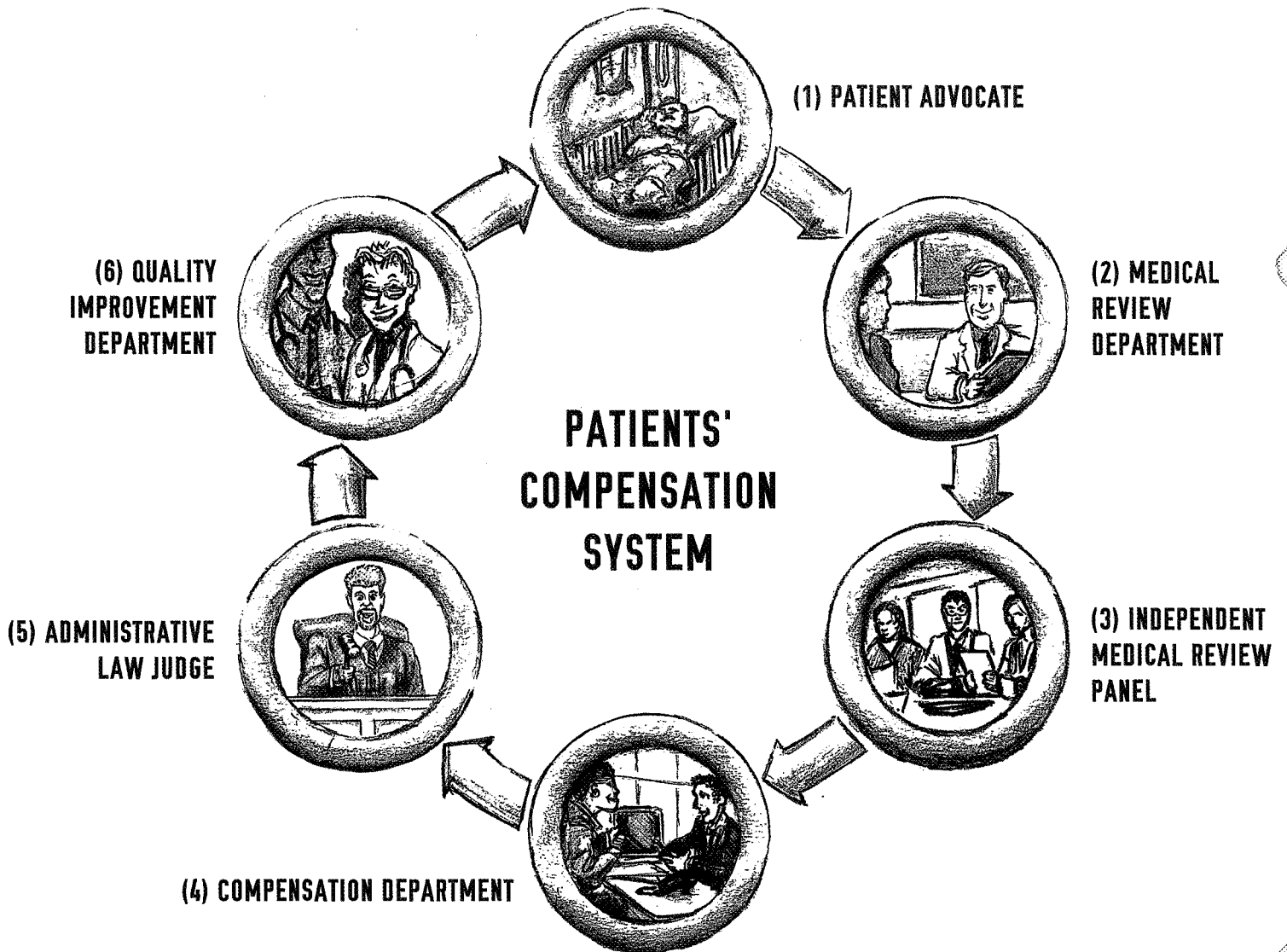
“ I have to view every patient as a potential plaintiff.”

THE SOLUTION

Patients for Fair Compensation will replace our broken medical liability system with a no-blame, administrative compensation system. The system guarantees real access to justice and fair compensation for all patients injured from medical care. With no cost to taxpayers, this system focuses on increasing patient safety and lowering healthcare costs by removing the practice of defensive medicine.

How The Patients' Compensation System Works

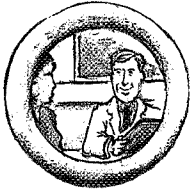
There are several steps in the Patients' Compensation System to ensure the best outcomes for patients and physicians and our entire economy.





(1) Patient Advocate - Navigates The System

The Patients' Compensation System starts with Patient Advocates. If a patient has a problem, they file a claim with the system and are immediately assigned a Patient Advocate to guide them and ensure all their questions and concerns are being addressed throughout the process. The result is a reassuring and less burdensome process for patients.



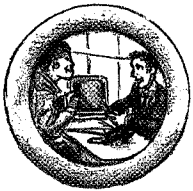
(2) Medical Review Department - Researches The Claim

After a patient files a claim, it is brought to the Medical Review Department to undergo a discovery process. The department gathers and organizes the facts surrounding the claim.



(3) Independent Medical Review Panel - Examines Claims On Their Merits

After the Medical Review Department researches the claim, it proceeds to an independent, multidiscipline medical review panel. The medical review panel examines the evidence and determines whether the claim was an avoidable medical injury. Each medical review panel consists of doctors, nurses, hospital administrators and other certified medical professionals without knowledge of the patient or case - ensuring both impartiality and the highest standards of judgment in each case.



(4) Compensation Department - Recommends Appropriate Compensation

The Compensation Department establishes a methodology for a fee schedule based on economic and non-economic damages. If a patient injury is eligible for compensation, the department awards the amount of damages based upon the approved fee schedule.



(5) Administrative Law Judge - Ensures Fairness In The Process

If the patient or provider disputes the medical ruling or discovery process, they have the opportunity to appeal to an administrative law judge. The judge ensures that the law is applied fairly and the process is followed accurately.



(6) Quality Improvement Department - Focuses On Patient Safety - Physician Accountability

All claims submitted to the Patients' Compensation System are referred on a completely confidential basis to a Quality Improvement Department. This department is charged with improving patient safety on the back-end by tracking data on all claims in a confidential database that protects the privacy of provider and patient.

The department also helps identify root causes and drives "lessons learned," best practices and treatment patterns that help the medical community reduce preventable medical injuries.



HOW THE PATIENTS' COMPENSATION SYSTEM IS FUNDED

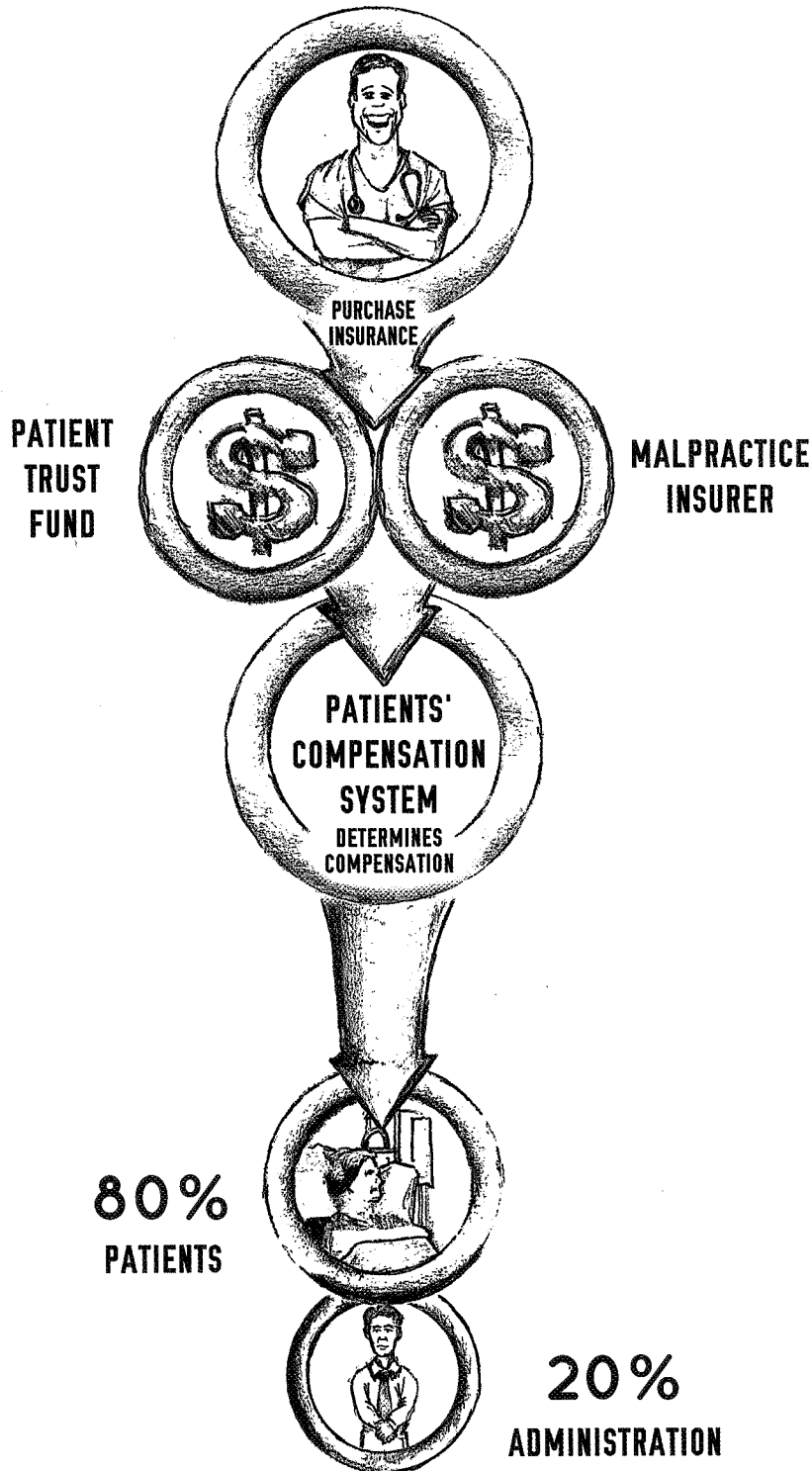
The entire cost of the system—which will remain the same—will be paid by healthcare providers with no cost to taxpayers.

It takes the existing dollars paid by healthcare facilities and medical professionals to insurers and simply redistributes the current funds in a more efficient manner, with 80 percent of those funds going directly to patient compensation and 20 percent to administrative costs.

Although more patients receive more compensation, overall costs are saved as the adversarial costs of litigation are eliminated and patient awards become more predictable.

Source of Funding

HEALTHCARE FACILITIES
AND
MEDICAL PROFESSIONALS



THE BENEFITS

A Total Patient Solution That Addresses Cost, Quality And Rights

We are all paying the price for defensive medicine and the current medical liability system isn't working for patients or the economy. The Patients' Compensation System better aligns the interest of patients, doctors and taxpayers by providing fair compensation to all injured patients and eliminating the high costs of defensive medicine and litigation.

Patient Benefits

The Patients' Compensation System first and foremost will benefit patients by:

- > **Providing access to justice.** Ensuring real access to justice for all patients, the system strengthens patients' rights by assuring all patient complaints are heard through a streamlined administrative system that will yield compensation in a more efficient, fair manner.
- > **Delivering more compensation to more patients.** All injured patients will be fairly compensated, as opposed to the less than 10 percent compensated in today's system.
- > **Distributing compensation faster.** Compensation will be delivered to patients within 180 days, as opposed to the current system that can take up to five years.
- > **Increasing patient safety.** Healthcare quality will be increased by fostering an environment where physicians and other medical professionals can admit and learn from their mistakes. They can share best practices with their colleagues to reduce preventable injuries.
- > **Encouraging medical innovations.** Physicians will be empowered to utilize new life-saving medical techniques and procedures without fear of litigation.
- > **Avoiding unnecessary tests.** By eliminating the fear of being sued, the wedge between patients and physicians is removed, allowing physicians to choose the best healthcare for their patients resulting in fewer unnecessary tests and procedures.



Economic Benefits

- > **Lowering healthcare costs.** By reducing costs caused by defensive medicine, citizens will no longer pay up to \$2,000 each year on unnecessary tests. The savings could be as much as \$650 billion a year in national healthcare costs.
- > **Lowering employer costs and creating jobs.** The cost of premiums will decrease by removing the inefficiencies from the current medical liability system and the embedded cost of defensive medicine. This will allow employers to invest in their businesses, creating more jobs.
- > **Decreasing state and federal taxes.** Federal government will save \$125 billion in Medicare costs directly attributable to the practice of defensive medicine. An additional \$96 billion will be saved by state governments in Medicaid costs.



More Efficient Use Of Existing Funds (Patient Awards)

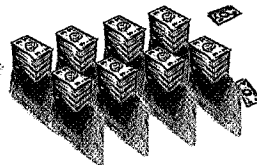
Current System

20%



3-5 YEARS

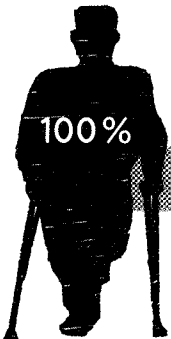
Injured Patients



17.5%
of Malpractice Costs

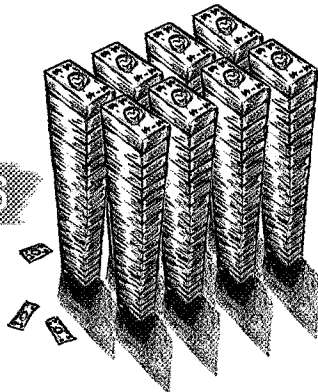
Patient Compensation System

100%



180 DAYS

Injured Patients



80%
of Malpractice Costs

JOIN US

Patients for Fair Compensation is a nonprofit organization proposing a Patients' Compensation System to replace our broken medical liability system, with one that works for patients and our economy.

The system will:

- > **Lower healthcare costs;**
- > Provide patients with **access to justice;**
- > Deliver **more compensation to injured patients** through a quicker, less complicated process;
- > **Increase patient safety** and the quality of U.S. healthcare; and
- > **Encourage medical innovations** and allow physicians to learn from mistakes

The entire cost of the system will be paid by healthcare providers through an administrative fee, with no cost to taxpayers.

To learn more about our solution and join our mission, visit us online at www.PatientsforFairCompensation.org, or call **1 877 248 1689**.



Patients
For Fair Compensation

Overview

The Patients' Compensation System (PCS) replaces the costly, slow, and arbitrary system of medical malpractice civil litigation with an administrative system that is focused on expediency and fairness. As compared to previous medical malpractice reform efforts that have been oriented solely towards the reduction of medical malpractice insurance rates; this proposed administrative system is multi-dimensional in its focus on the reduction of the cost of defensive medicine and an increase in true patient access to justice.

Scope

- > The PCS will provide compensation to a patient for a medical injury that would have been avoided under the care of an experienced practitioner under the same circumstances. While the PCS is the exclusive remedy for an injured patient, an insurer may still present an early offer of settlement in satisfaction of the patient's injury.

Rationale: The standard of injury is positioned above no fault, but below negligence. This standard will compensate more patients as compared to a negligence standard, and is compelled by legal precedent that requires the provision of greater rights to the patient to justify a restriction of access to the court system.

- > Providers covered by the PCS include all individual practitioners and facilities that are currently covered by medical malpractice insurance, such as hospitals, ambulatory surgery centers, nursing homes, physicians, nurses, dentists, and chiropractors.

Rationale: The PCS is intended as a comprehensive solution to address the cost of defensive medicine and patient access to justice. Without complete participation of all relevant practitioners and facilities, the benefits of the system will not be fully realized as omitted providers may be subjected to ever increasing litigation.

Governance

- > The PCS will operate independently of any state agency, and will be governed by an eleven-member board, whose members will serve 4-year terms. The board members will be chosen by the Governor, the President of the Senate, and the Speaker of the House of Representatives, and will represent the medical, legal, patient, and business communities.

Rationale: The PCS is governed independently by appointees so that the purpose and mission of the PCS is not adulterated over time by unaccountable agency staff. A regular rotation of appointments by the executive and legislative branches of government will ensure accountability in the operation of the system.

- > Within the PCS, three offices are established: the Office of Medical Review, the Office of Compensation, and the Office of Quality Improvement. The Office of Medical Review is responsible for the investigation and evaluation of applications; the Office of Compensation is responsible for the allocation of compensation for each application; and the Office of Quality Improvement is responsible for the development of best practices based on a regular review of data culled from applications.

Rationale: The office structure allows the board to make important, high level decisions while the day-to-day operations are delegated to the offices. This delegation will improve the efficiency of the PCS operations, while ensuring that service on the board is practicable for busy practitioners.

Filing and Evaluation of Applications

- > An “applicant” will file an “application” to request the investigation of an alleged occurrence of a medical injury. A patient advocate, who will walk the patient through the process of obtaining compensation, will provide each applicant expert assistance.

Rationale: The use of the terms “applicant” and “application” were chosen to distinguish this system from an adversarial, litigation system, wherein “claimants” file “claims.” This terminology also arguably means that “applications” resolved under this system will not be reported to the National Practitioner Data Bank.

- > Each application will be initially reviewed by the Office of Medical Review within 10 days of filing to determine whether, on its face, the application constitutes a medical injury.

Rationale: The initial review will function as a screening mechanism for applications that do not present a valid case of medical injury.

- > If the Office of Medical Review determines that the application constitutes a medical injury, the relevant provider will have 15 days from the date of notification to support the application. If a provider supports the application, the review process will be expedited.

Rationale: Allowing a provider to support an application will increase the expediency of the process. Moreover, the PCS is not an adversarial system and as a result, providers should be willing to support legitimate applications.

- > If a provider does not support an application determined to constitute a medical injury, the Office of Medical Review will conduct a thorough investigation of the application. After completion of the investigation, an independent medical review panel composed of at least 3 panelists will review the information gathered by the office to determine the existence of a medical injury.

Rationale: The Office of Medical Review will conduct the initial investigation so that the busy practitioners who serve as panelists are able to efficiently review each application. There will be multiple independent review panels operating at the same time and each panel will review related applications at one time, when practicable.

Determination of Compensation

- > If the Office of Medical Review determines that an application constitutes a medical injury, the Office of Compensation will determine an award of compensation in accordance with a predetermined compensation schedule. The compensation schedule will be based on an average of prior awards and will be developed so that projected cost of medical practice does not exceed the prior year cost of medical malpractice.

Rationale: The compensation schedule is “capped” at the prior year cost of medical malpractice for all practitioners so that the increased number of applications does not result in increased medical malpractice premiums for providers. This cap and the linking of individual injury payments to national data (the Physician Insurers Association of America) are intended to provide predictability so that insurers are able to accurately price premiums under this new system.

Right of Appeal

- > An applicant may appeal a determination of the Office of Medical Review and the Office of Compensation, while the provider may appeal a determination of the Office of Medical Review. An appeal will be initially handled by an administrative law judge for the purpose of determining whether the proper processes were followed. The decision of the administrative law judge may be further appealed to the District Court of Appeal.

Rationale: Appeal rights are included to ensure that the proposed system does not violate an applicant’s or provider’s due process rights and also to ensure that there is an opportunity for an external review of the operations of the system.

Administrative Costs

- > The administrative cost of the PCS will be funded by a contribution amount determined for each provider.

Rationale: A provider contribution avoids the complexities of other financing options and will apply to all providers, regardless of whether they are insured or self-insured. The contribution pays only for the expenses of the system, while payment of awards will be made as they are today—by the insurer or, for self-insured providers, the provider.





Uncovering the Silent Victims of the American Medical Liability System

Professor Joanna Shepherd Bailey, Ph. D.
Emory University School of Law

An often overlooked problem with the current medical malpractice system is the vast number of injuries resulting from medical negligence that go uncompensated. In my Study, I explain that many victims of medical malpractice do not file claims because they are unable to find attorneys willing to take their cases. I conduct the first national survey of attorneys that explores medical malpractice victims' access to the civil justice system. The results from the survey indicate that the economic reality of litigation forces many medical malpractice attorneys to reject legitimate cases. Specifically, I find that:

- Over 75 percent of the attorneys in my survey indicate that they reject more than 90 percent of the cases that they screen.
- The attorneys indicate that insufficient damages and high litigation expenses are their primary reasons for rejecting cases.
- Moreover, they indicate that tort reforms that reduce plaintiff recoveries have increased their rejections and reduced their willingness to accept cases.
- The majority of the attorneys respond that they have threshold damage values, below which they will not consider accepting a case.
- Over half of the attorneys responded that, even for a case they are almost certain to win on the merits, they will not accept the case unless expected damages are at least \$250,000.
- For a case in which winning is less certain, most attorneys require minimum expected damages of \$500,000 to accept the case.
- Using a private industry claims dataset, I show that 95 percent of medical malpractice victims find it extremely difficult to find legal representation unless their damages are significantly larger than the typical damages for their types of injuries.
- Moreover data also suggest that the problem of access to justice is worsening; half as many victims with low damage awards recovered in 2010 as they did twenty-five years earlier.

Thus, my Study establishes that many legitimate victims of medical malpractice are unable to obtain legal representation and have no meaningful access to the civil justice system. Without legal representation, most of these victims will not be compensated for the harm they suffer as a result of medical negligence. Moreover, the economic calculus required by the contingency fee system causes attorneys to gravitate towards some types of medical malpractice cases and victims, and ignore others. Evidence shows that contingency fee attorneys disproportionately reject cases from lower-income groups such as females, the elderly, children, and racial minorities because their expected damage awards are lower. Without dramatic change, the access to justice problem will continue to hinder the medical malpractice liability system's ability to achieve its compensatory and deterrent functions.



Justice In Crisis:

Victim Access to the American Medical Liability System

Professor Joanna Shepherd Bailey, Ph. D.¹

Emory University School of Law

Abstract


An often overlooked problem with the current medical malpractice system is the vast number of medical errors that go uncompensated. In this Article, I explain that many victims of medical malpractice do not file claims because they are unable to find attorneys willing to take their cases. I conduct the first national survey of attorneys that explores medical malpractice victims' access to the civil justice system. The results from the survey indicate that the economic reality of litigation forces many medical malpractice attorneys to reject legitimate cases. In fact, over 75 percent of the attorneys in my survey indicate that they reject more than 90 percent of the cases that they screen. The attorneys indicate that insufficient damages and high litigation expenses are their primary reasons for rejecting cases and that several tort reforms have reduced their willingness to accept cases. Moreover, the majority of the attorneys respond that they have threshold damage values, below which they will not consider accepting a case. For a case that they are only slightly likely to win, the vast majority of attorneys require minimum expected damages of \$500,000 to accept the case. Because of the high cost of medical malpractice litigation, plaintiffs' attorneys simply cannot economically justify taking cases with damages below these thresholds. As a result, many legitimate victims of medical malpractice are left with no legal representation and no meaningful access to the civil justice system.

¹Associate Professor of Law; Emory University School of Law. I thank Steve Ferketic, Amanda Hodgson, and Alan Kheidary for their research assistance. I am also grateful for Jackson Healthcare's assistance in the preparation of my survey. The company allowed me to use their online survey instrument to conduct the survey and provided me access to various contact lists of potential survey respondents. The ideas and conclusions in this paper are my own; they in no way reflect the views of Jackson Healthcare.



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Introduction

The medical malpractice liability system is blamed for everything from the high cost of health care to poor patient outcomes. Estimates of the national costs of the medical malpractice liability system—including indemnity payments, administrative expenses, and defensive medicine—average around \$59 billion per year.² The system is also blamed for poor patient outcomes that result when the fear of liability deters doctors from practicing in certain jurisdictions or performing certain procedures.³ These problems with the existing system have led most states to adopt reforms that reduce malpractice liability.

However, an often overlooked problem with the current system is the vast number of injuries resulting from medical negligence that go uncompensated. According to the National Academy of Science's Institute of Medicine (IOM), medical errors are the leading cause of accidental death in the United States, taking the lives of "[a]t least 44,000 people, and perhaps as many as 98,000 people" each year.⁴ Studies on the number of injuries from medical negligence indicate that one percent of all hospital patients suffer adverse events due to medical error.⁵

In this Article, I explain that many victims of medical malpractice do not file claims because they are unable to find attorneys willing to take their cases. Exorbitant litigation expenses and reforms that limit plaintiff damages have made contingent fee lawyers increasingly unwilling, and unable, to accept many legitimate medical malpractice claims. The attorneys simply cannot economically justify taking the claims because their expected recoveries will not offset the likely costs of litigating the claims. As a result, many legitimate victims of medical malpractice are left with no legal representation and no way to seek redress in the civil justice system.

I conduct the first national survey of attorneys that explores medical malpractice victims' access to the civil justice system. The results from the survey indicate that the economic reality of litigation forces many medical malpractice attorneys to reject legitimate cases. In fact, over 75 percent of

² Mello, Michelle M., Amitabh Chandra, Atul A. Gawande, & David M. Studdert, *National Costs of the Medical Liability System*, 29 HEALTH AFFAIRS, 1569, 1570 (2010). This estimate was originally reported in 2008 dollars; I recalculated it in 2012 dollars using an inflation calculator. Bureau of Labor Statistics, CPI Inflation Calculator, available at: http://www.bls.gov/data/inflation_calculator.htm

³ For a discussion of the empirical evidence on the effect of liability on physician behavior, see Joanna Shepherd, *Tort Reforms' Winners and Losers: The Competing Effects of Care and Activity Levels*, 55 UCLA LAW REVIEW 905, 924-929 (2008).

⁴ INST. OF MED., REPORT BRIEF: TO ERR IS HUMAN: BUILDING A SAFER HEALTH SYSTEM 1 (1999), available at <http://www.iom.edu/Object.File/Master/4/117/0.pdf>

⁵ *Id.* at 247.

the attorneys in my survey indicate that they reject more than 90 percent of the cases that they screen. The attorneys indicate that insufficient damages and high litigation expenses are their primary reasons for rejecting cases and that several tort reforms have reduced their willingness to accept cases. Moreover, the majority of the attorneys respond that they have threshold damage values, below which they will not consider accepting a case. For a case that they are only slightly likely to win, over 70 percent of the attorneys require minimum expected damages of \$500,000 to accept the case. Because of the high cost of medical malpractice litigation, plaintiffs' attorneys simply cannot economically justify taking cases with damages below these thresholds.

Thus, my survey provides evidence confirming that many legitimate victims of medical malpractice have no meaningful access to the civil justice system. Because these victims are unable to find legal representation, the injuries they suffer from medical negligence go uncompensated. The lack of victim compensation, in turn, reduces the deterrent effect of the medical malpractice system by blunting incentives for the medical community to improve care that the threat of a suit might otherwise provide.

The Article proceeds as follows. In Part I, I explain the principal objectives of the medical malpractice liability system: to compensate patients that are injured by the negligence of medical providers and to deter those medical providers from practicing negligently. I discuss numerous empirical studies that suggest that the medical malpractice liability system performs poorly on both of these dimensions. Most victims of medical malpractice never receive compensation for their harm. The majority of victims never file a claim in the first place, and the victims that do file claims often receive inadequate compensation that does not reimburse all of their costs resulting from the malpractice. Moreover, delays in litigation and increasing litigation expenses further reduce the compensation to malpractice victims. Empirical evidence suggests that the lack of victim compensation has, in turn, reduced the deterrent effect by blunting incentives for the medical community to improve care. A significant body of empirical research examining the relationship between malpractice risk and health outcomes has generated only mixed results, and most studies have found no influence of malpractice pressure on physician behavior.

In Part II, I discuss the history of tort victims' access to the civil justice system. Early American tort victims had limited access to legal representation because they were forced to pay attorneys' fees regardless of whether they won or lost a case, and few had the financial resources to do so. However, contingency fee arrangements evolved to ensure that all tort victims, regardless of their financial position, had access to legal representation in the civil justice system.

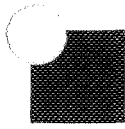
Yet, in the modern medical malpractice system, two factors have made contingent fee lawyers increasingly unwilling, and unable, to accept many legitimate claims. High litigation costs and tort reforms that restrict damage awards have made it economically infeasible for attorneys to take many medical malpractice cases. Plaintiffs' attorneys simply cannot justify taking cases that lack sufficient damages to warrant the litigation expense. As a result, most unrepresented victims will receive no compensation for their harms. Moreover, the economic calculus required by the contingency fee system causes attorneys to gravitate towards some types of medical malpractice cases and victims, and ignore others. Evidence shows that contingency fee attorneys disproportionately reject cases from lower-income groups such as females, the elderly, children, and racial minorities because their expected damage awards are lower.

In Part III, I discuss my national survey of medical malpractice plaintiffs' attorneys. The survey asks questions about the attorneys' experiences screening and rejecting cases and their primary reasons for rejecting the cases that they do. It asks various questions about the minimum amount of expected damages the attorneys require to accept cases with different likelihoods of winning on the merits. The survey inquires about the impact of various tort reforms on attorneys' willingness to accept cases. It also explores their typical legal expenses, clients' recoveries, and attorneys' fees in cases that close in settlements, trials, and dismissals. Finally, the survey asks a variety of questions to establish that the attorneys and their firms are representative of the larger population of medical malpractice attorneys.

The results from my survey indicate that many attorneys are unwilling to represent legitimate victims of medical malpractice if they do not expect a sufficiently large recovery. The attorneys reject the vast majority of cases, and list economic factors as their main reason for rejecting cases.

In Part IV, I further explore the implications of medical malpractice victims' limited access to the civil justice system. Using data on median plaintiff recoveries, I show that only the most severely injured victims will be able to easily find legal representation under the current system. Then, I present data from 1985-2010 that suggests that the access to justice problem is increasing; attorneys are taking fewer cases, and gravitating toward cases with higher damages.

Thus, this Article establishes that many legitimate victims of medical malpractice are unable to obtain legal representation and have no meaningful access to the civil justice system. Without legal representation, most of these victims will not be compensated for the harm they suffer as a result of medical negligence. In turn, the medical malpractice system will fail to provide adequate precautionary incentives for healthcare providers. Without dramatic change, the access to justice problem will continue to hinder the medical malpractice liability system's ability to achieve its compensatory and deterrent functions.



I. U.S. Medical Malpractice Liability System: Theory and Practice

In this section, I first briefly describe the primary functions of the medical malpractice liability system: deterrence and compensation. I then review the empirical research on whether the current system achieves these functions.

A. Functions of the Medical Malpractice System

Tort scholars have long focused on two main functions of the tort system: compensation and deterrence.⁶ The compensatory function of tort law seeks to reimburse victims for their losses from tortious acts, and to restore them to their pre-injury condition.⁷ In the same way, a primary goal of the medical malpractice liability system is to compensate victims of medical negligence for any harm they suffer as a result of the negligence, including additional medical bills, lost income resulting from time off work, and the pain and suffering that resulted from the medical negligence.

Another primary function of tort law, referred to as the “deterrent” function, is to incentivize potential tortfeasors to take precautions and avoid risky behavior.⁸ Similarly, the medical malpractice system aims to create incentives for medical providers to take precautions in order to reduce unnecessary risks associated with medical care.

Compensatory damages provide the crucial link between the compensatory and deterrent functions of tort law.⁹ Although these damages are called “compensatory” because they aim to compensate

⁶ Goldberg, *Twentieth Century Tort Theory*, 91 GEO. L.J. 513 (2003). For a discussion of other proposed functions of tort law, such as enterprise liability and social justice, see Joseph H. King, Jr., *Pain and Suffering, Noneconomic Damages, and the Goals of Tort Law*, 57 SMU L. REV. 163, 180-201 (2004).

⁷ See, e.g., Daniel W. Shuman, *The Psychology of Compensation Law*, 43 U. KAN. L. REV. 39, 45 (1994) (“The commonly understood goal of tort compensation is to restore the injured to their preaccident condition, to make them whole.”); Steven D. Smith, *The Critics and the “Crisis”: A Reassessment of Current Conceptions of Tort Law*, 72 CORNELL L. REV. 765, 769 (1987) (“injured plaintiffs should receive an amount necessary to make them ‘whole,’ that is, to restore them to the position they would have occupied but for the defendant’s tortious conduct”); Dan B. Dobbs, *THE LAW OF TORTS* 17 (2000) (“Compensation of injured persons is one of the generally accepted aims of tort law. Payment of compensation to injured persons is desirable. If a person has been wronged by a defendant, it is just that the defendant make compensation. Compensation is also socially desirable, for otherwise the uncompensated injured persons will represent further costs and problems for society.”).

⁸ See, e.g., Kenneth S. Abraham, *THE FORMS AND FUNCTIONS OF TORT LAW* 206 (2d ed. 2002); Peter Cane, *ATIYAH’S ACCIDENTS, COMPENSATION AND THE LAW* 361–62 (William Twining & Christopher McCrudden eds., 6th ed. 1999) (“[O]ne of the most important of the suggested functions of personal injuries compensation law is deterrence.”); Richard L. Abel, *A Critique of Torts*, 37 UCLA L. REV. 785, 808 (1990) (“At least since Learned Hand offered his famous formula . . . judges, lawyers, and legal scholars have argued that fear of liability will compel potential tortfeasors to engage in a cost-benefit analysis, taking just those safety precautions that cost less than the accidents they prevent.”); Daniel W. Shuman, *The Psychology of Deterrence in Tort Law*, 42 U. KAN. L. REV. 115, 131 (1993).

⁹ See, e.g., ROBERT COOTER & THOMAS ULEN, *LAW & ECONOMICS* 320-323 (2004).

tort victims, they are also critical to achieving the deterrent function of tort law. Requiring the tortfeasor to pay the victim compensatory damages forces him to “internalize” the costs of his risky behavior and deters him from engaging in inappropriately risky activities. That is, because he expects to pay for the harm he imposes on others, the tortfeasor should consider the cost of that harm as makes decisions about engaging in risky activities. The higher the expected compensatory damages he expects to pay, the greater the cost of engaging in the risky activity, and the more he will be deterred from engaging in the activity without proper precautions.¹⁰ Similarly, the possibility of compensatory damages in medical malpractice cases gives medical providers a financial incentive to internalize the harm they impose on patients and reduce the risks associated with medical care.

B. Empirical Evidence on the Functioning of the Medical Malpractice System

In theory, medical malpractice law should both provide compensation to injured patients and induce doctors and hospitals to take appropriate precautions against adverse medical events. In practice, however, the medical malpractice system performs poorly on both of these dimensions. In this section, I first present the existing evidence on how well victims of medical malpractice are compensated. Then, I discuss empirical studies that examine the medical malpractice system’s ability to deter adverse medical events.

1. How Well Does the Medical Malpractice Liability System Compensate Victims?

Many victims of medical malpractice never receive compensation for their harm. The majority of victims never file a claim in the first place, and the victims that do file claims often receive inadequate compensation that does not reimburse all of their costs resulting from the malpractice. Moreover, delays in litigation and increasing litigation expenses further reduce the compensation to malpractice victims.

Empirical evidence confirms that the vast majority of patients injured by medical error do not seek redress in the civil justice system. In 1990, the landmark Harvard Medical Practice Study analyzed the medical records and legal claims (when filed) of a random sample of 31,429 hospital patients in New York State.¹¹ The researchers determined that one percent of all hospital patients suffer adverse events due to medical negligence.¹² Yet despite this high rate of medical negligence, the researchers found that fewer than 2 percent of the injured patients file claims.¹³ More recent research largely mirrors

¹⁰ For evidence of the tort system’s deterrent effect, see Gary T. Schwartz, *Reality and the Economic Analysis of Tort Law: Does Tort Law Really Deter?*, 42 UCLA L. REV. 377, 381–87 (1994); Frank A. Sloan, DRINKERS, DRIVERS, AND BARTENDERS: BALANCING PRIVATE CHOICES AND PUBLIC ACCOUNTABILITY (2000) (a study of the liability of bartenders for serving excessive liquor to patrons). Many other scholars doubt the effectiveness of the deterrent effect of tort liability. For a discussion, see Joseph H. King, Jr., *Pain and Suffering, Noneconomic Damages, and the Goals of Tort Law*, 57 SMU L. REV. 163, 188–192 (2004).

¹¹ Russell Localio, et al., *Relation between malpractice claims and adverse events due to negligence: results of the Harvard Medical Practice Study III*, 325 NEW ENGLAND J MEDICINE 245 (1991).

¹² *Id.* at 247.

¹³ *Id.* at 248.

these findings. A review of 14,700 medical records in Colorado and Utah also shows that one percent of hospital patients suffer adverse events that are the result of negligent acts or omissions in the care rendered.¹⁴ Of these victims, the data show that only 2.5 percent file a legal claim. In Part 2, I explain how victims' inability to find legal representation contributes to the low claim rate among legitimate victims of medical malpractice.

Moreover, the small proportion of malpractice victims that do file claims often go uncompensated. Empirical studies of malpractice lawsuits find that the compensation rate ranges from 32 percent to 89 percent to victims whom outside experts have determined to be legitimate victims of medical negligence.¹⁵ That is, even for plaintiffs where liability should be clear, only 32-89 percent of harm is reimbursed through malpractice lawsuits. Thus, not only do few malpractice victims file claims, even the claims that are filed often go undercompensated.

Additionally, increasing litigation delays and legal fees undermine the compensatory function of the malpractice system. Awards for medical malpractice claimants are subject to lengthy delays which effectively reduce compensation as inflationary pressures reduce the value of damage awards. Research shows that, on average, it takes around four years to resolve a malpractice claim.¹⁶ Moreover, because of rising legal fees, tort victims generally retain only a portion of compensatory damage awards. Empirical studies show that for every dollar defendants and insurers pay to compensate medical malpractice victims, between \$.40 to \$.60 goes to the payment of litigation expenses and other transaction costs.¹⁷ As a result, victims keep only 40 to 60 percent of their damage awards as compensation.

Thus, the existing empirical literature confirms that the current medical malpractice liability system is plagued by under-claiming, under-compensation, delay, and rising litigation costs. In Part 2, I explore how the access to justice problem contributes to the malpractice system not achieving its compensatory goals.

¹⁴ David Studdert, et al., *Negligent care and malpractice claiming behavior in Utah and Colorado*, 38 MED CARE 250, 255 (2000).

¹⁵ Theodore Eisenberg, THE EMPIRICAL EFFECTS OF TORT REFORM, RESEARCH HANDBOOK ON THE ECONOMICS OF TORTS 12 (Jennifer Arlen ed., forthcoming 2012) available at <http://ssrn.com/abstract=2032740> (last visited Aug. 23, 2012).

¹⁶ Tomas Cohen & Kristen A. Hughes, "Medical Malpractice Insurance Claims in Seven States, 2000-2004." Bureau of Justice Statistics Special Report NCJ 216339 (2007).

¹⁷ Patricia M. Danzon, MEDICAL MALPRACTICE: THEORY, EVIDENCE, AND PUBLIC POLICY 187 (1985) (finding that for each dollar received by plaintiff, approximately \$.66 is spent by the parties on litigation, implying that plaintiffs' share of total expenditures is $\$1.00/\$1.66 = .60$); Peter Huber, LIABILITY: THE LEGAL REVOLUTION AND ITS CONSEQUENCES 151 (1988) (claims that \$.60 cents of every dollar spent on malpractice liability insurance are absorbed by administrative and legal costs, implying that only \$.40 would be left for victims); David Studdert, et al., *Claims, Errors, and Compensation Payments in Medical Malpractice Litigation*, 354 NEW ENGLAND JOURNAL OF MEDICINE 2024 (2006) (for every dollar spent on compensation, 54 cents went to litigation expenses and other transaction costs).

2. How Well Does the Medical Malpractice System Deter Adverse Events?

Although the evidence indicates that only a small proportion of malpractice victims seek redress in the civil justice system, and an even smaller proportion are adequately compensated for their harms, tort liability remains a principal vehicle for holding healthcare providers accountable for medical errors. However, empirical evidence suggests that the lack of victim compensation has, in turn, blunted incentives for the medical community to improve care that the threat of a suit might otherwise provide.¹⁸ Moreover, malpractice insurance is not strongly experience-rated, so that doctors' premiums are not closely related to their claims history.¹⁹ As a result, there is little incentive for medical providers to take additional precautions to reduce the risk of adverse events. Indeed, a significant body of empirical research examining the relationship between malpractice risk and health outcomes has generated only mixed results, and most studies have found no influence of malpractice pressure on physician behavior.

As physicians in obstetrics-gynecology are defendants in medical malpractice lawsuits at a higher rate than any other specialty,²⁰ the majority of empirical work has examined how these physicians respond to litigation risk. Several studies have explored the relationship between obstetrician's claims history or malpractice risk and cesarean rates to determine whether physicians prefer less risky procedures (cesareans over natural labor) when malpractice pressure is greater. The results are mixed. Some studies have found a positive correlation between cesarean rates and litigation risk,²¹ but several others have found no relationship.²² Another study found a small, short-lived increase in cesarean section rates following litigation, but rates eventually returned to the baseline level.²³ Thus, despite some evidence of

¹⁸ Another explanation for the weak deterrent effect is that malpractice insurance is typically not strongly experience-rated, so that the premiums for that insurance do not reflect the records or practice styles of individual providers but more-general factors such as location and medical specialty. Frank A. Sloan, *Experience Rating: Does It Make Sense for Medical Malpractice Insurance?*, 80 AMERICAN ECONOMIC REVIEW 128 (1990)

¹⁹ Sloan, Frank A., and Chee Ruey Hsieh, *Variability in Medical Malpractice Payments: Is the Compensation Fair?*, 24 LAW AND SOCIETY REVIEW 997 (1990).

²⁰ David Studdert, et al., *Claims, Errors, and Compensation Payments in Medical Malpractice Litigation.* 354 *New England Journal of Medicine*, 2024 (2006)

²¹ Stephen M. Rock (1988), *Malpractice Premiums and Primary Cesarean Section Rates in New York and Illinois*, PUBLIC HEALTH REPORTS, 103, 459-63; A. Dale Tussing and Martha A. Wojtowycz. 1997. *Malpractice, Defensive Medicine, and Obstetric Behavior*. *Medical Care*. 35:172-191; A. Russell Localio, Ann G. Lawthers, Joan M. Bengtson, Liesi E. Hebert, Susan L. Weaver, Troyen A. Brennan, and Richard J. Landis (1993), *Relationship Between Malpractice Claims and Cesarean Delivery*, JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, 269, 366-73; Dubay, Lisa, Robert Kaestner, and Timothy Waidmann (1999), *The Impact of Malpractice Fears on Cesarean Section Rates*, JOURNAL OF HEALTH ECONOMICS, 18 491-522.

²² Laura-Mae Baldwin, L. Gary Hart, Michael Lloyd, Meredith Fordyce, and Roger A. Rosenblatt (1995), *Defensive Medicine and Obstetrics*, JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, 274, 1606-10; Kim, Beomsoo (2007), *The Impact of Malpractice Risk on the Use of Obstetrics Procedures*, JOURNAL OF LEGAL STUDIES, 36, 79-119; Gilbert W. Gimm (2010), *The Impact of Malpractice Liability Claims on Obstetrical Practice Patterns*, HEALTH SERVICES RESEARCH, 45, 195-211; Darren Grant and Mclayne Morgan McInnes (2004), *Malpractice Experience and the Incidence of Cesarean Delivery: A Physician-Level Longitudinal Analysis*, INQUIRY, 41, 170-88.

²³ David Dranove & Yasutora Watanabe, *Influence and Deterrence: How Obstetricians Respond to Litigation against Themselves and Their Colleagues*, 12 AMERICAN LAW & ECONOMICS REVIEW, 69 (2010)

a positive relationship, the evidence does not generally support a consistent association between liability pressure and cesarean rates. As a result, it is not clear that malpractice pressure has any influence on the behavior of obstetricians.

Other studies have examined the relationship between obstetrician's malpractice risk and actual health outcomes. Again, the results are mixed. One study found no relationship between malpractice risk and adverse birth outcomes.²⁴ However, other studies have found that higher malpractice risk is associated with fewer preventable complications in labor and delivery²⁵ and a reduction in fetal deaths.²⁶

A few empirical studies have explored the influence of malpractice risk on health outcomes beyond obstetrics patients.²⁷ Two widely-cited studies find that tort reforms that reduce malpractice risk are not associated with any change in the health outcomes of elderly heart patients. Thus, in contrast to what theory would predict, higher malpractice risk does not improve outcomes and lower risk does not worsen outcomes. However, another study of elderly heart patients found conflicting results; this analysis found that increased malpractice risk is associated with improved mortality of these patients.²⁸

Thus, empirical evidence does not consistently show that the medical malpractice system has provided incentives for appropriate care. The weakness of the deterrent signal is at least partly attributable to the under-compensation of malpractice victims; when doctors do not expect to bear the full cost of harms caused by their negligence, they do not have sufficient incentives to take precautions that reduce the risk of harm.²⁹ In the next section, I explore how limited access to legal representation exacerbates both the problem of under-compensation and under-deterrence inherent in the medical malpractice system.

²⁴Yang, Y. Tony, David M. Studdert, S.V. Subramanian, and Michelle M. Mello (2012), *Does Tort Law Improve the Health of Newborns, or Miscarry? A Longitudinal Analysis of the Effect of Liability Pressure on Birth Outcomes*, JOURNAL OF EMPIRICAL LEGAL STUDIES, 9, 217-245.

²⁵Currie, Janet and W. Bentley MacLeod (2008), *First Do No Harm? Tort Reform and Birth Outcomes*, QUARTERLY JOURNAL OF ECONOMICS, 123, 795-830.

²⁶Sloan, Frank A., Kathryn Whetten-Goldstein, Penny B. Githens, and Stephen S. Entman (1995), *Effects of the Threat of Medical Malpractice Litigation and Other Factors on Birth Outcomes*, MEDICAL CARE, 33, 700-14; Jonathan Klick & Thomas Stratmann, *Does Medical Malpractice Reform Help States Retain Physicians and Does It Matter*, 36 JOURNAL OF LEGAL STUDIES S121 (2007).

²⁷Daniel Kessler & Mark McClellan, *Do Doctors Practice Defensive Medicine?*, 111 QUARTERLY JOURNAL OF ECONOMICS 353 (1996); Daniel Kessler & Mark McClellan, *Malpractice Law and Health Care Reform: Optimal Liability Policy in an Era of Managed Care*, 84 JOURNAL OF PUBLIC ECONOMICS 175 (2002).

²⁸Dhankhar, Praveen, M. Mahmud Khan, and Shalini Bagga (2007), *Effect of Medical Malpractice on Resource Use and Mortality of AMI Patients*, JOURNAL OF EMPIRICAL LEGAL STUDIES, 4, 163-83.

²⁹Daniel P. Kessler, *Evaluating the Medical Malpractice System and Options for Reform*, 25 JOURNAL OF ECONOMIC PERSPECTIVES 93, 95 (2011); Theodore Eisenberg, *THE EMPIRICAL EFFECTS OF TORT REFORM*, RESEARCH HANDBOOK ON THE ECONOMICS OF TORTS 10 (Jennifer Arlen ed., forthcoming 2012) available at <http://ssrn.com/abstract=2032740> (last accessed Aug. 23, 2012).

II. Access to Justice in the Medical Malpractice System

In order for the malpractice system to provide compensation to victims and precautionary incentives for physicians, victims of medical negligence must be able to find legal representation. However victims of medical malpractice are finding it increasingly difficult to find attorneys willing to take their cases. In this section, I discuss the historical background of tort victims' access to legal representation and the causes and consequences of the current access to justice crisis.

A. Access to Justice in a Historical Context

Early American tort victims, including victims of medical malpractice, had limited "effective" access to legal representation in the civil justice system. Until the mid-19th century, lawyers were subject to statutory or judicial schemes regulating their compensation, and plaintiffs were required to pay the specified compensation, regardless of whether they prevailed in court.³⁰ Thus, although any citizen could "technically" retain legal counsel, few had the financial resources to pay for an attorney, regardless of the outcome of their case.³¹ As a result, access to justice was nonexistent for a large portion of Americans.³²

However, beginning with New York's enactment of the Field Code in 1848, statutes regulating lawyers' fees began to be repealed. Soon after the Field Code was revised to allow attorney compensation to be governed by contract, and "not restrained by law."³³

The precursors of the contingency fee were first seen in the mid-1800s when attorneys involved in collection matters agreed to be paid a percentage of the amount collected.³⁴ However, not until the Industrial Revolution produced victims of industrial accidents with legitimate claims but insufficient resources to pursue them did contingency fee contracts expand to other areas of law.³⁵ In the states that had not previously authorized contingency fee arrangements by statute, state supreme courts voiced support for such arrangements.

