

# Do Medical Malpractice Award Caps Adequately Compensate Economic Losses of Skilled Workers?

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Skilled work represents occupations with the highest level of complexity, remarkable greater than either unskilled or semi-skilled employment. Unless skilled workers are at the denouement or in the last years of their career, loss wages are not adequately covered using present-day medical malpractice caps, which generally limit remedies to less than \$1 million. Three prototype wage loss scenarios are examined, using economic loss projections, demonstrating that medical malpractice caps less than \$1 million fail to adequately compensate skilled workers with long-term wage losses. Additional analyses, comparing wages at \$60K, \$80K, and \$100K across 10, 20, and 30 years further suggests that caps less than \$1 million fail to offer adequate compensation for skilled workers. The loss-wage scenarios in the present study establish that as most medical malpractice caps do not cover projected loss wages, alternative methods to compensate skilled workers besides the present legislative-deemed caps must be explored.

Medical malpractice caps are almost always problematic for high-skilled workers. Typically high-skilled workers earn very high incomes, in which large incomes are due primarily to large education or experiential investments. These great skills and high levels of education are typically accompanied by a very high income (part of which is compensation for the education investment). If these workers are harmed through medical malpractice, the economics losses will be greatest of all income categories, in comparison to unskilled and semi-skilled workers.

The largest components of economic losses are typically lost *future* wages. These losses may be incurred for years into the future, depending on the age of the person who sustained the injury and the nature of the losses. Again, the guide for defining lost wages of a skilled worker may be a person's *demonstrated* wages, as represented on tax returns. For example he/ she may have been earning \$60,000, \$80,000 to \$100,000 annually. Lost future wages can also be outlined in wage earning *capacity*. For instance, a labor market study may indicate that a management consultant has the capability of earning \$90,000 annually in a specific geographic region.

The objective of this case study analysis is to assess the economic losses of three, high wage earning, hypothetical individuals that have been injured due medical

malpractice. Despite high education attainment, the individuals have different personal backgrounds. But all earn relatively high incomes, usually much higher the median household income in the US. All economic losses are calculated and "discounted." Then it is observed whether medical malpractice award caps, of varying amounts, would be enough to adequately compensate for the economic losses. Loss of wages/ wage earning capacity for skilled workers is generally very large. This is due mostly to education investments and a large internal "discount rate" (i.e. skilled workers place less value on instant gratification and are more likely to postpone gratification into the future).

Other external labor factors include higher lifetime earnings that accrue to skilled workers. These findings are often published by the US Department of Labor. Should these earnings findings change in the opposite direction, those higher lifetime earnings will possibly lower the return to education investments, resulting in fewer educated citizens and a reduction in the number of skilled workers.

## Case Study Development

Case studies were complete with identifiers eliminated. In each case, the skilled worker has suffered an injury as a result of physician negligence. Each case

also involves three assumptions: 1) assumes the worker would have fulfilled worklife expectancy; 2) assumes the worker would have continued working to age 65; 3) assumes the worker would have continued working until age 67. All three case studies include lost wages. In some, the injured worker has incurred other losses such as lost household production and final case study includes details of future medical expenses that will be incurred. Across all three cases demographic variables and economic features were derived from United States Bureau of Labor, Bureau of Labor Statistics databases, including *Work Estimates: Effects of Race and Age* (United States Department of Labor, Bureau of Labor Statistics, 1986) and representative Consumer Price Indexes (United States Department of Labor, Bureau of Labor Statistics, n.d.).

### Discount Rates and Trial Dates

The method of discounted present value is used to evaluate how much in future lost wages/ income and other losses each worker suffered. If past losses are incurred by a worker, the losses are simply added to the worker's total economic losses; since these are not future losses, it is not necessary to apply discounted present value. A worker's *total economic losses* are the summation of past and future lost wages, household production and any other losses.

Again, if the worker is able to return to the labor force and earn wages below what he/ she earned before the injury, or if the worker is currently employed in a reduced earning capacity, then those actual or potential *residual* wages are discounted and subtracted from the higher wages the worker could have earned but for the injury.

In all three case studies discussed, the following information on "discounting" is utilized. Specific "discounting" processes were utilized in the present case study reviews. In accordance with *Culver v. Slater Boat Co.* (1983) the *below market discount rate method* is employed to estimate future losses. The below market discount rate method is employed to estimate future losses. Through this method, it is assumed that the recipient's settlement award can be invested so that proceeds from the investment can at least replace the stream of income/ compensation lost by the recipient and pay for medical expenses. Therefore discount rates (interest rates that can be earned on invested amounts) must be estimated.

Discount rates are based on the rate of return from risk-free 30 year US Treasury Bonds which can replicate the recipient's lost income amounts over time. The average interest rate (composite yield on portfolio of risk-free US Government securities) from 1982-2011 at 4.00 percent. Furthermore, considering the average annual increase in cost of living (1990-2011) is approximately 2.72 percent, the below

market discount rate utilized in all scenarios is 1.28 percent, which represents the difference between 4.00 percent and 2.72 percent. "Trial dates" were not used in the following calculation, but instead "reference dates" were utilized as the starting point of future economic loss calculations. In case study three (Lindsey Becker) extensive medical expenses are included in economic losses.

## Case Study 1: Andrea Evans

### Demographic Review

Andrea Evans, age 50, resides in Marshall, TX, a small town in East Texas. Up to March 29, 2010, Ms. Evans worked in the capacity as a Neonatal Intensive Care Nurse, in which she had served in this capacity for 20 years prior to the reported accident. Ms. Evans has 4 children. On March 29, 2010, Ms. Evans was set to remove adenoids in her throat, wherein, she required anesthesia to complete the surgery. Due to anesthesia complications, Ms. Evans failed to satisfactorily survive the surgery. Four days following the surgery, Ms. Evans died, leaving behind her husband and their four children. Due to her death, Ms. Evans does not have any post-injury wage earning abilities.

### Demographic Parameters

Date of birth: July 3, 1960

Date of accident (injury): March 29, 2010

Anticipated Trial Date: N/A

Reference Date: January 13, 2013

Age at accident (injury): 49.73 years

Age at reference date: 52.53 years

Date of accident (injury) to reference date: 2.79 years

### Life and Work Expectancy

Life expectancy at accident (injury): 30.90 years

Life expectancy at reference date: 29.30 years

Worklife expectancy (and potential time to full retirement) at accident (injury), used in following scenarios:

- Scenario 1 (Worklife: Utilizing figures from Ciecka, Donley & Goldman, 2000-2001; Donley & Goldman, 1