³⁰ Lester Brickman, *Contingent Fees Without Contingencies: Hamlet Without the Prince of Denmark?* 37 UCLA L. REV. 29, 35 (1989)

³¹ Peter Karsten, *Enabling the Poor to Have their Day in Court: The Sanctioning of Contingency Fee Contracts, a History to 1940*, 47 DEPAUL L. REV. 231, 243 (1998)

³² *Id.*

³³ N.Y. Code of Remedial Justice Ch. 1, Tit. II, Art. 2, § 66 (1876); see also Brickman & Cunningham, *Nonrefundable Retainers: Impermissible Under Fiduciary, Statutory and Contract Law*, 57 FORDHAM L. REV. 149, 171-76 (1988).

³⁴ M. Bloomfield, *AMERICAN LAWYERS IN A CHANGING SOCIETY 1776-1876*, at 277 (1976).

³⁵ Lester Brickman, *Contingent Fees Without Contingencies: Hamlet Without the Prince of Denmark?* 37 UCLA L. REV. 29, 37 (1989)

The judicial supporters of contingency fees recognized that these arrangements were necessary to ensure that all tort victims, regardless of their financial position, had access to legal representation in the civil justice system. For example, Justice Samuel Harrington of the Delaware High Court sanctioned a contingency fee arrangement in 1840 proclaiming “The poor suitor may not have the present means of payment, and this policy [of voiding contingent fee contracts] may deprive him of counsel ... His rights are nothing unless he can have the means of enforcing them.”³⁶

Similarly, New Hampshire’s Chief Justice Samuel Bell offered the same rationale for sanctioning contingency fees in 1862: “It is not uncommon that attorneys commence actions for poor people, and make advances of money necessary to the prosecution of the suit upon the credit of the cause. Thus a man in indigent circumstances is enabled to obtain justice in cases where, without such aid, he would be unable to enforce a just claim.”³⁷ Missouri’s Judge Robert Bakewell agreed in 1876: “Many a poor man with a just claim would find himself unable to prosecute his rights, could he make no arrangement to pay his advocate out of the proceeds of his suit ... If [such agreements] are immoral or illegal, there are perhaps few attorneys in active practice amongst us who have not been habitual violators of the laws.”³⁸

Thus, most states sanctioned contingent fees because they were viewed as a financing device that enabled a client to assert and prosecute an otherwise unaffordable claim.³⁹ Although most countries in the world still prohibit contingent fees,⁴⁰ today, all fifty U.S. states allow attorneys to enter into contingent fee contracts.⁴¹

Plaintiffs’ attorneys in medical malpractice cases work almost exclusively on a contingency fee basis.⁴² As in other torts cases, contingency fees enable medical malpractice victims to obtain legal counsel that they could otherwise not afford. Because of the substantial cost of litigating medical malpractice cases, the only way that most victims can afford legal representation is to hire a lawyer on contingency. Attorneys interviewed in previous studies of contingency fee practice have explained the necessity of contingent fee arrangements in medical malpractice cases:

³⁶ Bayard v. McLane, 3 Del. (1 Harr.) 139, 207, 219-20 (1840),

³⁷ Christie v. Sawyer, 44 N.H. 298, 303 (1862) (quoting and paraphrasing Shapley v. Bellows, 4 N.H. 347, 355 (1808)).

³⁸ Duke v. Harper, 2 Mo. App. 1, 10-11 (1876).

³⁹ Lester Brickman, *Contingent Fees Without contingencies: Hamlet Without the Prince of Denmark?* 37 UCLA L. REV. 29, 43 (1989)

⁴⁰ Lester Brickman, *Contingent Fees Without contingencies: Hamlet Without the Prince of Denmark?* 37 UCLA L. REV. 29,38 (1989).

⁴¹ Dover, *Contingent Percentage Fees: An Economic Analysis*, 51 J. AIR L. & COM. 531, 535 (1986). Maine was the last state to eliminate barriers to contingent fees. See 1965 Me. Laws 333 (amending Me Rev. Stat. Ann. tit. 17, § 801 (repealed 1975)).

⁴² Stephen Daniels & Joanne Martin, *The Texas Two-Step: Evidence on the Link Between Damage Caps and Access to the Civil Justice System*, 55 DEPAUL L. REV. 635, 647 (2006).

Ninety percent of the people out there make their living, they pay for the kids to go to school, they pay to take care of their kids, they pay for their mortgage, they pay for their one or two cars, and at the end of the month, they may have \$ 100 left over if they're the lucky ones... And so, for someone to have the ability to go hire a lawyer on anything other than a contingency fee, you know, I think it's a fiction.⁴³

Another attorney explained that "The simple truth is at least 95 percent of our clients could not afford to pay the lawyer and could not finance the lawsuit. They just couldn't – at least 95 percent."⁴⁴

Thus, contingency fee arrangements developed to improve access to justice for tort victims, including victims of medical malpractice. However, as I explain in the following sections, although contingency fees have reduced the disparity in access to legal representation between wealthy and poor plaintiffs, they have not eliminated the access to justice problem in the medical malpractice system.

B. Causes of the Current Access to Justice Problem

In the modern medical malpractice system, two factors have made contingent fee lawyers increasingly unwilling, and unable, to accept many legitimate claims. High litigation costs and tort reforms that restrict damage awards have made it economically infeasible for attorneys to take many medical malpractice cases. As a result, many legitimate victims of medical malpractice are left with no way to seek redress in the civil justice system. In this section, I discuss how high litigation costs and tort reforms contribute to the current access to justice crisis.

1. Litigation costs

Medical malpractice suits are very expensive to litigate. The American Bar Association has estimated that the cost of prosecuting a single case of medical malpractice ranges from a low of \$50,000 to a high of \$500,000: "every case require[s] hundreds of hours of work and a huge outlay of money to pay for the investigation evaluation by experts, deposition testimony, travel, etc."⁴⁵

⁴³ *Id.* at 647

⁴⁴ Stephen Daniels and Joanne Martin, *Plaintiffs Lawyers: Dealing with the Possible but not Certain*, 60 DEPAUL L. REV. 337, 347 (2011)

⁴⁵ AMERICAN BAR ASSOCIATION TORT TRIAL & INSURANCE PRACTICE SECTION, *Report on Contingent Fees in Medical Malpractice Litigation* 30 (2004). See also Claire Osborn, *Many Lawyers Avoiding Malpractice Cases*, AUSTIN AM.-STATESMAN, June 14, 2004, at A1. (quoting Bill Whitehurst, a prominent practitioner in Austin, Texas, as stating that "the cost of taking a medical malpractice suit to court can be up to \$ 450,000").

Attorneys often assume, as a rule of thumb, that medical malpractice cases will cost at least \$100,000 to litigate: "you're talking about \$100,000 that you're gonna spend on technical expertise to write reports, to give depositions, you know, to explain the standard of care and how it's been breached."⁴⁶ Another attorney echoed that in medical malpractice litigation, "Easily you can spend \$100,000 without blinking."⁴⁷ In my own survey of medical malpractice plaintiffs' attorneys described in the next section, attorneys responded that the average cost of taking a medical malpractice claim to trial was just under \$100,000.

Because of the high cost of medical malpractice investigation and litigation, plaintiffs' attorneys cannot economically justify taking cases that lack sufficient damages to warrant the litigation expense. Contingency fee arrangements require attorneys to evaluate cases in terms of the risks and potential returns of the case.⁴⁸ As a result, attorneys rationally reject cases that do not satisfy a sufficient risk/return tradeoff. As one attorney interviewed for my study noted: "med-mal litigation is the 'sport of kings' from an expense standpoint...the liability/damages mix must present sufficient strength in both measures to make economic sense." Another attorney that participated in my survey explained that "the cake has to be worth the candle...I know if expenses will be high, I won't take the case without the likelihood of a large recovery."

Consider, for example, medical malpractice cases that are "cheap" to litigate, costing only \$50,000. An attorney with a 33 percent contingency fee rate should automatically reject cases with potential damages below \$150,000 as the cases would cost the attorney more to litigate than his expected fee. To make matters worse, few cases are slam dunks. If the attorney concluded that the \$50,000 litigation-cost cases had only a 50 percent chance of winning, he should rationally reject cases with potential damages below \$300,000. Only with potential damages greater than \$300,000 would the attorney's expected return (50 percent chance of winning X 33 percent of \$300,000 in damages) be greater than the costs of litigating the cases. Moreover, even with expected damages of \$300,000, the attorney would make no profit on these cases. As a result, the attorney has no choice but to reject many legitimate victims of medical malpractice that do not have sufficient damages to offset the litigation expenses.

⁴⁶ Stephen Daniels & Joanne Martin, *"The Juice Simply isn't Worth the Squeeze in Those Cases Anymore: Damage Caps, 'Hidden Victims,' and the Declining Interest in Medical Malpractice Cases*, American Bar Foundation Research Paper Series 09-01, 28 (2009)

⁴⁷ Stephen Daniels and Joanne Martin, *It Was the Best of Times, It Was the Worst of Times: The Precarious Nature of Plaintiffs' Practice in Texas*, 80 Tex. L. Rev. 1781, 1798 (2002).

⁴⁸ David A. Hyman & Charles Silver, *Medical Malpractice Litigation and Tort Reform: It's the Incentives, Stupid*, 59 VAND. L. REV. 1085, 1117 (2006).

Access to legal representation becomes even more difficult as litigation costs increase. A complex case with expected costs of \$500,000 would be automatically rejected unless the 33 percent contingency fee attorney was certain that damages would equal \$1.5 million. If the case had only a 50 percent chance of winning, it wouldn't make economic sense for the attorney to take the case unless expected damages were greater than \$3 million.

Although not all lawyers charge a 33 percent contingency fee, and some lawyers employ variable fees that depend on their work load,⁴⁹ the basic point does not change—the expense of medical malpractice litigation eliminates many legitimate victims of medical malpractice from the claims pool. Indeed, research shows that medical malpractice attorneys accept far fewer cases than they reject. One study of attorneys' acceptance rates found that attorneys reject 80 percent or more of the medical malpractice cases they screen.⁵⁰ Another report of medical malpractice attorneys' practice patterns found that 77.1 percent of attorneys reject more than 90 percent of the cases they screen.⁵¹ One of the primary reasons the attorneys give for rejecting cases was an insufficient expected return from these cases that are expensive to litigate.⁵²

2. Tort Reform

As a result of the high costs of medical malpractice investigation and litigation, many malpractice victims are left without legal remedy. These problems are exacerbated by damage caps and other tort reforms that artificially reduce plaintiffs' damages. Because the cost of trying cases remains the same as before tort reform, but the damages—and in turn, the contingency lawyer's expected recovery—declines, fewer cases will make economic sense for the lawyer to accept.

Consider, for example, a “slam dunk” medical malpractice case with expected economic damages of \$50,000 and expected noneconomic damages of \$500,000. An attorney with a 33 percent contingency fee rate should automatically reject this case if he expects his litigation costs to be higher than his expected fee of \$181,500 (33 percent of \$550,000). However, if the state enacts a \$250,000 cap on noneconomic damages, the attorney should automatically reject an identical case if the expected litigation costs exceed \$99,000; after the damages cap, the attorneys' expected fee is only \$99,000 (33 percent of \$330,000).

⁴⁹ Herbert M. Kritzer, *Seven Dogged Myths Concerning Contingency Fees*, 80 WASH. U. L. Q. 739, 759 (2002).

⁵⁰ Herbert M. Kritzer, *Contingency Fee Lawyers As Gatekeepers in the Civil Justice System*, 81 JUDICATURE 22, Table 3 (1997);

⁵¹ Michael Greenberg & Steven Garber, *Patterns of Specialization in Medical Malpractice Among Contingency Fee Attorneys*, RAND ICJ Working Paper Series, 14 WR-700-ICJ (2009).

⁵² LaRae I. Huycke & Mark M. Huycke, *Characteristics of Potential Plaintiffs in Malpractice Litigation*, 120 ANNALS INTERNAL MED. 792, 796 (1994)

Thus, the nature of the contingency fee system requires attorneys to weigh the expected return against the expected litigation costs of a case. Tort reform that lowers the expected return on many cases reduces access to the civil justice system by making cases financially unattractive to plaintiffs' lawyers working on a contingency fee basis.

One medical malpractice attorney interviewed for a study of plaintiffs' attorneys practices explained that he couldn't economically justify accepting many cases after his state capped noneconomic damages: "Because if it's a case that's gonna hafta be tried, and the up-end is \$200,000 to \$250,000, which is a \$100,000 fee, we're not gonna risk \$100,000 to get a \$100,000 fee. You can't do that in this business if you expect to be around very long."⁵³

Indeed, attorneys often lament that they have no choice but to turn down legitimate cases after their states enact tort reform:

In this state there's an epidemic at this time in terms of people who have legitimate claims going unrepresented. I have looked at cases before [before the cap] that had been seen by four or five other lawyers before they got to me. And I've looked at legitimate cases. ... Now I'm afraid what's happening is they're not really getting looked at ... they're [lawyers] making a decision, and I don't know that's an unreasonable one. I think they're just saying, "We are not gonna do any case that doesn't have the potential upside to justify the risk that we're gonna take" ... I would hate to be a plaintiff out there looking for a lawyer right now.⁵⁴

Only two empirical studies have explored the degree to which tort reform has limited victims' access to the legal system. The first study directly examined the influence of noneconomic damage caps on the willingness of plaintiffs' attorneys to accept medical malpractice clients.⁵⁵ The researchers conducted surveys of Texas plaintiffs' attorneys in 2000 and in 2006, before and after Texas instituted a \$ 250,000 cap on noneconomic damages in medical malpractice cases. For the 60 attorneys who participated in both surveys, the researchers compared the stated willingness to accept cases of three hypothetical potential medical malpractice clients. Although the clients had different levels of economic damages, they all suffered facial disfigurement as a result of the malpractice—indicating

⁵³ Stephen Daniels & Joanne Martin, "The Juice Simply isn't Worth the Squeeze in Those Cases Anymore: Damage Caps, 'Hidden Victims,' and the Declining Interest in Medical Malpractice Cases, American Bar Foundation Research Paper Series 09-01, 29 (2009).

⁵⁴ Stephen Daniels & Joanne Martin, "The Juice Simply isn't Worth the Squeeze in Those Cases Anymore: Damage Caps, 'Hidden Victims,' and the Declining Interest in Medical Malpractice Cases, American Bar Foundation Research Paper Series 09-01, 33 (2009).

⁵⁵ Steven Garber, et al., *Do Noneconomic Damages Caps and Attorney Fee Limits Reduce Access to Justice for Victims of Medical Negligence?*, 6 JOURNAL OF EMPIRICAL LEGAL STUDIES 637 (2009).

large noneconomic losses that could, absent a cap, result in a significant noneconomic damage award. The results revealed that the attorneys' willingness to accept all of the clients' cases declined after the cap was enacted, but it declined significantly more for the clients with low economic damages.

The second study analyzed the effects of noneconomic damages caps and attorney fee limits on attorneys' willingness to accept medical malpractice cases.⁵⁶ The researchers surveyed 965 plaintiffs' attorneys from across the nation, asking their likelihood of accepting a case in three different scenarios. The results confirmed that both noneconomic damage caps and attorney fee limits substantially discouraged attorneys from representing clients.

Hence, the limited empirical work on the subject confirms that high litigation costs and tort reforms that lower damages have restricted access to the legal system for many legitimate victims of medical malpractice. The factors have made it impossible for many plaintiffs' attorneys to economically justify taking cases that lack sufficient damages to warrant the litigation expense.

C. Consequences of the Access to Justice Problem

As litigation costs and tort reforms make it economically infeasible for attorneys to accept many medical malpractice cases, many legitimate victims of medical malpractice are left without legal representation. In this section, I discuss various consequences of this access to justice problem. Not only will unrepresented victims likely receive no compensation for their harms, but victims with low economic damages will be disproportionately excluded from the legal system.

Because of the complexity and expense of medical malpractice lawsuits, employing a lawyer is critical to a successful claim. Indeed, empirical evidence confirms that being unable to attain legal representation effectively eliminates victims' ability to obtain redress in the civil justice system. According to one study of medical malpractice claims, only 0.1 percent of medical malpractice claims that result in payment are brought by victims representing themselves, without an attorney.⁵⁷ Another study of closed claims found that the success rate of pro se and unrepresented plaintiffs was only 5.5 percent whereas the success rate for plaintiffs represented by counsel was 34 percent.⁵⁸

⁵⁶ Stephen Daniels & Joanne Martin, *"The Juice Simply isn't Worth the Squeeze in Those Cases Anymore:" Damage Caps, 'Hidden Victims,' and the Declining Interest in Medical Malpractice Cases*, American Bar Foundation Research Paper Series 09-01, 29 (2009).

⁵⁷ Stephen Daniels & Joanne Martin, *"The Juice Simply isn't Worth the Squeeze in Those Cases Anymore:" Damage Caps, 'Hidden Victims,' and the Declining Interest in Medical Malpractice Cases*, American Bar Foundation Research Paper Series 09-01, 33 (2009).

⁵⁸ Steven Garber, et al., *Do Noneconomic Damages Caps and Attorney Fee Limits Reduce Access to Justice for Victims of Medical Negligence?*, 6 JOURNAL OF EMPIRICAL LEGAL STUDIES 637 (2009).

Moreover, the economic calculus required by the contingency fee system causes attorneys to gravitate towards some types of medical malpractice cases and victims, and ignore others. High litigation expenses cause attorneys to rationally prefer cases with high expected damages, and, in turn, high expected attorneys' fees that will offset the expense of litigation. Similarly, tort reforms induce attorneys to prefer cases with higher economic damages, which are rarely limited by tort reform, and reject cases where the majority of the harm is noneconomic.

High litigation costs give medical malpractice attorneys little choice but to ignore smaller cases and concentrate on cases with larger expected damages; the lawyers' fee from a small case will rarely offset the expense of litigating the case. One medical malpractice attorney explained that a good case is "anything that has to do with neurological brain damage, something that's permanent -- young person that has a long time to live with a long life expectancy; a brain damaged baby where there's a long life expectancy that required 24 hour care. When you ... you know, where the cost of the damages are exceedingly high."⁵⁹ Another echoed that "there's no such thing, as far as I'm concerned, as a good small medical malpractice case."⁶⁰

Because the majority of adverse events resulting from medical negligence do not impose serious harm,⁶¹ the majority of medical malpractice victims will be unable to find legal representation and their injuries will go uncompensated. In fact, because many contingency fee attorneys assume that litigation expenses average \$100,000, they could not economically justify accepting claims that most people would regard as serious. Even a \$300,000 damage award would only allow an attorney with a 33 percent contingent fee to break even if litigation expenses are \$100,000. As a result, many attorneys develop minimum damages thresholds, below which they will not even consider a case. For example, one attorney interviewed for my survey replied that he would generally not consider "anything below a \$300,000.00 potential recovery."

Although the survey I conducted for this Article is the first to explore attorneys' minimum damages thresholds in a range of cases, along with the causes and consequences of those thresholds, one previous study of specialization among medical malpractice attorneys asked whether the respondents had a general threshold value rule for rejecting medical malpractice cases. Over half of the respondents in that previous survey replied that they would not accept a case if the expected damages were below \$250,000.

Thus, unless expected damages are large, contingency fee attorneys simply cannot justify accepting many cases because the expected fee will not offset the high litigation costs. As a result, legitimate victims of medical malpractice that have not suffered serious injury are unable to obtain legal counsel or receive compensation for their harms.

⁵⁹ Stephen Daniels & Joanne Martin, "The Juice Simply isn't Worth the Squeeze in Those Cases Anymore." *Damage Caps, 'Hidden Victims,' and the Declining Interest in Medical Malpractice Cases*, American Bar Foundation Research Paper Series 09-01, 32 (2009)

⁶⁰ *Id.* at 33

⁶¹ David Studdert, et al., *Negligent care and malpractice claiming behavior in Utah and Colorado*, 38 MED CARE 250, 254 (2000).

Moreover, by limiting certain types of damages relative to other damages, tort reform disproportionately reduces both compensation and access to justice for specific segments of the population. For example, existing studies show that caps on noneconomic damages disproportionately reduce compensation to females, children, the elderly, and the poor because a much greater proportion of their damage awards are in the form of noneconomic damages.⁶² These demographic groups often have lower incomes than other groups and, as a result, they have correspondingly less economic loss and relatively more noneconomic loss.⁶³ Thus, noneconomic damage caps act as a regressive tax on their recoveries because they reduce the recoveries of lower-income plaintiffs by a higher fraction than they reduce the recoveries of higher-income plaintiffs.

Not only do certain tort forms disproportionately reduce the compensation to these groups, they also disproportionately limit their access to the legal system. The tort reforms that disproportionately reduce the expected recoveries for lower income groups also disproportionately reduce the expected contingency fee that lawyers recover from these clients. Thus, these reforms disproportionately reduce contingency lawyers' willingness to represent lower income groups. Empirical evidence confirms that, after tort reforms that restrict noneconomic damages, attorneys disproportionately refuse to represent females, children, the elderly, and the poor on a contingency fee basis because of the low potential recovery.⁶⁴

⁶² Lucinda M. Finley, *The Hidden Victims Of Tort Reform: Women, Children, And The Elderly*, 53 EMORY L.J. 1263 (2004); Nicholas M. Pace, Laura Zakaras, & Daniela Golinelli, CAPPING NON-ECONOMIC AWARDS IN MEDICAL MALPRACTICE TRIALS: CALIFORNIA JURY VERDICTS UNDER MICRA 30-33 (2004); Eleanor D. Kinney, William Gronfein, & Thomas Gannon, *Indiana's Medical Malpractice Act: Results of a Three-Year Study*, 24 IND. L. REV. 1275 (1991);

⁶³ Christian E. Schlegel, Note, *Is a Federal Cap on Punitive Damages in Our Best Interest?: A Consideration of H.R. 956 in Light of Tennessee's Experience*, 69 TENN. L. REV. 677 (2002); Michael L. Rustad, *Nationalizing Tort Law: The Republican Attack on Women, Blue Collar Workers, and Consumers*, 48 RUTGERS L. REV. 673 (1996); Mark Donald, *Access Denied: Does Tort Reform Close Courthouse Doors to Those Who Can Least Afford It?*, TEX. LAW., (Jan. 10, 2005)

⁶⁴ Rachel Zimmerman & Joseph T. Hallinan, *As Malpractice Caps Spread, Lawyers Turn Away Some Cases*, WALL ST. J., Oct. 8, 2004, at A1 ("Caps on damages for pain and suffering ... [are] turning out to have the unpublicized effect of creating two tiers of malpractice victims... . Lawyers are turning away cases involving victims that don't represent big economic losses - most notably retired people, children and housewives...."); Catherine M. Sharkey, *Unintended Consequences of Medical Malpractice Damage Caps*, 80 N.Y.U. L. REV. 391 (2005) (showing that awards for overall damages have stayed the same while economic damages have increased possibly because plaintiffs' lawyers have screened out women, minorities, and children who are less likely to receive high economic damages); Troy L. Cady, Note, *Disadvantaging the Disadvantaged: The Discriminatory Effects of Punitive Damage Caps*, 25 HOFSTRA L. REV. 1005 (1997) ("Lawyers will become increasingly unwilling to represent plaintiffs in lawsuits that have little or no prospect of yielding adequate compensation for the large amount of time and money invested.").

Interviews with medical malpractice attorneys also indicate that certain tort reforms limit access to the legal system for certain demographic groups. As an attorney interviewed for my study explained: “non wage-earners, seniors, nonworking women...are the first ones to lose access to the courts when things like caps on pain and suffering awards are enacted.” Similarly, an attorney interviewed in another study explained that, “the biggest problem is the cap on damages. The \$250,000 cap does nothing more than hurt the children and the housewives and the elderly the most because they don’t have any economic damages. They don’t have any earning capacity and they don’t have and lost wages.”⁶⁵ Another attorney confirmed that caps on noneconomic damages have “essentially closed the courthouse door to the negligence that would kill a child, a housewife or an elderly person. [The reason is that] there are no medical expenses, no loss of earning capacity.”⁶⁶

In the next Section, I discuss the findings from my own survey of medical malpractice attorneys. My results confirm that many of the attorneys’ statements quoted in this section are representative of the general sentiment among medical malpractice attorneys. Attorneys generally agree that the costs of litigating medical malpractice cases are high, economic realities force them to reject many legitimate cases that do not have high expected damage awards, and tort reforms further restrict the number of legitimate cases that attorneys are able to accept.

⁶⁵ Stephen Daniels & Joanne Martin, *The Texas Two-Step: Evidence on the Link Between Damage Caps and Access to the Civil Justice System*, 55 DEPAUL L. REV. 635, 661 (2006) (quoting an interview with a personal injury lawyers in Texas).

⁶⁶ Stephen Daniels & Joanne Martin, *The Texas Two-Step: Evidence on the Link Between Damage Caps and Access to the Civil Justice System*, 55 DEPAUL L. REV. 635, 661 (2006) (from an interview with a personal injury lawyers in Texas).



III. Survey

To better understand the magnitude and implications of the access to justice problem under the current medical malpractice system, I conducted an online survey of attorneys that currently represent medical malpractice plaintiffs. The survey asked various questions about each respondent and their firm (such as demographic characteristics, firm characteristics, and experience in medical malpractice work), questions about their medical malpractice practice patterns (including the respondents' experiences with case dispositions, recoveries, and expenses), and questions pertaining to case screening procedures and access to justice (such as case rejection rate, reasons for rejecting cases, and minimum damages among accepted cases). In this section, I discuss my survey methods and present data on the survey responses to various questions.

A. Methods

I drew contact information from a list of approximately 23,026 attorneys published by Consumer Base and RSA List Services in the spring of 2012.⁶⁷ These companies, in turn, obtain their contact lists from various sources including business directories, conference attendance lists, firm websites, and various other sources.

I developed a 35-item online survey addressing various aspects of attorneys' practices, case screening procedures, and case disposition experience. In May 2012, I sent an email with a request to participate in an online survey to all 23,026 email addresses on my contact list. The email described the following purpose of the survey:

We are developing a knowledge base of general practice patterns of medical malpractice attorneys that we can share with all trial attorneys. Although there has been much speculation about the way that factors such as case characteristics, state laws, and the nature of an attorney's practice influence litigation and case outcomes, there has been no systematic study of these influences. This study will explore how these factors influence attorney decisions to accept or reject cases at screening, and how they relate to cases that are dismissed, settled, or proceed to trial.

⁶⁷ RSA List Services, available at <http://www.rsalistservices.com/> (last visited Aug. 23, 2012); Consumer Base, available at <http://www.consumerbase.com/index.html> (last visited Aug. 23, 2012).

The email also confirmed that the survey responses were completely anonymous and provided my contact information for follow-up questions or comments. I received hundreds comments, several of which were provided as quotes in Section 2 of this Article. Finally, the email contained a link to the online survey, with a request that the subjects voluntarily click on the link to take the survey. I sent a reminder email approximately a week after the initial request.

The online survey was open for approximately one month. Four hundred and sixty four attorneys completed the online survey during this time. Ideally, I could estimate a response rate based on the 464 responses. However, to estimate this accurately I would need to know the number of medical malpractice attorneys that received my email request and had the opportunity to take the survey. For various reasons, this is impossible to do.

First, although my initial contact list contained 23,026 email addresses, a significant number of the contacts contained incorrect or out of date email addresses. Second, not all of the attorneys on the list were medical malpractice attorneys; many attorneys replied that they had never litigated medical malpractice cases or hadn't litigated medical malpractice cases in many years. In fact, many had not practiced law at all in years and were either retired or working in a different career. Finally, my email requests got caught in an unknown number of my contacts' spam folders.⁶⁸ As a result, the list of 23,026 contacts significantly overestimates the number of medical malpractice attorneys that actually received my email and had an opportunity to respond.

Moreover, to determine the percentage of the total population of U.S. medical malpractice attorneys that my respondents represent, I would need to know how many attorneys are actively litigating medical malpractice cases. However, this number is impossible to estimate. There is no database that identifies all U.S. attorneys by the type of work they do. Martindale.com, the largest online index of attorneys that includes contact information for over one million practicing attorneys, is likely the closest thing to a comprehensive list of U.S. attorneys.⁶⁹ Martindale reports that, across the United States, there are 10,894 attorneys that self-identify as practicing in the area of medical malpractice. Only 3,493 of these attorneys are active members of the American Bar Association. Even these numbers may overestimate the true number of medical malpractice lawyers because attorneys self-report their practice area to Martindale. Thus, the Martindale index reports the type of work that attorneys would be willing to do, not the type of work in which they actually have experience. As a result, many of the 10,894 attorneys that checked the "medical malpractice" box may have little or no experience litigating medical malpractice cases.

Although it is impossible to know the true response rate to my survey, ideally I would have more responses than I did. Moreover, as with any voluntary survey, there is a potential for selection bias when respondents

⁶⁸ Although I filled out hundreds of requests from email providers to skip the spam folder, many attorneys responded that they had found my email in their spam folder.

⁶⁹ Available at <http://www.martindale.com> (last visited Aug. 23, 2012).

decide whether to respond, even if the underlying pool of attorneys to whom I sent the survey is unbiased. Because my email describing the survey suggested that the purpose of my research is to understand medical malpractice attorneys' practice patterns and how various factors affect these patterns, attorneys that are more concerned with the state of their current practice may be more likely to respond. As a result, the responses may disproportionately reflect the concerns and practices of this group of attorneys instead of the practices of all attorneys. Nevertheless, as I show in the next section, the responses to the basic demographic questions all indicate that my sample of respondents is very representative of the larger population of medical malpractice attorneys. Moreover, all of the survey responses are consistent with other research findings, suggesting that selection bias may not be a serious problem.

B. Basic Demographic Characteristics of Plaintiffs' Attorneys Respondents

The survey asked a series of demographic characteristics about the respondents and their practices. The first question asked whether the respondents had primarily represented medical malpractice plaintiffs or defendants in the past year. Of the 464 respondents, 259 reported that they had primarily represented medical malpractice plaintiffs; the other 205 respondents reported that they had primarily engaged in medical malpractice defense. The respondents' answer to this first question directed them to either a set of questions relevant to plaintiffs' attorneys or a set of questions relevant to defense attorneys. As this Article is concerned with the access to justice issue among medical malpractice plaintiffs, this remainder of my discussion of the survey results will pertain only to the 259 plaintiffs' attorneys' responses. Future work on other topics will discuss the survey questions and responses for the defendants' attorneys.

The survey's demographic questions were designed to determine whether my respondents were representative of the larger population of U.S. medical malpractice attorneys. To determine whether the respondents were geographically representative, the survey asked the question: "In which state did you bring the majority of your medical malpractice cases last year?" Table 1 reports that attorneys from at least 39 states answered the online survey (because some respondents did not provide a state answer). Although some of the states are represented by only a few responses, there is a great deal of geographic diversity among the survey respondents.

Table 1: States Represented by Medical Malpractice Plaintiffs' Attorneys Survey Respondents

State	Number of Respondents
Not Answered	94
Alabama	4
Arizona	14
Arkansas	1
California	6
Colorado	2
Connecticut	4

Table 1 (continued): States Represented by Medical Malpractice Plaintiffs' Attorneys Survey Respondents

Florida	18
Georgia	11
Hawaii	1
Illinois	7
Indiana	3
Kansas	4
Kentucky	3
Louisiana	1
Maine	1
Maryland	10
Massachusetts	2
Minnesota	2
Mississippi	2
Missouri	2
Nebraska	1
Nevada	1
New Hampshire	1
New Jersey	3
New Mexico	1
New York	7
North Carolina	3
Ohio	14
Oklahoma	2
Pennsylvania	13
Rhode Island	1
Tennessee	3
Texas	5
Utah	2
Virginia	4
Washington	3
Washington, DC	1
Wisconsin	1
Wyoming	1
Total	259

The next two questions were designed to determine whether the firm characteristics are representative of the larger population of medical malpractice attorneys. Answers to the question “Which of the following best describes the location of the office in which you work?” revealed that the great majority of the survey respondents practice in urban areas. Table 2 reports the distribution of my attorney respondents among different office locations. This distribution of locations is consistent with other studies of medical malpractice plaintiffs’ attorneys that have found that the overwhelming number practice in urban areas.⁷⁰

Table 2: Office Location of Respondents

Office Location	Percentage of Respondents
Rural	4.27%
Suburban	24.39%
Urban	71.34%

The survey also asked the question: “Approximately how many attorneys work in your law office?” The majority of respondents reported that they worked in office with fewer than 5 attorneys. Table 3 shows the distribution of the survey respondents among different firm sizes. This distribution is consistent with other reports on medical malpractice attorneys that has found that the average firm specializing in medical malpractice has only two attorneys.⁷¹

Table 3. Firm Size of Respondents

Firm Size	Percent of Respondents
Solo practice	12.80%
2-5 attorneys	43.29%
6-10 attorneys	25.00%
11-50 attorneys	16.46%
more than 50 attorneys	2.44%

⁷⁰A Michael Greenberg & Steven Garber, *Patterns of Specialization in Medical Malpractice Among Contingency Fee Attorneys*, RAND ICJ Working Paper Series, 13 WR-700-ICJ (2009) (finding that 65 percent and 29 percent of respondents worked in urban and rural settings, respectively).

⁷¹Stephen Daniels & Joanne Martin, *Texas Plaintiffs’ Practice in the Age of Tort Reform: Survival of the Fittest – It’s Even More True Now*, 51 N.Y.L. SCH. L. REV. 285, 305 (2006).

I designed the next set of survey questions to determine whether the litigation experience of my respondents is representative of the larger population of medical malpractice attorneys in the U.S. Answers to the question “How many years have you been litigating medical malpractice cases?” revealed a substantial amount of experience among my respondents. As reported in Table 4, the majority of the respondents had over 20 years of experience litigating in this area. This level of experience is consistent with other reports that have found an average of 24 years of practice experience among medical malpractice attorneys.⁷²

Table 4: Experience Litigating Medical Malpractice Cases

Years	Percent of Respondents
Fewer than 10 years	4.85%
10-19 years	23.64%
20-29 years	35.15%
30+ years	36.36%

The survey also asked the respondents “Approximately how many medical malpractice cases are you working on now?” As shown in Table 5, most of the respondents were handling fewer than 15 medical malpractice cases at the time of the survey. In general, the respondents that were involved in more cases tended to practice in larger firms.

Table 5: Number of Current Medical Malpractice Cases

Number of current cases	Percent of Respondents
Fewer than 5 cases	31.90%
5-15 cases	41.10%
16 to 50 cases	22.09%
More than 50 cases	4.91%

⁷² *Id.* at 11.

Finally, to understand the amount of specialization in medical malpractice cases among the respondents, the survey asked “Which of the following best describes how much time you spend working on medical malpractice cases?” Table 6 shows that there is substantial diversity in the degree of specialization among the survey respondents. The majority of the survey respondents devoted either less than 25 percent of their time or more than 75 percent of their time to medical malpractice cases. Again, this distribution of specialization is consistent with other reports on the practice pattern of medical malpractice attorneys.⁷³

Table 6: Specialization on Medical Malpractice Cases

Percentage of Time	Percent of Respondents
Less than 25% of my time	32.72%
Between 25% and 50% of my time	19.14%
Between 51% and 75% of my time	14.81%
More than 75% of my time	33.33%

Thus, the survey respondents practice in at least 39 states and work in firms that are representative of the larger population of U.S. medical malpractice attorneys. Moreover, the respondents’ practice experience and specialization in medical malpractice work is similar to that found in other reports of medical malpractice practice patterns.

C. Case Disposition Experience

To better understand the practice patterns of medical malpractice attorneys, the survey asked a series of questions about the attorneys’ recent experience in case dispositions. Responses to the question “Approximately how many [medical malpractice] cases did you close last year?” revealed that the average respondent closed 14 cases last year. Table 7 reports the distribution of closed cases among the survey respondents.

⁷³ Michael Greenberg & Steven Garber, *Patterns of Specialization in Medical Malpractice Among Contingency Fee Attorneys*, RAND ICJ Working Paper Series, 12 WR-700-ICJ (2009) (finding that 65 percent and 29 percent of respondents worked in urban and rural settings, respectively).

Table 7: Medical Malpractice Cases Closed Last Year

Cases Closed	Percent of Respondents
Fewer than 5 cases	37.36%
5-10 cases	33.33%
11-50 cases	25.86%
more than 50 cases	3.45%

To explore how these cases were closed, the survey asked “Approximately what percentage of the cases that you closed last year were: dismissed without payment, settled with payment prior to trial proceedings, settled with payment during trial, and went to jury verdict?” Table 8 reports that the majority of cases were disposed by settlement.⁷⁴ The percentage of cases that went to trial (9 percent) is consistent with data from the largest independent medical professional liability research database that reports that 8.5 percent of medical malpractice claims went to trial in 2010, the most recent year for which data was available.⁷⁵

Table 8: Case Dispositions Among Survey Respondents

Percent of medical malpractice cases that were:	Average Percent among Respondents
Dismissed without payment	11%
Settled with payment prior to trial proceedings	54%
Settled with payment during trial	2%
Went to jury verdict	7%

⁷⁴ The percentages in Table 8 do not add up to 100 percent, but they exclude certain case disposition outcomes such as bench trials.

⁷⁵ The Physician Insurers Association of America, Claim Trend Analysis: A Comprehensive analysis of Medical Liability Data Reported to the PIAA Data Sharing Project at Exhibit 6c (2011).

To explore plaintiffs' success at trial, the survey asked questions pertaining to plaintiff win rates and plaintiff recovery. According to the responses to the question "What percentage of your cases that went to a jury verdict last year were in the plaintiff's favor?", the average plaintiff win rate by jury was 27 percent. This plaintiff win rate is low compared to plaintiff win rates in general civil trials; a recent report on civil trial dispositions found that plaintiffs win in 56 percent of civil trials.⁷⁶ However, the survey's low percentage of plaintiff wins is consistent with other data on medical malpractice trial outcomes that find that plaintiffs win in 24 percent of medical malpractice trials.⁷⁷

To further explore plaintiff outcomes, the survey also asked the question "What would you estimate was the average amount awarded to the plaintiff in your cases that settled for payment last year and resulted in a jury verdict for the plaintiff?" The respondents reported an average settlement award of \$652,060 and an average damage award from jury verdict of \$ 1,519,727. Table 9 reports the distribution of respondents indicating average award amounts for settlements and jury verdicts. Not surprisingly, awards from jury verdict tend to be much higher than settlement amounts. In fact, the majority of jury awards reported by my survey respondents were over \$1 million. Although the proportion of jury awards over than \$1 million among my responses is slightly higher than a recent report on civil trial awards, the concentration of jury awards over \$500,000 is consistent with recent research.⁷⁸

Table 9: Average Plaintiff Awards in Settlements and Jury Verdicts

Average Award Amount	Percent of Respondents Indicating Average Award in Settlements	Percent of Respondents Indicating Average Award from Jury Verdict
Less than \$50,000	3.38%	0%
\$50,000-\$150,000	12.16%	12.73%
\$150,000-\$500,000	48.65%	27.27%
\$500,000-\$999,999	14.86%	9.09%
\$1 million or greater	20.95%	50.91%

⁷⁶ Lynn Langton, M.A. and Thomas H. Cohen, Civil Bench and Jury Trials in State Courts, 2005, Bureau of Justice Statistics Report NCJ 223851, 4 (2008), available at <http://bjs.ojp.usdoj.gov/content/pub/pdf/cbjtsc05.pdf> (last access Aug. 23, 2012).

⁷⁷ *Id.* reporting that plaintiffs win in 23 percent of medical malpractice trials.

⁷⁸ Lynn Langton, M.A. and Thomas H. Cohen, Civil Bench and Jury Trials in State Courts, 2005, Bureau of Justice Statistics Report NCJ 223851, 5 (2008), available at: <http://bjs.ojp.usdoj.gov/content/pub/pdf/cbjtsc05.pdf> (last accessed Aug. 23, 2012).

To explore attorneys' recovery and costs in medical malpractice cases, the survey asked questions relating to contingent fees and litigation expenses. The survey asked the question "What is your average fee as a percentage of the award in cases that settle with payment made to the plaintiff and result in a jury award to the client?" Among the respondents, the average contingent fee in cases that ended in a settlement paid to the plaintiff was 35 percent and the average contingent fee in cases that ended in a jury award to the plaintiff was 36 percent. Table 10 reports the distribution of average contingent fees among cases ending in settlement and jury awards.

Table 10: Average Contingent Fee in Settlements and Jury Verdicts

Average Contingent Fee	Percent of Respondents Indicating Average Fee in Settlements	Percent of Respondents Indicating Average Award from Jury Verdict
less than 20%	6.38%	4.85%
20% to 29%	12.06%	7.77%
30% to 40%	73.05%	80.58%
greater than 40%	8.51%	6.80%

Finally, to understand the attorneys' expenses in various cases, the survey asked "What would you estimate are the average litigation costs of your medical malpractice cases that: were dismissed without payment, settled with payment made to the plaintiff, and resulted in a jury verdict for the plaintiff?" Table 11 reports the averages of the respondents' answers. Not surprisingly, the litigation costs are highest when cases go to trial. Moreover, the \$97,000 average litigation cost among cases ending with a jury verdict for the plaintiff is very similar to the expected \$100,000 cost that many attorneys use as rules of thumb when screening cases.⁷⁹

Table 11: Average Litigation Expenses Among Different Cases

Case Disposition	Average Litigation Costs
Dismissed without payment	\$18,062.76
Settled with payment made to the plaintiff	\$58,275.89
Resulted in jury verdict for plaintiff	\$97,369.79

⁷⁹ See text at notes []

D. Case Screening And Access To Justice

The final set of survey questions relate to the attorneys' experiences screening cases and the problem of access to justice. The responses reveal that the majority of screened cases are rejected and that even strong cases will be rejected if the expected damage award is not large enough. Thus, the survey confirms that access to justice is a significant problem in today's medical malpractice system.

To understand the screening procedures of attorneys, the survey asks questions about the number of cases screened and the percent of those cases that are rejected. In response to the question, "Within the last year, approximately how many medical malpractice suits did you screen?" the majority of respondents answered that they screened fewer than 50 cases. Table 12 reports the number of cases screened among the survey respondents.

Table 12: Medical Malpractice Cases Screened in Last Year

Cases Screened in Last Year	Percent of Respondents
fewer than 10 cases	12.17%
10 to 50 cases	42.61%
51 to 100 cases	20.00%
101 to 500 cases	20.00%
more than 500 cases	5.22%

Next, the survey asked "Approximately what percentage of the cases that you screened did you reject?" Table 13 reports the results. The responses indicate that the majority of attorneys reject between 95 and 99 percent of the cases they screen. In fact, 76.8 percent of the attorney respondents indicate that they reject more than 90 percent of the cases they screen. This percentage is remarkably

consistent with results from another report of medical malpractice attorneys' practice patterns that found that 77.1 percent of attorneys accept fewer than 10 percent of the cases they screen.⁸⁰

Table 13: Percent of Screened Cases that are Rejected

Percent of Rejected Screened Cases	Percent of Respondents
less than 75 %	5.21%
75% to 89%	18.01%
90% to 94%	25.59%
95% to 99%	42.18%
more than 99%	9.00%

To understand the reasons why attorneys reject so many cases, the survey asked "Which of the following was your primary reason for rejecting the cases that you did last year?" As reported in Table 14, the most common reason for rejecting cases was insufficient damages. Moreover, over half of the respondents indicated that cost factors—either insufficient damages or the expense of bringing the claim—were the primary reasons for rejecting cases.

Table 14: Primary Reasons for Rejecting Case

Reason for rejecting case	Percent of Respondents
Unclear causation	19.25%
Unclear evidence of malpractice	29.11%
Case is unlikely to settle	0.94%
Insufficient damages expected from trial or settlement	38.73%
Complexity and expense of bringing the claim	11.74%
Hospital not involved in malpractice	0.23%

⁸⁰ Michael Greenberg & Steven Garber, Patterns of Specialization in Medical Malpractice Among Contingency Fee Attorneys, RAND ICJ Working Paper Series, 14 WR-700-ICJ (2009).

To further explore the degree to which the expected damages affects attorneys' likelihood of accepting cases, the survey asked, "Do you have a minimum threshold for the potential damages award, below which you will not accept a case?" If the attorneys answered in the affirmative, they were asked the amount of the damages threshold. This question was asked with different percentage likelihoods of succeeding on the legal merits—95 percent, 51 percent and 25 percent. Table 15 reports the percent of responses that indicated different levels of damage thresholds for each of the likelihoods of winning. As expected, the minimum damages threshold, below which attorneys will not accept a case, increases as the likelihood of winning the case decreases; as case risk increases, so does the return. This risk-return tradeoff is economically rational and is seen in all areas of investment behavior.

Table 15: Damage Thresholds for Accepting Cases

Damages Threshold below which will not accept case	Percent of Respondents when likelihood of winning on the merits is 95%	Percent of Respondents when likelihood of winning on the merits is 51% ⁸¹	Percent of Respondents when likelihood of winning on the merits is 25% ⁸²
less than \$50,000	1.18%	0.78%	0%
\$50,000 to \$149,000	20.71%	3.10%	4.17%
\$150,000 to \$249,000	22.43%	7.75%	4.17%
\$250,000 to \$499,000	27.31%	17.33%	8.33%
\$500,000 and over	27.81%	70.54%	83.33%
Median damages threshold	\$250,000	\$500,000	\$1,000,000

The results confirm that access to justice is a significant problem in today's medical malpractice system. First, virtually no attorney will accept any medical malpractice case, even if the likelihood of winning is 95 percent, if the expected damages are less than \$50,000. As the majority of medical malpractice victims do not suffer harm that equates to an exorbitant damage award, this result indicates that most victims will not be able to obtain legal representation.

⁸¹ 13 percent of respondents indicated that, regardless of the expected damages, they would never accept a case with this likelihood of winning on the merits.

⁸² 19 percent of respondents indicated that, regardless of the expected damages, they would never accept a case with this likelihood of winning on the merits.

Second, well over half of the attorneys indicated that they will not accept a case, regardless of the likelihood of winning the case, if the expected damages are less than \$250,000. This is consistent with the RAND survey that has examined whether attorneys have a damage threshold below which they will not accept a case.⁸³ Although the RAND survey did not differentiate between different likelihoods of winning the case, and provided damage threshold categories to respondents instead of allowing them to enter their own damages threshold amount, it similarly found that 53 percent of attorneys would automatically reject a case if the expected damages were less than \$250,000.

Finally, the median thresholds in the survey responses indicate the minimum damages, below which at least half of medical malpractice attorneys will not even consider taking a case. The reported medians reveal that most attorneys won't accept a slam-dunk case (95 percent likelihood of winning) unless the expected damages are over \$250,000. Most attorneys will not accept a case that is more likely than not to be decided in the plaintiff's favor (51 percent likelihood of winning) unless the expected damages are over \$500,000. Finally, most attorneys won't accept a case that is tough to win on the merits (25 percent likelihood of winning) unless expected damages are at least \$1 million.

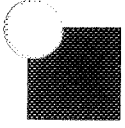
Finally, to determine whether tort reform has exacerbated the access to justice problem in the medical malpractice system, the survey asked "Which of the following reforms have reduced your willingness to accept cases?" Table 16 reports the percent of respondents that selected each choice. Over 80 percent of the respondents indicated that some tort reform had reduced their willingness to accept cases. As predicted by the theoretical literature and the two previous studies of tort reform's impact on case acceptances,⁸⁴ the reform that was most commonly named as affecting attorneys' willingness to accept cases was noneconomic damage caps.

Table 16: Tort Reforms' Impact on Willingness to Accept Cases

Tort Reform	Percent of Respondents
Noneconomic damage caps	31.25%
Punitive damage caps	3.87%
Reforms eliminating joint-and-several liability	12.50%
Reforms to the collateral source rule	15.77%
None	19.35%
Other	17.26%

⁸³ Michael Greenberg & Steven Garber, *Patterns of Specialization in Medical Malpractice Among Contingency Fee Attorneys*, RAND ICJ Working Paper Series, 14 WR-700-ICJ (2009)

⁸⁴ Stephen Daniels & Joanne Martin, "The Juice Simply isn't Worth the Squeeze in Those Cases Anymore: Damage Caps, 'Hidden Victims,' and the Declining Interest in Medical Malpractice Cases," American Bar Foundation Research Paper Series 09-01, 32 (2009); Steven Garber, et al., *Do Noneconomic Damages Caps and Attorney Fee Limits Reduce Access to Justice for Victims of Medical Negligence?*, 6 JOURNAL OF EMPIRICAL LEGAL STUDIES 637 (2009).



VII. Implications of the Access to Justice Problem

The results from my survey indicate that many attorneys are unwilling to represent legitimate victims of medical malpractice if they do not expect a sufficiently large recovery. Without legal representation, most of these victims will not be compensated for the harm they suffer as a result of medical negligence. In turn, the medical malpractice system will fail to provide adequate precautionary incentives for physicians and hospitals.

In this section, I further explore the implications of this access to justice problem. First, using data on median plaintiff recoveries from 1985-2010, I show that only the most severely injured victims will be able to easily find legal representation. Then, I present data consistent with an increasing access to justice problem; the data imply that attorneys are taking fewer cases, and gravitating toward higher damage cases. Thus, a significant portion of injured victims are unable to find legal representation.

The data I employ are from The Physician Insurers Association of America (PIAA), the insurance industry trade association representing domestic and international medical professional liability insurance companies.⁸⁵ PIAA maintains the world's largest independent medical professional liability research database, collecting data from its members that provide insurance protection to more than 60 percent of America's private practice physicians, and write approximately 46 percent or \$5.2 billion of the total industry premium. The PIAA medical malpractice data provides information on more than 274,000 medical and dental claims and lawsuits. As the PIAA data covers such a large proportion of the litigation in the U.S. medical malpractice system, it is frequently used to develop national overviews of claims and litigation.

Drawing from the PIAA data, Table 17 reports the median payment made to plaintiffs between 1985-2010 by severity of plaintiff injury and primary allegation against the medical provider.⁸⁶ For example, the table reports that for allegations of improper performance—when either an operative or diagnostic procedure is done incorrectly—the median payment to plaintiffs suffering only emotional injury was \$20,000. In contrast, the median payment made to plaintiffs suffering grave injuries—injuries requiring lifelong care—for the same allegation was \$457,341. The payment data are from a significant number of claims; for example the data on median payments made for improper performance claims is collected from 65,603 closed claims.

⁸⁵ The Physician Insurers Association of America, Claim Trend Analysis: A Comprehensive analysis of Medical Liability Data Reported to the PIAA Data Sharing Project (2011).

⁸⁶ *Id.* at Exhibit 8.

Table 17: Median payment made to plaintiffs between 1985-2010 by severity of plaintiff injury and primary allegation against the medical provider

Severity of Patient's Injury	Median Indemnity for Improper Performance	Median Indemnity for Errors in Diagnosis Median	Indemnity for Failure to Supervise or Monitor a Case	Median Indemnity for Medication Error
Emotional injury only	\$20,000	\$16,625	\$36,625	\$20,000
Insignificant injury	\$17,500	\$16,278	\$12,500	\$10,000
Minor temporary injury	\$30,000	\$25,000	\$25,000	\$12,500
Major temporary injury	\$75,000	\$60,000	\$70,000	\$25,000
Minor permanent injury	\$85,000	\$100,000	\$100,000	\$60,311
Significant permanent injury	\$152,659	\$142,341	\$175,000	\$115,000
Major permanent injury	\$300,000	\$225,000	\$250,000	\$220,079
Grave	\$457,341	\$200,000	\$464,031	\$292,500
Death	\$150,000	\$150,000	\$110,000	\$100,000
Total Number of closed claims from 1985-2010	65,603	52,159	18,115	10,473

The data on median payments are for actual claims, and thus, situations when victims of medical malpractice were able to obtain legal representation. Nevertheless, they reveal that, in many cases, recoveries for less serious injuries are small enough that if the attorneys could have perfectly predicted the final recovery, they would have been deterred from taking the case. That is, if the attorneys knew that the final recovery in a case would equal the median recovery (and the definition of median implies that half of the cases in each category result in payments less than or equal to that median recovery), they would often refuse to take the case. Although the specific decision to take a case will depend on both the expected recovery and the expected costs—so that attorneys will take low recovery cases if they expect litigation costs to be low as well—many

of the median payments in Table 17 are lower than the median minimum damage thresholds indicated in my survey results. For example, Table 15 reported that even for a case that had a 95 percent likelihood of winning on the merits, fewer than 2 percent of attorneys would be willing to take the case if expected damages were below \$50,000. Table 18 shows that if these attorneys expected the final recovery in such a case to be equal to the median recovery reported in the PIAA data, they would refuse to take all of the cases represented by the shaded regions. Thus, even for a slam dunk case, if attorneys expected a median recovery, they would never accept a case that resulted in only emotional injury, insignificant injury, or minor temporary injury, regardless of the allegations against the doctor.

Table 18: Attorney Rejection of Cases if Minimum Damages Threshold is \$50,000

Severity of Patient's Injury	Median Indemnity for Improper Performance	Median Indemnity for Errors in Diagnosis Median	Indemnity for Failure to Supervise or Monitor a Case	Median Indemnity for Medication Error
Emotional injury only	\$20,000	\$16,625	\$30,625	\$20,000
Insignificant injury	\$17,500	\$16,275	\$12,500	\$10,000
Minor temporary injury	\$30,000	\$25,000	\$25,000	\$12,500
Major temporary injury	\$75,000	\$60,000	\$70,000	\$25,000
Minor permanent injury	\$85,000	\$100,000	\$100,000	\$60,311
Significant permanent injury	\$152,659	\$142,341	\$175,000	\$115,000
Major permanent injury	\$300,000	\$225,000	\$250,000	\$220,079
Grave	\$457,341	\$200,000	\$464,031	\$292,500
Death	\$150,000	\$150,000	\$110,000	\$100,000

The situation becomes even more dire when we analyze the cases that will be rejected using my survey's median minimum damages threshold for cases with a 95 percent likelihood of success-\$250,000. Table 19 shows that, for at least half of the attorneys in my survey,⁸⁷ if the

⁸⁷At least half of the attorneys indicated that their minimum damages threshold for a case with a 95 percent likelihood of success was \$250,000.

final recovery in a case is expected to be equal to the median recovery, they would refuse to take all of the cases represented by the shaded regions. Thus, even for cases that they are almost certain to win, if they expected a median recovery, at least half of the attorneys would never accept a case that resulted in any injury less severe than a major permanent injury or grave injury. At least half of the attorneys would even refuse to accept a case that resulted in death if they only expected a median recovery.

Table 19: Attorney Rejection of Cases if Minimum Damages Threshold is \$250,000

Severity of Patient's Injury	Median Indemnity for Improper Performance	Median Indemnity for Errors in Diagnosis Median	Indemnity for Failure to Supervise or Monitor a Case	Median Indemnity for Medication Error
Emotional injury only	\$20,000	\$16,623	\$36,623	\$20,000
Insignificant injury	\$17,500	\$16,278	\$12,500	\$10,000
Minor temporary injury	\$30,000	\$25,000	\$25,000	\$12,500
Major temporary injury	\$75,000	\$60,000	\$70,000	\$25,000
Minor permanent injury	\$85,000	\$100,000	\$100,000	\$60,311
Significant permanent injury	\$152,659	\$142,341	\$175,000	\$115,000
Major permanent injury	\$300,000	\$225,000	\$250,000	\$220,079
Grave	\$457,341	\$200,000	\$464,031	\$292,500
Death	\$150,000	\$150,000	\$110,000	\$100,000

Thus, the data on median payments indicate that unless attorneys expect an unusually large recovery that is far greater than the median, they will not accept cases for anything but the most serious injuries. This finding is consistent with attorneys' claims that "there's no such thing... as a good small medical malpractice case."⁸⁸

⁸⁸ *Id.* at 33.

Moreover, data on claim numbers and damage amounts suggest that the problem of access to justice is worsening. Consistent with a growing refusal in the legal profession to take low damage cases, the number of medical malpractice claims is falling while the damages paid in those claims is increasing.

Reports indicate that medical malpractice claims are decreasing across the United States.⁸⁹ For example, the National Center for State Courts reports that the number of medical malpractice case filings dropped by 15 percent from 1999-2008 in the states that report caseload data.⁹⁰ Similarly, PIAA data indicates that the number of closed claims from 2006-2010 has decreased by 19.5 percent compared to 1985-1989, and the number of paid claims has decreased by 32.7 percent over this period.⁹¹

These data suggest that lawyers are filing fewer claims for medical malpractice. While this dramatic decrease in case filings could be the result of fewer patient injuries from medical negligence, there is no evidence that medical errors have decreased. Instead, the evidence suggests that case filings are decreasing because attorneys are taking fewer low-damage cases. Indeed, PIAA data on payments to medical malpractice plaintiffs from 1985 to 2010 reveal that the number of “small” payments has decreased substantially while the number of “large” payments has increased. Figure 1 details the percentage of paid claims by payment level from 1985 to 2010.

⁸⁹ Thomas Owen McGarity, Douglas A Kysar, & Karen C. Sokol, *Medical Malpractice Myths and Realities: Why an Insurance Crisis is Not a Lawsuit Crisis*, 39 LOYOLA OF LOS ANGELES L. REV., 785, 801-806 (2006). Gail Garfinkel Weiss, *Malpractice Premiums: Continued Drops in Claims Frequency are Putting Brakes on Premiums*, 20 MEDICAL ECONOMICS, November 20, 28 (2009).

⁹⁰ Cynthia Lee & Robert C. LaFountain, *Medical Malpractice Litigation in State Courts, National Center for State Courts, Court Statistics Project 3* (2011), available at http://www.courtstatistics.org/~/.media/Microsites/Files/CSP/Highlights/18_1_Medical_Malpractice_In_State_Courts.ashx (last visited Aug. 23, 2012).

⁹¹ The Physician Insurers Association of America, *Claim Trend Analysis: A Comprehensive analysis of Medical Liability Data Reported to the PIAA Data Sharing Project at Exhibit 1* (2011).

Table 19: Attorney Rejection of Cases if Minimum Damages Threshold is \$250,000

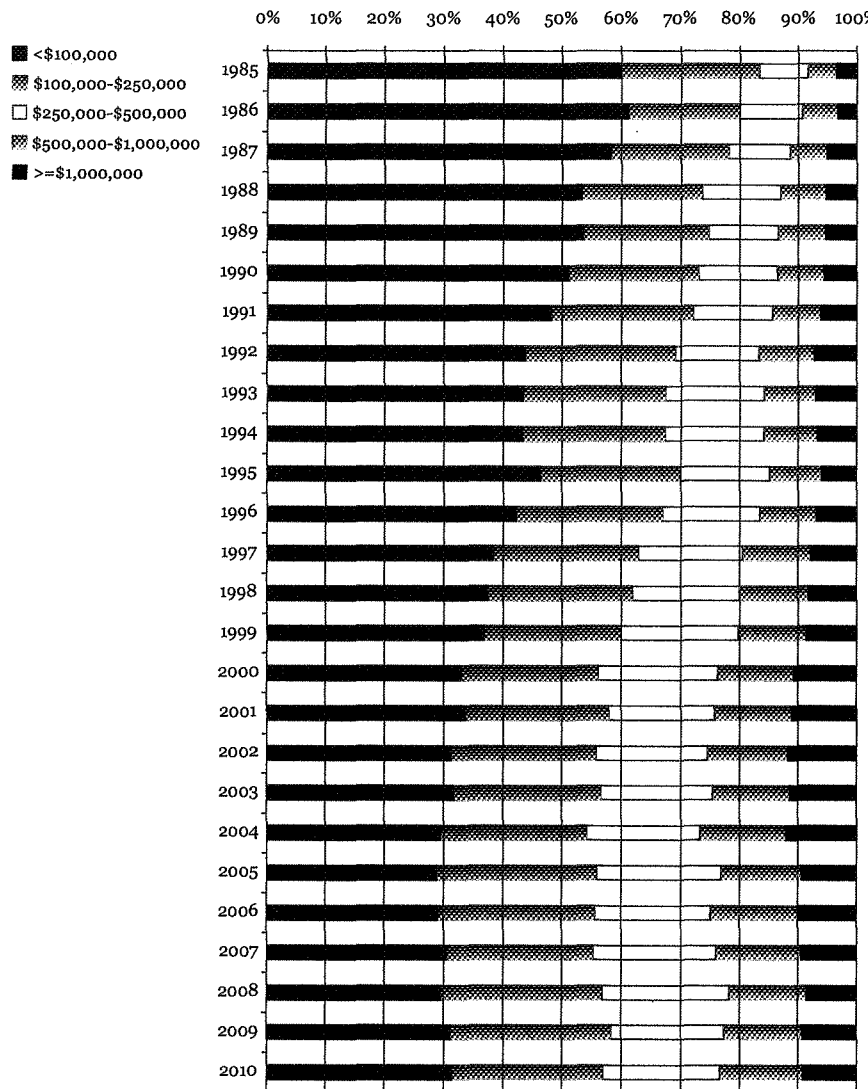
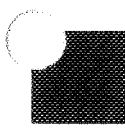


Figure 1 illustrates that the percentage of claims resulting in a payment of less than \$100,000 has decreased by half from 1985 to 2010—from 60 percent of all claims to 30 percent of all claims. In contrast, the percentage of claims resulting in higher payments has increased over this period. In fact, the percentage of claims resulting in payments of over \$500,000 has more than doubled—from less than 10 percent of all claims to more than 20 percent.

Thus, fewer claims resulting in higher damages suggest that attorneys are increasingly refusing to take medical malpractice claims with low expected damages. They are taking fewer cases, and the cases they are taking are primarily the types of cases that will result in higher damages. As a result, many victims of medical malpractice are unable to find legal representation. The victims go uncompensated, and in turn, the medical malpractice system fails to provide adequate precautionary incentives for physicians and hospitals.



Conclusion

This Article presents survey results that confirm that many legitimate victims of medical malpractice have no meaningful access to the civil justice system. High litigation costs make it economically infeasible for contingency fee attorneys to accept countless cases. Unless expected damages are large, the attorneys simply cannot justify accepting many cases because the expected fees will not offset the high costs of medical malpractice litigation. Moreover, the economic calculus required by the contingency fee system causes attorneys to gravitate towards some types of medical malpractice cases and victims, and ignore others. Evidence shows that contingency fee attorneys disproportionately reject cases from lower-income groups such as females, the elderly, children, and racial minorities because their expected damage awards are often relatively low.

These victims that are unable to attain legal representation are effectively excluded from the civil justice system. Because of the complexity and expense of medical malpractice lawsuits, employing a lawyer is critical to a successful claim. Thus, without legal representation, most of these victims will not be compensated for the harm they suffer as a result of medical negligence. In turn, the medical malpractice system will fail to provide adequate precautionary incentives for healthcare providers.

Without dramatic change, victims' limited access to justice will continue to hinder the medical malpractice liability system's ability to achieve its compensatory and deterrent functions. Unfortunately, most legislative reforms over the past several decades have exacerbated the access to justice problem instead of improving it. Damage caps and other tort reforms that artificially reduce plaintiffs' damage awards also reduce contingency attorneys' expected recoveries. As a result, even fewer cases make economic sense for the attorneys to accept.

In order to increase victims' access to the medical liability system, future reforms should aim to either increase attorneys' willingness to accept cases or provide compensation to victims without an attorney. For example, reforms that increase legal services funding would ensure that attorneys are minimally compensated for their time. Similarly, reforms imposing attorneys' fees awards on negligent defendants would encourage some attorneys to accept cases even if the expected damages, and in turn, the expected contingent fees, are low.⁹²

⁹² The Brennan Center has proposed similar reforms to increase access to justice for low-income citizens. Brennan Center for Civil Justice, Civil Justice (last visited September 2, 2012), available at: http://www.brennancenter.org/content/section/category/civil_justice/

Alternatively, reforms could create a system under which legitimate victims receive compensation even if they do not have legal representation. For example, several scholars have proposed an administrative compensation system under which claims for medical injuries are handled through an administrative body rather than the judicial system.⁹³ Proposals for such a model indicate that the process would be simple enough that claimants would not need legal representation as their claims would be resolved by neutral adjudicators and neutral medical experts. America's experience with such a system is limited to the federal Vaccine Injury Compensation Program that covers certain vaccine-related injuries and Florida and Virginia's administrative systems that cover certain birth-related neurological injuries. However, broader administrative systems have successfully operated in other countries—Sweden, Denmark, Finland, Norway, and New Zealand—for decades. Although replacing America's current medical liability system with an administrative system would be a dramatic change, only a significant overhaul of the current system will resolve the access to justice crisis.

⁹³ See, e.g. Michelle M. Mello, Allen Kachalia, and David M. Studdert, *Administrative Compensation for Medical Injuries: Lessons from Three Foreign Systems*, ISSUES IN INTERNATIONAL HEALTH POLICY (2011).

About Joanna Shepherd-Bailey:

Shepherd-Bailey teaches torts, law and economics, analytical methods for lawyers and statistics for lawyers at the Emory University School of Law. She has a Ph.D. in economics from Emory University and has been published in numerous scholarly journals including top law reviews and peer-reviewed economics journals. Shepherd-Bailey has testified before the U.S. House of Representatives and the Committee on Law and Justice at the National Academy of Sciences.

**THE PRACTICE OF DEFENSIVE MEDICINE:
A SURVEY OF FLORIDA PHYSICIANS**

Prepared for:
Patients for Fair Compensation

Prepared by:
**Jay Rayburn, APR, CPRC, Ph.D.
Fellow PRSA**



OPPENHEIM RESEARCH

December 28, 2011

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INTRODUCTION



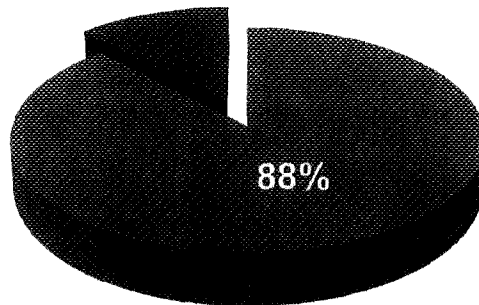
Patients for Fair Compensation contracted with Jay Rayburn, APR, CPRC, Ph.D., to conduct a survey of Florida medical doctors and osteopathic physicians. The purpose of the survey was to ascertain attitudes of Florida physicians toward the practice of defensive medicine. A random sample of 321 licensed physicians was conducted during December 2011. The data were collected by Oppenheim Research of Tallahassee, FL. A sample of this size has an approximate error rate of plus or minus 5.5% at the 95% level of confidence. This means we are 95% sure that if we had interviewed all licensed physicians in Florida, we would have found within plus or minus 5.5% of what the survey found.

For the purposes of this survey, the Merriam-Webster definition was given to respondents: The practice of ordering medical tests, procedures, or consultations of doubtful value in order to protect the prescribing physician from malpractice suits.

Following are the highlights of the findings. Appendix A contains the frequency distributions for each question.

FINDINGS

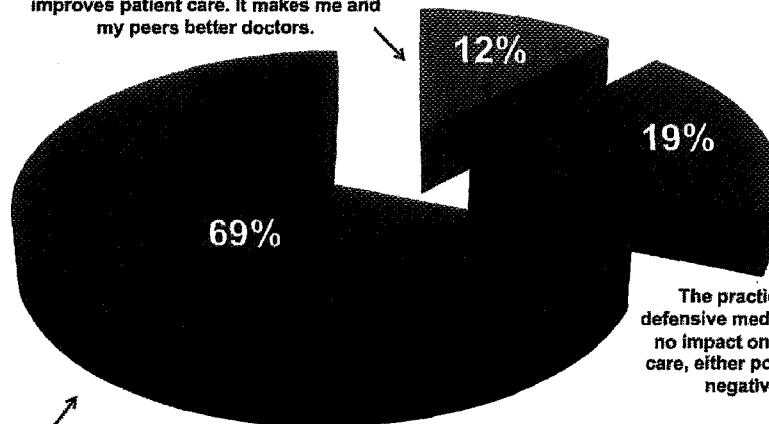
88% of Florida physicians practice defensive medicine



Florida physicians
(n=321)

69% of Florida doctors believe defensive medicine negatively impacts patient care

The practice of defensive medicine improves patient care. It makes me and my peers better doctors.

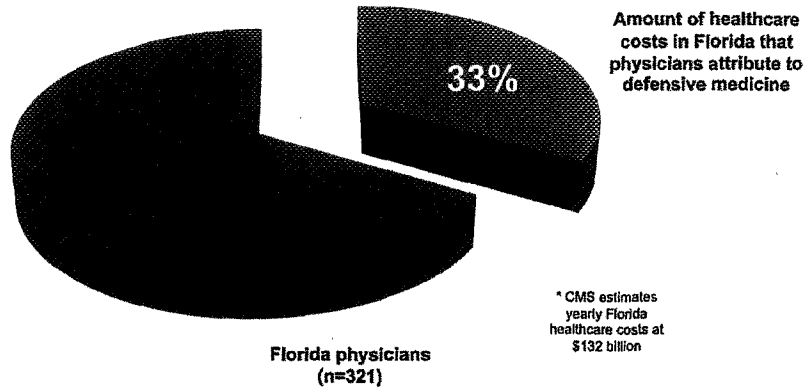


The practice of defensive medicine negatively impacts patient care.

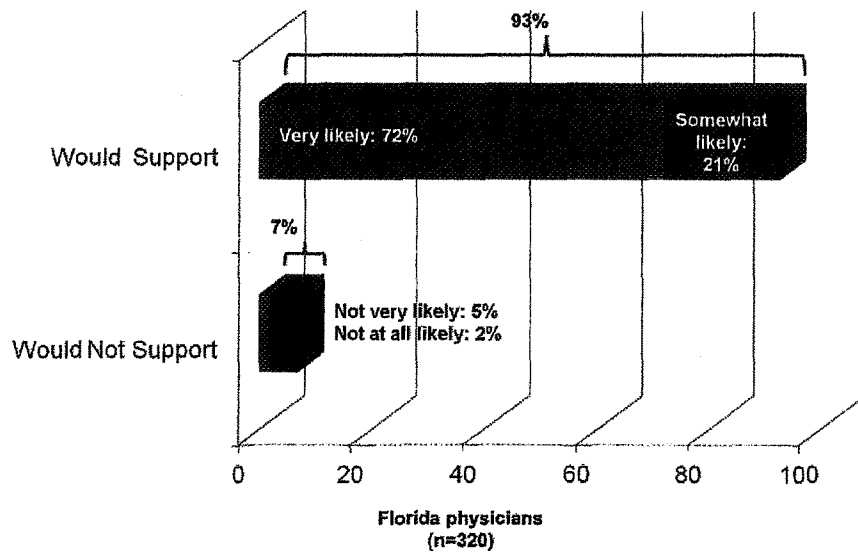
Florida physicians
(n=321)

The practice of defensive medicine has no impact on patient care, either positive or negative.

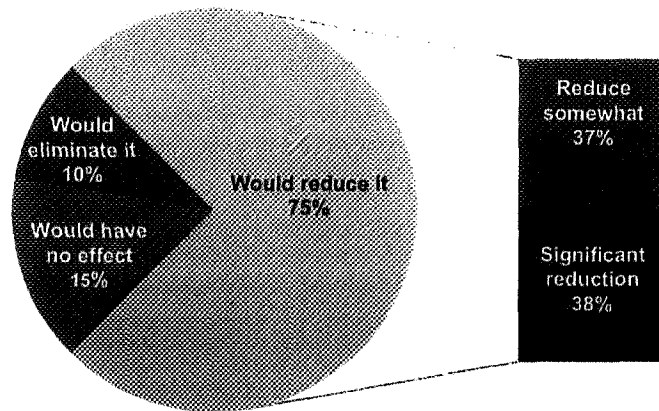
Estimate: Defensive medicine costs Florida \$40 billion* per year



93% of Florida doctors support Patients' Compensation System proposal

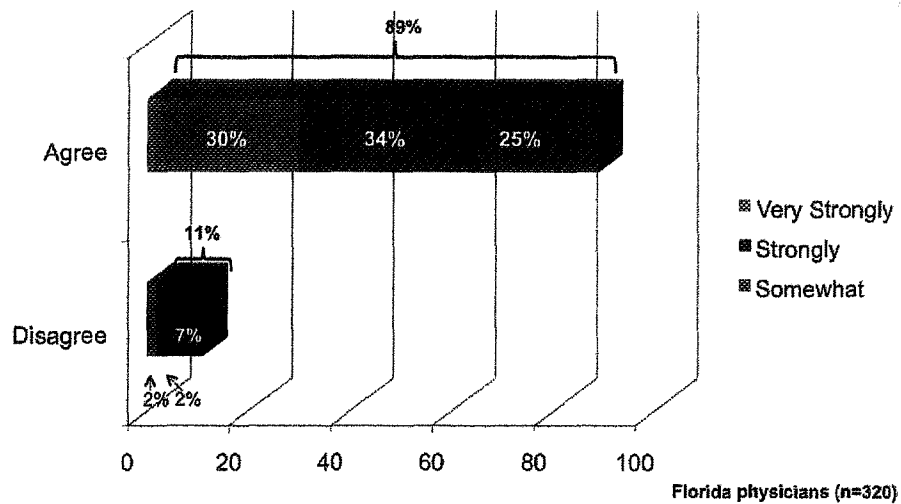


85% of Florida doctors who currently practice defensive medicine would reduce or eliminate that process under PCS



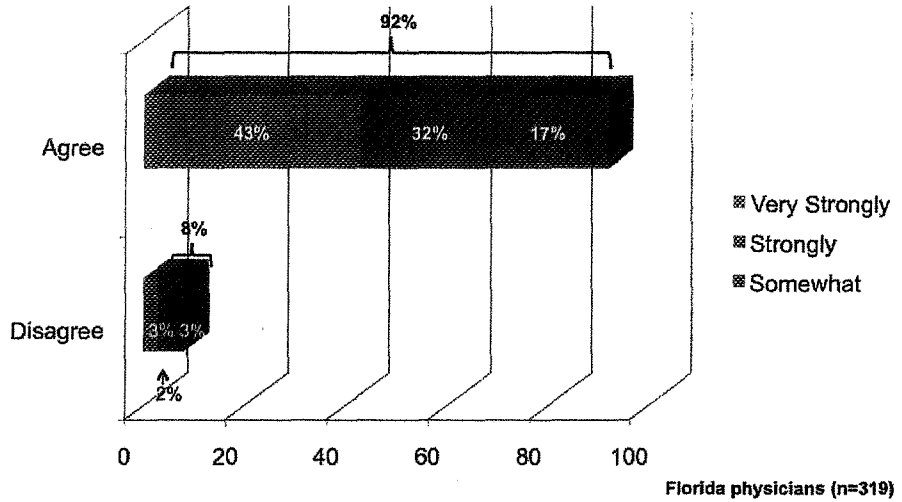
Florida physicians who practice defensive medicine (n=280)

89% of Florida physicians agree PCS would improve the quality and safety of patient care



Florida physicians (n=320)

92% of Florida physicians agree PCS would reduce the cost of healthcare



These findings clearly indicate an overwhelming support on the part of licensed physicians for the proposed legislation.

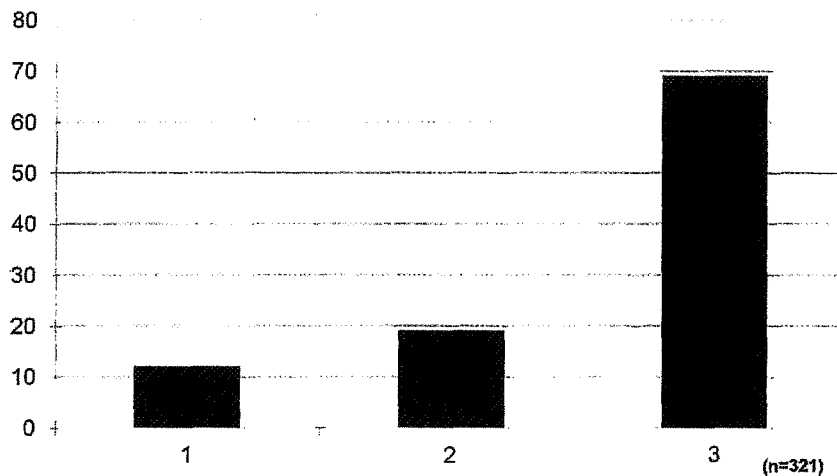


Patients
For Fair Compensation

APPENDIX A

FREQUENCY DISTRIBUTIONS

1. First, which of the following statements best reflects your opinion about how the practice of defensive medicine affects patient care?



1 = (12%) The practice of defensive medicine improves patient care. It makes me and my peers better doctors.

2 = (19%) The practice of defensive medicine has no impact on patient care, either positive or negative.

3 = (69%) The practice of defensive medicine negatively impacts patient care.

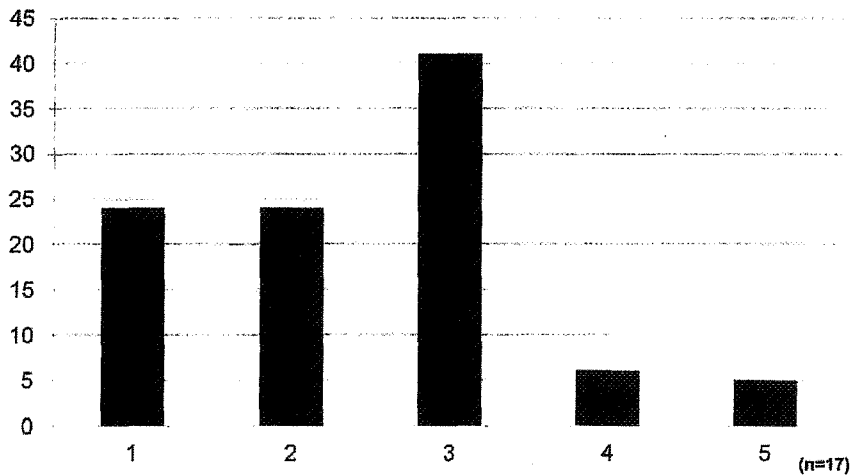
2. Thinking broadly, what percentage of overall healthcare costs do you attribute to the practice of defensive medicine? Please give a specific percent, not a range.

Average = 33%

Range = 5% to 95%

(n = 304)

3. If you don't have an opinion on question 2 but had to guess, would you say it is:



1 = (24%) Less than 10%

2 = (24%) 10% to less than 25%

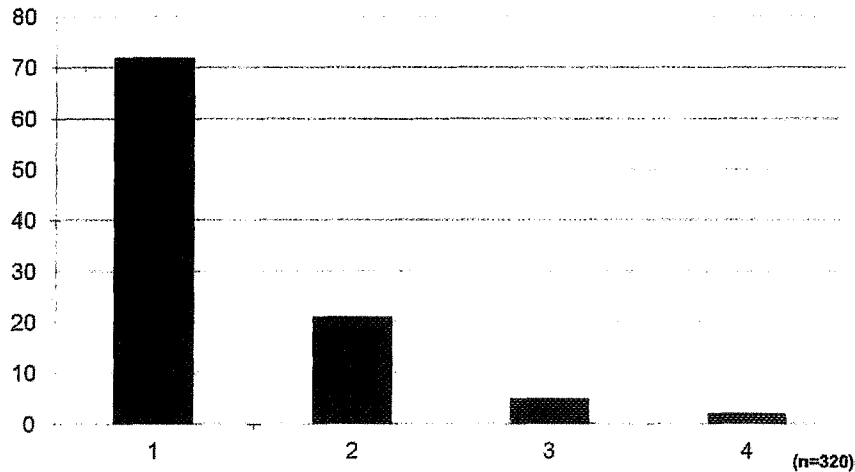
3 = (41%) 25% to less than 50%

4 = (6%) 50% to less than 75%

5 = (5%) 75% or more

Participants were told that in 2012, legislation will be proposed to address defensive medicine. This legislation is called the Patient Injury Act. It proposes to replace the current Medical Tort System with a no-fault system legally similar to Workers' Compensation. It will be called the Patients' Compensation System. After hearing a description of the system participants were asked:

4. If this law is proposed in 2012, how likely would you be to support it?



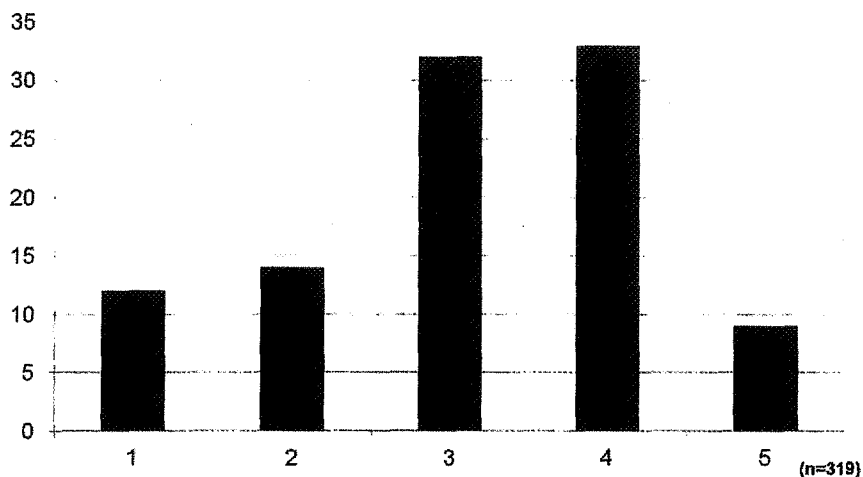
1 = (72%) Very Likely

2 = (21%) Somewhat Likely

3 = (5%) Not Very Likely

4 = (2%) Not at All Likely

5. If this legislation becomes law, what impact would it have on your tendency to practice defensive medicine?



1 = (12%) I do not currently practice defensive medicine.

2 = (14%) It would have no effect on my practice of defensive medicine.

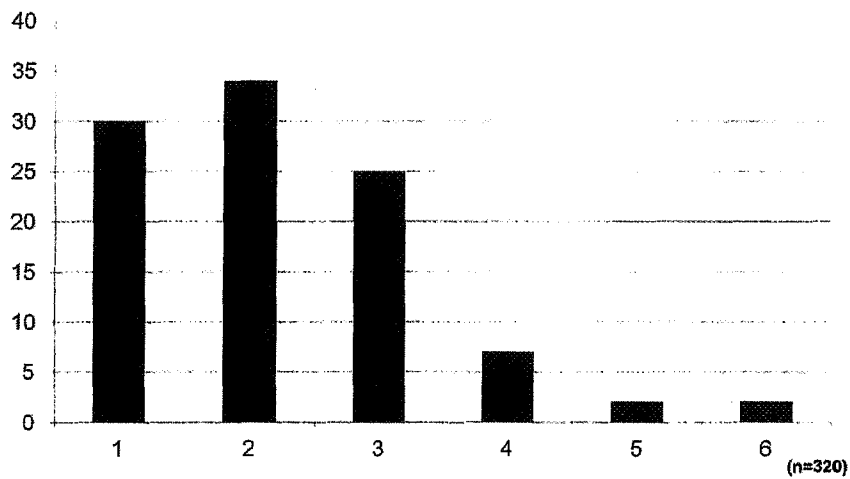
3 = (32%) It would somewhat reduce my practice of defensive medicine.

4 = (33%) It would significantly reduce my practice of defensive medicine.

5 = (9%) It would eliminate my practice of defensive medicine.

6. To what extent to you agree or disagree with the following statement?

If this law is passed, physicians will no longer live in fear of litigation. They will be able to admit mistakes. Further, they will be able to develop and share lessons learned and best practices with each other. This will result in improved quality of care and patient safety.



1 = (30%) Very Strongly Agree

2 = (34%) Strongly Agree

3 = (25%) Somewhat Agree

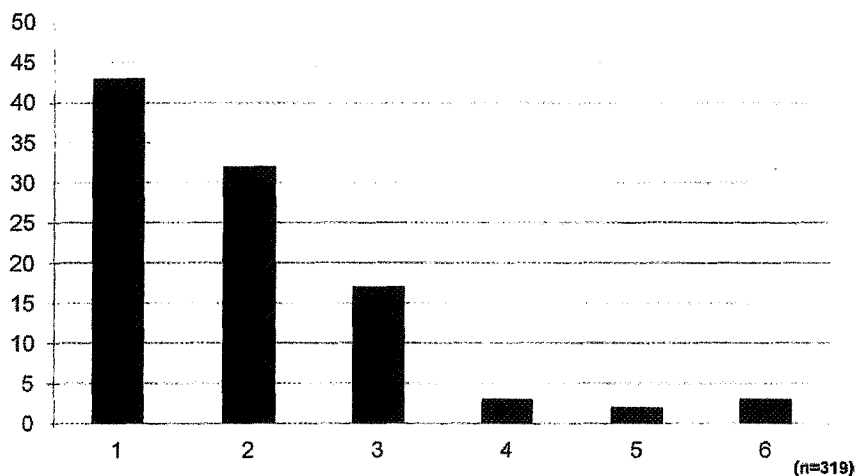
4 = (7%) Somewhat Disagree

5 = (2%) Strongly Disagree

6 = (2%) Very Strongly Disagree

7. To what extent to you agree or disagree with the following statement?

If this law is passed, the new system will reduce the costs of healthcare by reducing the practice of defensive medicine.



1 = (43%) Very Strongly Agree

2 = (32%) Strongly Agree

3 = (17%) Somewhat Agree

4 = (3%) Somewhat Disagree

5 = (2%) Strongly Disagree

6 = (3%) Very Strongly Disagree

ABOUT THE SURVEY ADMINISTRATOR



Jay Rayburn, APR, CPRC, Ph.D., Fellow PRSA is an associate professor and division director of the public relations and advertising division in the School of Communication at Florida State University where he also serves as Director of the Communication Research Center in the College of Communication and Information. He has served as a member of the editorial boards of *Communications Research*, *Journal of Broadcasting and Electronic Media* and *Journalism Monographs*, and on editorial review panels for Random House, Wadsworth Publishing and Gilford Publishing. He has counseled a wide range of clients about research, strategic planning, crisis management, and other related communications activities. He has published chapters in academic and professional books, 14 articles in academic journals, and presented more than 150 papers at academic and professional association meetings. Throughout his career he has conducted hundreds of surveys and focus groups for corporations, governmental entities, and not-for-profit organizations.



February 22, 2013

Open Letter to Florida Medical Malpractice Stakeholders

Recently, a medical malpractice stakeholder opined that a Patient Compensation System “has considerable downsides in that it would increase the number of claims that are filed by a factor of 10, the additional costs would be borne by physicians and other providers”.

In this letter we would like to provide our view of the Patient Compensation System, and in particular show how an increase in the number of claims filed does not have to lead to additional costs and may, in fact, reduce the total costs borne by physicians and other providers in the State of Florida.

In order to compare the current tort based malpractice system to the Patient Compensation System it is instructive to see an analysis of how the typical dollar collected in Florida by the top 10 medical malpractice insurance carriers is being spent. For each dollar of medical malpractice premium collected 17 cents goes to patients, 27 cents goes to attorneys (plaintiff and defense), 19 cents goes to administration of the insurance company and 37 cents goes to insurance company profits, largely to compensate the insurance company for taking on the risk of the tort liability risk exposure.

Aon’s analysis of the Patient Compensation System indicates that when 41 cents goes to patients, 9 cents goes to attorneys, 19 cents for administration and 15 cents goes to profit the total cost of the Patient Compensation System is reduced to 84 cents – a 16 percent reduction in total costs borne by Florida physicians and other providers.

One can see that a well designed Patient Compensations System provides the unique opportunity to more than double the amount of money going to patients while reducing the total cost of the medical malpractice system.

Respectfully submitted,
Aon Global Risk Consulting

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Florida Patients' Compensation System

Summary of Findings

Aon Risk Solutions Global Risk Consulting was retained by Patients for Fair Compensation to estimate the impact of proposed Patients' Compensation System legislation ("HB 1233" filed in 2011) on the direct costs of medical malpractice in the State of Florida.

Our findings, subject to conditions and limitations as outlined in our full reports, are as follows:

- The Patients' Compensation System is designed so that a greater number of injured Floridians will qualify for compensation.
 - The total number of payouts to injured patients will more than double.
 - The total monetary awards to injured patients will increase by 50 percent.
- The Patients' Compensation System as designed will implement fiscal efficiencies that offsets the increased cost of patient awards including:
 - A 67 percent reduction in the cost for providers to defend themselves against claims and lawsuits.
 - Streamlined cost of administration.
 - Reduced risk as awards will not be subject to unpredictable jury verdicts.
- An analysis of projected medical liability premiums for healthcare providers under the Patients' Compensation System indicates substantial savings.

The findings outlined above are predicated on several important assumptions.

The single largest cost driver is the Independent Medical Review Panel's determination of what constitutes a medical injury. Aon has made certain assumptions regarding the panel's performance by reviewing a patient compensation system that is currently in operation.

Aon has assumed the compensation schedule will be designed and applied equitably and consistently on a statewide basis so that monetary awards are commensurate with medical injury.

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Actuarial and Analytics

An Evaluation of the Impact to Direct Medical Malpractice Costs in the State of Florida Related to the Implementation of HB 1233

***Prepared for Patients for Fair
Compensation***

Issue Date – October 9, 2012

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AON

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I. Introduction

Purpose

Aon Global Risk Consultants ("Aon") was retained by Patients for Fair Compensation ("PFC") to estimate the impact of proposed legislation ("HB 1233") on the direct costs of medical malpractice in the State of Florida. HB 1233 will implement a Patient Compensation System as an alternative to the fault based tort system currently in place in Florida.

Scope

The scope of the assignment includes the following considerations.

1. An estimate of the direct costs of the current fault based tort system of Medical Malpractice in the State of Florida.
2. An estimate of the direct costs of the HB 1233 Patient Compensation System in the State of Florida.
3. A comparison HB 1233 Patient Compensation System to the current fault based system with a focus on the number of Floridians compensated, the average settlement value and the total cost of the system.

This scope specifically addresses direct costs, meaning indemnity and defense costs associated with medical malpractice. Specifically excluded from this analysis are indirect costs such as the costs of defensive medicine, plaintiff's attorneys' fees and the administrative cost of the Patient Compensation System.

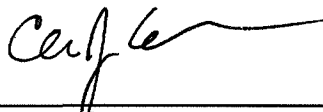
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Christian Coleianne and Gregory Larcher are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

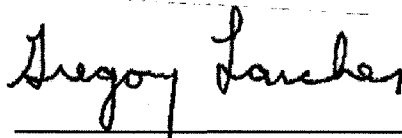
We performed this analysis using generally accepted actuarial principles and in accordance with all relevant Actuarial Standards of Practice. Please contact us if you have any questions regarding this report.

Respectfully submitted,

Aon Global Risk Consulting



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II. Conditions and Limitations

Inherent Uncertainty

Actuarial calculations produce estimates of inherently uncertain future contingent events. We believe that the estimates provided represent reasonable provisions based on the appropriate application of actuarial techniques to the available data. However, there is no guarantee that actual future payments will not differ from estimates included herein.

Extraordinary Future Emergence

Our projections make no provision for the extraordinary future emergence of losses or types of losses not sufficiently represented in the historical data or which are not yet quantifiable.

Data Reliance

In conducting this analysis, we relied upon the provided data without audit or independent verification; however, we reviewed it for reasonableness and consistency. Any inaccuracies in quantitative data or qualitative representations could have a significant effect on the results of our review and analysis.

Use and Distribution

Use of this report is limited to PFC for the specific purpose described in the Introduction section. Other uses are prohibited without an executed release with Aon.

Distribution by PFC is unrestricted. We recognize that this report may be distributed to third parties. We request that Aon be notified of further distribution of this report. The report should only be distributed in its entirety.

IV.HB 1233 Description

HB 1233 is the Florida legislation that creates the Florida Patient Compensation System.

HB 1233 is widely available and accessible via the internet. It is assumed the readers of this report have a familiarity with the legislation. To facilitate our analysis, we have listed some key provisions that address the scope and operation of the Patient Compensation System and described the likely impact relative to the current fault based tort system.

Exclusive Remedy

All personal injury or wrongful death allegations, excluding those covered by Florida's Birth-Related Neurological Injury Compensation Association, would be required to move through the Patient Compensation System. This precludes the negligence based tort system.

The intent of the Patient Compensation System is to separate fault from a compensation or competence determination. In this way, injured parties can be compensated without regard for the conduct of the medical caregiver, and the attendant costs and time associated with evaluating that conduct.

Therefore, it is likely that, under HB 1233 Patient Compensation System, fewer dollars are spent defending providers reducing the total defense cost of the system.

Medical Injury

Medical Injury is defined in the bill. Medical injuries include "personal injury or wrongful death due to medical treatment, including missed diagnosis, which would have been avoided under the care of an experienced specialist provider." It does not include personal injury or wrongful death related to procedures intended to diagnose or treat life-threatening or severely disabling injuries, caused by a drug (unless prescription error or administration error is involved), or caused by a device.

In the Legislative Intent section of the bill, it is clear that medical injury is a broader class of injuries than personal injuries under the medical negligence standard. However, this is not intended to be a pure no fault system. A framework for compensation would be that the injury resulted from medical treatment, but either the injury was avoidable or the medical treatment did not conform to standards of care.

Therefore, it is likely that, under the HB 1233 Patient Compensation System, a greater number of injured parties will qualify for compensation.

Compensation

The HB 1233 Patient Compensation System calls for the creation of a compensation schedule. The compensation schedule is used to determine the compensation payment for each medical injury. The initial compensation schedule is to be set at or above the average indemnity payment indicated by data collected by the Physician Insurers Association of America (PIAA), or similar organization.

The intent here is to limit the aggregate costs of the initial compensation schedule to the aggregate cost of the current negligence based tort system.

Therefore, it is likely that, under the HB 1233 Patient Compensation System, the average payment will be similar to the current negligence based tort system for type of medical injury. However, the chance of an extraordinary payment will be reduced by use of a compensation schedule.

V. Cost of Current Tort Based System

We have used the Florida Office of Insurance Regulation (FLOIR) Medical Malpractice Database to estimate the current medical malpractice costs. By Florida Statute Chapter 627.912, insurance companies, self-insurance funds and joint underwriting associations file reports of alleged error, omissions or negligence by an insured doctor, dentist, hospital, HMO, abortion clinic ambulatory service center or crisis stabilization unit.

The following table summarizes the Florida Medical Malpractice Database for claims closing in 2010. See Section VIII for a description of this database and the adjustments made to it.

Florida Claims Distribution Under Current Tort Based System

Category	Counts	Indemnity Payments	Defense Expense	Indemnity + Defense
Indemnified	1,489	\$555,600,000	\$102,500,000	\$658,100,000
Not Indemnified	3,589	\$0	\$126,300,000	\$126,300,000
Total	5,078	\$555,600,000	\$228,800,000	\$784,400,000

VI. Comparison – Patients Seeking Indemnity

By reducing the standard for compensation from medical negligence to medical injury, we anticipate an increase in the overall number of patients seeking indemnification. This increase assumes that not all people who suffer a medical injury under the current system make a claim for compensation.

The following table compares the HB 1233 projections to the current tort based system in terms of number of patients seeking indemnification. Category corresponds to the seriousness of the injury, using coding established by the National Association of Insurance Commissioners (NAIC). There has been no adjustment for claims that may have been settled under the current tort system but would not qualify for compensation under the Patient Compensation System.

**HB 1233 Compared to Current Tort Based System
 Number of Patients Seeking Indemnity**

Category	Current	Under HB 1233	Impact #	Impact %
Emotional Injury Only	212	212	0	0%
Insignificant Injury	236	2,595	2,359	1000%
Minor Temporary Injury	849	1,698	849	100%
Major Temporary Injury	805	925	121	15%
Minor Permanent Injury	687	721	34	5%
Significant Permanent Injury	528	534	5	1%
Major Permanent Injury	314	317	3	1%
Grave	224	226	2	1%
Death	1,224	1,236	12	1%
All	5,078	8,464	3,386	67%

VII. Comparison – Indemnification Ratio

By reducing the standard for compensation from medical negligence to medical injury, we anticipate an increase in the indemnification ratio (number of patients indemnified / number of patients seeking indemnity). The indemnification ratio appears to be the single largest driver of cost which makes this a critical assumption.

Under HB 1233 the Office of Medical Review determines that an application constitutes a medical injury. The indemnification decision is made by an Independent Medical Review Panel. Medical Review Panels are to consist of an odd number of at least three panelists chosen from a list recommended by the Medical Review Committee.

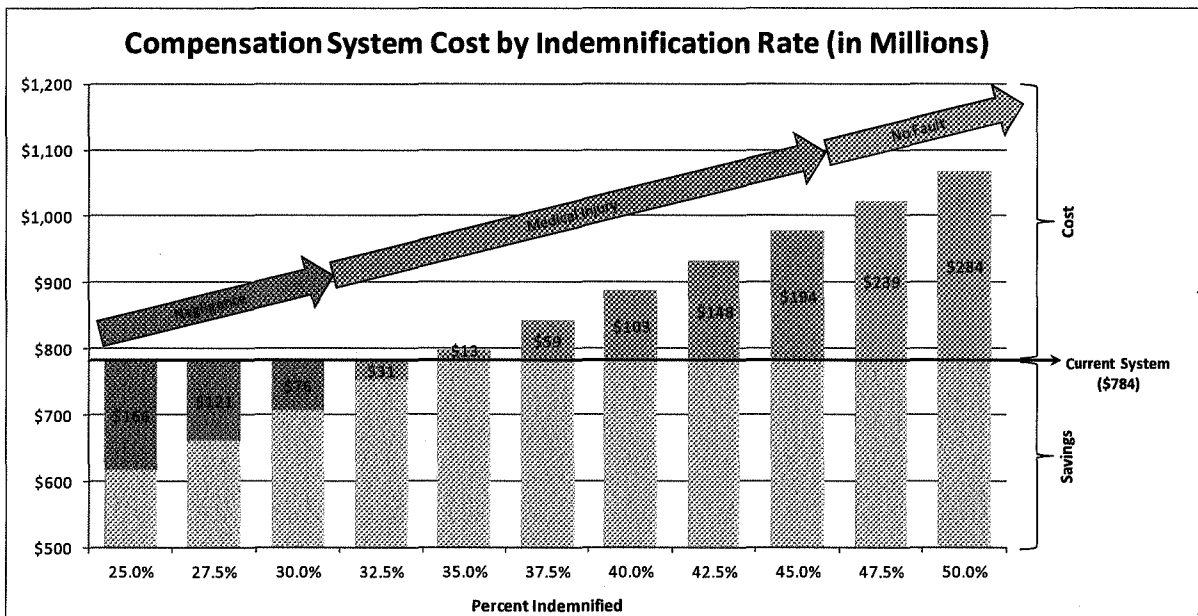
It may be instructive at this point to think of the indemnification ratio in the context of the standard for compensation. On one end of the scale is negligence and on the opposite end is a true no fault standard. The medical injury standard will likely fall somewhere in between and it will ultimately be determined by the actions of the Independent Medical Review Panels.

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To help frame the scale referenced above, we believe the indemnification ratio for negligence is in the 25% to 30% range. This is based on a review of historical tort case outcomes. As for true no fault, we believe the indemnification ratio to be in the 50%- 90% range. For medical injury, we believe that a range of 30% to 50% is not unreasonable. In fact, we were provided a study of a compensation system in Sweden that uses a medical injury standard and experiences an indemnification ratio of about 40%.

The following table graphically illustrates the relationship between indemnification ratio and total system costs. Additionally, the medical injury based patient compensation system is compared to the current negligence based tort system in Florida which is estimated to be \$784 million and is represented by the horizontal line.

Based on this representation, one can see that the break even indemnification ratio is approximately 34.5%. Beyond the 34.5% indemnity ratio, the compensation system based on the medical injury standard is likely to cost more in total dollars when compared to the current system. As an example, using the 40% ratio from the Swedish study indicated an additional cost of \$103 million.

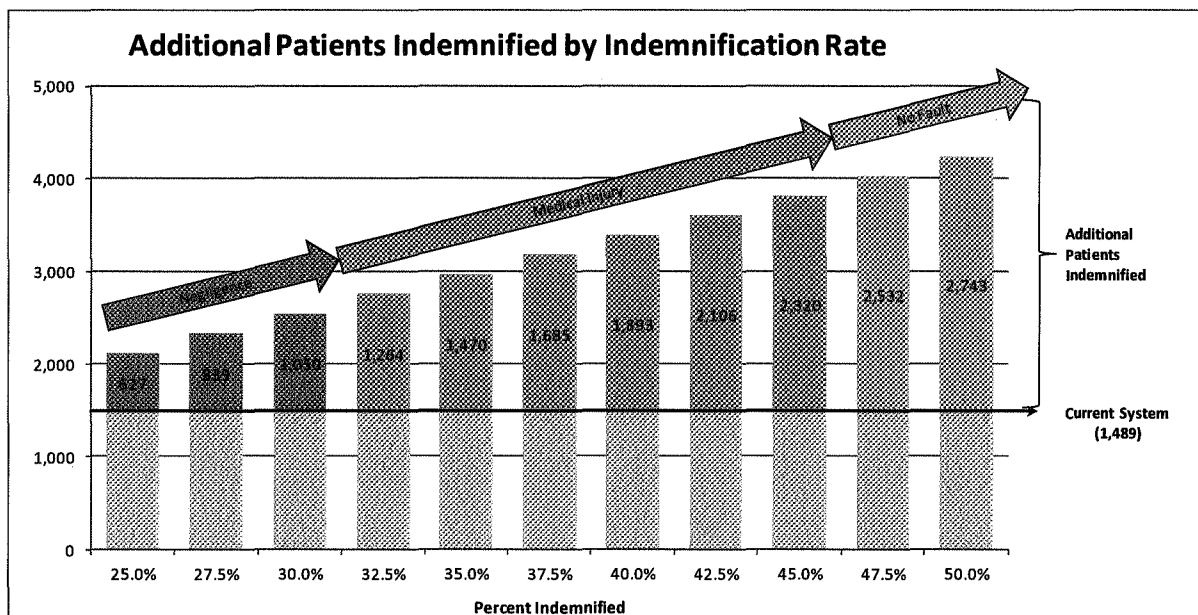


VIII. Comparison – Total Patients Indemnified

By reducing the standard for compensation from medical negligence to medical injury, we anticipate an increase in the total number of patients indemnified. The total number of patients indemnified also depends on the indemnification ratio. As stated above, the indemnification ratio appears to be the single largest driver of total patients indemnified which makes it a critical assumption.

The following table graphically illustrates the relationship between indemnification ratio and total patients indemnified. Additionally, the medical injury based patient compensation system is compared to the current negligence based tort system in Florida which is estimated to indemnify 1,489 patients and is represented by the horizontal line.

Based on this representation, one can see that the compensation system will indemnify more patients in all cases. The number of additional patients indemnified increases with the indemnification ratio. Using the 40% indemnification ratio consistent with the Swedish study, we project 1,893 additional patients will receive a payout.



IX. Results – Assuming 40% Indemnification Ratio

The indemnification ratio associated with a medical injury standard will ultimately be determined by the actions of the Independent Medical Review Panels. While it is difficult to predict how these panels will perform it is likely the ratio will operate in a range between 30% and 50%. In the following tables, we have performed comparisons of the current system with the patient condensation system assuming an indemnification ratio of 40%.

The following table presents the HB 1233 projections, assuming a 40% indemnification ratio, in terms of total number of patients seeking indemnification, number indemnified and dollars spent on indemnity and expense.

**Florida Estimated Claims Distribution Under HB 1233
 40% Indemnification Rate Assumption**

Category	Counts	Indemnity Payments	Defense Expense	Indemnity + Defense
Indemnified	3,382	\$810,700,000	\$38,500,000	\$849,228,657
Not Indemnified	5,082	\$0	\$38,000,000	\$37,984,372
Total	8,464	\$810,700,000	\$76,500,000	\$887,200,000

X. Comparison – Assuming 40% Indemnification Ratio

In summary, the following table compares the HB 1233 projections, assuming a 40% indemnification ratio, to the current tort system in terms of total number of patients seeking indemnification, number indemnified and dollars spent.

**HB 1233 Compared to Current Tort Based System
 40% Indemnification Rate Assumption**

Category	Current	Under HB 123	Impact #	Impact %
Seeking Indemnification	5,078	8,464	3,386	67%
Indemnified	1,489	3,382	1,893	127%
Percent Indemnified	29%	40%		
Dollars Spent	\$784,400,000	\$887,200,000	\$102,800,000	13%

The following table compares the HB 1233 projections, assuming a 40% indemnification ratio, to the current tort based system in terms of number of patients indemnified. Category corresponds to the seriousness of the injury, using coding established by the National Association of Insurance Commissioners (NAIC).

HB 1233 Compared to Current Tort Based System
Number of Patients Indemnified
40% Indemnification Rate Assumption

Category	Current	Under HB 1233	Impact #	Impact %
Emotional Injury Only	30	30	0	0%
Insignificant Injury	50	938	888	1782%
Minor Temporary Injury	205	653	449	219%
Major Temporary Injury	228	386	159	70%
Minor Permanent Injury	224	326	101	45%
Significant Permanent Injury	179	246	67	37%
Major Permanent Injury	111	150	39	35%
Grave	93	118	25	27%
Death	369	534	165	45%
All	1,489	3,382	1,893	127%

XI. Data, Assumptions and Reliances

We relied on a number of data sources for this report.

Florida Office of Insurance Regulation Medical Malpractice Database

This database was used to determine the baseline direct costs of medical malpractice in Florida. It was also used to establish the number of annual claims and the average overall size of claims (severity); lastly we used the database to estimate the percent of claims expense that represents the cost of defense.

The database is assembled by the FLOIR and the data is reported as a statutory requirement. By Florida Statute Chapter 627.912, insurance companies, self-insurance funds and joint underwriting associations file reports of alleged error, omissions or negligence by an insured doctor, dentist, hospital, HMO, abortion clinic ambulatory service center or crisis stabilization unit.

This database contains duplicate records when there are multiple parties named as defendants. We have consolidated duplicate records. We verified claims payment records against our internal database of claims to conclude that multiple records contain duplicate payment amounts.

We have also recognized that the database underreports claims closed without indemnity. The proportion of claims closed without indemnity in the FLOIR database is much lower than other industry sources. This reveals that claims with indemnity are more likely to be reported to the database. We have adjusted the database to an industry proportion of claims closed without indemnity by adding claim counts closed without indemnity while leaving the average expense associated with such claims unadjusted.

Further, we have organized the claims by year of closing.

To test the reasonability of our estimate of aggregate medical malpractice costs, we also used data from the following sources:

- Aon's internal database of medical malpractice claims
- Kaiser Health's State Facts www.statehealthfacts.org
- FLOIR's Annual Reports on the Medical Malpractice Financial Information Closed Claim Database and Rate Filings from 2007 through 2011
- Aggregate Florida State Pages from insurers' annual statement filings aggregated through www.snl.com, a financial services website.

These other sources provided alternative estimates of the cost of medical malpractice in Florida, including the total cost of claims and the average size of claims.

The FLOIR estimate was used because it is a publicly available source that is populated with data that is required to be reported by statute. It should include deductibles, self insured retentions and excess insured amounts, providing the most comprehensive view of costs.

Its shortcomings include duplication of entries and a lack of verification of the data submitted.

HB 1233

We were provided a copy of the legislation by PFC.

PIAA Data

Aon has relied on PIAA data contained in the Semiannual Report 2011 Edition in order to allocate claims costs and claim count to severity bands.

The PIAA report contains the aggregate data from 23 physicians insurance companies which currently insure more than 60% of the practicing physicians and surgeons in the United States. As such, the database provides a credible representation of the relative costs of claims by severity.

In the PIAA report, severity corresponds to the seriousness of the injury, using coding established by the National Association of Insurance Commissioners (NAIC).

The underlying database contains claims experience from 1985 through June 30, 2011. It is not appropriate to use the combined data on an absolute basis since the data aggregates a mix of claim ages. Instead, we have used the relative severity of claims to estimate the severity for Florida.

Scholarly Papers

We relied on various scholarly papers to supplement our understanding of alternatives to the tort system.

No-Fault Compensation for Medical Injuries, The Prospect for Error Prevention, by Studdert and Brennan was published in the JAMA, July 11, 2001 – Volume 286, No. 2. This paper provided insights on the Swedish no fault system, including a discussion of the avoidable harm concept.

Claims, Errors, and Compensation Payments in Medical Malpractice Litigation, by Studdert, Mello, Gawande, Gandhi, Kachalia, Yoon, Puopolo, and Brennan was published in the NEJM, 2006, Volume 354. This article examined the presence or absence of medical error in medical malpractice claims and the associated costs.

Other Reliance and Assumptions

In building our model, we assumed several additional key inputs.

We assumed that the overall number of claims would increase. We have allowed in our model that the percentage increase may vary by claim severity. We believe that more severe injuries would be pursued regardless of the compensation system, but that less severe claims with less perceived value would be less likely to be pursued in a tort system with a medical negligence standard for compensation. The selected percent increases are based on Aon's judgment with guidance from PFC and are shown in Section VI.

We assumed that the percentage of claims arising that receive indemnification would increase substantially. While the number of claims under the current system that do not receive indemnity is quite large, these claims are subject to a medical negligence standard to justify compensation. Under the Patient Compensation System, the medical injury standard should reduce barriers to compensation. In selecting an indemnification rate under the new system, we referenced Sweden's indemnification rate and

adjusted this upward to reflect that Sweden has a public health structure that would obviate claims related to less significant injuries. The assumed indemnification rates are shown in the following table.

Category	Percent Closed with Indemnification - Negligence Standard	Percent Closed with Indemnification - US Implementation
Emotional Injury Only	14%	14%
Insignificant Injury	21%	36%
Minor Temporary Injury	24%	38%
Major Temporary Injury	28%	42%
Minor Permanent Injury	33%	45%
Significant Permanent Injury	34%	46%
Major Permanent Injury	36%	47%
Grave	42%	52%
Death	30%	43%
Overall	30%	40%

We assumed that the size of claims can be represented by a lognormal statistical distribution, a common assumption for claims. This distribution can be defined by an average claim size value and a statistical measure of variance. The FLOIR data was used to establish the average claim size and our internal database allowed us to make assumptions about the statistical measure of variance. We have refined that variance assumption to allow for less variance for less severe claim types and more variance for more severe claim types. This represents the possibility for a wider range of indemnity for more severe claims than would be possible for less severe claim types.

Category	Current Average Indemnity	HB 1233 Average Indemnity
Emotional Injury Only	109,302	107,265
Insignificant Injury	65,495	64,274
Minor Temporary Injury	128,492	122,415
Major Temporary Injury	254,840	226,853
Minor Permanent Injury	306,277	291,790
Significant Permanent Injury	452,371	402,690
Major Permanent Injury	718,123	639,256
Grave	890,602	792,792
Death	412,029	366,778

XII. Methodology

We decomposed the Florida Medical Malpractice claim costs into frequency of claims and size of claims. Using PIAA data, we estimated frequency and size of claims by NAIC severity. Claim frequency was further split into claims that resulted in indemnity payments and those that did not. Size of claims was split into amounts spent on indemnity and amounts spent of expenses.

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We estimated the impact of the legislation on the total number of claims and the percentage of claims that would receive indemnity.

With respect to size of indemnity, we assumed that the probability of an extraordinary award would be reduced due to the implementation and use of the compensation schedule. We used statistical formulas to calculate the impact on average claim size.

Recognizing that claim expenses would also be impacted, we applied a reducing factor to the expenses associated with claims of 25%.

The results of these impacts is combined and compared to the baseline estimate of the cost of medical malpractice and the number of claimants indemnified.



Center for Economic Forecasting and Analysis
The Florida State University
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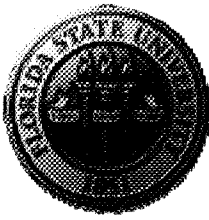


Patients' Compensation System Legislation

FSU CEFA Summary of Findings:

Patients for Fair Compensation requested the Florida State University, Center for Economic Forecasting and Analyses, conduct a Peer Review on AON Risk Solutions' Evaluation of the Patients' Compensation System Legislation. In addition to the review, FSU CEFA provided an alternative economic analysis outcome concerning the evaluation of direct medical malpractice costs on the implementation of a Patients' Compensation System, with the following results:

- FSU CEFA results suggest that AON Risk Solutions' Evaluation is conservative in its guidance regarding the impact on Florida's medical malpractice market, in terms of the count or quantity of claims and the aggregate of the indemnity and defense costs of malpractice.
- FSU CEFA results find that the count or quantity of claims assumed by AON Risk Solutions is too high.
 - The average total number of indemnified cases in Florida, based on a static analysis (year 2010), will be an average of 1,848 cases.
 - The 1,848 cases represent an increase of 28.3 percent relative to the present count of 1,440 cases (year 2010).
- FSU CEFA results suggest that the impact of the Patients' Compensation System, in terms of the aggregate of the indemnity and defense costs of malpractice, will be negligible.
 - Total average indemnity payments will be \$633.1 million, with average total defense payments of \$159.2 million. The average total budget for malpractice (including defense expenses) will be \$792.3 million (2010 dollars).
 - The average budget for malpractice, at \$792.3 million, is 1.0 percent higher than the 2010 budget at \$784.4 million (or 3.4% greater than \$766,553,276).
- In light of the FSU/CEFA finding that AON Risk Solutions' impact study was on the high side with regard to the cost impact of the PFC proposal, AON's rating model accordingly represents a high estimate of the provider premiums under the proposal.



**Peer Review of
AON Risk Solutions' Evaluation
of the
Patients' Compensation System
Legislation (HB1233)**

**Prepared for:
Patients for Fair Compensation**

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January, 2013

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Executive Summary

The purpose of this review, conducted by the FSU Center for Economic Forecasting and Analysis (FSU CEFA), is to analyze the methodology used and the conclusions or outcomes derived by AON Risk Solutions of their "Evaluation of the impact to Direct Medical Malpractice Costs in the State of Florida to the Implementation of HB 1233." The legal analyses, of the proposed Patients' Compensation System legislation (HB1233), delivered two main points of differences with AON Risk Solutions' interpretation, namely:

- The grandfathering of "medical malpractice" or current/pending cases with "medical injury" under the "Medical Malpractice Law" (Chapter 766), with consequences for the assumed immediate drop in defense expenditures by AON Risk Solutions.
- The potential of 'rationing' within the proposed law (HB 1233) for keeping the payments and expenses within the budget.

Regarding the assumptions and associated methodology, both sets of assumptions on count of claims and values (payments and expenses) were analyzed and measured, as well as the assumption on the used lognormal distribution. FSU CEFA found that:

- On the first tier of assumptions concerning the count or quantity of indemnified claims, AON Risk Solutions used an unverified industry variable multiplied by a foreign or "Swedish" variable (both concerning the indemnity ratio) multiplied by an unsubstantiated variable (addition of 66%) resulting in an unsubstantiated factor of 3.36 on all claims, or more importantly, a factor of 2.35 on indemnified claims, relative to the present count of claims.
- On the second tier of assumptions concerning costs or values, two checks were performed, with the result that the value assumptions used by AON Risk Solutions' are within a reasonable margin of error.
- The assumption on the use of the lognormal distribution seems logical, but should be approached with caution, especially concerning the fixed values on the parameters used.

In perceiving risk instead of uncertainty, FSU CEFA took the opportunity to provide a more solid footing especially on the count or quantity assumptions, using added modeling (both beyond the scope of work agreed upon, but adding a dimension to the review). In short, FSU CEFA provides an alternative economic analysis outcome concerning the evaluation of direct medical malpractice costs on the implementation of HB 1233. In comparison to the present position under the tort-based system and the results of AON Risk Solutions' evaluation, FSU CEFA found the following results¹:

¹ FSU CEFA results are averages, with standard deviations and distribution provided in the main text.

	Florida Claims under Current Tort Based System	AON Risk Solution Evaluation under HB1233	Florida Estimated Average Claims under HB 1233; CEFA Assumptions
Indemnified Claims	1,440	3,382	1,848
Indemnity Payments	\$555,600,000	\$810,700,000	\$633,100,000
Defense Expense Indemnified Cases	\$102,500,000	\$38,500,000	\$75,500,000
Indemnity + Defense	\$658,100,000	\$849,228,657	\$708,600,000
Defense Expense Non-Indemnified Cases	\$126,300,000	\$38,000,000	\$83,700,000
TOTAL	\$784,400,000	\$887,200,000	\$792,300,000

Based on the results, FSU CEFA found:

- * The count or quantity of claims assumed by AON Risk Solutions is too high (beyond the 97.5 percent one-sided confidence interval), with no satisfactory argumentation or base for the assumption, whereas
- * FSU CEFA's count of claims cases is based on a risk-distribution on paid malpractice claims ratios per 10,000 population, by state over all reporting states (data from the National Practitioner Data Bank), and in particular to states with higher medical malpractice claim paid ratios than Florida (i.e., the upper tail of the distribution).
- * According to FSU CEFA, the average total number of indemnified cases in Florida, based on a static analysis (year 2010), will be an average of 1,848 cases.
- * The 1,848 cases represent an increase of 28.3 percent relative to the present count of 1,440 cases (year 2010).
- * The distribution used to assign added claims by AON Risk Solutions was a lognormal distribution, one with a fixed set of parameters, whereas;
- * FSU CEFA applied a spread on each parameter of a lognormal distribution (plus or minus 12.5 percent), thereby addressing each parameter, yet changing position and shape of the distribution.
- * According to FSU CEFA, total average indemnity payments will be \$ 633.1 million, with average total defense payments of \$ 159.2 million.
- * Defense expenses assumed by AON Risk Solutions are too low, given the aforementioned interpretation of immediate and full implementation of the Patients' Compensation System legislation (HB1233), disregarding the grandfathering current/pending "medical injury" cases.
- * FSU CEFA used a gliding scale for defense expenses over the injury categories, to account for the grandfathering.

- * According to FSU CEFA, the average total budget (including defense expenses) will be \$ 792.3 million (2010 dollars).
- * The average budget, at \$ 792.3 million, is 1.0 percent higher than the 2010 budget at \$784.4 million (or 3.4% higher than \$766,553,276).
- * AON Risk Solutions in effect submitted a point estimate, while;
- * FSU CEFA provides a distribution on outcomes or results, with an overall average payment or cost level that may well fit the proposed Patients' Compensation System legislation (HB1233) on budget rulings.

Introduction

The purpose of this review, conducted by the FSU Center for Economic Forecasting and Analysis (FSU CEFA), is to analyze the methodology used and the conclusions or outcomes derived by AON Risk Solutions of their "Evaluation of the impact to Direct Medical Malpractice Costs in the State of Florida to the Implementation of HB 1233."² The analysis done by AON Risk Solutions is based on assumptions and methodology. FSU CEFA will provide detailed comments as to its ability, on the research done, pertaining to its' perception of the expected or potential outcomes of the proposed legislation. In order to review the evaluation of AON Risk Solutions done, the proposed Patients' Compensation System legislation (HB 1233) is briefly described as to the reading of the proposed legislation, both to intent and conditions, analyzed and interpreted in section 1a. This interpretation is followed by the specific assumptions made by AON Risk Solutions on the same legislation in section 1b. Central to Section 2a is the technical analyses, including methodology and modeling framework, of the evaluation done by AON Risk Solutions. The technical merit analyses and review of AONs' outcomes/conclusions is provided in section 2b. FSU CEFA will give detailed comments, and while it is realized that it is neither the intent nor expected that FSU CEFA will redo or provide an alternative analyses, it will give its' evaluation of the proposed law in section 3. The Rating model will be analyzed in section 4. In section 5, some overall review comments and conclusions are given.

Section 1a: Legal Analyses and Interpretation of the Proposed Legislation (HB1233)

In order to review the evaluation of AON Risk Solutions done, the first step is to analyze and interpret the proposed Patients' Compensation System legislation (HB 1233, filed in 2011).³ It

² AON Risk Solutions, An Evaluation of the Impact to Direct Medical Malpractice Costs in the State of Florida Related to the Implementation of HB 1233, October 9, 2012,

³ HB 1233 - Compensation for Personal Injury or Wrongful Death Arising Out of Medical Injury, retrieved from <http://www.myfloridahouse.gov/sections/Bills/billsdetail.aspx?BillId=48501>

should be noted that the following observations will provide the foundation for the review and analyses done.

The "Consideration" of the Legislature on the proposed Patients' Compensation System legislation (HB 1233), as per section 5 sub (1), focuses on two structures (or better results thereof) of the "Medical Malpractice Law" (Chapter 766) namely; the legal structure and the medical structure, with both deemed failing under the law. Legally, representation is considered lacking, costly and protracted, with amongst others causing hardship for the involved. Medically, it is perceived to lead to defensive medical performance, while compromising the number of practicing physicians, both leading to increased cost of health care. Therefore the intent of the legislature, as per section 5 sub (2), is to create an alternative to "medical malpractice" litigation, namely: "medical injury" (i.e. HB 1233). The "medical injury" legislation is supposed to come with a legal structure in which representation is fair, expeditious, and with timely compensation (and without court system expenses), while medically this alternative is to significantly reduce the practice of defensive medicine, while raising the number of medical practitioners. This under condition of "exclusive remedy" section 5 sub (3), and "such that the aggregate cost of medical malpractice and the aggregate of provider contributions are equal to, or less than, the prior fiscal year aggregate cost of medical malpractice. In addition, damage payments for each injury shall be no less than the average indemnity payment reported by the Physician Insurers Association of America or its successor organization for like injuries with like severity", as per section 6 sub (4)(e)2.

For the purpose of this review it is important to interpret the proposed law both to language on number of applicants and value of claims, as per the synopsis of the Patients' Compensation System legislation (HB 1233) provided in the first paragraph. On the number of applications, it is to be recognized that present claims under the "Medical Malpractice Law" are reduced given the perceived high thresholds mentioned. Lower thresholds in turn will increase the number of applicants. Of importance here is also the "exclusive remedy" section 5 sub (3), stating: "... the rights and remedies granted by this part on account of a personal injury or wrongful death exclude all other rights and remedies of the applicant ..." Similarly, there is an exclusivity for applicants whose injury falls within the scope of part III (Birth-Related Neurological Injuries), which may not file an application under the Patient Compensation System (or part IV of chapter 766). Conversely it is not clear what the position of an applicant is once due process is taken and a claim is declined.

On the value of claims: "The initial compensation schedule shall be formulated such that the aggregate cost of medical malpractice and the aggregate of provider contributions are equal to, or less than, the prior fiscal year aggregate cost of medical malpractice" (section 6 sub (4)(e)2). Given that the wording concerns the proposed Patient Compensation System (HB 1233), "medical malpractice" is to be read in terms of both "medical malpractice *and* medical injury", in other words compensation on both needs initially to be budget neutral. In addition to budget neutrality, it is stated in the proposal that: "damage payments for each injury shall be no less than the average indemnity payment reported by the Physician Insurers Association of America or its successor organization for like injuries with like severity" (section 6 sub

(4)(e)2). In short this means that if an application is granted, a same average indemnity has to be paid, with emphasis on 'if. With potentially higher numbers of application ,due to the lower threshold of the Patients' Compensation System (HB 1233), combined with similar indemnity payments out of a more or less the same budget (neutrality), this basically means 'rationing' on the numbers of applications granted. Finally, on the second and subsequent year budgets: "the compensation schedule shall be annually reviewed and, if necessary, revised to ensure that a projected increase in the upcoming fiscal year aggregate cost of medical malpractice, including insured and self-insured providers, does not exceed the percentage change from the prior fiscal year in the medical care component of the Consumer Price Index (CPI) for All Urban Consumers" (section 6 sub (4)(e)2), meaning that growth of the aggregate value or budget is capped by the medical care component of the aforementioned CPI.

The proper reading of the intent of the legislature, the perceived budget neutrality with potential associated impacts, and the indemnity payments, are essential for both relating to the assumptions made by AON Risk Solutions, and to the potential perception on possible impacts of the proposed Patients' Compensation System legislation (HB 1233). Given the two criteria, the next section examines the assumptions made by AON Risk Solutions, and whether they are or are not within the realm of reasonable expected outcomes of the proposed legislation.

Section 1b: Legal Interpretation and Assumptions Made by AON Risk Solutions

On the number of applications, AON Risk Solutions (further AON) states that the numbers remain inherently uncertain. It is noted that in effect AON uses an uncertainty disclaimer under "Conditions and Limitations".⁴ This is not uncommon, especially in Actuarial Science, since risk can be calculated and uncertainty cannot. Concerning the language of the Patients' Compensation System legislation (HB 1233), AON recognizes the Exclusive Remedy, and states that "All personal injury or wrongful death allegations ... would be required to move through the Patient Compensation System. This precludes the negligence based system".⁵ AON elaborates on the clause to the extent that they see a potential savings e.g. for not having to go through an evaluation of conduct, in case of injury. However, present/pending cases still need to be addressed in a similar fashion, and thus bring with them similar expenditures. AONs' perception of a direct change to "medical injury" does impact their overall defense expenditure assumptions or outcomes. In addition, AON recognizes the limitation to the definition of "medical injury", as defined by the bill, to be exclusive.⁶ Overall, AON anticipates an increase in the number of applicants seeking indemnification, due to the lower threshold of "medical injury", adding the observed assumption that: "This assumes that not all people who suffer a

4 ibid 1, p. 2

5 ibid 1, p. 4

6 ibid 1, p. 4

medical injury under the current system make a claim for compensation".⁷ Although the added assumption or claim made does carry merit, as is recognized in previous research,⁸ for AON it is a necessary assumption for first adjusting the number of claims upwards to an industry level and secondly to be able to raise them to a level well beyond the number of present applications.

On compensation, AON recognizes the limit in aggregate payments of the initial compensation schedule, set at the aggregate or sum of compensation paid under the current negligence based tort system, with the successive annual adjustments based on the medical care component of the Consumer Price Index mentioned.⁹ They also refer to the same damage payments "set at or above the average indemnity payment indicated by data collected by the Physician Insurers Association of America (PIAA), or similar organization." Given the tension between the potential higher number of applications on the one hand, and the more standardized compensations out of the pre-set (or neutral) budget on the other, AON sees some potential savings (e.g. no evaluation on medical practitioners, use of more standardized compensation reducing the chance of extraordinary payments, reduced legal defense expenses), but no other remedy is mentioned in case savings fall short on keeping payments within a budget. In their letter of Nov. 12th 2012, AON points to the possibility of adjustments in the compensation schedule to remedy such, which basically is 'redistribution' as opposed to 'rationing' (as perceived by FSU CEFA as mentioned above).

Overall the impression is that AON did interpret the law fair as to the points of interest. Two main points of differences are noted; one on the grandfathering of "medical malpractice" cases next to "medical injury", with consequences for the defense expenditure assumptions made, and one on the potential of 'rationing' for keeping the payments and expenses within the budget. That having said, differences in interpretation will remain, and are open to editing of the same proposed law and/or to potential lawyers once accepted into law. In addition, on the points raised, there is no legal clue as to applied economics, but for the condition on the aggregate budget and growth thereof, provided the present situation.

7 *ibid* 1, p. 6

8 E.g. Localio A.R., A.G. Lawthers, T.A. Brennan, et al. Relations between malpractice claims and adverse events due to negligence: results of the Harvard Medical Practice Study III. *New England Journal of Medicine* 1991; 325: 245-51, and

Studdert D.M., E.J. Thomas, H.R. Burstin, B.I. Zbar, E.J. Orav, T.A. Brennan, Negligent care and malpractice claiming behavior in Utah and Colorado, *Med Care* 2000;38:250-60

9 letter AON to The Doctors Company, FPIC, Jacksonville, d.d. Nov. 21st 2012

Section 2a: Technical Analyses of AON Risk Solutions' Evaluation

The next step of the review involves the technical analyses done by AON Risk Solutions, including methodology and modeling framework, this provided that the reported input data are readily available to perform the analyses. The technical merit and review of AONs' outcomes/conclusions are dealt with in section 2b.

In comparing the Florida Office of Insurance Regulation (FOIR) Annual Report 2011¹⁰ data with AONs' evaluation, the following is observed. From the annual report 2011:¹¹

**Table 1: Financial Data from Closed Claim System
Aggregation of All Claims Closed in 2010**

Category of Payment	Amount
Indemnity Paid	\$594,427,670
LAE Paid to Defense Counsel	\$140,553,359
All other LAE Paid	\$31,572,247
Total	\$766,553,276
Non-Economic Loss	\$171,506,607
Economic Loss - Incurred to Date by Claimant	\$100,813,572
Economic Loss - Anticipated by Claimant	\$145,509,115

"In 2010, the Florida medical malpractice insurance companies reported 2,520 closed claims in Florida."¹² In addition, "the total of the indemnity and LAE categories is \$766,553,276 (up 4% from 2009), which represents the total amount paid by insurance companies, self-insurance companies, and surplus lines companies for claims settled in 2010. It is important to remember that in many instances, approximately 43 percent of the time, the claims closed showed indemnity payments of \$0 to the plaintiff. However, even in these instances, it is likely the insured still incurred loss adjustment expenses, and sometimes other expenses."¹³ Therefore, the number of indemnified claims is 57 percent times 2,520 claims or 1,440 claims.¹⁴ On the other hand, according to AONs' evaluation, Indemnity Payments for the year 2010 stands at \$555.6 million, and Defense Expenses at \$218.8 million (\$102.5 million for indemnified cases and \$126.3 million for not-indemnified cases), both totaling \$784.4 million, while assuming a total of 5,078 claims, of which 1,489 or 29 percent with indemnity payment (conversely, 71% with no indemnity).

¹⁰ Florida Office of Insurance Regulation, 2011 Annual Report – October 1, 2011, Medical Malpractice Financial Information Closed Claim Database and Rate Filings, retrieved from <http://www.flor.com/office/datareports.aspx>

¹¹ *ibid* 9, p. 48

¹² *ibid* 9, p. 44

¹³ *ibid* 9, p. 48

¹⁴ Given that no further decimal points are provided, CEFA takes the result outcome to be 1,440 instead of an arithmetic 1,436. See also Table 2.

Since different numbers/values are used, a baseline is needed for analyses and comparative purposes. The data provided in Table 2 will be used for the purpose.

Table 2: Baseline Table on Indemnity Claims and Average/Total Payments per NAICs' Injury Category.

NAIC	FOIR	AON	Estimated	AON	AON	AON	Estimated	AON
Injury	Claims	Indem-	# Indem-	# claims	Indem-	Indem-	Indemnity	Indemnity
Cate-	2010	nified	nified	acc. to	nified	nified	Payments	Payments
gories		ratio	cases	(incl.	cases	Average		
	(1)	(2)	(3)*	added)	(5)**	Payment	(7)***	(8)****
1	109	0.14	30	212	30	\$109,302	\$3,279,060	\$3,279,060
2	130	0.21	53	236	50	\$65,495	\$3,471,235	\$3,274,750
3	387	0.24	180	849	205	\$128,492	\$23,128,560	\$26,212,368
4	226	0.28	123	805	228	\$254,840	\$31,345,320	\$57,339,000
5	324	0.33	208	687	224	\$306,277	\$63,705,616	\$69,524,879
6	247	0.34	163	528	179	\$452,371	\$73,736,473	\$81,426,780
7	161	0.36	113	314	111	\$718,123	\$81,147,899	\$81,147,899
8	105	0.42	86	224	93	\$890,602	\$76,591,772	\$83,716,588
9	831	0.30	484	1,224	369	\$412,029	\$199,422,036	\$151,214,643
	2,520	x 0.5714	1,440	5,078	1,489		\$555,827,971	\$557,135,967

* column (1) x (column (2) x 1.9414) = column (3)

** column (2) x column (4) = column (5)

*** column (3) x column (6) = column (7)

**** column (5) x column (6) = column (8)

The lead column shows the National Association of Insurance Companies (NAIC) standard injury codes to severity. In column (1), Florida Office of Insurance Regulation (FOIR) data on claims per NAIC injury category is given, from their 2010 annual report. Unfortunately, FOIR does not publish indemnity ratios per injury category (nor indemnified cases per category), for which reason the AON ratios are used as per column (2). Multiplication of column (1) times column (2) should retrieve the number indemnified claims, which in sum needs to total 1,440 cases. Given that the AON ratios are based on a different reference (with added non-indemnified cases), a correction to the ratios was applied to come to the total count of cases mentioned. In column (4), the number of claims according to AON is given, which are taken from their evaluation report,¹⁵ while in column (5) the corresponding indemnified number of cases is given. Column (6) shows the current average indemnity payment per injury category, this according to AON. FOIR unfortunately, does not provide averages per injury category. Columns (7) and (8) both provide the total indemnity payments per category for FOIR and AON, respectively.

This brings the review to the first tier of assumptions made by AON, namely: the assumption on the total number of indemnified claims at 3,386. AON states: duplicate records, consolidation of duplicate records, underreporting adjustments, and organizing claim data by year of closing, and/or the use of additional data from named sources (AON, Kaiser, FLOIR's

¹⁵ ibid 1, p. 6

and www.snl.com), to augment the total number of claims. Departing from the present 1,440 indemnified claims, AON makes some corrections to the level of 1,489 claims. The indemnity ratio of 57 percent is deemed too high by AON and consequently the "indemnification ratio" is set to "an industry proportion of claims" being 29 percent by adding (non-indemnified) claims to the order of 5,078 claims in total. Next, the indemnification ratio is raised to 40 percent, based on a study conducted by Studdert and Brennan (further referred to as Swedish study).¹⁶ Finally 2/3 or 66⅔ percent is added to reflect the lower threshold of the proposed Patients' Compensation System legislation (HB1233) to retrieve 8,464 claims in total of which 3,386 claims would be indemnified. AON in effect, uses a data reliance disclaimer.¹⁷ The following provides a sketch of the reasoning done, with the items in red representing the claims or assumptions corresponding to the count or number of claims:

Total Claims	2,520		5,078 ↑	=	5,078	+ 66⅔%	8,464 ↑
Indemnified	1,440	≈	1,489		2,031 ↑	+ 66⅔%	3,386 ↑
Indemnification Ratio	57%	→	29%	→	40% ↑	=	40%

Having established a new count (added numbers included) AON uses a lognormal distribution to distribute the claims over the NAIC injury categories. Figure 1 depicts the discrete distribution (histogram) of the indemnified cases per injury categories 1 through 9, while in Figure 1a continuous distributions are depicted on the same but for category 1 through 8 only. In both Figures 1 and 1a, the present situation is based on column (3) of the baseline Table 2, and the AON data as provided in their evaluation report.¹⁸ Obviously, adding injury category 9 would preclude any distribution to be applied or calculated.

16 Studdert D. M., T.A. Brennan, No-Fault Compensation for Medical Injuries, The prospect for Error Prevention, JAMA. 2001 Jul 11;286(2):217-23.

17 ibid 1, p. 3

18 ibid 1, p. 10

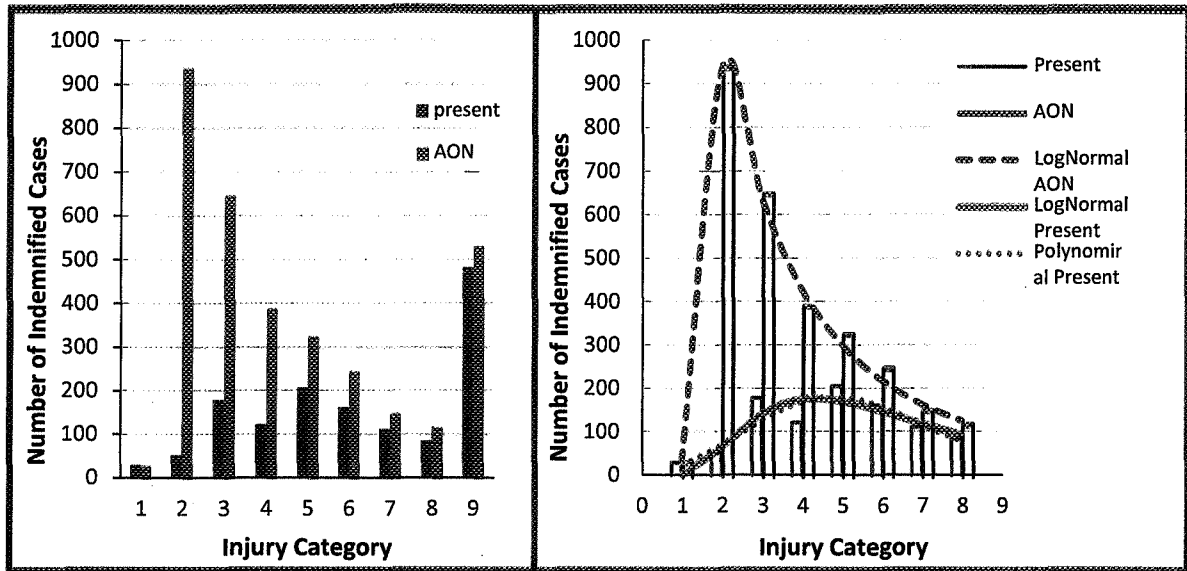


Figure 1 and 1a: Histogram and Theoretical Distributions of Indemnified Cases to Injury Category, Present and Assumed by AON Risk Solutions under HB1233.

The distribution is calculated based on a typical lognormal function with the format:

$$f(x) = \frac{e^{-((\ln((x-\theta)/m))^2/(2\sigma^2))}}{(x-\theta)\sigma\sqrt{(2\pi)}} * a \quad x \geq \theta; m, \sigma, a > 0 \quad (1)$$

with an added a multiplication factor a, which applied results in:

$$f(x) = \frac{e^{-((\ln((x-0.9695)/2.5515))^2/(2*1.1607^2))}}{(x-0.9695)*1.1607*\sqrt{(2\pi)}} * 3,828.6689 \quad (R^2 = 0.9949) \quad (1a)$$

$$\begin{aligned} \theta &= 0.9695 \\ m &= 2.5515 \\ \sigma &= 1.1607 \\ a &= 3828.6689 \\ (R^2 &= 0.9949) \end{aligned}$$

In an attempt to represent the present distribution (Figure 1a series LogNormal Present), using the same lognormal function (equation 1) the parameters are:

$$f(x) = \frac{e^{-((\ln((x-0.0279)/5.8010))^2/(2*0.5540^2))}}{(x-0.0279)*0.5540*\sqrt{(2\pi)}} * 1,246.4214 \quad (R^2 = 0.7604) \quad (1b)$$

$$\begin{aligned} \theta &= 0.0279 \\ m &= 5.8010 \\ \sigma &= 0.5540 \\ b &= 1246.4214 \\ (R^2 &= 0.7604) \end{aligned}$$

The best fit polynomial on the present distribution (Figure 1a series Polynomial Present) is:

$$f(x) = 30.8571 - 48.3521*x + 53.5265*x^2 - 10.4066*x^3 + 0.5719697*x^4 \quad (R^2 = 0.7802) \quad (2)$$

Given the R^2 on both equations (1b) and (2), trying to capture the present distribution, only about 76 – 78 percent of variation is explained. Although the polynomial fits slightly better, the lognormal (1b) offers the opportunity to compare the present distribution (equation 1b) with the expected lognormal distribution (equation 1a), as will be done in section 2b.

In short, of the three steps or assumptions made by AON on the count or number of claims, the first is defended by referencing other industry sources such as an AON internal database, Kaiser Health’s State Facts (www.statehealthfacts.org), FLOIR’s Annual Reports, and Aggregate Florida State Pages from insurers’ annual statement filings (www.snl.com). The second assumption is backed by referencing a Swedish study source, while the third assumption on applying the added 66½ percent is not further substantiated.

Reflecting on the second tier of assumptions made by AON, on value and the LAE categories reported by FOIR at \$555,827,971 (CY 2010) and the 1,440 ((1-43%) x 2,520) claims, there is a distribution in indemnity payments that is derived. A possible distribution is calculated based on an orthogonal hyperbole, given its appropriate properties, with the format:

$$f(x) = x / (x/a + b) \quad \text{for } x > 0 \text{ and both } a, b > 0 \quad (3)$$

or applied:

$$f(x_i) = x_i / (x_i / 1,000,000 + 9.7541E-04) \quad (3a)$$

with i the rank number of indemnified claims from 1 to 1,440, and the following result:

$$\sum f(x_{1-1,440}) = \$555,827,971$$

$$\text{while maximum payment } x_{1,440} = \$596,171$$

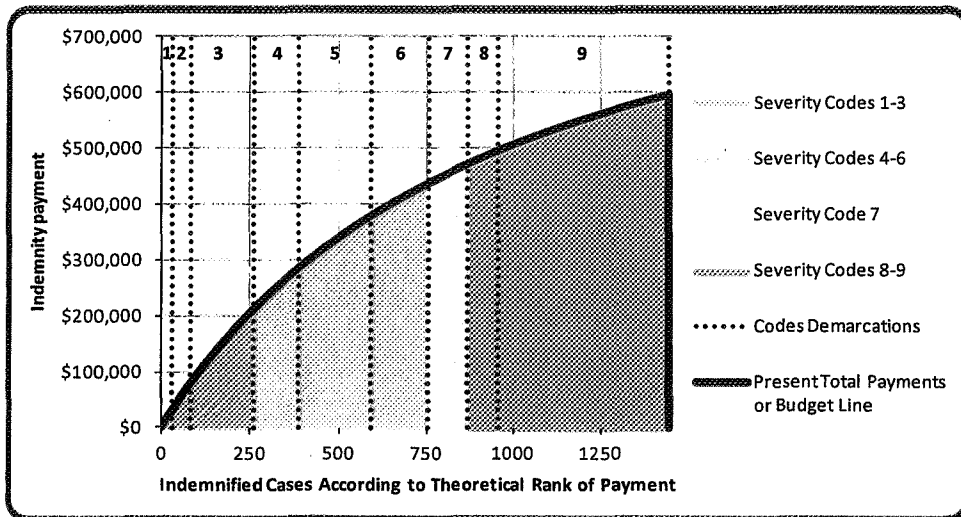


Figure 2: Theoretical Distribution of Baseline Total Indemnity Payments (CY 2010)

The line can be perceived as a “regression line” through a data cloud on indemnity payments ranked to order of value, with the added property that it represents the total sum of payments as per the integral or surface under the curve.

With the tools at hand from the technical analyses, section 2b will review the conclusions or findings of AONs’ evaluation.

Section 2b: Technical Merit and Review of AON Risk Solutions’ Evaluation

Before addressing the count/number and value assumptions, an overall preliminary comment must be made, based on the summary Tables provided by AON in its’ evaluation, on the indemnity payments including defense payments. In its’ “Summary of Findings” AON states fiscal efficiencies including:

- A 67 percent reduction in the cost for providers to defend themselves against claims and lawsuits,
- Streamlined cost of administration,
- Reduced risk as awards will not be subject to unpredictable jury verdicts.

However, no further arguments or case is made by AON to the order of lower defense expenses. Table 2 provides the summary data of AONs’ evaluation (on which it is noted that the data doesn’t add up, and that the indemnified case count is 3,382 instead of 3,386). Columns with averages are added. In addition, it must be noted that without further analyses done, FSU CEFA does not currently acknowledge the AON outcomes.

Table 3: Summary Tables from the AON Risk Solutions Evaluation.

Category	PRESENT				PRESENT AVERAGE		
	Counts	Indemnity Payments	Defense Expense	Indemnity + Defense	Indemnity Payments	Defense Expense	Indemnity + Defense
Indemnified	1,489	\$555,600,000	\$102,500,000	\$658,100,000	\$373,136	\$68,838	\$441,974
Not Indemnified	3,589		\$126,300,000	\$126,300,000		\$35,191	\$35,191
				\$784,400,00			
AON EVALUATION				AVERAGE AON EVALUATION			
Indemnified	3,382	\$810,700,000	\$38,500,000	\$849,228,657	\$239,710	\$11,384	\$251,103
Not Indemnified	5,082		\$38,000,000	\$37,984,372		\$7,477	\$7,474
				\$887,213,02			

From Table 3, it can be taken that one average present indemnified claim case pays for 1.76 average indemnified claim cases under the Patients’ Compensation System legislation (HB1233), this according to AONs’ evaluation (\$441,974/\$251,103). Similarly, one non-indemnified claim case will pay for 4.71 cases (\$35,191/\$7,474). Therefore the present count of 1,489 indemnified cases will on average pay for 2,621 cases, while the not-indemnified will pay for 16,898 cases, both under the evaluation of AON. Given that there will be only 5,082 non-indemnified cases; 11,816 times \$7,474 is “saved” from total payments or budget. These “savings” are good for about 352 average indemnified cases under the proposed law (savings

\$88,315,628/\$251,103). In result, some 2,973 indemnified cases and 5,082 non-indemnified cases can be paid from the same budget, being 409 short of AONs' expectation. These 409 cases on average will bring \$102,813,029 in indemnity payments, which is the excess of AON over the present budget. If cases or payments are to be kept within the present budget ('rationing' the excess payments equally over the two categories as to the count of AON), this would bring about 2,993 indemnified and 4,493 non-indemnified cases (2,993 x \$251,103 + 4,493 x \$7,474 = \$784,400,000). Off course different positions under the same budget are possible. Point in case is that AON expects considerable 'savings' from which more indemnified cases can be paid. It is doubtful however that 'savings' will be to the order as expected, given pending "medical malpractice" cases. To the perception of FSU CEFA, defense expenses may decline on the lower injury categories, which may be timely resolved, but will largely remain under the higher injury categories, given that these cases take more time to go through the process. In the following review, not only will the numbers of AONs' case be subject to review, but also its' expected indemnity payments. However, no further analyses or review will be conducted on the defense expenses.

On the first tier of assumptions made by AON on the count or number of claims, medical malpractice paid claims data was retrieved from the mentioned Kaiser Health's State Facts webpage, a selection of which is presented in Table 4. It must be noted that the data relates to the year 2011 and are provided in as far available as per Dec. 31st of the same year. The data was sorted to calculated relative shares or percentage of total number of medical malpractice claims paid per state, this relative to the sum or total for the United States. Only the top-10 states are presented in Table 4.

Table 4: Medical Malpractice Claims United States and Top-10 States, Number of Paid Claims, Relative Share, Total Dollars, and Average Claim Payments as per 2011¹⁹

Rank	State	Total Number of Paid Claims	Relative Share Number of Paid Claims vs. U.S. Total	Total Dollars in Paid Claims	Average Claims Payments
	United States	9497	100%	\$ 3,177,305,000	\$ 334,559
1	New York	1379	14.5%	\$ 627,067,500	\$ 454,726
2	California	889	9.4%	\$ 186,235,900	\$ 209,489
3	Pennsylvania	767	8.1%	\$ 299,671,500	\$ 390,706
4	Florida	758	8.0%	\$ 188,324,250	\$ 248,449
5	Texas	445	4.7%	\$ 76,144,750	\$ 171,112
6	New Jersey	429	4.5%	\$ 164,494,500	\$ 383,437
7	Michigan	327	3.4%	\$ 59,251,750	\$ 181,198
8	Illinois	315	3.3%	\$ 183,968,050	\$ 584,026
9	Louisiana	307	3.2%	\$ 55,885,250	\$ 182,037
10	Puerto Rico	258	2.7%	\$ 14,484,250	\$ 56,141

¹⁹ Derived from Kaiser Health's State Facts webpage at:
<http://www.statehealthfacts.org/comparemaptable.jsp?ind=436&cat=8&sort=a&gsa=2>

From the Table it can be taken that ranked for the year 2011, in terms of relative share on indemnified claims, Florida ranks 4th with 8.0 percent of indemnified cases relative to the United States total, while the 5th ranked state of Texas is put at some distance with only 4.7 percent. The averages claim payments shown, give a perception on the overall level of payments, in which Florida comes out fair with respect to the other large states shown.

In Table 4a the data of the first columns of Table 4 is placed next to the states' estimated population as per Dec 31st 2011, while the last column of the Table provides a paid claims incidence ratio of paid claims per 10,000 populations. Only the top-12 states inclusive Florida is presented. Based on the incidence ratio, acknowledging that the data concerns the year 2011 and may not be complete (as per Dec. 31st), it doesn't quite put the Florida experience in line with the other states overall.

Table 4a: Medical Malpractice Claims United States and Top-12 States, Number of Paid Claims, Relative Share, Population and Incidence Ratio as per 2011²⁰

Rank		Total Number of Paid Claims 2011	Relative Share Number of Paid Claims vs. U.S. Total	Population estimate ²¹ as per Dec 31 st 2011	Claims per 10,000 Population
	United States	9497	100%	316,435,179	0.300
1	West Virginia	157	1.65%	1,854,875	0.846
2	New York	1379	14.52%	19,527,395	0.706
3	Puerto Rico	258	2.72%	3,680,049	0.701
4	Louisiana	307	3.23%	4,586,577	0.669
5	Pennsylvania	767	8.08%	12,749,920	0.602
6	New Jersey	429	4.52%	8,848,384	0.485
7	Montana	46	0.48%	1,001,625	0.459
8	Kansas	127	1.34%	2,878,587	0.441
9	Rhode Island	45	0.47%	1,050,797	0.428
10	Maryland	249	2.62%	5,859,711	0.425
11	New Mexico	84	0.88%	2,079,651	0.404
12	Florida	758	7.99%	19,201,632	0.395

As can be taken from the Table, the United States paid claims incidence rate for 2011 stands at 0.3001, while the same for Florida is 0.3948 per 10,000 population. As a rough reference, if the 0.3001 incidence rate represents the 29.32 percent of AONs' industry assumption, then the 0.3946 incidence rate of Florida should represent a 38.54 percent indemnification ratio. In consequence a total claims number of 3,773 with an adjustment to only 1,500 indemnified claims times 1½, or 2,500 final indemnified claims would fit AONs' evaluation reasoning.

²⁰ Derived from Kaiser Health's State Facts webpage at:

<http://www.statehealthfacts.org/comparemaptable.jsp?ind=436&cat=8&sort=a&gsa=2>

²¹ To determine population on 31-Dec-2011 growth calculus was used on

United States Census Bureau, "2010 Resident Population Data" (as per 1-Apr-10), retrieved from

http://www.census.gov/popest/data/historical/2010s/vintage_2011/index.html

United States Census Bureau, population estimates as per 1-Jul-12, retrieved from

<http://www.census.gov/popest/data/state/totals/2012/index.html>

Similarly, the medical malpractice paid claims data from the National Practitioner Data Bank²², for the year 2010, top-10 states data is provided in Table 4b.

Table 4b: Medical Malpractice Claims United States and Top-10 States, Number of Paid Claims, Relative Share, Population and Incidence Ratio as per 2010

Rank	State	Total Number of Paid Claims in 2010	Relative Share Number of Paid Claims vs. U.S. Total	Population estimate ²¹ as per Dec 31 st 2010	Claims per 10,000 Population
	United States	12,461	100%	310,458,847	0,401
1	West Virginia	170	1.36%	1,853,800	0.917
2	New York	1748	14.03%	19,441,944	0.899
3	Louisiana	337	2.70%	4,556,098	0.740
4	Pennsylvania	933	7.49%	12,722,732	0.733
5	New Jersey	646	5.18%	8,816,060	0.733
6	District of Columbia	43	0.35%	611,755	0.703
7	Kansas	173	1.39%	2,864,005	0.604
8	New Mexico	124	1.00%	2,067,928	0.600
9	Montana	55	0.44%	994,629	0.553
10	Florida	1047	8.40%	18,971,845	0.552

If the 0,4014 incidence rate represents the 29.32 percent of AONs' industry assumption, then the 0.5519 incidence rate of Florida should represent a 40.31 percent indemnification ratio. In consequence a total claims number of 2,698 with a downward adjustment to 1,090 indemnified claims times 1½, or 1,817 final indemnified claims would fit AONs' evaluation reasoning.

Tables 4, 4a and especially 4b give rise to the idea that the indemnity ratio in Florida for 2010 may indeed have been higher than the "industry proportion" perceived and used by AON. In consequence there may be less need for adjusting the total number of cases to retrieve an indemnity ratio of 29 percent as per the first assumption, and consequently the 2nd assumption, made by AON. Neither further consideration/deliberation is provided by AON to the possibility of a different present position of the Florida practice or experience nor further support to claim that the Florida position should be in line with the industry proportions as claimed. At the same time it puts back AONs' claim on the total count of claims at 8,464 for reasons that there may not be as much unreported claims as they suggest.

The second assumption, and probably the most difficult one to substantiate, is the 40 percent claim based on the Swedish study. No argumentation is found in the AON evaluation report, to assert a similar percentage for Florida. Even when there are similarities in culture, in rules and

²² National Practitioner Data Bank, State by Payment Year. Generated, using the Data Analysis Tool at <http://www.npdb-hipdb.hrsa.gov/analysis/tool>. Data retrieved Dec 30, 2012.

regulations, in law, in practices and institutions, a number cannot just be taken for granted or assumed, let alone that a mere reference proves a claim.

Reflecting a moment on both the 29 percent and the 40 percent assumptions, concerning the same indemnity ratio, while for now applying or using the third assumption or the added 66½ percent, some alternative combinations on the two percentages are depicted with the plane in Figure 3. The intersect of the drawn lines in the 3,000-4,000 claims bracket is the specific combination chosen by AON, namely 29 percent on industry or market (bottom left scale) and 40 percent on the Swedish study (bottom right scale).

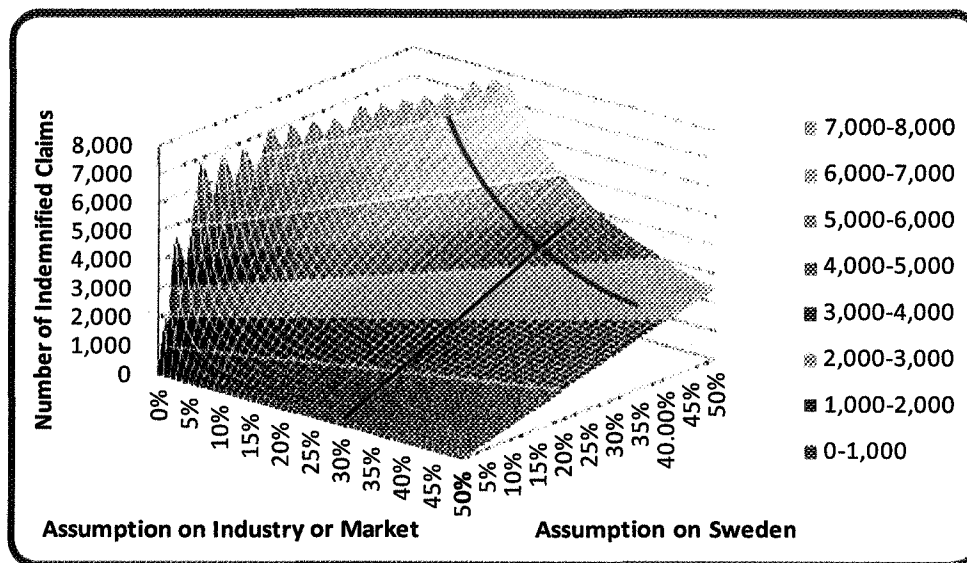


Figure 3: Number of Indemnified Claims per Indemnity Ratios; Industry and “Sweden”.

The Figure reveals a different slope (or point elasticity) if the point in question is perceived from different angles. Put differently, a potential bigger error comes with estimation of the one assumption over the other. In taking two cross sections from the plane on the specific AON assumptions made, Figure 4 is obtained.

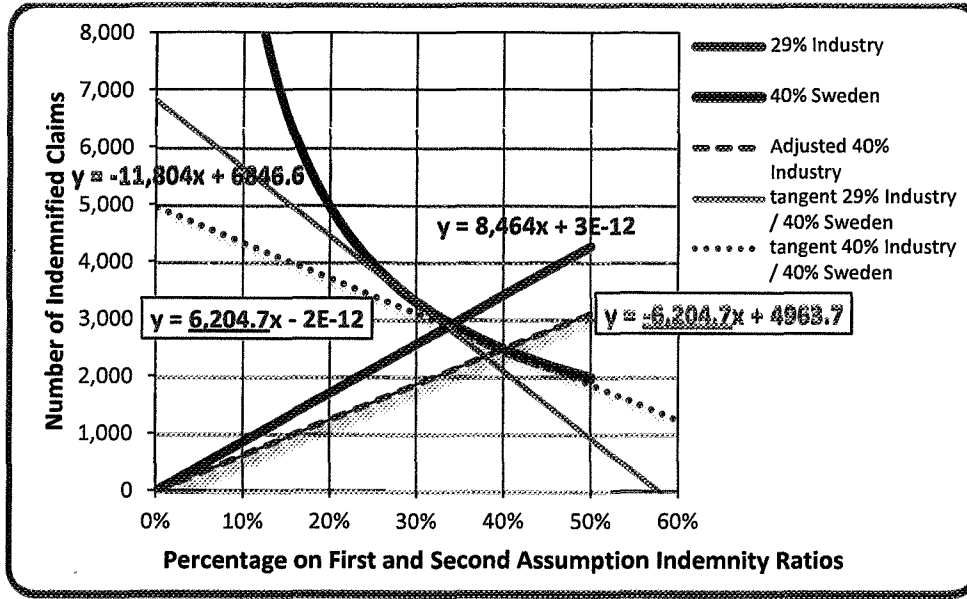


Figure 4: Cross-section of Number of Indemnified Claims, as per Indemnity Ratios.

As depicted in Figure 4, the slope of the “40% Sweden” line at 29 percent (at which point the slope is -11,804 (see tangent 29% Industry/40% Sweden)) is quite different from the slope of the line “29% Industry” (with slope 8,464). One would expect arguments, with potential errors to both sides, to level towards a similar slope somewhere in between e.g. a slope of -9,000 and 9,000 respectively. Depicted is a possibility with an “industry line” (dashed line) with slope at 6,204 and the tangent (dotted line) with slope -6,204 (i.e. both assumptions at 40%). As shown in Figure 5, similar intersects can be derived (depicted at 30, 32, 34, 36, 38 and 40 percent levels).

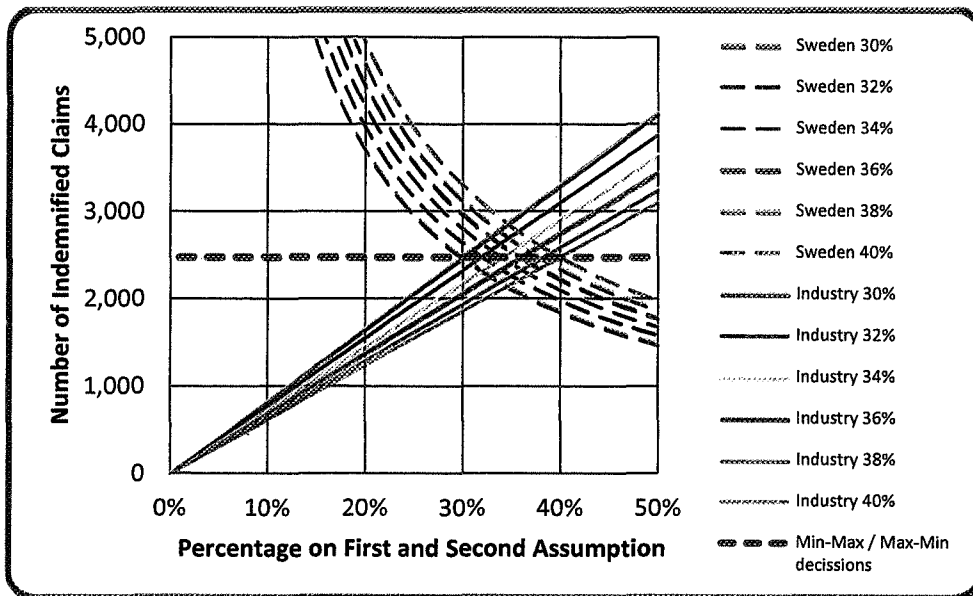


Figure 5: Six Cross-sections of Number of Indemnified Claims, as per Indemnity Ratios.

Figure 5 reveals that there are a series of equal outcomes at 2,482 indemnified claims, corresponding to the line “Min-Max / Max-Min decisions”. The name of the line is based on the theory of decision-making under uncertainty.²³ It is not surprising that the resultant horizontal level of 2,482 indemnified claims equals the present level of 1,489 indemnified claims multiplied by a factor of 1⅓ (or the added 66⅔% according to the third assumption by AON). In other words, the discussion on the indemnity ratio doesn’t carry much weight and is in fact rather redundant in the evaluation done.

The last or third step regarding AON’s projection concerns the use of the addition of 66⅔ percent to derive the 3,386 cases. This addition factor is not discussed, referenced or substantiated by AON. Therefore, without the underlying theory or justification to support the use of this factor, no further analysis is possible. In short, the actual weakest link in the reasoning of AON is this very assumption.

Finally, the use of the lognormal distribution may be deemed reasonable. However, there are ample other distributions that may be applicable, let alone different shapes of the same distribution. Some additional comments on the distribution and its’ use in this particular case will be made at the end of this section.

In summary, there is an unverified industry variable multiplied by a foreign or “Swedish” variable (both concerning the indemnity ratio) multiplied by an unsubstantiated variable (i.e., the addition of 66⅔%) resulting in an unsubstantiated factor in total of 3.36 on all claims (8.464/2,520), or more importantly, a factor of 2.35 on indemnified claims (3,386/1,440) (or 2.27 if 3,386/1,489). Discussion regarding the first two assumptions on the indemnification ratio falls short to support or clarify the discussion of the third variable or the addition factor. In setting aside the “clutter” of the discussion on the indemnity ratio, the first question becomes whether the final factor on indemnified claims of 2.35 is reasonable or not, and the second question is how it does impact the total of indemnity costs or payments. Concerning the first question, FSU CEFA will provide its’ perspective in section 3. Regarding the second question, FSU CEFA will provide its’ perspective relating to the mechanism behind the relations at the end of this section.

The next step in the FSU CEFA review process involves an examination of the second tier of assumptions by AON Risk Solutions on value or total payments. Assuming there will be more claims filed under the proposed Patients’ Compensation System legislation (HB 1233), in principle, a share-shift analyses would be appropriate. However, since the baseline data of Table 2 is comprised of two sources, any result of a share-shift analysis cannot be exclusively

²³ Decision theory pertains to decision making in a world of incomplete information and incomplete control over events. Minimax (or minmax) and maximin (or maxmin) are decision rules, where minimax stands for minimizing a possible loss in a worst case (maximum loss) scenario. Alternatively, maximin is used to describe the strategy which maximizes minimum gain. Minimax is the same as Nash equilibrium. Note that maximum here is adjusting the industry indicator downward to retrieve more total claims.

attributed to AON. Therefore only two partial analyses will be conducted. In applying the AON-added numbers of indemnified claims, the issue becomes one of extending the theoretical distribution (equation 3a) to the new potential number of 3,386 indemnified claims. Figure 6a depicts the addition of new cases. First, the aforementioned theoretical distribution is shown (Equation 3a/Figure 2). The distribution is extended to the new total of 3,386 indemnified claims, shown by the progression from the present distribution to the short-dashed line or "new" distribution (line: "Number Adjusted Total Payments Line"), with the maximum indemnity payment remaining static at \$596,171 (e.g., according to results of Equation 3a). The line is further adjusted according to the AON expected total budget or sum of indemnities to be paid (budget effect) at \$812,034,424²⁴ using a least sum of squares (LSS) method with two criteria; one on total sum of payments, and one on maximum payment level relative to the present maximum of $x_{3,386} = \$596,171$; resulting in: "New Total Payments Line Under AON Assumptions (1)". The rationale for the two criteria used is that the total budget is administered by the Department of Health, while the Compensation Committee determines the indemnity payment schedule.

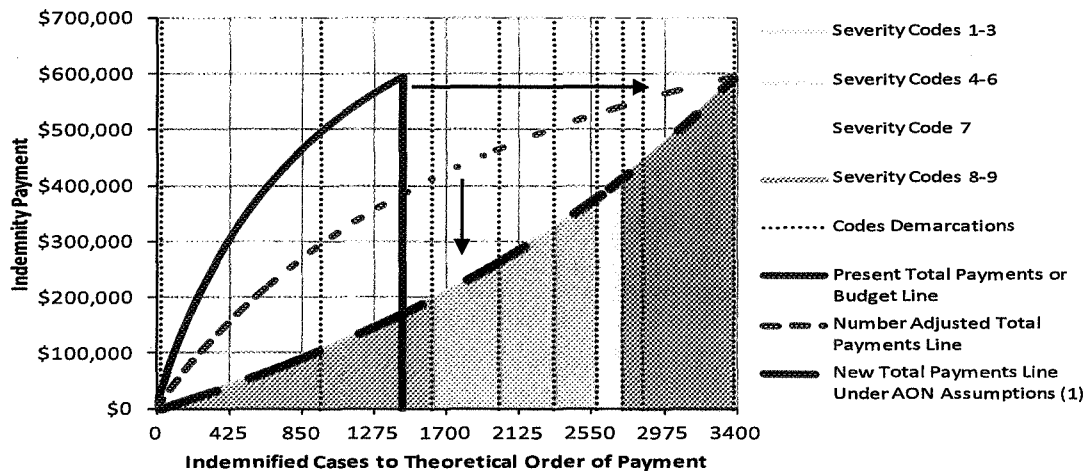


Figure 6a: Theoretical Distribution of Total Indemnity Payments based on AON Risk Solutions' Evaluation of HB 1233 (Check 1).

The curve has the following format:

$$f(x) = x / (a - bx) \quad \text{for } x > 0 \text{ and } a > 0 \quad (4)$$

and applied:

$$f(x_i) = x_i / (0.0103 - 1,3613E-16x_i) \quad (4a)$$

with i the rank number of indemnified claims from 1 to 3,386, and the following result:

$$\sum f(x_{1-3,386}) = \$812,033,930$$

while maximum payment $x_{3,386} = \$596,171$

²⁴ Using the more detailed "Indemnification Standard" ratios times the "Number of patients under HB 1233" and the "HB 1233 Average Indemnity" all provided and used in the AON Evaluation Report (pages 10 and 13). The difference between the value stated and the overall outcome of \$810,700,000 must be attributed to rounding at full digits of the more detailed data.

Before the results of the method are examined in greater detail, a second similar (LSS) analyses on the AON numbers was conducted, determining total payments, with criteria set on the nine injury categories. The objective is to find the best possible match (LSS) between the average(s) and modal(s) of the various injury categories (i.e. matching the average and modal results based on the new total budget). The averages and modals according to the current baseline data presented in Table 2, were compared with the total budget (held constant and at equal weight with each injury category). The reasoning or logic behind the decision criteria is that each indemnity case (or combination thereof per injury category) determines indemnity payment, averages and modals, and thus total payments or cost results. The theoretical optimal match outcome is depicted in Figure 6b with the continuous black line "New Total Payments Line Under AON Assumptions (2)".

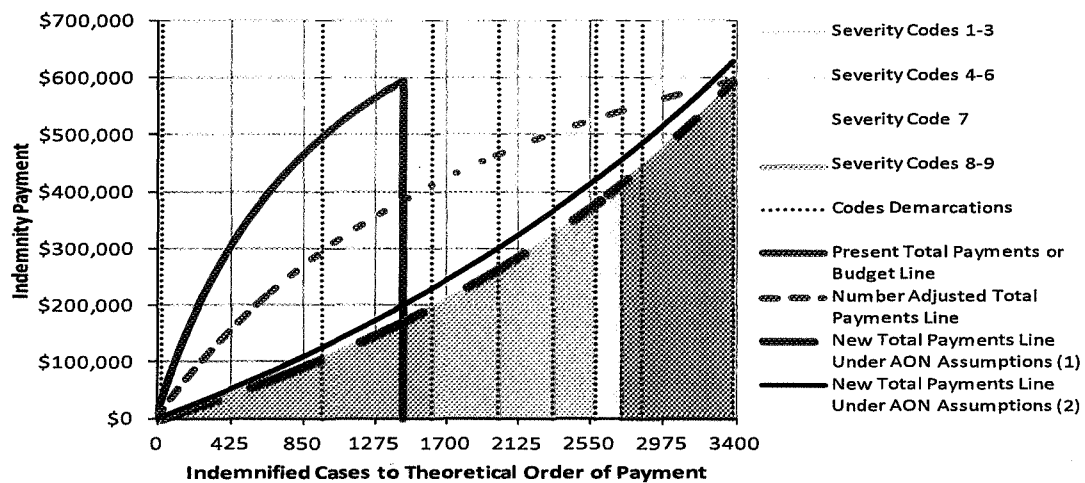


Figure 6b: Theoretical Distribution of Total Indemnity Payments Based on AON Risk Solutions' Evaluation of HB 1233 (check 2).

In applied format:

$$f(x_i) = x_i / (0.0085 - 9,2388E-07x_i) \quad (4b)$$

with i the rank number of indemnified claims from 1 to 3,386, and the following result:

$$\sum f(x_{1-3,386}) = \$901,372,072$$

while maximum payment $x_{3,386} = \$627,099$

Given the shift in numbers, both per category and total, FSU CEFA examined how the two calculated total payments (or budgets) compared to the current budget, both total and average payments per injury category. Where averages on the first exercise, or the total payments on the second exercise, differ significantly from the present situation, the AON evaluation outcomes become less likely. The outcome results of the two exercises are provided in Table 5.

Column (1) of the Table shows the theoretical averages per injury category based on the distribution equation (3a) (Figure 2). In principle, the averages should compare with the data

Table 5: Results of Two Partial Share-Shift analyses on the Value Assumptions of AON Risk Solutions.

NAIC Injury Categories	Present Theoretical Average Payments (1)	AON Avg. Payments check on aggregate both condition on case and total (2)	AON check Avg. Payments on condition on case next to corporate (3)	Relative Change Avg. Payment (4)*	Relative Change Avg. Payment (5)**	Present Number of Cases (6)	AON Number of Cases (7)	Relative Change Number of Cases (8)***	Present Theoretical Total Payments (9)****	AON Theoretical Total Payments (10)	AON Theoretical Total Payments (11)	Relative Change Total Payment (12)xx	Relative Change Total Payment (13)xxx
1	\$ 15,567	\$ 1,511	\$ 1,822	-90%	-88%	30	30	0%	\$ 467,011	\$ 45,317	\$ 54,648	-90%	-88%
2	\$ 55,003	\$ 53,261	\$ 63,163	-3%	15%	53	940	1674%	\$ 2,915,156	\$ 50,065,186	\$ 59,373,597	1617%	1937%
3	\$ 149,269	\$ 152,546	\$ 177,188	2%	19%	180	649	261%	\$ 26,868,482	\$ 99,307,742	\$ 115,349,153	270%	329%
4	\$ 249,361	\$ 232,527	\$ 265,241	-7%	6%	123	391	218%	\$ 30,671,358	\$ 90,918,012	\$ 103,709,391	196%	238%
5	\$ 333,484	\$ 296,832	\$ 333,627	-11%	0%	208	326	57%	\$ 69,364,667	\$ 96,767,272	\$ 108,762,484	40%	57%
6	\$ 408,866	\$ 354,675	\$ 393,450	-13%	-4%	163	247	52%	\$ 66,645,183	\$ 87,604,654	\$ 97,182,151	31%	46%
7	\$ 454,716	\$ 398,671	\$ 437,925	-12%	-4%	113	150	33%	\$ 51,382,962	\$ 59,800,589	\$ 65,688,691	16%	28%
8	\$ 483,522	\$ 430,504	\$ 469,545	-11%	-3%	86	118	37%	\$ 41,582,909	\$ 50,799,432	\$ 55,406,334	22%	33%
9	\$ 549,443	\$ 517,648	\$ 553,457	-6%	1%	484	535	11%	\$ 265,930,242	\$ 276,941,914	\$ 296,099,682	4%	11%
			(excl. cat 1)	-7.8%	-3.5%	1,449	3,386		\$ 555,847,971	\$ 613,250,118	\$ 901,626,133		

* column (2) divided by column (1) = column (4)
 ** column (3) divided by column (1) = column (5)
 *** column (7) divided by column (6) = column (8)
 **** column (1) times column (6) = column (9)

x column (2) times column (7) = column (10)
 xx column (3) times column (7) = column (11)
 xxx column (10) divided by column (9) = column (12)
 xxxx column (11) divided by column (9) = column (13)

in column (6) of Table 3. However, this isn't the case given that the distribution in Table 5 is based on the theoretical distribution and not on the real data. In addition, the ranking of payments in practice will not exactly follow the delineated injury demarcations. The purpose of the theoretical distribution, and thus the data in column (1), is its' use in a benchmark check on consistency of the AON data shift in total claims. The second and third column show the expected AON averages according to the two validation checks; the first check on averages with conditions on maximum payment and total sum of payments, and the second on total payments and maximum indemnification payments with conditions on injury category averages and modals. Columns four and five show the relative changes or margins on the two checks, i.e. the purpose of this exercise. Given the results, it is observed that the unweighted geometric mean of column (4) is -28 percent, and -19 percent for column (5), which does indicate overall lower average payments per injury category under AONs' expected scenario, which would make the AON evaluation on values less likely. However, given the exceptional outcomes in both instances in injury category 1, and given the fact that this category is least important both in terms of number of claims and total payments, exclusion of the same in the unweighted geometric average would bring the overall differences to -7.8 percent (column 5) and -3.5 percent (column 6) respectively.

Therefore, with the exception of injury category 1, both value checks fall within a reasonable margin of error, especially if looked at the averages per line item. The rest of the Table shows the results of the use of the two theoretical approaches (equations 4a and 4b respectively); with the notable rough same orders of change in columns (11) and (12). These roughly same order changes are a result of the averages in columns (2) and (3), and the changes in number of claims as per the columns (6) and (7). In addition, it can be deduced that, while the count or numbers over the categories changed significantly from 1,440 to 3,386 or by 135 percent, the total sum of indemnity rose from the baseline of \$557,827,971 to a calculated level of \$821,250,118, or \$901,626,133, as per the columns totals of column (10) and (11), respectively i.e. a rise of 46 and 62 percent; which is less than half the percentage change on count or number of cases. This is due to the convex curvature of the budget-line, with the results in the second case even with a slight higher maximum payment.

The mechanisms behind the count or number and value assumptions made by AON can be explained as follows. Equations (1a) and (1b) are both lognormal with their respective parameters. The parameters of each can be used to calculate intermediate positions. Figure 7 depicts three intermediate positions at $\frac{1}{2}$, $\frac{2}{3}$ and $\frac{3}{4}$ in between the present lognormal (equation 1b) and the expected distribution by AON (equation 1a). It is noted, that the distribution of AON is used as direction, and which position is not acknowledged by FSU CEFA. The use and purpose here is meant to be illustrative. In depicting the intermediate distributions, it should be clear that other positions can be calculated at random, changing the curvature as well as the shape conditions of the distribution.

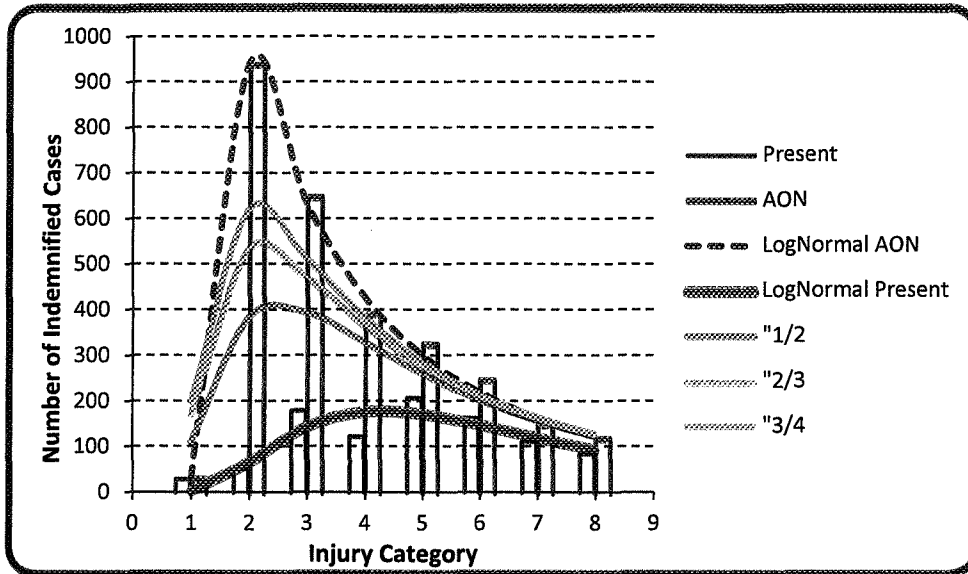


Figure 7: Theoretical Distributions of Indemnified Cases to Injury Category; Present, Intermediate and Assumed by AON Risk Solutions.

Both the number of indemnified cases as well as the total indemnity payment can be determined on intermediate position by using the present lognormal (equation 1b) and the AON evaluation lognormal (equation 1a). Figure 8 depicts the number of indemnified cases (on the right hand side); while the total indemnity payment can be read on the horizontal scale to the left hand side. It will be clear however that both lines represent only one set of options departing from present and using the AON evaluation outcomes. The change in curvature near the end of both curves reflect the peak of the lognormal distribution, in which not only fewer indemnified cases are added to the total, but also relative more to lower injury categories, constraining the total payment outcomes. Again, the outcomes are hypothetical only for the purpose of providing some insight as to the mechanisms at work behind the use the lognormal distribution. The dashed lines in Figure 8 link select hypothetical points, from the number of indemnified cases to the total indemnifications paid. The dashed line in the outer perimeter represents the outcomes of AON's evaluation. In principle however, there should be a bundle of pathways or a cloud, representing a set of points on outcome combinations.

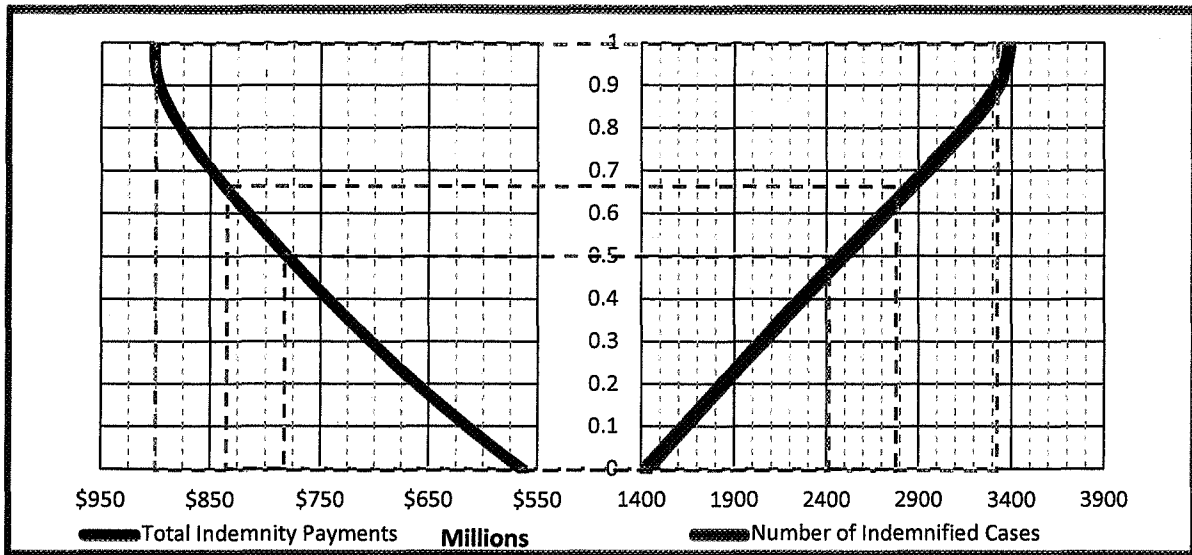


Figure 8: Relation between Calculated Lognormal Distributions, Number of Indemnified Cases and Total Indemnity Payments.

Section 3: Analyses FSU CEFA on Direct Costs of the Proposed Legislation (HB 1233)

The review thus far has given insight into the assumptions made by AON, both to the count or number, and to the value or payments of indemnified claims, as well as the underlying analytic tools and mechanisms. Although AONs' evaluation has merit, the assumptions on the count or number of indemnified claims appears to be AON's weakest. In order to provide a more solid base for an evaluation of the proposed legislation (HB 1233), FSU CEFA will give an alternative analysis.

Through examination of the data from the Year 2010 National Practitioner Data Bank, pertaining to the derived indemnity payment incidence ratios' (a selection of which is given in the last column of table 4b), it may be realized that some states reach greater numbers of paid claims with their compensation payments (up to 0.917 per 10,000 population) as is the intended consequence of the Patients' Compensation System law (HB1233). Although the reasons for reaching the numbers may be different over the various states, the incidence ratios may serve as a guide for calculation of additional numbers to the Florida counts, under the proposed law (HB1233). A frequency analysis was conducted on the Data Banks' paid claims and derived incidence ratios for the 50 states. The best-fit distribution²⁵ proved to be a log logistic distribution, as depicted in Figure 9.

²⁵ Using @Risk software of Palisade Corporation, maker of the world's leading risk and decision analysis software, @RISK and the DecisionTools, <http://www.palisade.com>.

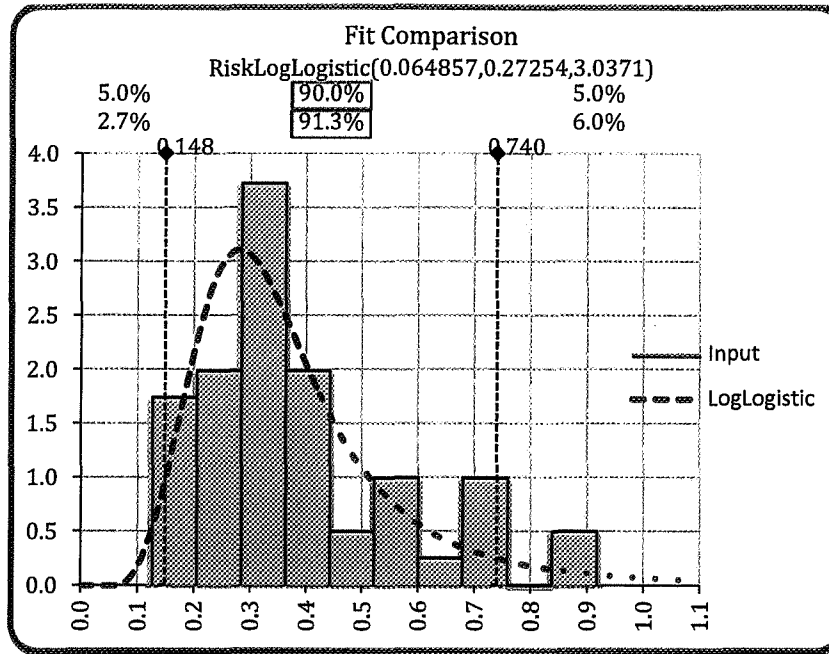


Figure 9: Best Fit Distribution on Medical Malpractice Payment Incidence Ratios.

Next, only the upper tail (states rankings 1 through 9 from Table 4b) of the distribution is used and normalized, given that we potentially look at higher numbers of claims under the proposed law (HB1233). In addition, the scale of malpractice payment counts was converted from the National Practitioner Data Bank for Florida at 1,047, to the benchmark number in this review at 1,440 in the present situation (i.e. base-alignment given that both data points concern the year 2010), while Florida's population estimate is used to derive potential Indemnified Case numbers using the Payment Incidence Ratios.

The renormalized and cumulative distribution is depicted in Figure 10. The distribution resembles a cumulative exponential distribution. It starts at the 1,440 level and at the level of 2,745 cases the payment incidence ratio would be 1.0520 per 10,000 population, a bit over the present highest ranked state, West Virginia. In addition to the distribution, some demarcations are shown at the 50, 95 and 97.5 percent one-sided confidence intervals, with 1,743 (0.9189), 2,595 (1.3678) and 2,720 (1.4336) malpractice cases indemnified respectively (incidence ratio's per 10,000 population between brackets).

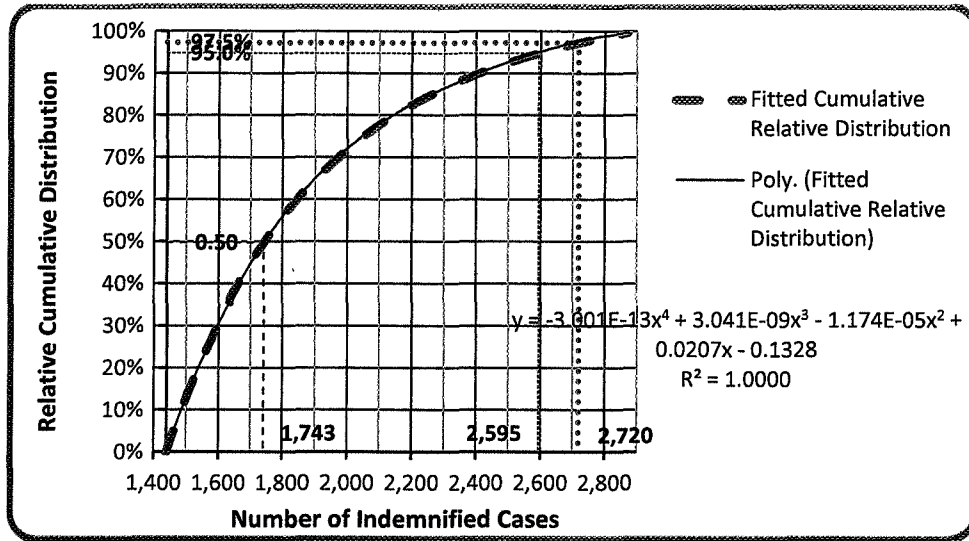


Figure 10: Cumulative Relative Distribution of Indemnified Malpractice Cases, Based on Medical Malpractice Indemnity Payment Incidence Ratios 0.552 and up.

In having the various elements necessary; 1) the distribution on indemnified malpractice cases (figure 10), 2) the lognormal distribution over injury categories²⁶, 3) the AON average payments per injury category, 4) a sliding scale margin on Indemnity Defense Expenses (from 4.51% in injury category 1 to 19.19% in injury category 9),²⁷ and 5) a random add on to Defense Expenses (between 0.9870 and 1.2322)²⁸ to account for Non-Indemnified Defense Expenses, FSU CEFA performed modeling on the potential count of indemnified cases, which might occur under the Patients' Compensation System legislation (HB1233). A Monte Carlo methodology was used with a random 5,000 draws.

Figure 11 depicts the indemnified cases and the total indemnity payments results. The spread of the data cloud stem from the array of the various lognormal distributions calculated in the modeling (the further away from the present position i.e. equation 1b / figure 1a, the more deviation on the form and shape of the lognormal distribution applied). As a result, the average count on indemnified cases was 1,848, well below the expectations according to AONs' evaluation. Similarly, the average indemnity payment was \$633.1 million (median at \$624.5 million).

26 Applying random fractions on the parameters, allowing for 12.5 percent plus or minus deviations on each lognormal parameter, i.e. the further away from the present (equation 1b), the more deviation on the form and shape of the lognormal distribution is applied, this as compared to AON (or equation 1a.)

27 Each injury category derived from averages present, and to AONs' evaluation.

1	2	3	4	5	6	7	8	9
4.51%	3.75%	3.74%	4.46%	5.93%	8.13%	11.08%	14.76%	19.19%

28 Each derived from averages present, and to AONs' evaluation.

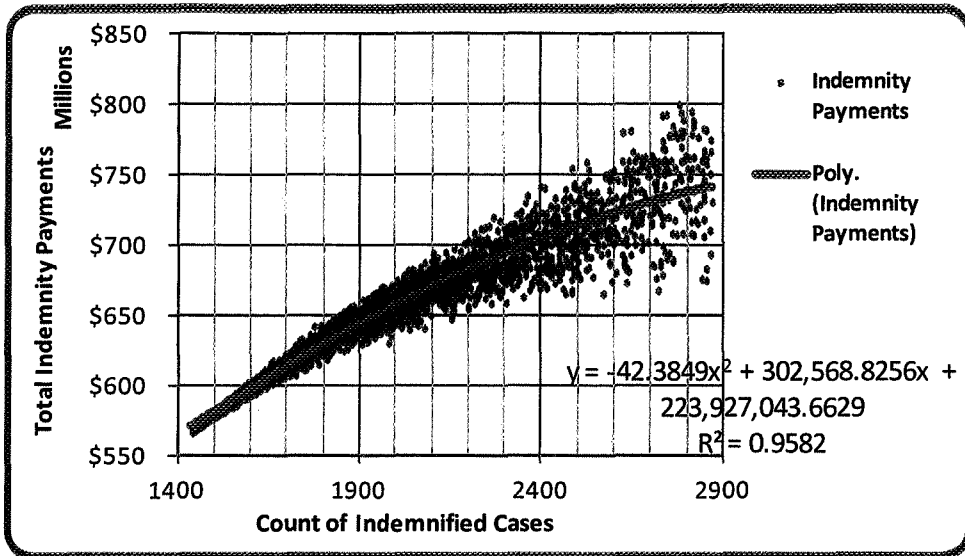


Figure 11: Total Indemnity Payments in Millions, as per Count of Indemnified Cases.

Figure 12 depicts the three cumulative relative distribution(s) according to the total indemnity payments, the total indemnity payment inclusive defense expenses, and the total inclusive the non-indemnified defense expenses. The average defense expense for indemnified and non-indemnified cases was \$ 75.5 million and \$ 83.7 million, respectively, both higher than AONs' evaluation results, which was low in the first place due to the interpretation of AON and its' deduction on savings on defense expenses.

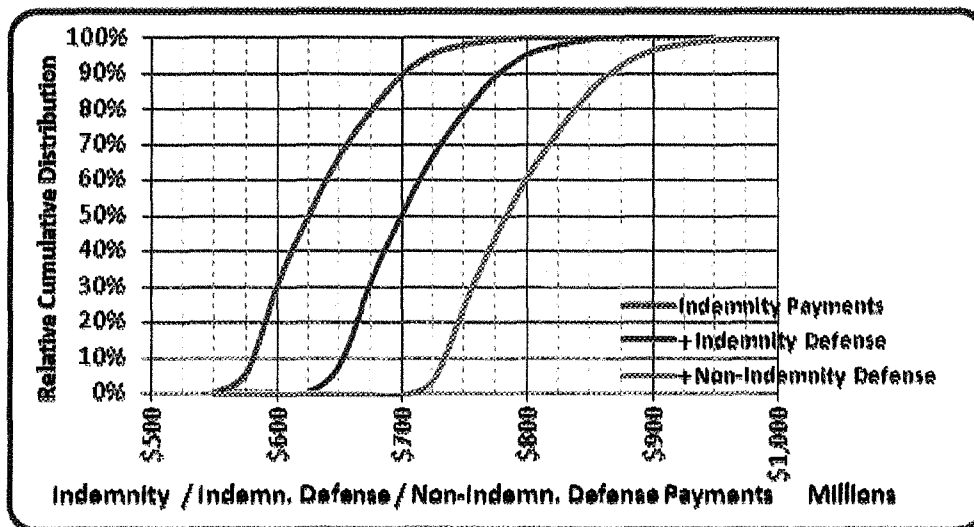


Figure 12: Cumulative Relative Distributions on Total Indemnity Payments, Total Indemnity Inclusive Defense Expenses, and Total Inclusive Non-Indemnified Defense Expenses in Millions.

Figure 13 depicts the same but in histogram format.

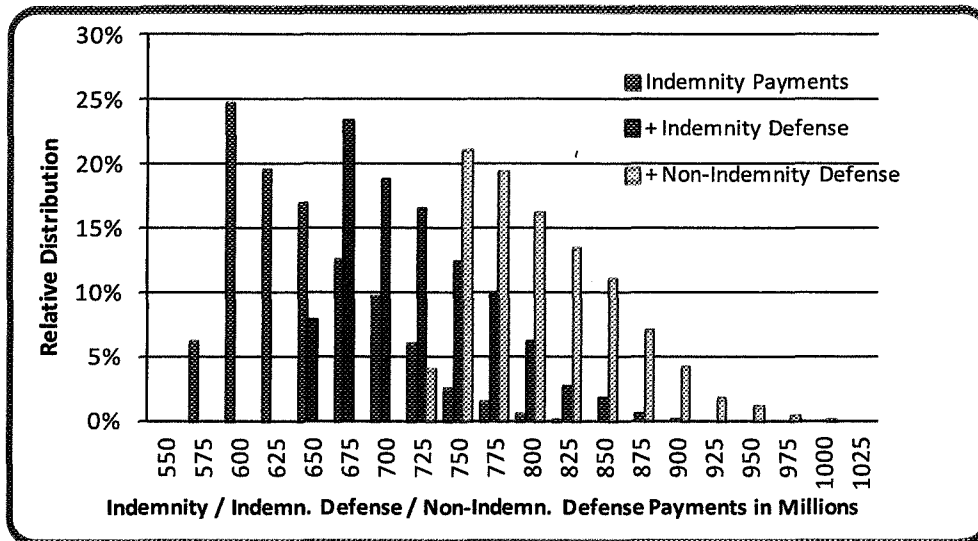


Figure 13: Histogram of Relative Distributions on Total Indemnity Payments, Total Indemnity Inclusive Defense Expenses, and Total Inclusive Non-Indemnified Defense Expenses in Millions.

Table 6 provides an overview of the outcomes concerning the counts, payments (inclusive defense expenses), and totals (with associated modal, average and standard deviation), of the modeling outcomes.

Table 6: Counts and Payments/Expenses on Modeling Outcomes.

	Counts	Indemnity Payments	Indemnified Defense Expenses	Non-Indemnified Defense Expenses	Indemnity + Defense (2) + (3) = (5)	Total (incl. Non-Indem. Defense Exp.) (4) + (5) = (6)
	(1)	(2)	(3)	(4)	(5)	(6)
Median	1,745	\$624,500,000	\$75,200,000	\$83,500,000	\$699,700,000	\$783,200,000
Average	1,848	\$633,100,000	\$75,500,000	\$83,700,000	\$708,600,000	\$792,300,000
St.Dev.	351	\$47,400,000	\$2,400,000	\$6,700,000	\$49,800,000	\$56,500,000

Overall, the average count of 1,848 indemnified cases were quite a bit lower, while defense expenses for both indemnified and non-indemnified cases proved higher, than the AON evaluation outcomes. The average of 1,848 indemnified cases still represents an increase of 28.3 percent relative to the present position of 1,440 (year 2010). The average total budget (including defense expenses), at \$ 792.3 million is 1.0 percent higher than the present budget (year 2010) at \$784.4 million (or 3.4% over \$766,553,276).

Section 4: The Rating Model of AON Risk Solutions

The rating model of AON Risk Solutions was screened marginally, and boils down to two observations, both of which relate to the table provided by AON on page 4 of its report.²⁹

Table 7: AON Risk Solutions Estimated Premium by Major Provider Class.

Major Provider Class Definition	Estimated Contribution	Loss Related Insurance Charge	Total
Chapter 395 – Hospitals	\$6,695,000	\$463,925,886	\$470,620,886
Chapter 400, 429 – Nursing Homes and Assisted Care Facilities	\$15,759,700	\$148,483,965	\$164,243,665
Chapter 458, 459 – Medical Practice and Osteopathic	\$22,979,000	\$223,929,360	\$246,908,360
Chapter 464 – Nursing	\$23,375,800	\$20,978,433	\$44,354,233
Chapter 466 – Dentistry, Dental Hygiene and Dental Laboratories	\$1,166,300	\$13,792,664	\$14,958,964
All Other Providers	\$20,916,700	\$20,348,885	\$41,265,585
Total	\$90,892,500	\$891,459,192	\$982,351,692

The underlying analyses for the column “Loss related Insurance Charge” most probably could be reproduced, but is beyond the scope of work for this review. Question is how the same column relates to the present rate charges, both to methodology and outcome. No benchmark data was found in the annual reports of the Florida Office of Insurance Regulation. If it is supposed to resemble the preset, this could not be verified. If it is a new methodology, it needs further elaboration. For example; the base used to derive insurance charges is inventory or capital structures, as is typically seen in input budgeting. In principle, this puts a burden on capital allocation, while it is not capital or assets that cause medical malpractice or injury. Typically one would tend to look more at output criteria such as number of patients treated or specific treatments delivered, more in line with output budgeting. This commonly produces an issue of how the diverse products within the medical market are to be compared or rated to a common denominator for insurance premium purposes, in which e.g. provider revenue could be used. Preferably however one should look at personnel as a the base for insurance, since malpractice or injury is human performance based, in which case personnel (e.g. categorized to responsibilities) or for instance payroll could be used as a base. In short, issues or questions FSU CEFA is more than willing to research, but are beyond the present scope of work.

The second observation relates to the first column “Estimated Contribution” of the same table provided by AON mentioned. According to AON: “the estimated contribution is designed to pay for the expense of administering the patient compensation cost.”³⁰ In addition: “The methodology used to create the Florida Patient Compensation rating plan is similar to the

²⁹ AON Risk Solutions, Florida Rating Model for the Implementation of HB 1233, May 2012, p. 4.

³⁰ *ibid* 26

rating plans by commercial medical malpractice industry. Over time, the insurance industry has identified a series of rating variables that correlate costs with exposure to medical malpractice claims. While there is considerable variation in rates and rating plans for each individual market participant, the core concept of matching costs with exposure is universal.”³¹ Although the statement is not disputed, it must be observed that “exposure” is not further defined or valued, and certainly can’t be derived from “per license”, “per facility” or “per bed” denominations. If “Loss Related to Insurance Charge” (2nd column) is related to “exposure”, then the “Estimated Contribution” certainly isn’t, since the “Estimated Contribution” would be proportional. For instance on “Chapter 395 Hospitals” the weighted average “Loss Rate” (adding for the purpose “beds”, “visits”, “surgery” and “birth” counts) is \$12,49 per count, while the proposed “Estimated Contribution” or “Maximum (or Initial) Contribution” for Hospitals according to AON should be \$100 per bed. Similarly departing from the total, this represents an added 1.44 percent (\$6,695,000 over \$463,925,886), while with “Chapter 400, 429 - Nursing” the weighted average per bed stands at \$942,41 with an initial contribution according to AON of \$100 per bed, or an added 10.61 percent on the total (\$15,759,700 over \$ 148,483,965). In short, the averages or the relative increases do not fall into comparable raises in costs.

In addition, it is noted that cost de facto is defined by potential “Maximum (or Initial) Contribution” opportunities, rather than the allocation of resources necessary to perform the administration for the patient compensation system (as described by AON in section IV, p. 4). It would seem more logical to refer to the present “medical malpractice” administrative cost with corrections e.g. an added margin (if necessary) as per expected number of cases under the “Medical Malpractice Law” (Chapter 766).

Section 5: Concluding Remarks

According to FSU CEFA Scope of Work, the two main legal interpretation issues are noted on the Patients’ Compensation System legislation (HB1233); namely the coexistence of the grandfathering of “medical malpractice” cases and “medical injury” cases under the “Medical Malpractice Law” (Chapter 766). This broader interpretation is used instead of the sole focus and use of the “medical injury” cases only, as per AON’s Risk Solutions evaluation. Secondly, it is noted that there is a legal potential for ‘rationing’, this for keeping the payments and expenses within the budget (this next to the possibility of adjustments in the compensation schedule or ‘redistribution’ as perceived by AON).

Next, the methodology of AON Risk Solutions was reviewed. Regarding FSU CEFA’s perception, no case was made for the possibility that the Florida’s market experiences were different with respect to the same in other states, therefore industry comparisons, as

³¹ *ibid* 26, p. 13

suggested by AON, may not entirely apply. In addition, no case was made to support the 40 percent indemnity ratio taken from the Swedish study, and no case is made for the added number of cases using a $\frac{2}{3}$ or $66\frac{2}{3}$ percent add-on. In short, the count or number assumptions used by AON proved to be weak. Two validation checks were conducted on the value assumptions. The first, a least sum of squares (LSS) on the present number of claims and indemnities paid, and the same assumed or expected, by AON. The second check, an LSS on the present injury category averages and modal payments, and the same with regard to AONs' evaluation. The results of both tests proved the AON Risk Solutions assumptions on values to be consistent in composition, and to be within a reasonable margin of error. The assumption to use a lognormal distribution is considered to be within reason, but for the use of fixed parameters.

In using other states experiences in medical malpractice payment cases, as expressed in terms of a medical malpractice payment incidence ratio per 10,000 population, with in addition modeling of the various elements of the analyses (using Monte Carlo methodology), FSU CEFA provided an alternative for the AON evaluation. In comparing the results or outcomes, the AONs' evaluation outcomes are possible, but the count of indemnified cases, falls beyond the 97.5 percent one sided confidence interval, while the total budget sits at about 94.8 percent of its' distribution. This was perceived by FSU CEFA to be the result of the lower count of indemnified cases, and the higher overall defense expenses (given the mentioned grandfathering of the "medical malpractice" cases under the "Medical Malpractice Law" (Chapter 766)). Additional research would provide a greater opportunity to examine the validity of the distribution used by FSU CEFA, but the high ranking of Florida in the National Practitioner Data Bank data, (low 7th in 1991 and 1993, and 3rd in 10 out of the 22 reported years), probably would corroborate the use of the upper tail of any distribution. Finally, on the Rating Modal, no purpose could be discerned by FSU CEFA on the AON proposed model. It would seem more logical to refer to the present "medical malpractice" administrative cost and use an added margin.

AON Review Summary Results

The legal analyses, of the proposed Patients' Compensation System legislation (HB1233), delivered two main points of differences with AON Risk Solutions' interpretation, namely:

- The grandfathering of "medical malpractice" cases with "medical injury" cases of the "Medical Malpractice Law" (Chapter 766), with consequences for the assumed immediate drop in defense expenditures by AON Risk Solutions.
- The potential of 'rationing' with the proposed law (HB 1233) for keeping the payments and expenses within the budget.

Regarding the assumptions and associated methodology, FSU CEFA found that:

- On the first tier of assumptions concerning the count or quantity of indemnified claims, AON Risk Solutions used an unsubstantiated factor of 3.36 on all claims and a factor of 2.35 on indemnified claims, relative to the present count of claims.
- On the second tier of assumptions concerning costs or values, two checks were performed, with the result that the value assumptions used by AON Risk Solutions are within a reasonable margin of error.
- The assumption on the use of a lognormal distribution seems logical, but should be approached with caution, especially concerning the fixed values of the parameters used.

FSU CEFA provided an alternative to the evaluation, of direct medical malpractice costs on the implementation of HB 1233. On the results FSU CEFA found that: Based on the results, FSU CEFA found:

- * The count or quantity of claims assumed by AON Risk Solutions is too high (beyond the 97.5 percent one-sided confidence interval), with no satisfactory argumentation or base for the assumption, whereas
- * FSU CEFA's count of claims cases is based on a risk-distribution on paid malpractice claims ratios per 10,000 population, by state over all reporting states (data from the National Practitioner Data Bank), and in particular to states with higher medical malpractice claim paid ratios than Florida (i.e., the upper tail of the distribution).
- * According to FSU CEFA, the average total number of indemnified cases in Florida, based on a static analysis (year 2010), will be an average of 1,848 cases.
- * The 1,848 cases represent an increase of 28.3 percent relative to the present count of 1,440 cases (year 2010).
- * The distribution used to assign added claims by AON Risk Solutions was a lognormal distribution, one with a fixed set of parameters, whereas;
- * FSU CEFA applied a spread on each parameter of a lognormal distribution (plus or minus 12.5 percent), thereby addressing each parameter, yet changing position and shape of the distribution.
- * According to FSU CEFA, total average indemnity payments will be \$ 633.1 million, with average total defense payments of \$ 159.2 million.
- * Defense expenses assumed by AON Risk Solutions are too low, given the aforementioned interpretation of immediate and full implementation of the Patients' Compensation System legislation (HB1233), disregarding the grandfathering current/pending "medical injury" cases.
- * FSU CEFA used a gliding scale for defense expenses over the injury categories, to account for the grandfathering.
- * According to FSU CEFA, the average total budget (including defense expenses) will be \$ 792.3 million (2010 dollars).
- * The average budget, at \$ 792.3 million, is 1.0 percent higher than the 2010 budget at \$784.4 million (or 3.4% higher than \$766,553,276).

- * AON Risk Solutions in effect submitted a point estimate, while;
- * FSU CEFA provides a distribution on outcomes or results, with an overall average payment or cost level that may well fit the proposed Patients' Compensation System legislation (HB1233) on budget rulings.

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The Economics of Defensive Medicine and No-Fault Patients' Compensation Systems for Florida Medicaid Expenses

Report to Patients For Fair Compensation

August 8th, 2012

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Executive Summary I (Florida)

- The goal of this study is to estimate the Florida-wide¹ and Florida State-specific² savings potential of no-fault Patients' Compensation Systems (PCSs) with a special focus on defensive medicine.
- Two scenarios are projected; the first one is assuming Federal Health Care Reform³ (FHCR) is not enacted, and the second one is assuming Federal Health Care Reform is enacted (effects starting 2014 and assumed to be implemented by 2017).
- Bioscience Valuation BSV GmbH is a specialized company engaged in healthcare economic and financial modeling.

Defensive Medicine

- Based on a survey by the Gallup organization (base case), annual cost of defensive medicine to overall health care in Florida is estimated at \$30 billion. Costs are likely in a range of \$17 billion to \$41 billion⁴.
- Annual cost of defensive medicine is almost \$5.2 billion for overall Florida Medicaid, and about \$2.3 billion for Florida State's share of Medicaid (2012).
- If an effective no-fault PCS would be enacted, and assuming a slow change in physicians' defensive medicine behavior, first year savings for overall Florida Medicaid could be \$780 million (2012); that number may grow to reach annual savings of \$2.9 billion (\$3.9 billion if FHCR is enacted) when physicians have reduced their defensive medicine practices significantly (2017).
- Yearly savings for Florida State Share of Medicaid are expected to be in the order of \$340 million in the first year. Savings may reach up to \$1.3 billion (\$1.4 billion if FHCR is enacted) annually by 2017 and \$11 billion (\$12 billion if FHCR is enacted) over a ten-year horizon.

¹ The terms Florida wide and overall Florida Medicaid refer to both State and Federal costs of Medicaid.

² The terms Florida State-specific and Florida State's share refer to Florida State's costs of Medicaid.

³ The Patient Protection and Affordable Care Act was signed into law on March 23, 2010.

⁴ A recent survey contracted by Patients for Fair Compensation ('The Practice of Defensive Medicine: A Survey of Florida Physicians', December 2011) suggests that 33% of Florida's healthcare expenses may be attributed to defensive medicine, and that defensive medicine may cost Florida \$40 billion per year. The estimate is within the range reported here.

Executive Summary II (Florida)

- Three major uncertainties are the future effects of Federal Health Care Reform, the percentages of healthcare costs attributable to defensive medicine, and the degree to which physicians change their defensive practices if a PCS were implemented .
- The percentage of healthcare costs that can be attributed to defensive medicine have been varied between 15% and 35% (base case: 26% based on the Gallup survey) ¹. The resulting annual savings potentials are (2017 and beyond):
 - \$1.7 billion to \$3.9 billion (overall Florida Medicaid- assuming FHCR is not enacted),
 - \$2.3 billion to \$5.3 billion (overall Florida Medicaid- assuming FHCR is enacted),
 - \$720 million to \$1.7 billion (Florida State Share of Medicaid- assuming FHCR is not enacted),
 - \$810 million to \$1.9 billion (Florida State Share of Medicaid- assuming FHCR is enacted).
- Once a PCS were enacted, it is assumed that physicians reduce their defensive behavior by 30% to 70%. The resulting annual savings potentials are (2017 and beyond):
 - \$1.7 billion to \$4 billion (overall Florida Medicaid- assuming FHCR is not enacted),
 - \$2.4 billion to \$5.5 billion (overall Florida Medicaid- assuming FHCR is enacted),
 - \$750 million to \$1.8 billion (Florida State Share of Medicaid- assuming FHCR is not enacted),
 - \$850 million to \$2 billion (Florida State Share of Medicaid- assuming FHCR is enacted).
- Long-term, overall Florida Medicaid could achieve savings of \$36 billion over a ten-year period (\$45 billion assuming FHCR is enacted). Of this, Florida State could achieve savings of \$15.5 billion (\$16.8 billion assuming FHCR is enacted) over a ten year period (2012-2021).

¹ A recent survey contracted by Patients for Fair Compensation ('The Practice of Defensive Medicine: A Survey of Florida Physicians', December 2011) suggests that 33% of Florida's healthcare expenses may be attributed to defensive medicine. If this estimate is more accurate to the actual Florida percentage of healthcare costs that can be attributed to defensive medicine (instead of the 26% national), the 35% assumption here is closer to the actual savings.

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Important Note for Users of this Report

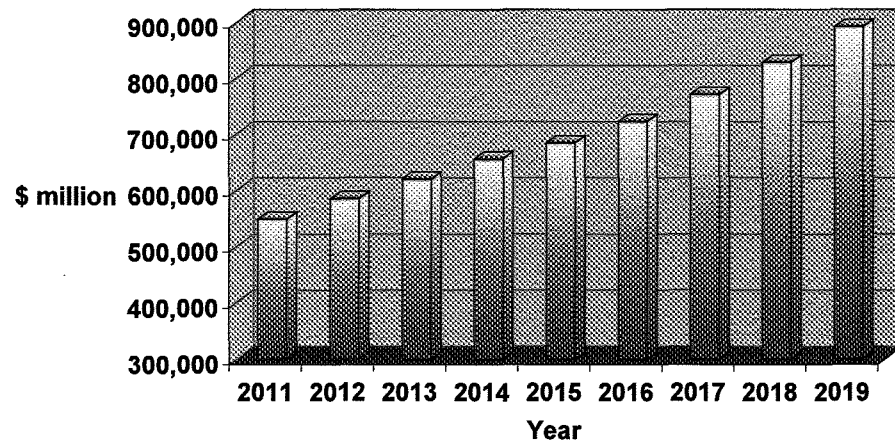
- This report is based on projections of future medical malpractice claims, the practice of defensive medicine, and the potential effects of implementing no-fault Patient's Compensation Systems. All statements regarding future developments in the healthcare environment as well as expectations, beliefs, goals, plans or prospects that are the basis for these projections should be considered forward-looking. Readers are cautioned that actual results may differ materially from Bioscience Valuation's estimates or projections due to a variety of important factors, including, without limitation, the risks and uncertainties associated with:
 - future changes in malpractice claims,
 - future changes in the practice of defensive medicine,
 - future effects of the Federal Health Care Reform (if enacted),
 - physicians' response to a Patients' Compensation System if implemented,
 - patients' willingness to file legitimate claims if a Patients' Compensation System were enacted.
- Bioscience Valuation does not warrant the results in its report to Patients For Fair Compensation, and is not responsible for Patients For Fair Compensation's reliance upon its report, nor for the actions of any third party with whom Patients For Fair Compensation elects to share Bioscience Valuation's report. Bioscience Valuation's services have been engaged only by Patients For Fair Compensation, and its sole responsibility is to provide the services it agreed to provide to Patients For Fair Compensation. Bioscience Valuation makes no representations and no warranties, and accepts no responsibility or liability to any party for any decision to use or rely upon the report by Bioscience Valuation.

Cost of Defensive Medicine (Florida)

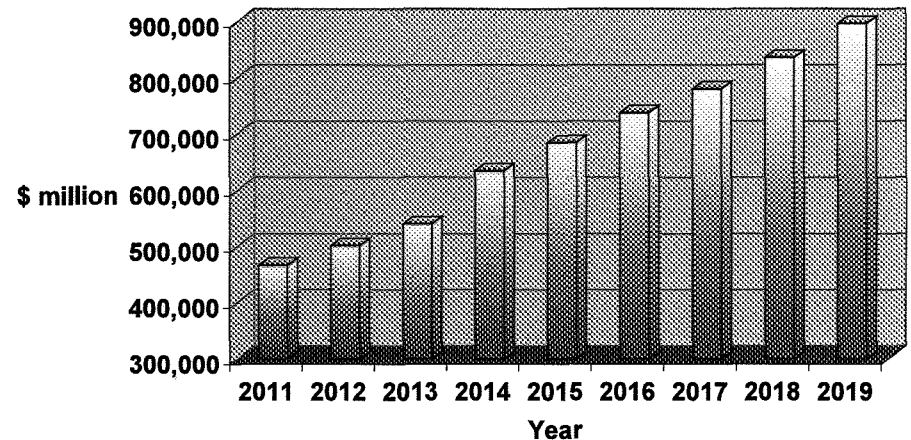
The Issue: Escalating Healthcare Costs & Defensive Medicine (USA)

- Healthcare costs in the USA are escalating. According to CMS, projected healthcare expenditures for Medicare and Medicaid for the year 2019 are \$891 billion and \$896 billion, respectively¹.
- The corresponding expected CAGRs² of healthcare expenditures are 6.2% for Medicare and 8.5% for Medicaid, well above the annual 2.4% CPI average over the past ten years³.
- One important factor driving healthcare expenditures is the practice of defensive medicine. Therefore, initiatives that would decrease defensive medicine would also decrease healthcare costs.
- The goal of this study is to quantify potential savings if a Patients Compensation System would be implemented in the USA that could diminish defensive medicine.

Projected Medicare Expenses



Projected Medicaid Expenses



¹ <http://www.cms.gov/NationalHealthExpendData/downloads/NHEProjections2009to2019.pdf>

² CAGR = Compound Annual Growth Rate

³ <ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.txt>

Defensive Medicine: Cost Estimates (USA)

Estimates of defensive medicine costs vary significantly:

- M.M. Mello et al. estimate defensive medicine costs at **\$45.59 billion** per year (2008 dollars). The authors recognize, however, that this estimate is highly uncertain¹.
- D.P. Kessler and M.B. McClellan conclude that tort reform could reduce medical costs by 5% - 9%; using the 2009 number of the National Health Expenditures (\$2,486.3 billion), savings could be between **\$124 billion** and **\$224 billion**².
- The Department of Health and Human Services calculated that between **\$60 billion** and **\$108 billion** could be saved if defensive medicine could be eliminated³.
- PriceWaterhouseCoopers (PWC) estimates the costs of liability and defensive medicine to be 10% of the costs of medical services; this would result in a **\$249 billion** figure if the National Healthcare Expenditures 2009 are taken as a proxy⁴.
- In another 2008 study PWC quantifies to costs of defensive medicine to **\$210 billion**⁵.
- The National Center for Policy Analysis estimates 2005 costs of defensive medicine to be in the range of **\$100 billion** to **\$178 billion**⁶.
- Studdert et al. conclude, based on an extensive survey, that 93% of physicians practice defensive medicine⁷.
- In line with Studdert et al., Jackson Healthcare finds that 92% of the those physicians who completed a survey (3,070 respondents) practice defensive medicine⁸. On average, physicians attribute 35% of overall healthcare costs to defensive medicine⁸. Based on the 2009 figure of National Health Expenditures, cost of defensive medicine would be **>\$700 billion**.
- In an earlier study, the Gallup organization found that physicians attribute 26% of overall healthcare costs to defensive medicine⁹. Using the 2009 National Health Expenditures figure, **\$543 billion** spending is due to defensive medicine.

¹ M.M. Mello, A. Chandra, A.A. Gawande, D.M. Studdert (2010): National Costs of the Medical Liability System, Health Affairs 9: 1569-1577.

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⁸ Jackson Healthcare (May 2011): Physicians' on Healthcare Reform Quantifying Defensive Medicine: An Online Quantitative Research Study; only the Personal Health Care figure has been used to exclude administrative expenses (however, the estimate still includes costs such as dental & residential).

⁹ Gallup/Jackson Healthcare press release Feb. 19, 2010: New Gallup poll quantifies US physician opinions on the scope of defensive medicine; Jackson Healthcare retained Gallup for the study; only the Personal Health Care figure has been used for the estimate.

Expected Cost of Defensive Medicine to Florida Medicaid (Assuming Federal Health Care Reform Is Not Enacted): Three Measures

Approach

- The Jackson Healthcare figure (35% of healthcare spending can be attributed to defensive medicine) is used as a 'high' estimate, the PWC figure (\$210 billion) as a 'low' estimate, and the Gallup result (26% of healthcare spending can be attributed to defensive medicine) as midpoint¹. All further calculations are based on the Gallup figure.
- Florida Medicaid expenditures serve as basis for the calculation, less relevant cost categories are subtracted (e.g., dental care).
- All figures are expressed in 2011 dollars; expected growth of medical costs (in real terms)
- The development of Florida's population has been forecasted based on data from the Florida Office of Demographic Research².
- The data are fitted to individual years based on Medicaid expenditures per enrollee and change in population.
- The results are multiplied by the percentage share of Medicaid paid by Georgia State based on the Federal Medical Assistance Percentage (FMAP).
- The resulting numbers are multiplied with the Gallup survey estimate for defensive medicine (26%).

¹ A recent survey contracted by Patients for Fair Compensation ('The Practice of Defensive Medicine: A Survey of Florida Physicians', December 2011) suggests that 33% of Florida's healthcare expenses may be attributed to defensive medicine. If this estimate is more accurate to the actual Florida percentage of healthcare costs that can be attributed to defensive medicine (instead of the 26% national), then the 35% 'high' assumption here is closer to the actual savings.

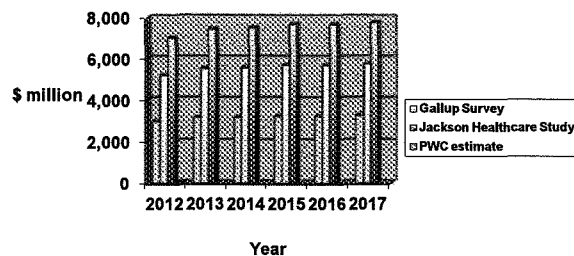
² Florida Demographic Forecast- <http://edr.state.fl.us/Content/conferences/population/index.cfm>

Expected Cost of Defensive Medicine to Florida Medicaid Results (Assuming Federal Health Care Reform Is Not Enacted): Three Measures

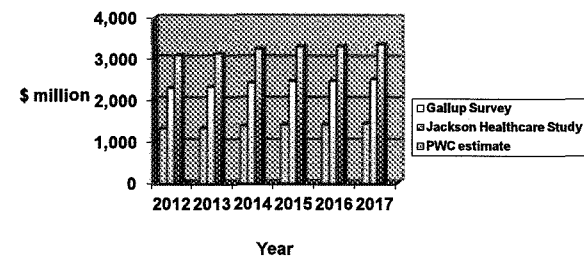
Results

- The Jackson Healthcare study, scaled to Florida, suggests defensive medicine costs to overall Florida Medicaid may be in the order of **\$7 billion** (2012); that number may grow to **\$7.8 billion** (2017) taking the growing population into account. Florida State's share of costs is **\$3.1 billion** (2012) and may reach **\$3.4 billion** by (2017).
- The Gallup survey, scaled to Florida, indicates that defensive medicine may attribute as much as **\$5.2 billion** to overall Florida Medicaid expenditures; in 2017 that number may grow to almost **\$5.8 billion**. Florida State's share of costs is **\$2.3 billion** (2012) and may reach **\$2.5 billion** by 2017.
- Over a ten-year horizon, the accumulated defensive medicine costs to overall Florida Medicaid may be in the order of **\$56.2 billion**. Of this, Florida State may pay **\$24.4 billion**.
- The low estimate yields 2012 defensive medicine costs to overall Florida Medicaid of **\$3 billion**. Florida State's share of this cost is **\$1.3 billion**.

Cost of Defensive Medicine to Overall Florida Medicaid - Three Measures



Cost of Defensive Medicine to Florida State's Share of Medicaid - Three Measures



Expected Cost of Defensive Medicine to Florida Medicaid (Assuming Federal Health Care Reform Is Enacted): Three Measures

Approach

- The Jackson Healthcare figure (35% of healthcare spending can be attributed to defensive medicine)¹ is used as a 'high' estimate, the PWC figure (\$210 billion) as a 'low' estimate, and the Gallup result (26% of healthcare spending can be attributed to defensive medicine) as midpoint. All further calculations are based on the Gallup figure.
- Florida Medicaid expenditures serve as basis for the calculation, less relevant cost categories are subtracted (e.g., dental care).
- All figures are expressed in 2011 dollars; expected growth of medical costs (in real terms) and expenditure changes starting in 2014 due to the enactment of Federal Health Care Reform are considered².
- The development of Florida's population has been forecasted based on data from the Florida Office of Demographic Research.
- The data are fitted to individual years based on Medicaid expenditures per enrollee, increase of Medicaid enrollees due to the FHCR, and change in population.
- Federal Medical Assistance Percentage (FMAP) and Federal percent of coverage due to new eligible Medicaid enrollees are taken into account in order to calculate Florida State's share of Medicaid expenses.
- The resulting numbers are multiplied with the Gallup survey estimate for defensive medicine (26%).

¹ A recent survey contracted by Patients for Fair Compensation ('The Practice of Defensive Medicine: A Survey of Florida Physicians', December 2011) suggests that 33% of Florida's healthcare expenses may be attributed to defensive medicine. If this estimate is more accurate to the actual Florida percentage of healthcare costs that can be attributed to defensive medicine (instead of the 26% national), then the 35% 'high' assumption here is closer to the actual savings.

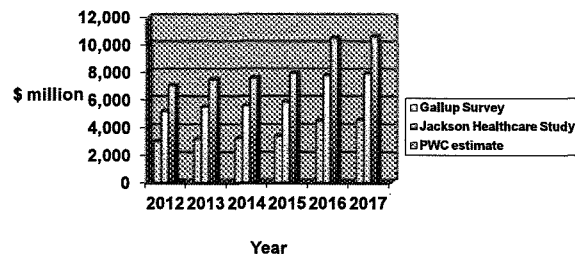
² Based on data from the State of Florida Long-Range Financial Outlook Fall 2011 Report.

Expected Cost of Defensive Medicine to Florida Medicaid Results (Assuming Federal Health Care Reform Is Enacted): Three Measures

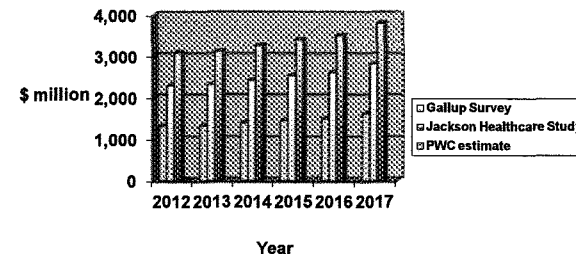
Results

- The Jackson Healthcare study, scaled to Florida, suggests defensive medicine costs to overall Florida Medicaid may be in the order of **\$7 billion** (2012); that number may grow to **\$10.6 billion** (2017) taking into account the growing population and the increase in enrollment due to the Federal Health Care Reform enactment. Florida State's share of costs can be expected to be **\$3.1 billion** in 2012. After the effects of the enactment of the Federal Health Care Reform are reached (2017), Florida State's share of costs is expected to reach **\$3.8 billion**.
- The Gallup survey, scaled to Florida, indicates that defensive medicine may attribute as much as **\$5.2 billion** to overall Florida Medicaid expenditures; in 2017 that number may grow to almost **\$7.9 billion**. Florida State's share of costs is **\$2.3 billion** (2012) and may reach **\$ 2.8 billion** by (2017).
- The accumulated defensive medicine costs to overall Florida Medicaid over a ten-year horizon may be in the order of **\$67 billion**. Of this, Florida State may pay **\$26 billion**.
- The low estimate yields 2011 defensive medicine costs to overall Florida Medicaid of **\$3 billion**. Florida State's share of this cost is **\$1.3 billion**.

Cost of Defensive Medicine to Overall Florida Medicaid (Assuming FHCR Will Be Enacted) - Three Measures



Cost of Defensive Medicine to Florida State's Share of Medicaid (Assuming FHCR Will Be Enacted) - Three Measures



Savings Through Reduced Practice Of Defensive Medicine (Florida)

PCS: Savings through Reduced Practice of Defensive Medicine (Florida Medicaid- Assuming Federal Health Care Reform Is Not Enacted)

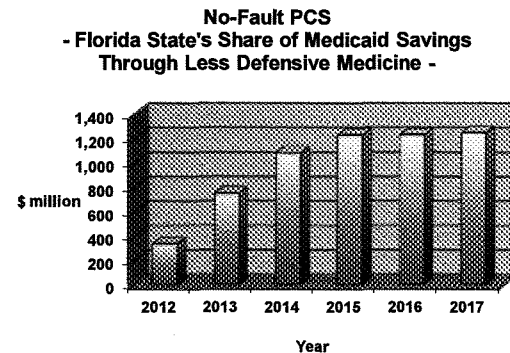
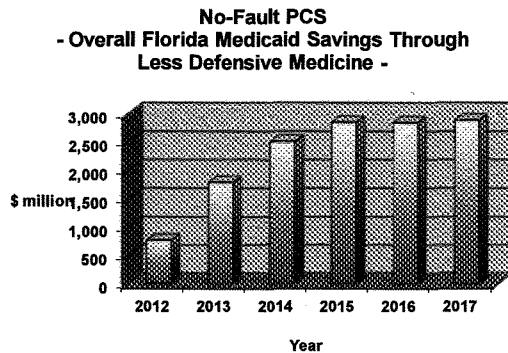
Assuming a Patient Compensation System (PCS) that effectively prevents litigation is implemented in Florida, payors can expect significant savings from reduced practice of defensive medicine.

Approach

- Cost of defensive medicine estimate is based on the Gallup survey.
- The no-fault PCS reduces the practice of defensive medicine by 50% after full adoption (base case assumption).
- Physicians will slowly reduce their defensive medicine behavior; the model assumes that it would take five years until full adoption (S-shaped adoption curve).

Results

- A no-fault PCS may produce overall Florida Medicaid savings of **\$780 million in the first year** of implementation (2012), and over **\$2.9 billion** annually by 2017. Florida State's share of savings of this amount would be **\$340 million** the first year and over **\$1.3 billion** annually by 2017.
- Assuming immediate adoption, savings could be **\$2.6 billion** in 2012; **\$1.1 billion** to Florida State's share. Aggregated savings to overall Florida Medicaid over ten years could reach **\$28.7 billion** and **\$12.4 billion** to Florida State's share (not shown).



PCS: Savings through Reduced Practice of Defensive Medicine (Florida Medicaid-Assuming Federal Health Care Reform Is Enacted)

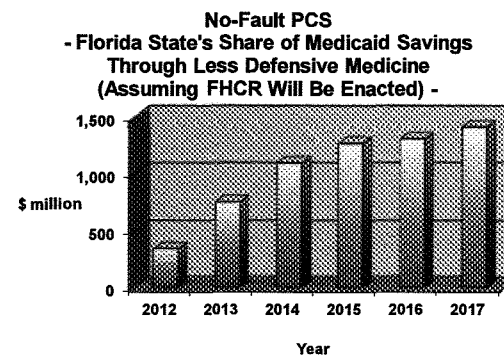
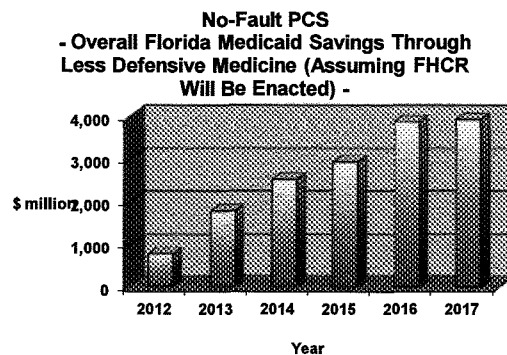
Assuming a Patient Compensation System (PCS) that effectively prevents litigation is implemented in Florida, payors can expect significant savings from reduced practice of defensive medicine.

Approach

- Cost of defensive medicine estimate is based on the Gallup survey.
- The no-fault PCS reduces the practice of defensive medicine by 50% after full adoption (base case assumption).
- Physicians will slowly reduce their defensive medicine behavior; the model assumes that it would take five years until full adoption (S-shaped adoption curve).

Results

- A no-fault PCS may produce overall Florida Medicaid savings of **\$780 million in the first year** of implementation, and of **\$4 billion** by 2017. Florida State's share of savings of this amount would be **\$340 million** the first year and over **\$1.4 billion** annually after five years.
- Assuming immediate adoption, savings could be **\$2.6 billion** in 2012; **\$1.1 billion** to Florida State's share. Aggregated savings to overall Florida Medicaid over ten years could reach **\$35.2 billion** and **\$13.3 billion** to Florida State's share (not shown).



Defensive Medicine Costs & Savings (Florida)

- Sensitivity Analyses -

Sensitivity Analyses of Defensive Medicine Costs and of Savings through Reduced Practice of Defensive Medicine (Florida)

Expected savings depend, to a large extent, on three uncertain variables:

- the percentage of healthcare costs that can be attributed to the practice of defensive medicine,
- the effects caused by the enactment of the Federal Health Care Reform (if at all enacted),
- the reduction of defensive medicine behavior once a Patient's Compensation System has been enacted.

Concerning healthcare costs that can be attributed to defensive medicine, estimates for the USA range from \$100 billion to \$700 billion. Although surveys consistently report that over 90% of physicians practice defensive medicine, and that physicians believe 25% to 35% of healthcare practices are defensive, critics argue that those estimates may be biased and subject to significant respondent error.

Concerning a potential reduction of defensive medicine behavior critics note that

- one motivation of practicing defensive medicine is income generation rather than concerns related to potential litigation;
- another motivation may be truly related to maximizing patient benefit (e.g., by using additional diagnostic procedures); those additional procedures may be classified as being "defensive" although they serve the patient.

Therefore, it appears unlikely that the practice of defensive medicine can be completely eliminated.

Approach

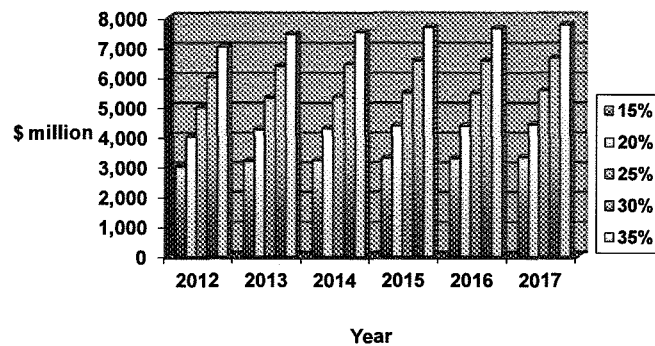
- The two most uncertain variables, the percentage of healthcare costs that can be attributed to the practice of defensive medicine and the decrease of defensive medicine behavior once a Patient's Compensation System has been implemented are systematically varied should those variables have lower or higher values than assumed in the base case.
- Concerning savings it is assumed that physicians reduce their practice of defensive medicine by 50% only, and that it will take 5 years until the full savings potential has been reached.

Percentage of Healthcare Costs Attributable to Defensive Medicine (Florida Medicaid- Assuming Federal Health Care Reform Is Not Enacted)

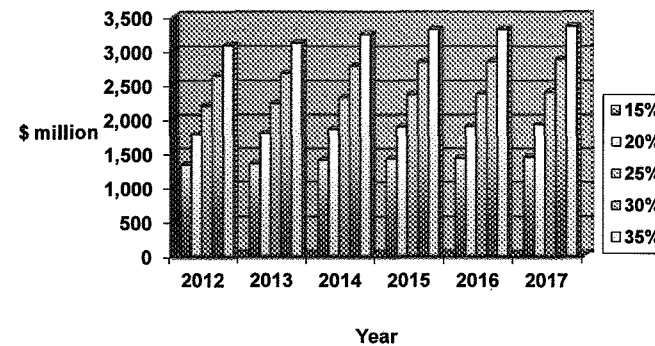
Costs

- According to Gallup 26% of healthcare expenses are due to the practice of defensive medicine. The sensitivity analyses assume that between 15% and 35% of relevant healthcare expenditures can be attributed to defensive medicine.
- Based on the analysis costs attributable to defensive medicine range from
 - **\$3 billion to \$7 billion (2012, overall Florida Medicaid),**
 - **\$1.3 billion to \$3 billion (2012, Florida State's Share of Medicaid).**
- Even using the **most conservative** estimate (only 15% of healthcare expenses are due to defensive medicine) the accumulated costs to overall Florida Medicaid could **exceed \$32.4 billion** over a ten-year horizon; of this, **\$14 billion** would be paid by Florida State.

Cost of Defensive Medicine to Overall Florida Medicaid



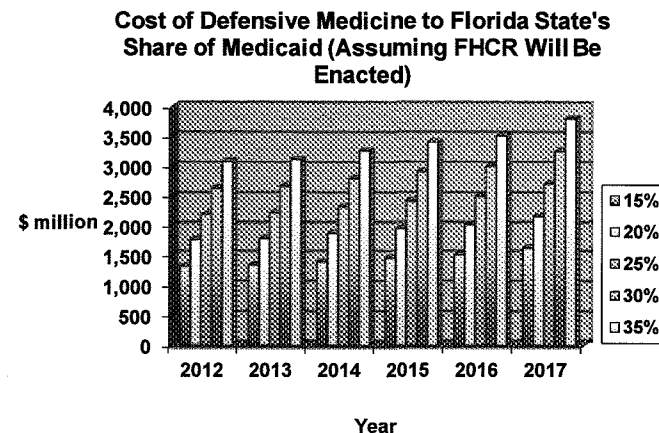
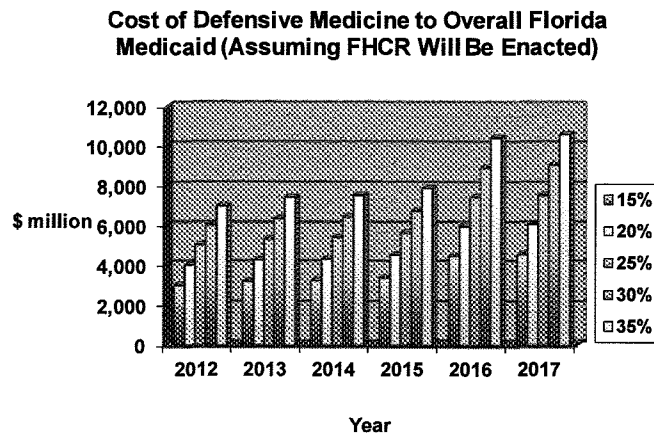
Cost of Defensive Medicine to Florida State's Share of Medicaid



Percentage of Healthcare Costs Attributable to Defensive Medicine (Florida Medicaid- Assuming Federal Health Care Reform Is Enacted)

Costs

- According to Gallup 26% of healthcare expenses are due to the practice of defensive medicine. The sensitivity analyses assume that between 15% and 35% of relevant healthcare expenditures can be attributed to defensive medicine.
- Based on the analysis costs attributable to defensive medicine range from
 - **\$3 billion to \$7 billion (2012, overall Florida Medicaid),**
 - **\$1.3 billion to \$3 billion (2012, Florida State's Share of Medicaid).**
- Even using the **most conservative** estimate (only 15% of healthcare expenses are due to defensive medicine) the accumulated costs to overall Florida Medicaid could **exceed \$38.7 billion** over a ten-year horizon; of this, **\$14.9 billion** would be paid by Florida State.

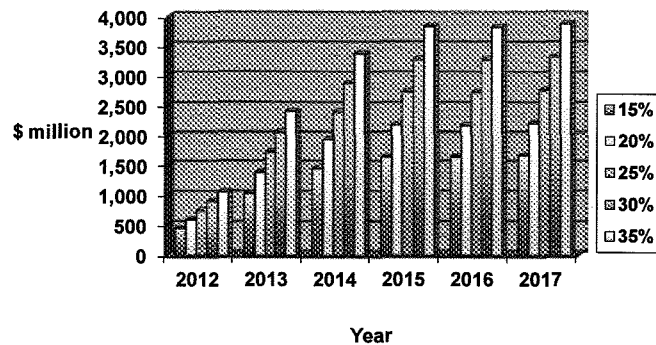


Savings Potential Over a Range of Healthcare Costs Attributable to Defensive Medicine (Florida Medicaid-Assuming Federal Health Care Reform Is Not Enacted)

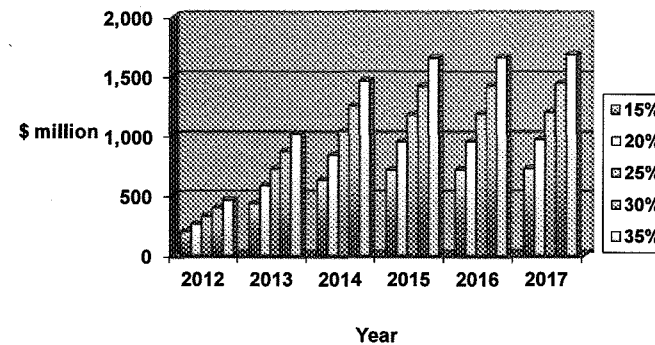
Savings Potential

- Using the same range of percentages for healthcare expenditures attributable to defensive medicine (15% to 35%), potential savings at full adoption of a PCS (assumed for 2017) are
 - **\$1.7 billion to \$3.9 billion (overall Florida Medicaid),**
 - **\$720 million to \$1.7 billion (Florida State's Share of Medicaid).**
- Applying the **most conservative** estimate (15% of healthcare expenses are due to defensive medicine) and assuming conservatively a slow change in the practice of defensive medicine (over 5 years), the accumulated savings for overall Florida Medicaid could still **exceed \$14.8 billion** over a ten-year horizon. Of this amount, Florida State savings could reach **\$6.4 billion**.

Savings Potential - Overall Florida Medicaid



Savings Potential - Florida State's Share of Medicaid

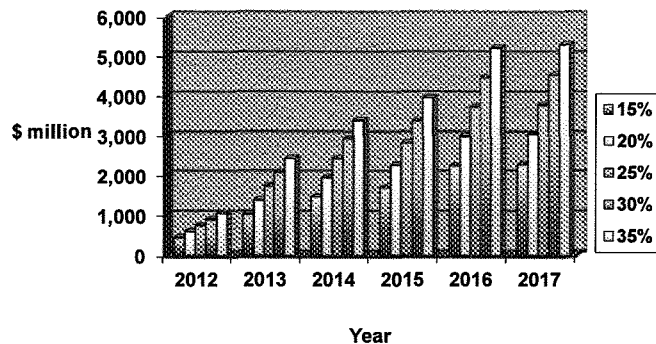


Savings Potential Over a Range of Healthcare Costs Attributable to Defensive Medicine (Florida Medicaid-Assuming Federal Health Care Reform Is Enacted)

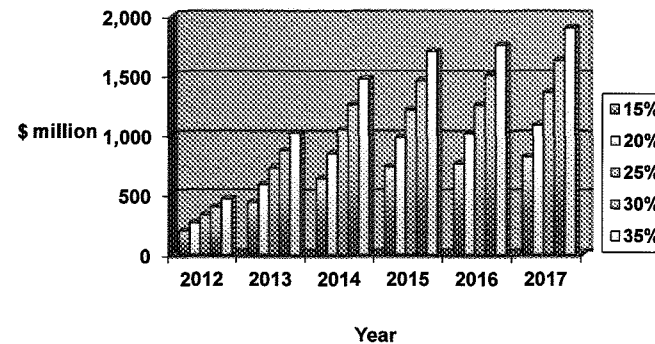
Savings Potential

- Using the same range of percentages for healthcare expenditures attributable to defensive medicine (15% to 35%), potential savings at full adoption of a PCS (assumed for 2017) are
 - **\$2.3 billion to \$5.3 billion (overall Florida Medicaid),**
 - **\$810 million to \$1.9 billion (Florida State's Share of Medicaid).**
- Applying the **most conservative** estimate (15% of healthcare expenses are due to defensive medicine) and assuming conservatively a slow change in the practice of defensive medicine (over 5 years), the accumulated savings for overall Florida Medicaid could still **exceed \$18.5 billion** over a ten-year horizon. Of this amount, Florida State savings could reach **\$7 billion**.

Savings Potential - Overall Florida Medicaid (Assuming FHCRA Will Be Enacted)



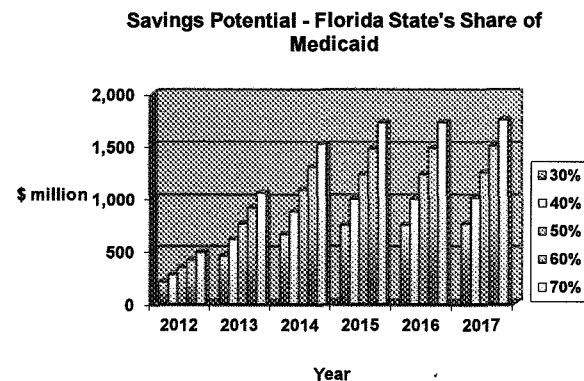
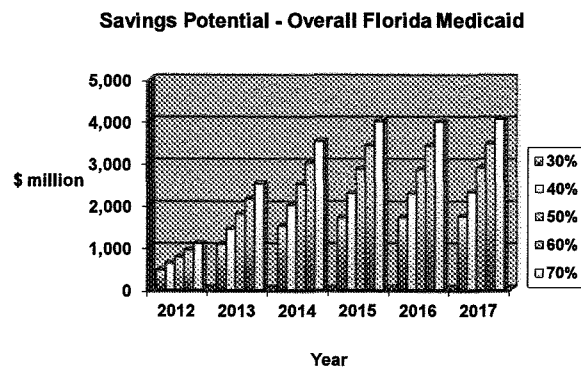
Savings Potential - Florida State's Share of Medicaid (Assuming FHCRA Will Be Enacted)



Reduction of Defensive Medicine Practice if a PCS were Enacted (Florida Medicaid-Assuming Federal Health Care Reform Is Not Enacted)

Savings Potential

- It is not known how much physicians would reduce their practice of defensive medicine if a comprehensive PCS similar to the Swedish system were implemented. There have been some regional efforts to enact no-fault compensation programs¹. For example, Virginia implemented its 'Birth Injury Fund' and Florida its 'Neurological Injury Compensation Association'. Both programs have reduced malpractice insurance premiums, however, detractors note that the programs are very narrow and provide little actual compensation. Families can, and do, file malpractice claims as an additional remedy. Therefore, those attempts can hardly provide guidance by how much physicians would reduce defensive medicine behavior if a differently designed PCS were enacted.
- It is assumed that a system that resembles the Swedish PCS can decrease defensive medicine by 50%. In the sensitivity analysis, values are varied between 30% and 70%.
- Within the range of investigated values (30% to 70%), potential savings in year 2017 (slow change of physician practice) are
 - **\$1.7 billion to \$4 billion (overall Florida Medicaid),**
 - **\$750 million to \$1.8 billion (Florida State's Share of Medicaid).**
- Using the **most conservative** estimate (only 30% reduction of defensive medicine practice) and further assuming that physicians change their behavior slowly (over 5 years), the accumulated overall Florida Medicaid savings could be above **\$15.3 billion** over a ten-year horizon; Florida State could save **\$6.6 billion** of this amount.



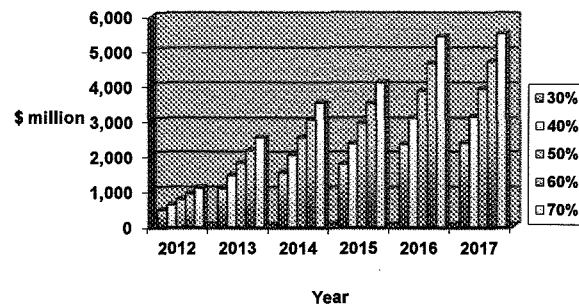
¹ H. Huang, F. Soleimani (2010): What Happened to No-Fault? The Role of Error Reporting in Healthcare Reform, Hous. J. Health Law & Policy 10: 1-34.

Reduction of Defensive Medicine Practice if a PCS were Enacted (Florida Medicaid-Assuming Federal Health Care Reform Is Enacted)

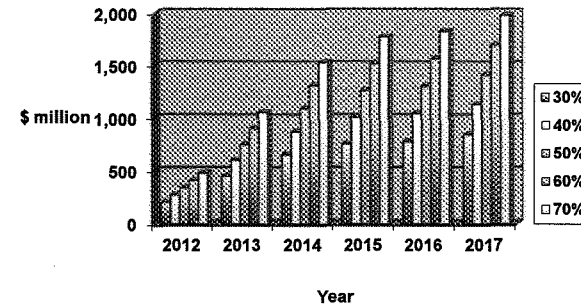
Savings Potential

- It is not known how much physicians would reduce their practice of defensive medicine if a comprehensive PCS similar to the Swedish system were implemented. There have been some regional efforts to enact no-fault compensation programs¹. For example, Virginia implemented its 'Birth Injury Fund' and Florida its 'Neurological Injury Compensation Association'. Both programs have reduced malpractice insurance premiums, however, detractors note that the programs are very narrow and provide little actual compensation. Families can, and do, file malpractice claims as an additional remedy. Therefore, those attempts can hardly provide guidance by how much physicians would reduce defensive medicine behavior if a differently designed PCS were enacted.
- It is assumed that a system that resembles the Swedish PCS can decrease defensive medicine by 50%. In the sensitivity analysis, values are varied between 30% and 70%.
- Within the range of investigated values (30% to 70%), potential savings in year 2017 (slow change of physician practice) are
 - **\$2.4 billion to \$5.5 billion (overall Florida Medicaid),**
 - **\$850 million to \$2 billion (Florida State's Share of Medicaid).**
- Using the **most conservative** estimate (only 30% reduction of defensive medicine practice) and further assuming that physicians change their behavior slowly (over 5 years), the accumulated overall Florida Medicaid savings could be above **\$19.3 billion** over a ten-year horizon. Of this, Florida State's savings could reach **\$7 billion**.

Savings Potential - Overall Florida Medicaid
(Assuming FHCR Will Be Enacted)



Savings Potential - Florida State's Share of Medicaid
(Assuming FHCR Will Be Enacted)



¹ H. Huang, F. Soleimani (2010): What Happened to No-Fault? The Role of Error Reporting in Healthcare Reform, Hous. J. Health Law & Policy 10: 1-34.

Discussion & Conclusions (Florida)

Discussion & Conclusions I (Florida)

Defensive Medicine

- Annual cost of defensive medicine in Florida may range from \$17 billion to \$41 billion. A survey conducted by the Gallup organization suggests that current cost of defensive medicine is in the order of \$30 billion.
- The analysis shows that a no-fault PCS that resembles the Swedish system and that is able to prevent litigation has the potential to produce significant savings due to reduced defensive medicine practices.
- Conservatively assuming a slow, gradual change in defensive physician behavior, overall Florida Medicaid annual savings could already be \$780 million in the first year (2012) and grow to \$2.9 billion (\$3.9 billion if FHCR is enacted) by 2017. Over a ten-year horizon aggregate savings well exceeding \$ 25.6 billion (\$32.1 billion if FHCR is enacted) could be realized.
- Florida State's Share of Medicaid could achieve savings of \$340 million in the first year (2012) and grow to \$1.3 billion (\$1.4 billion if FHCR is enacted) by 2017. Ten-year aggregated savings to Florida State could reach \$11 billion (\$12 billion if FHCR is enacted).
- Three highly uncertain variables are i) the amount of healthcare dollars spent on defensive medicine, ii) by how much defensive medicine practices would decline once a PCS has been enacted, and iii) the future financial effects of the Federal Health Care Reform (if enacted at all).
- Detractors note that high defensive medicine estimates based on physician surveys may be biased, although the reason for the potential bias remains unclear.
- Concerning a potential reduction of defensive medicine behavior some critics argue that one motivation of practicing defensive medicine is income generation rather than concerns related to potential litigation. However, according to the US Bureau of Labor Statistics, more than 70% of US physicians are employed¹. It is unlikely that those physicians can drive their income by extensively practicing defensive medicine. In line with those findings a survey by Jackson Healthcare revealed that 82% of physicians receive no compensation from tests, prescriptions, procedures and admissions they order. According to the survey, only 6.2% of physician income can be attributed medical orders².

¹ <http://www.bls.gov/oco/ocos074.htm#empty>; ² Jackson Healthcare May 24, 2011: Survey debunks myth that physicians make big bucks on medical orders.

Discussion & Conclusions II (Florida)

- Another motivation to practice defensive medicine may be truly related to maximizing patient benefit (e.g., by using additional diagnostic procedures to gain diagnostic certainty); these 'defensive' practices will not be completely eliminated.
- The three major uncertainties have been investigated in a sensitivity analysis:
 - 1) Varying the percentage of healthcare costs attributable to defensive medicine between 15% and 35% (base case: 26% based on the Gallup survey) suggests annual savings potentials after full adoption (year 2017) that range from
 - \$1.7 billion to \$3.9 billion (overall Florida Medicaid),
 - \$2.3 billion to \$5.3 billion (overall Florida Medicaid- Assuming FHCR is enacted),
 - \$720 million to \$1.7 billion (Florida's State Share of Medicaid),
 - \$810 million to \$1.9 billion (Florida's State Share of Medicaid-Assuming FHCR is enacted).
 - 2) Changing the estimate by how much physicians would decrease defensive medicine practices from 30% to 70% (base case: 50%) suggests yearly (2017) savings potentials ranging from
 - \$1.7 billion to \$4 billion (overall Florida Medicaid),
 - \$2.4 billion to \$5.5 billion (overall Florida Medicaid-Assuming FHCR is enacted),
 - \$750 million to \$1.8 billion (Florida State's Share of Medicaid),
 - \$850 million to \$2 billion (Florida State's Share of Medicaid-Assuming FHCR is enacted).

The Economics of Defensive Medicine and No-Fault Patients' Compensation Systems for Florida's State Employees' Group Health Self-Insurance Trust Fund

Report to Patients For Fair Compensation

February 5th, 2013

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Executive Summary I

- The goal of this study is to estimate Florida's State Employees' Group Health Self-Insurance Trust Fund (SGI) savings potential of no-fault Patients' Compensation Systems (PCSs) with a special focus on defensive medicine.
- Bioscience Valuation BSV GmbH is a specialized company engaged in healthcare economic and financial modeling.

Defensive Medicine

- Based on a survey by the Gallup organization (base case), annual cost of defensive medicine to overall health care in Florida is estimated at \$32 billion. Costs are likely in a range of \$18 billion to \$44 billion¹.
- Annual cost (2013) to Florida's SGI due to defensive medicine is expected to be about \$505 million.
- If an effective no-fault PCS would be enacted, and assuming a slow change in physicians' defensive medicine behavior, first year savings for overall Florida's SGI could be \$25 million (2013); that number may grow to reach annual savings of \$340 million when physicians have reduced their defensive medicine practices significantly (2017).
- Florida's SGI savings over a ten-year horizon could be in the \$3 billion range.
- Two major uncertainties are the percentages of healthcare costs attributable to defensive medicine and the degree to which physicians change their defensive practices if a PCS were implemented.

¹ A recent survey contracted by Patients for Fair Compensation ('The Practice of Defensive Medicine: A Survey of Florida Physicians', December 2011) suggests that 33% of Florida's healthcare expenses may be attributed to defensive medicine, and that defensive medicine may cost Florida \$40 billion per year. The estimate is within the range reported here.

Executive Summary II

- The percentage of healthcare costs that can be attributed to defensive medicine have been varied between 15% and 35% (base case: 26% based on the Gallup survey)¹. The resulting annual savings potentials are (2017 and beyond):
 - \$10 billion to \$23 billion (all payors²),
 - \$200 million to \$460 million (Florida's SGI³).
- Once a PCS were enacted, it is assumed that physicians reduce their defensive behavior by 30% to 70%. The resulting annual savings potentials are (2017 and beyond):
 - \$10 billion to \$23 billion (all payors),
 - \$200 million to \$480 million (Florida's SGI).
- Long-term, Florida's SGI could achieve overall savings of \$3 billion over a ten-year period.

¹ A recent survey contracted by Patients for Fair Compensation ('The Practice of Defensive Medicine: A Survey of Florida Physicians', December 2011) suggests that 33% of Florida's healthcare expenses may be attributed to defensive medicine. If this estimate is more accurate to the actual Florida percentage of healthcare costs that can be attributed to defensive medicine (instead of the 26% national), the 35% assumption here is closer to the actual savings.

² All payors refers to Florida's overall healthcare.

³ Florida SGI refers to Florida's State Employees' Group Health Self-Insurance Trust Fund.

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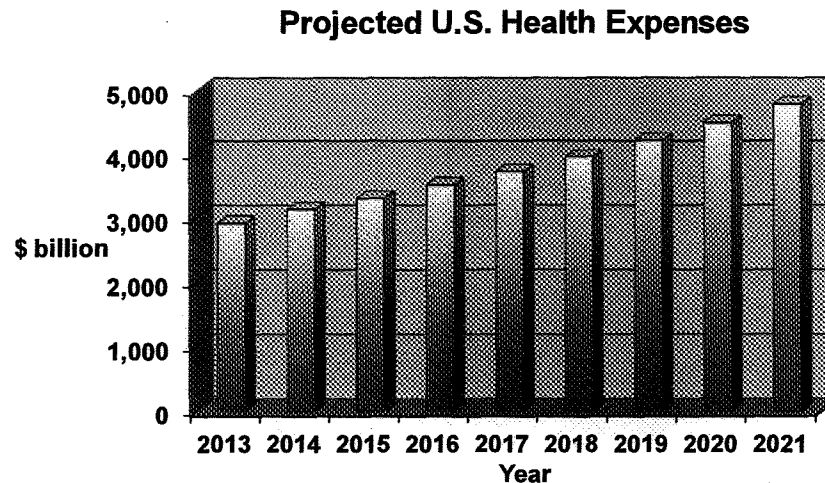
Important Note for Users of this Report

- This report is based on projections of future medical malpractice claims, the practice of defensive medicine, and the potential effects of implementing no-fault Patient's Compensation Systems. All statements regarding future developments in the healthcare environment as well as expectations, beliefs, goals, plans or prospects that are the basis for these projections should be considered forward-looking. Readers are cautioned that actual results may differ materially from Bioscience Valuation's estimates or projections due to a variety of important factors, including, without limitation, the risks and uncertainties associated with:
 - future changes in malpractice claims,
 - future changes in the practice of defensive medicine,
 - physicians' response to a Patients' Compensation System if implemented,
 - patients' willingness to file legitimate claims if a Patients' Compensation System were enacted.
- Bioscience Valuation does not warrant the results in its report to Patients For Fair Compensation, and is not responsible for Patients For Fair Compensation's reliance upon its report, nor for the actions of any third party with whom Patients For Fair Compensation elects to share Bioscience Valuation's report. Bioscience Valuation's services have been engaged only by Patients For Fair Compensation, and its sole responsibility is to provide the services it agreed to provide to Patients For Fair Compensation. Bioscience Valuation makes no representations and no warranties, and accepts no responsibility or liability to any party for any decision to use or rely upon the report by Bioscience Valuation.

Cost of Defensive Medicine

The Issue: Escalating Healthcare Costs & Defensive Medicine (USA)

- Healthcare costs in the USA are escalating. According to CMS, projected nationwide healthcare expenditures for the year 2021 are estimated to reach \$4.8 trillion¹.
- In 2014, national health spending is projected to grow at a rate of 7.4% and expected to continue to grow at an average rate of 6.2% for the years 2015-2020, well above the annual 4.1% average growth rate over the past 5 years².
- One important factor driving healthcare expenditures is the practice of defensive medicine. Therefore, initiatives that would decrease defensive medicine would also decrease healthcare costs.
- The goal of this study is to quantify potential savings if a Patients Compensation System would be implemented in Florida that could diminish defensive medicine.



^{1,2} <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/Proj2011PDF.pdf>

Defensive Medicine: Cost Estimates (USA)

Estimates of defensive medicine costs vary significantly:

- M.M. Mello et al. estimate defensive medicine costs at **\$45.59 billion** per year (2008 dollars). The authors recognize, however, that this estimate is highly uncertain¹.
- D.P. Kessler and M.B. McClellan conclude that tort reform could reduce medical costs by 5% - 9%; using the 2009 number of the National Health Expenditures (\$2,486.3 billion), savings could be between **\$124 billion** and **\$224 billion**².
- The Department of Health and Human Services calculated that between **\$60 billion** and **\$108 billion** could be saved if defensive medicine could be eliminated³.
- PriceWaterhouseCoopers (PWC) estimates the costs of liability and defensive medicine to be 10% of the costs of medical services; this would result in a **\$249 billion** figure if the National Healthcare Expenditures 2009 are taken as a proxy⁴.
- In another 2008 study PWC quantifies to costs of defensive medicine to **\$210 billion**⁵.
- The National Center for Policy Analysis estimates 2005 costs of defensive medicine to be in the range of **\$100 billion** to **\$178 billion**⁶.
- Studdert et al. conclude, based on an extensive survey, that 93% of physicians practice defensive medicine⁷.
- In line with Studdert et al., Jackson Healthcare finds that 92% of the those physicians who completed a survey (3,070 respondents) practice defensive medicine⁸. On average, physicians attribute 35% of overall healthcare costs to defensive medicine⁸. Based on the 2009 figure of National Health Expenditures, cost of defensive medicine would be **>\$700 billion**.
- In an earlier study, the Gallup organization found that physicians attribute 26% of overall healthcare costs to defensive medicine⁹. Using the 2009 National Health Expenditures figure, **\$543 billion** spending is due to defensive medicine.

¹ M.M. Mello, A. Chandra, A.A. Gawande, D.M. Studdert (2010): National Costs of the Medical Liability System, Health Affairs 9: 1569-1577.

² D.P. Kessler, M.B. McClellan (1996): Do Doctors Practice Defensive Medicine? Quarterly Journal of Economics, May 1996.

³ US Department of Health and Human Services (2003): Addressing the New Health Care Crisis; cited at: The Truth about "Defensive Medicine", American Association for Justice, September 2009.

⁴ PWC Report (2008): The Factors Fueling Rising Healthcare Costs 2006, page 7.

⁵ PWC Report (2008): The Price of Excess – Identifying Waste in Healthcare Spending, pages 1 and 6.

⁶ National Center for Policy Analysis (2007), retrieved from www.medscape.com

⁷ D.M. Studdert, M.M. Mello, W.M. Sage, C.M. DesRoches, J. Peugh, K. Zapert, T.A. Brennan (2005): Defensive Medicine Among High-Risk Specialist Physicians in a Volatile Malpractice Environment, JAMA 293: 2609-2617.

⁸ Jackson Healthcare (May 2011): Physicians' on Healthcare Reform Quantifying Defensive Medicine: An Online Quantitative Research Study; only the Personal Health Care figure has been used to exclude administrative expenses (however, the estimate still includes costs such as dental & residential).

⁹ Gallup/Jackson Healthcare press release Feb. 19, 2010: New Gallup poll quantifies US physician opinions on the scope of defensive medicine; Jackson Healthcare retained Gallup for the study; only the Personal Health Care figure has been used for the estimate.

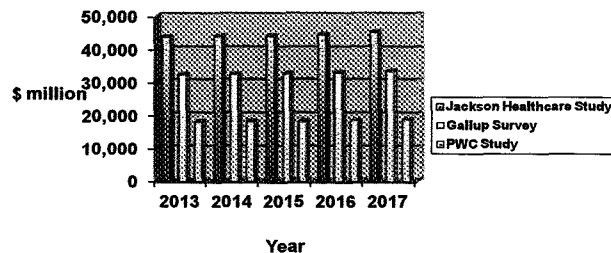
Expected Cost of Defensive Medicine: Three Measures (Florida)

Approach

- The Jackson Healthcare figure (35% of healthcare spending can be attributed to defensive medicine) is used as a 'high' estimate, the PWC figure (\$210 billion) as a 'low' estimate, and the Gallup result (26% of healthcare spending can be attributed to defensive medicine) as midpoint¹. All further calculations are based on the Gallup figure.
- US Personal Healthcare Expenditures serve as basis for the calculation, less relevant cost categories are subtracted (e.g., dental care).
- Expected growth of medical costs (in real terms) is considered (derived from CMS figures).
- In order to estimate the cost of defensive medicine for Florida, all country-wide measures are properly scaled. For the scaling, the development of Florida's population has been forecasted based on data from the US Census Bureau.
- The data are fitted to individual years by second-order polynomial regression.

Results

Cost of Defensive Medicine (Florida) - Three Measures



- The Jackson Healthcare study, scaled to Florida, suggests defensive medicine costs may be in the order of **\$44 billion** (2013); taking the growing population into account. That number may grow to **\$45 billion** in 2017.
- The Gallup survey, scaled to Florida, indicates that defensive medicine may attribute as much as **\$32 billion** to Florida's healthcare expenditures.
- Over a ten-year horizon, the accumulated defensive medicine costs may be in the order of **\$350 billion**.
- The low estimate yields 2013 defensive medicine costs of **\$18 billion**.

¹ A recent survey contracted by Patients for Fair Compensation ('The Practice of Defensive Medicine: A Survey of Florida Physicians', December 2011) suggests that 33% of Florida's healthcare expenses may be attributed to defensive medicine. If this estimate is more accurate to the actual Florida percentage of healthcare costs that can be attributed to defensive medicine (instead of the 26% national), then the 35% 'high' assumption here is closer to the actual savings.

Expected Cost of Defensive Medicine (Florida's SGI)

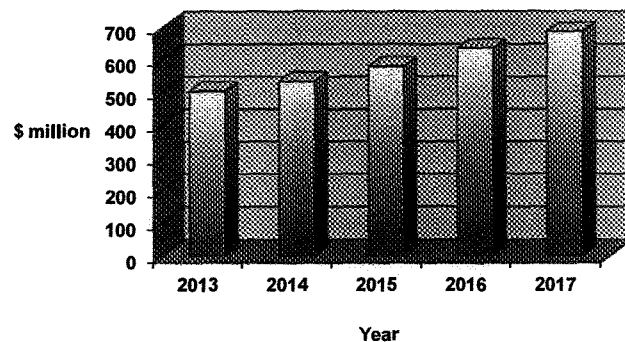
Approach

- Expected SGI costs are calculated based on data taken from the State Employees' Group Health Self-Insurance Trust Fund Report on the Financial Outlook.¹
- Those figures are multiplied with the Gallup's estimate for defensive medicine (26%).
- The results include expected increasing costs of medical interventions.

Results

- In 2013, Florida's SGI may incur **\$505 million** in avoidable expenses; a figure likely to reach **\$690 million** by 2017.
- Accumulated ten-year (2013-2022) defensive medicine costs to Florida's SGI may be above **\$7 billion**.

Cost of Defensive Medicine to Florida's SGI



¹ <http://edr.state.fl.us/Content/conferences/healthinsurance/HealthInsuranceOutlook.pdf>.

Savings Through Reduced Practice Of Defensive Medicine

PCS: Savings through Reduced Practice of Defensive Medicine (Florida)

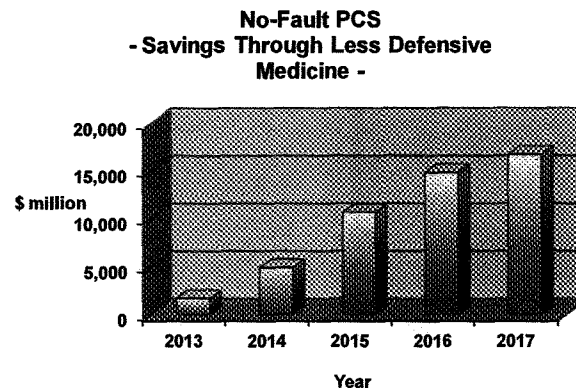
Assuming a Patient Compensation System (PCS) that effectively prevents litigation is implemented in Florida, payors can expect significant savings from reduced practice of defensive medicine.

Approach

- Cost of defensive medicine estimate is based on the Gallup survey.
- The no-fault PCS reduces the practice of defensive medicine by 50% after full adoption (base case assumption).
- Physicians will slowly reduce their defensive medicine behavior; the model assumes that it would take five years until full adoption (S-shaped adoption curve).

Results

- A no-fault PCS may produce Florida-wide healthcare savings of **\$1.6 billion in the first year** of implementation (2013), and of over **\$17 billion** annually after five years.
- Assuming immediate adoption, savings could be over **\$16 billion** in 2013 and of **\$175 billion** aggregated over ten years (not shown).



PCS: Savings through Reduced Practice of Defensive Medicine (Florida's SGI)

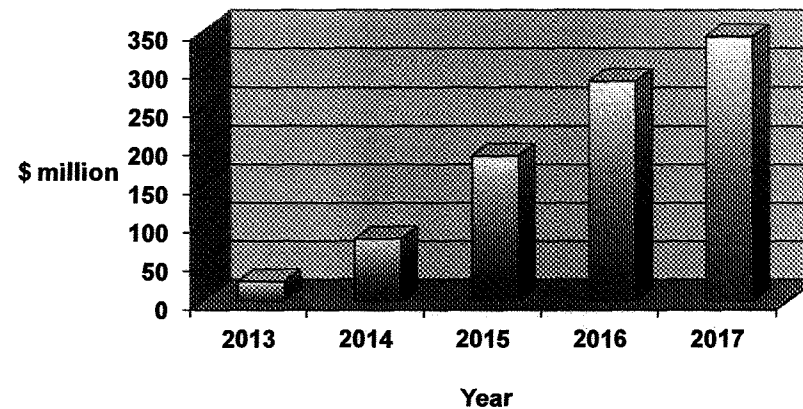
Approach

- Same assumptions as for the calculation of the 'Savings Through Reduced Practice of Defensive Medicine'.

Results

- First year SGI savings in Florida are projected to be in the order of **\$25 million** (2013); savings may grow to **over \$340 million** in year 2017.
- SGI savings for the period 2013-2022 could be **\$3.1 billion** assuming a slow change in the practice of defensive medicine, or **\$3.7 billion** if physicians would change their defensive medicine behavior without delay (not shown).

**No-Fault PCS
- Florida's SGI Savings -**



Defensive Medicine Costs & Savings - Sensitivity Analyses -

Sensitivity Analyses of Defensive Medicine Costs and of Savings through Reduced Practice of Defensive Medicine in Florida

Expected savings depend, to a large extent, on two uncertain variables:

- the percentage of healthcare costs that can be attributed to the practice of defensive medicine,
- the reduction of defensive medicine behavior once a Patient's Compensation System has been enacted.

Concerning healthcare costs that can be attributed to defensive medicine, estimates for the USA range from \$100 billion to \$700 billion. Although surveys consistently report that over 90% of physicians practice defensive medicine, and that physicians believe 25% to 35% of healthcare practices are defensive, critics argue that those estimates may be biased and subject to significant respondent error.

Concerning a potential reduction of defensive medicine behavior critics note that

- one motivation of practicing defensive medicine is income generation rather than concerns related to potential litigation;
- another motivation may be truly related to maximizing patient benefit (e.g., by using additional diagnostic procedures); those additional procedures may be classified as being "defensive" although they serve the patient.

Therefore, it appears unlikely that the practice of defensive medicine can be completely eliminated.

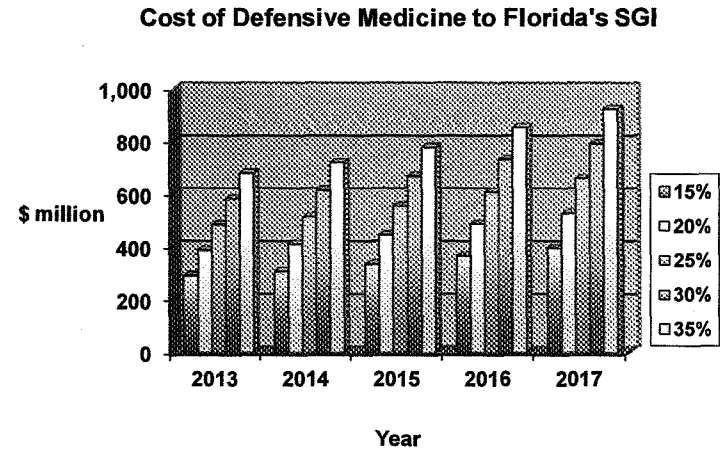
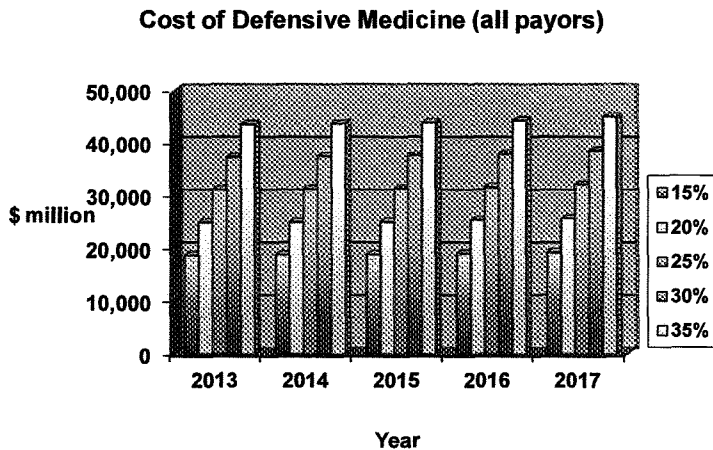
Approach

- The two most uncertain variables, the percentage of healthcare costs that can be attributed to the practice of defensive medicine and the decrease of defensive medicine behavior once a Patient's Compensation System has been implemented are systematically varied should those variables have lower or higher values than assumed in the base case.
- Concerning savings it is assumed that physicians reduce their practice of defensive medicine by 50% only, and that it will take 5 years until the full savings potential has been reached.

Percentage of Healthcare Costs Attributable to Defensive Medicine (Florida & Florida's SGI)

Costs

- According to the Gallup survey, 26% of healthcare expenses are due to the practice of defensive medicine. The sensitivity analyses assume that between 15% and 35% of relevant healthcare expenditures can be attributed to defensive medicine.
- Based on the analysis, costs attributable to defensive medicine range from
 - \$19 billion to \$44 billion (2013, all payors),
 - \$290 million to \$680 million (2013, Florida's SGI).
- Even using the **most conservative** estimate (only 15% of healthcare expenses are due to defensive medicine) the accumulated ten-year horizon costs to Florida's SGI could exceed **\$4 billion** (2013-2022).

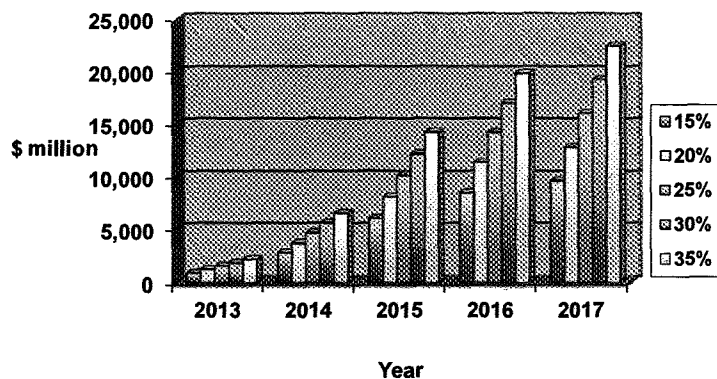


Savings Potential Over a Range of Healthcare Costs Attributable to Defensive Medicine (Florida & Florida's SGI)

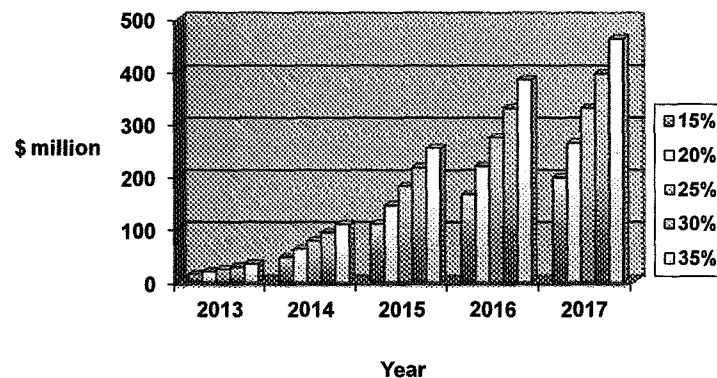
Savings Potential

- Using the same range of percentages for healthcare expenditures attributable to defensive medicine (15% to 35%), potential savings at full adoption of a PCS (assumed for 2017) are
 - \$10 billion to \$23 billion (all payors),
 - \$200 million to \$460 million (Florida's SGI).
- Applying the **most conservative** estimate (15% of healthcare expenses are due to defensive medicine) and assuming conservatively a slow change in the practice of defensive medicine (over 5 years), the accumulated savings for Florida's SGI could reach **\$1.8 billion** over a ten-year horizon.

Savings Potential - All Payors



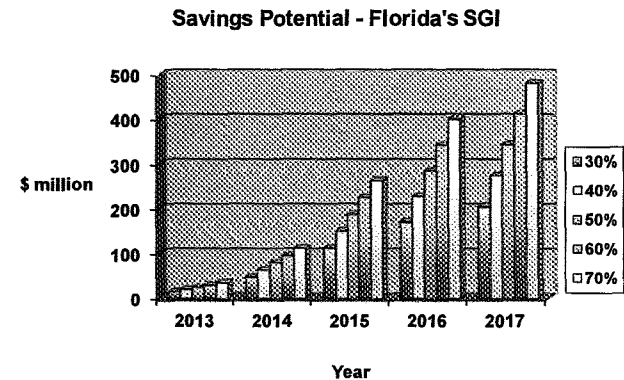
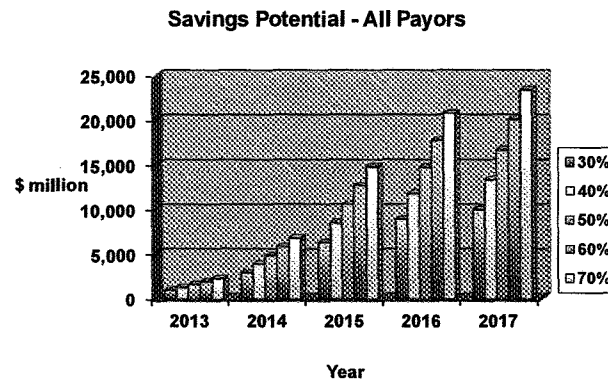
Savings Potential - Florida's SGI



Reduction of Defensive Medicine Practice if a PCS were Enacted (Florida & Florida's SGI)

Savings Potential

- It is not known how much physicians would reduce their practice of defensive medicine if a comprehensive PCS similar to the Swedish system were implemented. There have been some regional efforts to enact no-fault compensation programs¹. For example, Virginia implemented its 'Birth Injury Fund' and Georgia its 'Neurological Injury Compensation Association'. Both programs have reduced malpractice insurance premiums, however, detractors note that the programs are very narrow and provide little actual compensation. Families can, and do, file malpractice claims as an additional remedy. Therefore, those attempts can hardly provide guidance by how much physicians would reduce defensive medicine behavior if a differently designed PCS were enacted.
- It is assumed that a system that resembles the Swedish PCS can decrease defensive medicine by 50%. In the sensitivity analysis, values are varied between 30% and 70%.
- Within the range of investigated values (30% to 70%), potential savings in year 2017 (slow change of physician practice) a
 - **\$10 billion to \$23 billion (all payors),**
 - **\$200 million to \$480 million (Florida's SGI).**
- Using the **most conservative** estimate (only 30% reduction of defensive medicine practice) and further assuming that physicians change their behavior slowly (over 5 years), the accumulated savings for Florida's SGI could be above **\$1.9 billion** over a ten-year horizon.



¹ H. Huang, F. Soleimani (2010): What Happened to No-Fault? The Role of Error Reporting in Healthcare Reform, *Hous. J. Health Law & Policy* 10: 1-34.

Discussion & Conclusions

Discussion & Conclusions I

Defensive Medicine

- Annual cost of defensive medicine in Florida may range from \$18 billion to \$44 billion. Surveys conducted by the Gallup organization suggest that Florida's overall current cost of defensive medicine is in the order of \$32 billion.
- The analysis shows that a no-fault PCS that resembles the Swedish system and that is able to prevent litigation has the potential to produce significant savings due to reduced defensive medicine practices.
- Conservatively assuming a slow, gradual change in defensive physician behavior, annual savings to Florida's SGI could already be \$25 million in the first year and grow to \$340 million in the fifth year after enacting a PCS. Over a ten-year horizon Florida's SGI savings may well exceed \$3 billion.
- Two highly uncertain variables are i) the amount of healthcare dollars spent on defensive medicine, and ii) by how much defensive medicine practices would decline once a PCS has been enacted.
- Detractors note that high defensive medicine estimates based on physician surveys may be biased, although the reason for the potential bias remains unclear.
- Concerning a potential reduction of defensive medicine behavior some critics argue that one motivation of practicing defensive medicine is income generation rather than concerns related to potential litigation. However, according to the US Bureau of Labor Statistics, more than 70% of US physicians are employed¹. It is unlikely that those physicians can drive their income by extensively practicing defensive medicine. In line with those findings a survey by Jackson Healthcare revealed that 82% of physicians receive no compensation from tests, prescriptions, procedures and admissions they order. According to the survey, only 6.2% of physician income can be attributed medical orders².
- Another motivation to practice defensive medicine may be truly related to maximizing patient benefit (e.g., by using additional diagnostic procedures to gain diagnostic certainty); these 'defensive' practices will not be completely eliminated.

¹ <http://www.bls.gov/oco/ocos074.htm#emply>; ² Jackson Healthcare May 24, 2011: Survey debunks myth that physicians make big bucks on medical orders.

Discussion & Conclusions II

- The two major uncertainties have been investigated in a sensitivity analysis:
 - 1) Varying the percentage of healthcare costs attributable to defensive medicine between 15% and 35% (base case: 26% based on the Gallup survey) suggests annual savings potentials after full adoption (year 2017) that range from
 - \$10 billion to \$23 billion (all payors),
 - \$200 million to \$460 million (Florida's SGI).
 - 2) Changing the estimate by how much physicians would decrease defensive medicine practices from 30% to 70% (base case: 50%) suggests yearly savings potentials ranging from
 - \$10 billion to \$23 billion (all payors),
 - \$200 million to \$480 million (Florida's SGI).

Private and Confidential

December 21, 2011

Mr. Randall Mink
Vice President, Risk Management
Jackson Healthcare, LLC
2655 Northwinds Parkway
Alpharetta, GA 30009-2280

Dear Mr. Mink:

Pursuant to your request, we have gathered various industry data to show the components of the medical professional liability (MPL) and workers compensation (WC) insurance industry profit margin for countrywide and for the states of Georgia and Florida. All of the data is derived from A.M. Best. The following provides further explanation as to the nature of the components in the attached exhibits.

Premium refers to the amount of money an insurance company charges to provide the coverage described in the policy. Premium can be classified as either written or earned. Written premium [item (1) on the attached exhibits] is the premium for all policies that are issued. Earned premium [item (2)] is the pro rata portion of written premium that represents the earned portion of the insurance contract as of a given point in time.

A loss is "incurred" when an event causes the loss and results in a claim under the terms of a policy. The result is recorded as loss and loss adjustment expenses (LAE). Losses incurred refer to the restoration to the victim of a loss by payment, repair or replacement (i.e., indemnity). The composition of incurred losses [item (3)] is losses paid, plus or minus increase or decrease, respectively, in the loss reserves established at the end of the accounting period, compared with the loss reserve at the beginning of the accounting period.

Loss adjustment expenses are the expenses incurred to investigate and settle losses. Loss adjustment expenses can be further broken down into defense and cost containment (DCC) and adjusting and other (AO) expenses. DCC expenses [item (4)] refer to defense, litigation, and cost containment expenses, whether internal or external (e.g., attorney fees for defense, cost of engaging experts, etc.). Cost containment expenses are expenses that actually serve to reduce the total settlement amount of claims. The following are considered cost containment expenses: case management activities, utilization review, detection and prevention of payment for fraudulent requests for reimbursement, and expenses for internal and external appeals processes. AO expenses [item (9)] are any expenses not included under the DCC umbrella (e.g., fees of adjusters, attorney fees incurred in the determination of coverage, etc.). Loss and LAE are usually stated as a ratio to earned premium because it is assumed that losses accrue as premium is earned.

Total underwriting expenses are the sum of commission, salaries, advertising costs and other underwriting expenses such as overhead. These are represented by items (6), (7), (8), and (10). Total underwriting expenses are usually stated as a ratio to written premium because they are typically incurred when the policy is written. At your request, "administrative" expenses [item (11)] are the total of AO and general expenses, items (9) and (10), respectively. However, please note that no insurance industry definition exists for "administrative" expenses.



Combined ratio after policyholder dividends [item (13)] is the sum of the losses, expenses and policyholder dividend ratios not reflecting investment income or incurred federal income taxes. This ratio measures a company's overall underwriting performance; a combined ratio of less than 100% indicates an underwriting profit.

Investment income [item (14)] is the part of a company's income that stems from the interest and dividends earned on the stocks and bonds it owns or the return on any other invested funds.

The overall operating ratio [item (15)] is the combined ratio adjusted for investment income. Profit margin [item (16)] is 100% minus the operating ratio.

Please call if you should have questions, and to discuss next steps.

Sincerely,

Arthur R. Randolph, II, ECAS, MAAA, ARM
Direct Dial: 404.365.1549

Karen M. Casatelli, CPCU, ARM
Direct Dial: 404.365.1911

KMC:ktg

Attachment

Jackson Healthcare, LLC

Medical Professional Liability
Derivation of Industry Profit Margin

Countrywide

	Calendar Year					Total/ Average
	2006	2007	2008	2009	2010	
(1) Net Premiums Written (in thousands)	\$9,644,363	\$9,167,472	\$8,815,039	\$8,093,118	\$8,068,987	\$43,788,979
(2) Net Premiums Earned (in thousands)	\$9,435,852	\$9,205,109	\$8,970,671	\$8,181,979	\$8,093,208	\$43,886,819
(3) Losses Incurred	43.1%	36.6%	31.9%	33.2%	31.5%	35.5%
(4) Defense & Cost Containment Expenses Incurred	25.7%	22.4%	20.9%	22.3%	20.5%	22.4%
(5) <i>Loss & DCC Expenses Incurred</i>	68.8%	59.0%	52.8%	55.5%	52.0%	57.9%
(6) Commissions & Brokerage Expenses Incurred	5.2%	5.7%	5.3%	6.1%	6.2%	5.7%
(7) Other Acquisitions Expenses Incurred	3.1%	3.4%	3.7%	4.0%	4.1%	3.6%
(8) Taxes, Licenses, and Fees Incurred	2.3%	2.2%	2.2%	2.3%	2.1%	2.2%
(9) Adjusting & Other Expenses Incurred	4.0%	3.6%	3.4%	3.8%	3.5%	3.7%
(10) General Expenses Incurred	6.5%	7.2%	7.6%	8.6%	8.9%	7.7%
(11) <i>"Administrative" Expenses Incurred</i>	10.5%	10.8%	11.0%	12.4%	12.4%	11.4%
(12) Policyholder Dividend Ratio	1.2%	3.2%	2.5%	3.0%	3.7%	2.7%
(13) <i>Combined Ratio after Dividends</i>	91.1%	84.3%	77.5%	83.3%	80.5%	83.5%
(14) Investment Gain on Funds & Other Income	18.9%	16.7%	7.4%	11.9%	16.9%	14.4%
(15) <i>Overall Operating Ratio</i>	72.2%	67.6%	70.1%	71.4%	63.6%	69.1%
(16) Profit Margin	27.8%	32.4%	29.9%	28.6%	36.4%	30.9%

Notes:

2006 from A.M. Best's *Aggregates and Averages*, 2007 Edition.

2007 from A.M. Best's *Aggregates and Averages*, 2008 Edition.

2008 from A.M. Best's *Aggregates and Averages*, 2009 Edition.

2009 from A.M. Best's *Aggregates and Averages*, 2010 Edition.

2010 from A.M. Best's *Aggregates and Averages*, 2011 Edition.

(3) Ratio to earned premium.

(4) Ratio to earned premium. Split between DCC and AO based on A.M. Best's *Aggregates and Averages*, Schedule P, Part 1F, Sections 1 and 2.

(5) = (3) + (4).

(6) Ratio to written premium.

(7) Ratio to written premium.

(8) Ratio to written premium. Does not include federal income tax.

(9) Ratio to earned premium. Split between DCC and AO based on A.M. Best's *Aggregates and Averages*, Schedule P, Part 1F, Sections 1 and 2.

(10) Ratio to written premium.

(11) = (9) + (10).

(12) Ratio to earned premium.

(13) = (5) + (6) + (7) + (8) + (11) + (12).

(14) Ratio to earned premium.

(15) = (13) - (14).

(16) = 1.0 - (15).

Averages are weighted by the premiums corresponding to the ratios in each row.

Jackson Healthcare, LLC

Medical Professional Liability
Derivation of Industry Profit Margin

Georgia

	Calendar Year					Total/ Average
	2006	2007	2008	2009	2010	
(1) Direct Premiums Written (in thousands)	\$360,684	\$320,528	\$319,508	\$298,292	\$315,654	\$1,614,666
(2) Direct Premiums Earned (in thousands)	\$361,925	\$332,464	\$321,963	\$303,617	\$315,055	\$1,635,024
(3) Losses Incurred	18.5%	37.4%	26.8%	19.6%	26.3%	25.7%
(4) Defense & Cost Containment Expenses Incurred	19.9%	16.4%	15.5%	18.5%	15.7%	17.3%
(5) Loss & DCC Expenses Incurred	38.5%	53.8%	42.3%	38.1%	41.9%	42.9%
(6) Commissions & Brokerage Expenses Incurred	4.4%	5.3%	6.5%	6.1%	6.6%	5.7%
(7) Other Acquisitions Expenses Incurred	3.1%	3.4%	3.7%	4.0%	4.1%	3.6%
(8) Taxes, Licenses, and Fees Incurred	2.8%	2.7%	3.3%	2.8%	2.8%	2.9%
(9) Adjusting & Other Expenses Incurred	3.1%	2.7%	2.5%	3.1%	2.6%	2.8%
(10) General Expenses Incurred	6.5%	7.2%	7.6%	8.6%	8.9%	7.7%
(11) "Administrative" Expenses Incurred	9.6%	9.9%	10.1%	11.7%	11.5%	10.5%
(12) Policyholder Dividend Ratio	0.1%	1.4%	2.5%	2.1%	2.4%	1.7%
(13) Combined Ratio after Dividends	58.5%	76.5%	68.4%	64.9%	69.4%	67.4%
(14) Investment Gain on Funds & Other Income	18.9%	16.7%	7.4%	11.9%	16.9%	14.5%
(15) Overall Operating Ratio	39.6%	59.8%	61.0%	53.0%	52.5%	52.9%
(16) Profit Margin	60.4%	40.2%	39.0%	47.0%	47.5%	47.1%

Notes:

2006 from A.M. Best's *Aggregates and Averages*, 2007 Edition.

2007 from A.M. Best's *Aggregates and Averages*, 2008 Edition.

2008 from A.M. Best's *Aggregates and Averages*, 2009 Edition.

2009 from A.M. Best's *Aggregates and Averages*, 2010 Edition.

2010 from A.M. Best's *Aggregates and Averages*, 2011 Edition.

Georgia data from A.M. Best's *State/Line (Property/Casualty Lines)* - United States electronic database.

(3) Ratio to earned premium.

(4) Ratio to earned premium. Split between DCC and AO based on A.M. Best's *Aggregates and Averages*, Schedule P, Part 1F, Sections 1 and 2.

(5) = (3) + (4).

(6) Ratio to written premium.

(7) Ratio to written premium.

(8) Ratio to written premium. Does not include federal income tax.

(9) Ratio to earned premium. Split between DCC and AO based on A.M. Best's *Aggregates and Averages*, Schedule P, Part 1F, Sections 1 and 2.

(10) Ratio to written premium.

(11) = (9) + (10).

(12) Ratio to earned premium.

(13) = (5) + (6) + (7) + (8) + (11) + (12).

(14) Ratio to earned premium.

(15) = (13) - (14).

(16) = 1.0 - (15).

Averages are weighted by the premiums corresponding to the ratios in each row.

Jackson Healthcare, LLC

Medical Professional Liability
Derivation of Industry Profit Margin

Florida

	Calendar Year					Total/ Average
	2006	2007	2008	2009	2010	
(1) Direct Premiums Written (in thousands)	\$784,793	\$576,670	\$522,437	\$554,905	\$554,160	\$2,992,965
(2) Direct Premiums Earned (in thousands)	\$789,845	\$619,515	\$552,001	\$567,987	\$552,799	\$3,082,147
(3) Losses Incurred	40.3%	16.0%	30.2%	33.0%	27.2%	29.9%
(4) Defense & Cost Containment Expenses Incurred	26.7%	13.9%	14.5%	16.1%	16.3%	18.1%
(5) <i>Loss & DCC Expenses Incurred</i>	67.1%	29.9%	44.7%	49.0%	43.5%	48.0%
(6) Commissions & Brokerage Expenses Incurred	7.1%	8.9%	10.8%	10.4%	10.0%	9.2%
(7) Other Acquisitions Expenses Incurred	3.1%	3.4%	3.7%	4.0%	4.1%	3.6%
(8) Taxes, Licenses, and Fees Incurred	2.9%	4.0%	2.7%	1.9%	2.0%	2.7%
(9) Adjusting & Other Expenses Incurred	4.2%	2.3%	2.4%	2.7%	2.7%	2.9%
(10) General Expenses Incurred	6.5%	7.2%	7.6%	8.6%	8.9%	7.7%
(11) <i>"Administrative" Expenses Incurred</i>	10.7%	9.5%	10.0%	11.3%	11.6%	10.6%
(12) Policyholder Dividend Ratio	0.1%	0.6%	1.4%	1.0%	1.1%	0.8%
(13) <i>Combined Ratio after Dividends</i>	90.9%	56.2%	73.3%	77.7%	72.3%	75.0%
(14) Investment Gain on Funds & Other Income	18.9%	16.7%	7.4%	11.9%	16.9%	14.7%
(15) <i>Overall Operating Ratio</i>	72.0%	39.5%	65.9%	65.8%	55.4%	60.2%
(16) Profit Margin	28.0%	60.5%	34.1%	34.2%	44.6%	39.8%

Notes:

2006 from A.M. Best's *Aggregates and Averages*, 2007 Edition.

2007 from A.M. Best's *Aggregates and Averages*, 2008 Edition.

2008 from A.M. Best's *Aggregates and Averages*, 2009 Edition.

2009 from A.M. Best's *Aggregates and Averages*, 2010 Edition.

2010 from A.M. Best's *Aggregates and Averages*, 2011 Edition.

Florida data from A.M. Best's *State/Line (Property/Casualty Lines)* - United States electronic database.

(3) Ratio to earned premium.

(4) Ratio to earned premium. Split between DCC and AO based on A.M. Best's *Aggregates and Averages*, Schedule P, Part 1F, Sections 1 and 2.

(5) = (3) + (4).

(6) Ratio to written premium.

(7) Ratio to written premium.

(8) Ratio to written premium. Does not include federal income tax.

(9) Ratio to earned premium. Split between DCC and AO based on A.M. Best's *Aggregates and Averages*, Schedule P, Part 1F, Sections 1 and 2.

(10) Ratio to written premium.

(11) = (9) + (10).

(12) Ratio to earned premium.

(13) = (5) + (6) + (7) + (8) + (11) + (12).

(14) Ratio to earned premium.

(15) = (13) - (14).

(16) = 1.0 - (15).

Averages are weighted by the premiums corresponding to the ratios in each row.

Jackson Healthcare, LLC

Workers' Compensation
Derivation of Industry Profit Margin

Countrywide

	Calendar Year					Total/ Average
	2006	2007	2008	2009	2010	
(1) Net Premiums Written (in thousands)	\$45,033,012	\$44,207,021	\$37,535,546	\$32,642,883	\$32,184,623	\$191,603,085
(2) Net Premiums Earned (in thousands)	\$44,780,012	\$43,502,510	\$36,252,533	\$33,863,092	\$32,174,208	\$192,572,355
(3) Losses Incurred	59.7%	61.8%	61.8%	68.5%	72.0%	64.2%
(4) Defense & Cost Containment Expenses Incurred	7.7%	8.5%	8.6%	9.2%	9.0%	8.5%
(5) Loss & DCC Expenses Incurred	67.4%	70.3%	70.4%	77.7%	81.0%	72.7%
(6) Commissions & Brokerage Expenses Incurred	6.9%	6.1%	6.0%	6.0%	6.0%	6.2%
(7) Other Acquisitions Expenses Incurred	4.9%	6.0%	6.9%	6.1%	7.6%	6.2%
(8) Taxes, Licenses, and Fees Incurred	3.0%	4.7%	4.1%	4.1%	4.4%	4.0%
(9) Adjusting & Other Expenses Incurred	6.1%	6.5%	6.4%	7.1%	6.9%	6.6%
(10) General Expenses Incurred	5.0%	7.0%	7.8%	7.7%	8.4%	7.0%
(11) "Administrative" Expenses Incurred	11.1%	13.5%	14.2%	14.8%	15.3%	13.6%
(12) Policyholder Dividend Ratio	1.7%	2.6%	1.8%	1.7%	2.5%	2.1%
(13) Combined Ratio after Dividends	95.0%	103.2%	103.4%	110.4%	116.8%	104.9%
(14) Investment Gain on Funds & Other Income	11.1%	14.8%	11.2%	15.1%	20.5%	14.2%
(15) Overall Operating Ratio	83.9%	88.4%	92.2%	95.3%	96.3%	90.6%
(16) Profit Margin	16.1%	11.6%	7.8%	4.7%	3.7%	9.4%

Notes:

2006 from A.M. Best's Aggregates and Averages, 2007 Edition.

2007 from A.M. Best's Aggregates and Averages, 2008 Edition.

2008 from A.M. Best's Aggregates and Averages, 2009 Edition.

2009 from A.M. Best's Aggregates and Averages, 2010 Edition.

2010 from A.M. Best's Aggregates and Averages, 2011 Edition.

(3) Ratio to earned premium.

(4) Ratio to earned premium. Split between DCC and AO based on A.M. Best's Aggregates and Averages, Schedule P, Part 1D.

(5) = (3) + (4).

(6) Ratio to written premium.

(7) Ratio to written premium.

(8) Ratio to written premium. Does not include federal income tax.

(9) Ratio to earned premium. Split between DCC and AO based on A.M. Best's Aggregates and Averages, Schedule P, Part 1D.

(10) Ratio to written premium.

(11) = (9) + (10).

(12) Ratio to earned premium.

(13) = (5) + (6) + (7) + (8) + (11) + (12).

(14) Ratio to earned premium.

(15) = (13) - (14).

(16) = 1.0 - (15).

Averages are weighted by the premiums corresponding to the ratios in each row.

Jackson Healthcare, LLC

Workers' Compensation
Derivation of Industry Profit Margin

Georgia

	Calendar Year					Total/ Average
	2006	2007	2008	2009	2010	
(1) Direct Premiums Written (in thousands)	\$1,316,964	\$1,321,670	\$1,224,853	\$1,031,696	\$953,838	\$5,849,021
(2) Direct Premiums Earned (in thousands)	\$1,282,904	\$1,288,381	\$1,226,770	\$1,071,139	\$976,036	\$5,845,230
(3) Losses incurred	61.3%	64.2%	71.5%	68.9%	64.5%	65.6%
(4) Defense & Cost Containment Expenses Incurred	4.1%	3.6%	4.7%	4.6%	4.1%	4.2%
(5) Loss & DCC Expenses Incurred	65.4%	67.8%	76.2%	71.5%	68.6%	69.8%
(6) Commissions & Brokerage Expenses Incurred	8.1%	8.3%	8.1%	8.4%	8.8%	8.3%
(7) Other Acquisitions Expenses Incurred	4.9%	6.0%	6.9%	6.1%	7.6%	6.2%
(8) Taxes, Licenses, and Fees Incurred	13.3%	14.7%	11.5%	11.6%	6.8%	11.8%
(9) Adjusting & Other Expenses Incurred	3.2%	2.7%	3.5%	3.6%	3.1%	3.2%
(10) General Expenses Incurred	5.0%	7.0%	7.8%	7.7%	8.4%	7.1%
(11) "Administrative" Expenses Incurred	8.2%	9.7%	11.3%	11.3%	11.5%	10.3%
(12) Policyholder Dividend Ratio	0.3%	0.6%	0.5%	0.5%	0.5%	0.5%
(13) Combined Ratio after Dividends	100.2%	107.1%	114.5%	109.2%	103.6%	107.0%
(14) Investment Gain on Funds & Other Income	11.1%	14.8%	11.2%	15.1%	20.5%	14.2%
(15) Overall Operating Ratio	89.1%	92.3%	103.3%	94.1%	83.3%	92.7%
(16) Profit Margin	10.9%	7.7%	-3.3%	5.9%	16.7%	7.3%

Notes:

- 2006 from A.M. Best's Aggregates and Averages, 2007 Edition.
 2007 from A.M. Best's Aggregates and Averages, 2008 Edition.
 2008 from A.M. Best's Aggregates and Averages, 2009 Edition.
 2009 from A.M. Best's Aggregates and Averages, 2010 Edition.
 2010 from A.M. Best's Aggregates and Averages, 2011 Edition.
 Georgia data from A.M. Best's State/Line (Property/Casualty Lines) - United States electronic database.
- (3) Ratio to earned premium.
 (4) Ratio to earned premium. Split between DCC and AO based on A.M. Best's Aggregates and Averages, Schedule P, Part 1D.
 (5) = (3) + (4).
 (6) Ratio to written premium.
 (7) Ratio to written premium.
 (8) Ratio to written premium. Does not include federal income tax.
 (9) Ratio to earned premium. Split between DCC and AO based on A.M. Best's Aggregates and Averages, Schedule P, Part 1D.
 (10) Ratio to written premium.
 (11) = (9) + (10).
 (12) Ratio to earned premium.
 (13) = (5) + (6) + (7) + (8) + (11) + (12).
 (14) Ratio to earned premium.
 (15) = (13) - (14).
 (16) = 1.0 - (15).
 Averages are weighted by the premiums corresponding to the ratios in each row.

Jackson Healthcare, LLC

Workers' Compensation
Derivation of Industry Profit Margin

Florida

	Calendar Year					Total/ Average
	2006	2007	2008	2009	2010	
(1) Direct Premiums Written (in thousands)	\$3,753,241	\$3,156,709	\$2,325,905	\$1,746,972	\$1,562,423	\$12,545,250
(2) Direct Premiums Earned (in thousands)	\$3,779,502	\$3,178,095	\$2,454,298	\$1,845,049	\$1,604,038	\$12,860,982
(3) Losses Incurred	45.4%	48.5%	44.0%	53.1%	66.6%	49.7%
(4) Defense & Cost Containment Expenses Incurred	4.1%	4.0%	5.4%	5.2%	5.3%	4.8%
(5) <i>Loss & DCC Expenses Incurred</i>	49.5%	52.5%	49.4%	58.3%	72.0%	54.3%
(6) Commissions & Brokerage Expenses Incurred	8.2%	8.9%	9.3%	9.2%	9.3%	8.8%
(7) Other Acquisitions Expenses Incurred	4.9%	6.0%	6.9%	6.1%	7.6%	6.1%
(8) Taxes, Licenses, and Fees Incurred	6.8%	5.5%	4.3%	5.8%	4.8%	5.6%
(9) Adjusting & Other Expenses Incurred	3.2%	3.0%	4.0%	4.0%	4.1%	3.5%
(10) General Expenses Incurred	5.0%	7.0%	7.8%	7.7%	8.4%	6.8%
(11) <i>"Administrative" Expenses Incurred</i>	8.2%	10.0%	11.8%	11.7%	12.5%	10.4%
(12) Policyholder Dividend Ratio	3.1%	4.0%	5.8%	7.8%	5.0%	4.8%
(13) <i>Combined Ratio after Dividends</i>	80.7%	86.8%	87.4%	98.8%	111.2%	89.9%
(14) Investment Gain on Funds & Other Income	11.1%	14.8%	11.2%	15.1%	20.5%	13.8%
(15) <i>Overall Operating Ratio</i>	69.6%	72.0%	76.2%	83.7%	90.7%	78.1%
(16) Profit Margin	30.4%	28.0%	23.8%	16.3%	9.3%	23.9%

Notes:

- 2006 from A.M. Best's *Aggregates and Averages*, 2007 Edition.
 2007 from A.M. Best's *Aggregates and Averages*, 2008 Edition.
 2008 from A.M. Best's *Aggregates and Averages*, 2009 Edition.
 2009 from A.M. Best's *Aggregates and Averages*, 2010 Edition.
 2010 from A.M. Best's *Aggregates and Averages*, 2011 Edition.
 Florida data from A.M. Best's *State/Line (Property/Casualty Lines)* - United States electronic database.
- (3) Ratio to earned premium.
 (4) Ratio to earned premium. Split between DCC and AO based on A.M. Best's *Aggregates and Averages*, Schedule P, Part 1D.
 (5) = (3) + (4).
 (6) Ratio to written premium.
 (7) Ratio to written premium.
 (8) Ratio to written premium. Does not include federal income tax.
 (9) Ratio to earned premium. Split between DCC and AO based on A.M. Best's *Aggregates and Averages*, Schedule P, Part 1D.
 (10) Ratio to written premium.
 (11) = (6) + (10).
 (12) Ratio to earned premium.
 (13) = (5) + (6) + (7) + (8) + (11) + (12).
 (14) Ratio to earned premium.
 (15) = (13) - (14).
 (16) = 1.0 - (15).
 Averages are weighted by the premiums corresponding to the ratios in each row.

Most Prevalent/Expensive Conditions, Procedures, and Iatrogenic Injuries

Report 1

Cumulative Data from January 1, 1985 - December 31, 2010

Part: 1

Most Prevalent Conditions	Closed Claims	Paid Claims	% Paid-to-Closed	Modal Severity Score for Paid Claims	% of Paid Claims	Total Indemnity	Average Indemnity
Pregnancy	4,495	1,281	28.5	Death	18	\$324,986,958	\$253,698
Brain Damaged Infant	4,457	2,007	45.0	Grave	52	\$1,055,623,417	\$525,971
Malignant neoplasms of the female breast	4,431	1,678	37.9	Death	21	\$392,571,515	\$233,952
Symptoms involving abdomen and pelvis	4,024	1,118	27.8	Death	33	\$264,786,508	\$236,839
Back disorders, incl. lumbago & sciatica	3,398	842	24.8	Major temporary injury	19	\$227,392,027	\$270,062
Myocardial infarction, acute	3,222	1,078	33.5	Death	72	\$245,729,703	\$227,950
Displacement of intervertebral disc	3,043	826	27.1	Minor permanent injury	23	\$203,608,437	\$246,499
Plastic surgery, desire for	2,724	811	29.8	Minor temporary injury	32	\$93,495,278	\$115,284
Malignant neoplasms of the bronchus and lung	2,599	840	32.3	Death	62	\$163,019,217	\$194,071
Cataracts	2,488	679	27.3	Significant permanent injury	41	\$110,104,538	\$162,157
Coronary atherosclerosis	2,319	472	20.4	Death	63	\$101,694,195	\$215,454
Obesity	2,299	513	22.3	Death	30	\$103,135,794	\$201,044
Disorder of joint, not incl. arthritis	2,287	629	27.5	Minor temporary injury	24	\$110,332,363	\$175,409
Femur, fracture of	2,258	647	28.7	Minor temporary injury	24	\$82,377,973	\$127,323
Appendicitis	2,219	671	30.2	Major temporary injury	38	\$82,923,878	\$123,583
Chest pain, not further defined	2,190	657	30.0	Death	64	\$215,930,651	\$328,662
Malignant neoplasms of the colon and rectal region	2,186	808	37.0	Death	43	\$201,926,041	\$249,908
Diabetes	2,074	449	21.7	Death	46	\$79,349,034	\$176,724
Calculus of gallbladder or bile duct	1,949	712	36.5	Major temporary injury	38	\$151,394,440	\$212,633
Injury to multiple parts of body	1,817	429	23.6	Minor temporary injury	30	\$72,135,644	\$168,148
Sterilization, admission or office treatment for	1,724	552	32.0	Major temporary injury	27	\$45,964,090	\$83,268
Osteoarthritis, generalized or localized	1,671	480	28.7	Major temporary injury	28	\$93,800,222	\$195,417
Neoplasm of the breast, unknown if malignant or benign	1,590	596	37.5	Minor permanent injury	30	\$164,271,098	\$275,623
Cholecystitis	1,570	515	32.8	Major temporary injury	37	\$99,904,752	\$193,990
Regional enteritis, colitis	1,537	462	30.1	Death	44	\$96,418,218	\$208,697
Aortic aneurysm	1,534	447	29.1	Death	79	\$111,020,984	\$248,369
Fracture of the tibia or fibula	1,487	426	28.7	Minor permanent injury	28	\$77,237,791	\$181,309
Disorders of soft tissue	1,486	416	28.0	Major temporary injury	20	\$80,474,416	\$193,448
Pneumonia	1,478	334	22.6	Death	74	\$69,607,346	\$208,405
Fracture of vertebral column	1,470	417	28.4	Major permanent injury	24	\$99,770,590	\$239,258
Fracture of the radius or ulna	1,368	446	32.6	Minor permanent injury	35	\$44,810,146	\$100,471
Disorders of menstruation and other abnormal bleeding from female genital tract	1,361	434	31.9	Major temporary injury	32	\$75,997,329	\$175,109
Inguinal hernia	1,354	409	30.2	Minor permanent injury	25	\$55,825,587	\$136,493
Intestinal obstruction	1,345	423	31.5	Death	52	\$99,315,451	\$234,788
No abnormal condition or no treatment encounter	1,316	171	13.0	Emotional injury only	30	\$15,019,572	\$87,834
Pulmonary embolism	1,246	419	33.6	Death	85	\$99,416,603	\$237,271
Ectopic pregnancy	1,193	374	31.4	Minor permanent injury	28	\$32,261,017	\$86,259
Postoperative infection	1,172	317	27.1	Minor temporary injury	29	\$51,958,554	\$163,907
Benign neoplasms of uterus	1,143	370	32.4	Major temporary injury	38	\$74,936,241	\$202,530
Decubitus ulcer	1,127	258	22.9	Death	38	\$24,831,131	\$96,245
Total for Top 40 Most Prevalent Conditions	84,651	25,413	30.0			\$5,795,358,749	\$228,047

Most Prevalent/Expensive Conditions, Procedures, and Iatrogenic Injuries

Report 1

Cumulative Data from January 1, 1985 - December 31, 2010

Part: 2

Most Expensive Conditions	Closed Claims	Paid Claims	% Paid-to-Closed	Modal Severity Score for Paid Claims	% of Paid Claims	Total Indemnity	Average Indemnity
Brain Damaged Infant	4,457	2,007	45.0	Grave	52	\$1,055,623,417	\$525,971
Malignant neoplasms of the female breast	4,431	1,678	37.9	Death	21	\$392,571,515	\$233,952
Pregnancy	4,495	1,281	28.5	Death	18	\$324,986,958	\$253,698
Symptoms involving abdomen and pelvis	4,024	1,118	27.8	Death	33	\$264,786,508	\$236,839
Myocardial infarction, acute	3,222	1,078	33.5	Death	72	\$245,729,703	\$227,950
Back disorders, incl. lumbago & sciatica	3,398	842	24.8	Major temporary injury	19	\$227,392,027	\$270,062
Chest pain, not further defined	2,190	657	30.0	Death	64	\$215,930,651	\$328,662
Displacement of intervertebral disc	3,043	826	27.1	Minor permanent injury	23	\$203,608,437	\$246,499
Malignant neoplasms of the colon and rectal region	2,186	808	37.0	Death	43	\$201,926,041	\$249,908
Fetal distress	1,075	441	41.0	Death	43	\$181,275,467	\$411,055
Neoplasm of the breast, unknown if malignant or benign	1,590	596	37.5	Minor permanent injury	30	\$164,271,098	\$275,623
Malignant neoplasms of the bronchus and lung	2,599	840	32.3	Death	62	\$163,019,217	\$194,071
Calculus of gallbladder or bile duct	1,949	712	36.5	Major temporary injury	38	\$151,394,440	\$212,633
Meningitis	1,014	406	40.0	Death	38	\$145,413,871	\$358,162
Aortic aneurysm	1,534	447	29.1	Death	79	\$111,020,984	\$248,369
Disorder of joint, not incl. arthritis	2,287	629	27.5	Minor temporary injury	24	\$110,332,363	\$175,409
Cataracts	2,488	679	27.3	Significant permanent injury	41	\$110,104,538	\$162,157
Birth trauma	532	262	49.3	Significant permanent injury	41	\$104,013,487	\$396,998
Obesity	2,299	513	22.3	Death	30	\$103,135,794	\$201,044
Coronary atherosclerosis	2,319	472	20.4	Death	63	\$101,694,195	\$215,454
Cholecystitis	1,570	515	32.8	Major temporary injury	37	\$99,904,752	\$193,990
Fracture of vertebral column	1,470	417	28.4	Major permanent injury	24	\$99,770,590	\$239,258
Headache	968	275	28.4	Death	38	\$99,445,788	\$361,621
Pulmonary embolism	1,246	419	33.6	Death	85	\$99,416,603	\$237,271
Intestinal obstruction	1,345	423	31.5	Death	52	\$99,315,451	\$234,788
Regional enteritis,colitis	1,537	462	30.1	Death	44	\$96,418,218	\$208,697
Pre-eclampsia	584	233	39.9	Death	50	\$95,938,580	\$411,754
Osteoarthritis, generalized or localized	1,671	480	28.7	Major temporary injury	28	\$93,800,222	\$195,417
Plastic surgery, desire for	2,724	811	29.8	Minor temporary injury	32	\$93,495,278	\$115,284
Appendicitis	2,219	671	30.2	Major temporary injury	38	\$82,923,878	\$123,583
Femur, fracture of	2,258	647	28.7	Minor temporary injury	24	\$82,377,973	\$127,323
Disorders of soft tissue	1,486	416	28.0	Major temporary injury	20	\$80,474,416	\$193,448
Diabetes	2,074	449	21.7	Death	46	\$79,349,034	\$176,724
Dyspnea and respiratory abnormalities	900	248	27.6	Death	71	\$78,253,479	\$315,538
Fracture of the tibia or fibula	1,487	426	28.7	Minor permanent injury	28	\$77,237,791	\$181,309
Malignant neoplasms of the prostate	874	302	34.6	Death	26	\$76,920,377	\$254,703
Delivery, normal, of single gestation	871	280	32.2	Major temporary injury	19	\$76,665,775	\$273,806
Shoulder (girdle) dystocia	445	219	49.2	Significant permanent injury	53	\$76,004,573	\$347,053
Disorders of menstruation and other abnormal bleeding from female genital tract	1,361	434	31.9	Major temporary injury	32	\$75,997,329	\$175,109
Benign neoplasms of uterus	1,143	370	32.4	Major temporary injury	38	\$74,936,241	\$202,530
Total for Top 40 Most Expensive Conditions	79,365	24,789	31.2			\$6,316,877,059	\$254,826

Most Prevalent/Expensive Conditions, Procedures, and Iatrogenic Injuries

Report 1

Cumulative Data from January 1, 1985 - December 31, 2010

Part: 3

Most Prevalent Procedures	Closed Claims	Paid Claims	% Paid-to-Closed	Modal Severity Score for Paid Claims	% of Paid Claims	Total Indemnity	Average Indemnity
Diagnostic interview, evaluation, or consultation	43,721	10,476	24.0	Death	42	\$2,326,443,928	\$222,074
Prescription of medication	19,408	5,581	28.8	Death	35	\$950,090,276	\$170,237
General physical examination	11,986	3,160	26.4	Death	39	\$849,864,630	\$268,945
Operative procedures on joint structures, exclusive of spinal fusion	8,766	2,727	31.1	Major temporary injury	25	\$539,534,398	\$197,849
No care rendered	7,988	770	9.6	Death	33	\$125,662,561	\$163,198
Miscellaneous manual examinations and nonoperative procedures	7,847	2,316	29.5	Death	24	\$701,442,256	\$302,868
Operative procedures on the uterus	6,405	2,130	33.3	Major temporary injury	31	\$321,839,736	\$151,098
Operative procedures on the skin, excluding skin grafts	5,800	1,943	33.5	Minor temporary injury	29	\$205,211,475	\$105,616
Cesarean section deliveries	5,655	2,159	38.2	Grave	27	\$893,973,683	\$414,068
Diagnostic radiologic procedures, excluding CAT scan and contrast material	5,172	1,504	29.1	Minor temporary injury	30	\$183,997,357	\$122,339
General anesthesia	4,784	1,718	35.9	Death	32	\$368,953,377	\$214,758
Injections and vaccinations	4,278	1,447	33.8	Death	27	\$262,288,843	\$181,264
Manually assisted deliveries	4,063	1,547	38.1	Significant permanent injury	24	\$621,597,331	\$401,808
Operative procedures involving blood vessels, excluding heart	3,517	973	27.7	Death	31	\$219,776,467	\$225,875
Operative procedures of gallbladder and biliary tract	3,490	1,371	39.3	Major temporary injury	37	\$299,047,891	\$218,124
Operative procedures on the fallopian tubes & ovaries, exclusive of sterilization	3,176	1,079	34.0	Major temporary injury	31	\$141,172,518	\$130,836
Chest x-ray	2,787	955	34.3	Death	56	\$222,335,685	\$232,812
Computerized axial tomography (CAT scan)	2,739	781	28.5	Death	40	\$222,342,912	\$284,690
Operative procedures on abdominal region	2,738	801	29.3	Death	31	\$156,701,533	\$195,632
Miscellaneous nonoperative procedures	2,642	750	28.4	Death	28	\$115,626,082	\$154,168
Open reduction of dislocation, exclusive of facial bones	2,628	903	34.4	Minor permanent injury	26	\$158,015,707	\$174,990
Operative procedures on lens including cataract extraction	2,593	774	29.9	Significant permanent injury	45	\$127,855,119	\$165,187
Operative procedures on spinal cord and spinal canal	2,546	795	31.2	Significant permanent injury	21	\$245,159,267	\$308,376
Mammography	2,409	986	40.9	Minor permanent injury	29	\$272,649,982	\$276,521
Closed reduction of fractures, exclusive of facial bones	2,367	828	35.0	Minor permanent injury	31	\$109,558,647	\$132,317
Diagnostic procedures involving cardiac and circulatory functions	2,353	876	37.2	Death	77	\$274,163,478	\$312,972
Operative procedures of the breast, excluding elective procedures	2,125	700	32.9	Minor temporary injury	25	\$109,181,498	\$155,974
Operative procedures on bones, exclusive of facial bones	2,046	699	34.2	Minor temporary injury	27	\$100,408,829	\$143,646
Skeletal traction and other procedures involving immobilization	2,029	623	30.7	Minor temporary injury	31	\$70,630,171	\$113,371
Microscopic examinations	1,958	625	31.9	Death	26	\$157,754,874	\$252,408
Elective implantation procedures of the breast, including removal of implant	1,946	361	18.6	Minor temporary injury	37	\$37,002,097	\$102,499
Operative procedures on the small and large intestine	1,933	623	32.2	Death	32	\$148,045,357	\$237,633
Diagnostic ultrasound	1,903	503	26.4	Death	32	\$130,998,722	\$260,435
Diagnostic procedures of the large intestine	1,843	549	29.8	Death	30	\$122,376,358	\$222,908
Coronary artery bypass grafting	1,640	298	18.2	Death	35	\$62,977,831	\$211,335
Operative procedures on nose, nasal bones or nasal cavity	1,586	550	34.7	Minor temporary injury	34	\$61,784,460	\$112,335
Diagnostic radiologic procedures, using contrast material	1,496	473	31.6	Death	33	\$83,030,719	\$175,541
Spinal fusion	1,460	405	27.7	Minor permanent injury	20	\$130,383,795	\$321,935
Diagnostic evaluation of the eye and other vision related studies	1,377	402	29.2	Significant permanent injury	39	\$82,821,940	\$206,025
Other miscellaneous procedures	1,373	193	14.1	Death	29	\$26,548,682	\$137,558
Total for Top 40 Most Prevalent Procedures	196,573	56,354	28.7			\$12,239,250,472	\$217,185

Most Prevalent/Expensive Conditions, Procedures, and Iatrogenic Injuries

Report 1

Cumulative Data from January 1, 1985 - December 31, 2010

Part: 4

Most Expensive Procedures	Closed Claims	Paid Claims	% Paid-to-Closed	Modal Severity Score for Paid Claims	% of Paid Claims	Total Indemnity	Average Indemnity
Diagnostic interview, evaluation, or consultation	43,721	10,476	24.0	Death	42	\$2,326,443,928	\$222,074
Prescription of medication	19,408	5,581	28.8	Death	35	\$950,090,276	\$170,237
Cesarean section deliveries	5,655	2,159	38.2	Grave	27	\$893,973,683	\$414,068
General physical examination	11,986	3,160	26.4	Death	39	\$849,864,630	\$268,945
Miscellaneous manual examinations and nonoperative procedures	7,847	2,316	29.5	Death	24	\$701,442,256	\$302,868
Manually assisted deliveries	4,063	1,547	38.1	Significant permanent injury	24	\$621,597,331	\$401,808
Operative procedures on joint structures, exclusive of spinal fusion	8,766	2,727	31.1	Major temporary injury	25	\$539,534,398	\$197,849
General anesthesia	4,784	1,718	35.9	Death	32	\$368,953,377	\$214,758
Operative procedures on the uterus	6,405	2,130	33.3	Major temporary injury	31	\$321,839,736	\$151,098
Operative procedures of gallbladder and biliary tract	3,490	1,371	39.3	Major temporary injury	37	\$299,047,891	\$218,124
Diagnostic procedures involving cardiac and circulatory functions	2,353	876	37.2	Death	77	\$274,163,478	\$312,972
Mammography	2,409	986	40.9	Minor permanent injury	29	\$272,649,982	\$276,521
Injections and vaccinations	4,278	1,447	33.8	Death	27	\$262,288,843	\$181,264
Forceps deliveries	1,323	726	54.9	Grave	21	\$258,159,328	\$355,591
Operative procedures on spinal cord and spinal canal	2,546	795	31.2	Significant permanent injury	21	\$245,159,267	\$308,376
Computerized axial tomography (CAT scan)	2,739	781	28.5	Death	40	\$222,342,912	\$284,690
Chest x-ray	2,787	955	34.3	Death	56	\$222,335,685	\$232,812
Operative procedures involving blood vessels, excluding heart	3,517	973	27.7	Death	31	\$219,776,467	\$225,875
Operative procedures on the skin, excluding skin grafts	5,800	1,943	33.5	Minor temporary injury	29	\$205,211,475	\$105,616
Diagnostic radiologic procedures, excluding CAT scan and contrast material	5,172	1,504	29.1	Minor temporary injury	30	\$183,997,357	\$122,339
Open reduction of dislocation, exclusive of facial bones	2,628	903	34.4	Minor permanent injury	26	\$158,015,707	\$174,990
Microscopic examinations	1,958	625	31.9	Death	26	\$157,754,874	\$252,408
Operative procedures on abdominal region	2,738	801	29.3	Death	31	\$156,701,533	\$195,632
Operative procedures on the small and large intestine	1,933	623	32.2	Death	32	\$148,045,357	\$237,633
Vacuum extraction	630	323	51.3	Significant permanent injury	22	\$145,113,036	\$449,266
Operative procedures on the fallopian tubes & ovaries, exclusive of sterilization	3,176	1,079	34.0	Major temporary injury	31	\$141,172,518	\$130,836
Diagnostic Testing	1,261	485	38.5	Death	36	\$134,898,509	\$278,141
Diagnostic ultrasound	1,903	503	26.4	Death	32	\$130,998,722	\$260,435
Spinal fusion	1,460	405	27.7	Minor permanent injury	20	\$130,383,795	\$321,935
Operative procedures on lens including cataract extraction	2,593	774	29.9	Significant permanent injury	45	\$127,855,119	\$165,187
No care rendered	7,988	770	9.6	Death	33	\$125,662,561	\$163,198
Diagnostic procedures of the large intestine	1,843	549	29.8	Death	30	\$122,376,358	\$222,908
Miscellaneous nonoperative procedures	2,642	750	28.4	Death	28	\$115,626,082	\$154,168
Closed reduction of fractures, exclusive of facial bones	2,367	828	35.0	Minor permanent injury	31	\$109,558,647	\$132,317
Operative procedures of the breast, excluding elective procedures	2,125	700	32.9	Minor temporary injury	25	\$109,181,498	\$155,974
Operative procedures on the stomach	1,367	533	39.0	Death	31	\$107,153,680	\$201,039
Operative procedures on bones, exclusive of facial bones	2,046	699	34.2	Minor temporary injury	27	\$100,408,829	\$143,646
Magnetic resonance imaging	992	271	27.3	Major permanent injury	19	\$97,153,594	\$358,500
Surgical procedure on fetus	524	254	48.5	Death	45	\$94,982,375	\$373,946
Operative procedures on cranial and peripheral nerves	1,253	478	38.2	Minor permanent injury	36	\$85,623,149	\$179,128
Total for Top 40 Most Expensive Procedures	192,476	56,524	29.4			\$12,737,538,243	\$225,347

Most Prevalent/Expensive Conditions, Procedures, and Iatrogenic Injuries

Report 1

Cumulative Data from January 1, 1985 - December 31, 2010

Part: 5

Most Prevalent Iatrogenic Injuries	Closed Claims	Paid Claims	% Paid-to-Closed	Modal Severity Score for Paid Claims	% of Paid Claims	Total Indemnity	Average Indemnity
Accidental perforation or laceration of abdomen or pelvis	2,778	1,285	46.3	Major temporary injury	43	\$286,045,749	\$222,604
Injury to nerves	1,899	922	48.6	Minor permanent injury	37	\$163,779,594	\$177,635
Accidental perforation or laceration of urogenital system	1,781	869	48.8	Major temporary injury	40	\$128,769,253	\$148,181
Injury to blood vessels	1,103	534	48.4	Death	31	\$126,946,189	\$237,727
Accidental perforation or laceration of head or neck	765	387	50.6	Major temporary injury	22	\$60,339,290	\$155,915
				Significant permanent injury	22	\$60,339,290	\$155,915
Burn	719	381	53.0	Major temporary injury	28	\$20,267,856	\$53,196
Accidental perforation or laceration during a procedure	520	262	50.4	Major temporary injury	36	\$51,535,449	\$196,700
Injury to newborn	277	170	61.4	Significant permanent injury	52	\$63,021,513	\$370,715
Accidental perforation or laceration of thorax	269	127	47.2	Minor temporary injury	39	\$13,720,690	\$108,037
Other	230	95	41.3	Major temporary injury	31	\$7,101,433	\$74,752
Stricture or kinking of ureter (incl. by suture)	111	63	56.8	Major temporary injury	49	\$5,451,075	\$86,525
Obstruction of bile duct	76	51	67.1	Major temporary injury	49	\$11,459,105	\$224,688
Removal of wrong body part	42	23	54.8	Significant permanent injury	22	\$4,487,193	\$195,095
				Minor permanent injury	22	\$4,487,193	\$195,095
Laceration of skin	22	10	45.5	Insignificant injury	50	\$180,602	\$18,060
Lacerated tendon	16	8	50.0	Minor temporary injury	50	\$635,145	\$79,393
Tooth, injury to	4	1	25.0	Insignificant injury	100	\$58,102	\$58,102
Total Iatrogenic Injuries	10,612	5,188	48.9			\$1,008,624,721	\$194,415

Most Prevalent/Expensive Conditions, Procedures, and Iatrogenic Injuries

Report 1

Cumulative Data from January 1, 1985 - December 31, 2010

Part: 6

Most Expensive Iatrogenic Injuries	Closed Claims	Paid Claims	% Paid-to-Closed	Modal Severity Score for Paid Claims	% of Paid Claims	Total Indemnity	Average Indemnity
Accidental perforation or laceration of abdomen or pelvis	2,778	1,285	46.3	Major temporary injury	43	\$286,045,749	\$222,604
Injury to nerves	1,899	922	48.6	Minor permanent injury	37	\$163,779,594	\$177,635
Accidental perforation or laceration of urogenital system	1,781	869	48.8	Major temporary injury	40	\$128,769,253	\$148,181
Injury to blood vessels	1,103	534	48.4	Death	31	\$126,946,189	\$237,727
Injury to newborn	277	170	61.4	Significant permanent injury	52	\$63,021,513	\$370,715
Accidental perforation or laceration of head or neck	765	387	50.6	Major temporary injury	22	\$60,339,290	\$155,915
				Significant permanent injury	22	\$60,339,290	\$155,915
Accidental perforation or laceration during a procedure	520	262	50.4	Major temporary injury	36	\$51,535,449	\$196,700
Burn	719	381	53.0	Major temporary injury	28	\$20,267,856	\$53,196
Accidental perforation or laceration of thorax	269	127	47.2	Minor temporary injury	39	\$13,720,690	\$108,037
Obstruction of bile duct	76	51	67.1	Major temporary injury	49	\$11,459,105	\$224,688
Other	230	95	41.3	Major temporary injury	31	\$7,101,433	\$74,752
Stricture or kinking of ureter (incl. by suture)	111	63	56.8	Major temporary injury	49	\$5,451,075	\$86,525
Removal of wrong body part	42	23	54.8	Significant permanent injury	22	\$4,487,193	\$195,095
				Minor permanent injury	22	\$4,487,193	\$195,095
Lacerated tendon	16	8	50.0	Minor temporary injury	50	\$635,145	\$79,393
Laceration of skin	22	10	45.5	Insignificant injury	50	\$180,602	\$18,060
Tooth, injury to	4	1	25.0	Insignificant injury	100	\$58,102	\$58,102
Total Iatrogenic Injuries	10,612	5,188	48.9			\$1,008,624,721	\$194,415

TOP 10 CONDITIONS BY 5-YEAR INTERVALS
Combined Specialties

Part: 7

2006-2010

TOP 10 CONDITIONS	CLOSED CLAIMS	PAID CLAIMS	% PAID TO CLOSED	TOTAL INDEMNITY	AVG INDEMNITY
Symptoms involving abdomen and pelvis	1,020	288	28.2	\$83,342,265	\$289,383
Pregnancy	839	251	29.9	\$100,224,935	\$399,303
Plastic surgery, desire for	712	240	33.7	\$40,006,083	\$166,692
Back disorders, incl. lumbago & sciatica	706	183	25.9	\$70,524,119	\$252,378
Scleritis	572	138	24.1	\$25,224,242	\$102,743
Coronary atherosclerosis	562	102	18.1	\$29,147,592	\$285,761
Chest pain, not further defined	542	172	31.7	\$82,265,970	\$478,291
Disorder of joint, not incl. arthritis	524	141	26.9	\$34,638,233	\$245,661
Malignant neoplasms of the female breast	451	120	26.6	\$35,661,368	\$297,178
Myocardial infarction, acute	403	135	33.5	\$46,252,414	\$342,610
TOP 10 TOTAL	6,331	1,770	28.0	\$571,023,393	\$322,612
% OF 5-YEAR TOTAL	14.7%	15.0%		14.6%	

5-YEAR TOTAL 43,205 11,777 27.3 \$3,919,730,074 \$332,829

2001-2005

TOP 10 CONDITIONS	CLOSED CLAIMS	PAID CLAIMS	% PAID TO CLOSED	TOTAL INDEMNITY	AVG INDEMNITY
Symptoms involving abdomen and pelvis	1,236	363	29.4	\$103,508,434	\$285,147
Diabetes	1,037	37	3.6	\$21,246,412	\$245,843
Pregnancy	1,031	289	28.0	\$113,297,040	\$332,031
Back disorders, incl. lumbago & sciatica	892	215	24.1	\$77,125,234	\$249,430
Diabetes	749	74	9.9	\$18,949,747	\$256,078
Chest pain, not further defined	707	222	31.4	\$77,427,676	\$348,773
Disorder of joint, not incl. arthritis	599	170	28.4	\$39,287,646	\$231,104
Plastic surgery, desire for	587	152	25.9	\$25,380,509	\$166,978
Brain Damaged Infant	586	250	42.7	\$177,483,470	\$709,934
Malignant neoplasms of the female breast	519	152	29.3	\$54,838,485	\$360,780
TOP 10 TOTAL	7,953	1,984	24.9	\$709,145,213	\$357,432
% OF 5-YEAR TOTAL	17.8%	16.6%		19.0%	

5-YEAR TOTAL 44,728 11,958 26.7 \$3,738,782,441 \$312,660

1996-2000

TOP 10 CONDITIONS	CLOSED CLAIMS	PAID CLAIMS	% PAID TO CLOSED	TOTAL INDEMNITY	AVG INDEMNITY
Symptoms involving abdomen and pelvis	925	276	29.8	\$63,302,397	\$229,357
Brain Damaged Infant	864	353	40.9	\$190,865,677	\$540,696
Malignant neoplasms of the female breast	829	271	32.7	\$69,937,135	\$258,071
Pregnancy	793	217	27.4	\$59,700,093	\$275,116
Back disorders, incl. lumbago & sciatica	741	182	24.6	\$49,224,527	\$274,234
Myocardial infarction, acute	675	197	29.2	\$38,798,312	\$196,946
Displacement of intervertebral disc	618	137	22.2	\$43,318,773	\$316,195
Cataracts	519	155	29.9	\$26,713,975	\$172,348
Injury to multiple parts of body	512	124	24.2	\$20,099,351	\$162,092
Disorder of joint, not incl. arthritis	503	145	28.8	\$23,670,168	\$163,243
TOP 10 TOTAL	6,979	2,057	29.5	\$586,334,708	\$285,044
% OF 5-YEAR TOTAL	14.5%	15.2%		18.5%	

5-YEAR TOTAL 48,162 13,540 28.1 \$3,162,853,798 \$233,593

1991-1995

TOP 10 CONDITIONS	CLOSED CLAIMS	PAID CLAIMS	% PAID TO CLOSED	TOTAL INDEMNITY	AVG INDEMNITY
Brain Damaged Infant	1,630	786	48.2	\$400,340,413	\$509,339
Malignant neoplasms of the female breast	1,511	642	42.5	\$142,264,257	\$221,595
Myocardial infarction, acute	963	363	37.7	\$71,379,087	\$196,637
Displacement of intervertebral disc	772	220	28.5	\$41,534,602	\$188,794
Malignant neoplasms of the bronchus and lung	747	266	35.6	\$47,238,801	\$177,589
Pregnancy	664	189	28.5	\$30,810,854	\$163,020
Malignant neoplasms of the colon and rectal region	580	219	37.8	\$44,466,110	\$203,042
Cataracts	556	146	26.3	\$18,775,552	\$128,600
Appendicitis	505	147	29.1	\$17,012,601	\$115,732
Femur, fracture of	502	151	30.1	\$15,126,976	\$100,179
TOP 10 TOTAL	8,430	3,129	37.1	\$828,949,253	\$264,925
% OF 5-YEAR TOTAL	14.9%	17.9%		26.4%	

5-YEAR TOTAL 56,585 17,478 30.9 \$3,142,000,556 \$179,769

TOP 10 PROCEDURES BY 5-YEAR INTERVALS
Combined Specialties

2006-2010

TOP 10 PROCEDURES	CLOSED CLAIMS	PAID CLAIMS	% PAID TO CLOSED	TOTAL INDEMNITY	AVG INDEMNITY
Diagnostic interview, evaluation, or consultation	5,590	1,176	21.0	\$381,151,837	\$324,109
<i>Symptoms involving abdomen and pelvis</i>	130	32	24.6	\$6,178,996	\$265,594
Chest pain, not further defined	98	24	24.5	\$5,577,279	\$232,387
Myocardial infarction, acute	95	34	35.8	\$10,533,628	\$309,810
General physical examination	3,728	988	26.5	\$340,589,371	\$344,728
<i>Symptoms involving abdomen and pelvis</i>	152	41	27.0	\$11,185,000	\$272,906
Chest pain, not further defined	90	38	42.2	\$16,662,416	\$491,518
Disorders of soft tissue	60	21	35.0	\$12,831,000	\$611,500
Prescription of medication	3,241	765	24.2	\$230,802,411	\$294,016
Obesity	142	3	2.1	\$1,020,000	\$340,000
Back disorders, incl. lumbago & sciatica	137	30	21.9	\$7,127,500	\$237,583
Major depressive affective disorder	82	4	4.9	\$1,379,999	\$345,000
Miscellaneous manual examinations and nonoperative procedures	1,644	570	34.7	\$152,110,366	\$401,968
Operative procedures on the skin, excluding skin grafts	1,317	405	30.8	\$139,473,968	\$271,392
No care rendered	1,251	130	10.4	\$31,829,019	\$244,839
Operative procedures on the skin, excluding skin grafts	1,137	360	31.7	\$60,820,678	\$168,946
Operative procedures on the uterus	1,063	285	26.8	\$79,828,572	\$280,100
Cesarean section deliveries	1,001	359	35.9	\$206,829,241	\$576,126
Manually assisted deliveries	818	306	37.4	\$151,767,362	\$495,972
TOP 10 TOTAL	21,982	5,460	24.8	\$1,838,706,624	\$336,759
% OF 5-YEAR TOTAL	50.9%	46.4%		46.9%	

5-YEAR TOTAL 43,207 11,779 27.3 \$3,920,125,074 \$332,806

1996-2000

TOP 10 PROCEDURES	CLOSED CLAIMS	PAID CLAIMS	% PAID TO CLOSED	TOTAL INDEMNITY	AVG INDEMNITY
Diagnostic interview, evaluation, or consultation	8,607	1,965	22.8	\$543,495,582	\$276,588
Myocardial infarction, acute	251	67	26.7	\$15,855,702	\$236,652
<i>Symptoms involving abdomen and pelvis</i>	195	60	32.4	\$15,773,498	\$262,892
Appendicitis	137	34	24.8	\$3,996,802	\$117,553
Prescription of medication	2,862	880	30.7	\$172,326,018	\$196,827
Obesity	705	8	1.1	\$445,250	\$56,666
Back disorders, incl. lumbago & sciatica	89	15	17.7	\$2,487,888	\$185,946
Hypertension	84	16	25.0	\$3,222,057	\$201,379
General physical examination	2,465	570	23.1	\$133,362,213	\$251,969
<i>Symptoms involving abdomen and pelvis</i>	116	21	18.1	\$5,326,833	\$257,659
Chest pain, not further defined	67	17	25.4	\$3,330,945	\$195,938
Back disorders, incl. lumbago & sciatica	89	9	10.1	\$3,169,907	\$356,212
No care rendered	1,921	132	6.9	\$24,400,909	\$184,855
Miscellaneous manual examinations and nonoperative procedures	1,728	591	34.2	\$159,536,568	\$401,968
Operative procedures on the skin, excluding skin grafts	1,375	415	30.2	\$86,813,967	\$265,260
Operative procedures on the uterus	1,091	371	34.0	\$63,702,436	\$171,705
Cesarean section deliveries	1,007	371	36.8	\$166,120,763	\$447,765
Diagnostic radiologic procedures, excluding CAT scan and contrast material	985	316	32.1	\$37,128,287	\$117,495
Operative procedures on the skin, excluding skin grafts	970	286	29.5	\$32,403,625	\$113,299
TOP 10 TOTAL	24,224	6,134	25.3	\$1,482,900,180	\$241,751
% OF 5-YEAR TOTAL	50.3%	45.3%		46.9%	

5-YEAR TOTAL 48,162 13,540 28.1 \$3,162,853,798 \$233,593

2001-2005

TOP 10 PROCEDURES	CLOSED CLAIMS	PAID CLAIMS	% PAID TO CLOSED	TOTAL INDEMNITY	AVG INDEMNITY
Diagnostic interview, evaluation, or consultation	5,445	1,208	22.2	\$402,622,163	\$333,214
<i>Symptoms involving abdomen and pelvis</i>	169	41	24.3	\$13,532,248	\$330,065
Myocardial infarction, acute	126	25	19.8	\$10,382,384	\$415,295
Chest pain, not further defined	110	37	33.6	\$10,973,774	\$296,588
Prescription of medication	5,056	852	16.9	\$208,262,892	\$244,440
Obesity	736	2	0.4	\$685,000	
Diabetes	564	20	3.5	\$2,819,326	
Disorder of lipid metabolism	370	8	2.1	\$2,504,999	
General physical examination	2,576	604	23.4	\$212,983,346	\$352,621
<i>Symptoms involving abdomen and pelvis</i>	136	49	36.0	\$12,924,821	\$263,772
Chest pain, not further defined	90	24	26.7	\$7,348,833	\$306,201
Back disorders, incl. lumbago & sciatica	58	10	17.2	\$5,098,515	\$509,855
Miscellaneous manual examinations and nonoperative procedures	1,881	481	25.6	\$175,183,885	\$406,903
Operative procedures on the skin, excluding skin grafts	1,617	476	29.5	\$117,191,783	\$266,522
No care rendered	1,328	123	9.3	\$27,259,799	\$221,624
Operative procedures on the skin, excluding skin grafts	1,025	310	30.2	\$52,379,119	\$168,965
Cesarean section deliveries	1,022	392	38.4	\$204,347,073	\$821,294
Operative procedures on the uterus	1,021	317	31.0	\$71,541,444	\$225,683
Diagnostic radiologic procedures, excluding CAT scan and contrast material	941	254	27.0	\$46,560,770	\$183,310
TOP 10 TOTAL	24,083	5,194	21.6	\$1,604,294,054	\$308,874
% OF 5-YEAR TOTAL	53.8%	43.4%		42.9%	

5-YEAR TOTAL 44,729 11,958 26.7 \$3,738,782,441 \$312,660

1991-1995

TOP 10 PROCEDURES	CLOSED CLAIMS	PAID CLAIMS	% PAID TO CLOSED	TOTAL INDEMNITY	AVG INDEMNITY
Diagnostic interview, evaluation, or consultation	11,929	3,137	26.3	\$633,826,312	\$202,049
Myocardial infarction, acute	367	135	36.8	\$28,074,386	\$207,598
Brain Damaged Infant	284	114	40.1	\$50,463,360	\$442,661
Malignant neoplasms of the female breast	233	100	42.9	\$21,226,485	\$212,265
Prescription of medication	3,447	1,181	34.6	\$164,393,812	\$138,030
Back disorders, incl. lumbago & sciatica	90	26	28.9	\$3,134,850	\$720,577
Hypertension	79	24	30.4	\$2,206,500	\$97,896
Asthma	60	26	43.3	\$5,019,878	\$169,072
Operative procedures on the skin, excluding skin grafts	2,844	612	21.5	\$98,725,263	\$174,808
No care rendered	1,889	169	8.9	\$23,879,013	\$141,296
General physical examination	1,614	482	29.9	\$86,602,637	\$179,674
Brain Damaged Infant	67	20	29.1	\$7,216,335	\$360,917
Myocardial infarction, acute	56	28	46.4	\$6,569,617	\$252,293
Malignant neoplasms of the bronchus and lung	47	20	42.6	\$3,404,962	\$170,248
Miscellaneous manual examinations and nonoperative procedures	1,562	813	51.9	\$145,738,265	\$286,823
Operative procedures on the uterus	1,387	449	32.4	\$52,169,502	\$116,190
Cesarean section deliveries	1,314	514	39.1	\$198,421,656	\$386,034
Operative procedures on the skin, excluding skin grafts	1,175	406	34.6	\$33,482,967	\$82,470
Diagnostic radiologic procedures, excluding CAT scan and contrast material	1,145	340	29.7	\$30,766,520	\$90,490
TOP 10 TOTAL	28,559	8,324	29.1	\$1,575,816,802	\$189,310
% OF 5-YEAR TOTAL	50.5%	47.6%		50.2%	

5-YEAR TOTAL 56,591 17,479 30.9 \$3,142,100,556 \$179,764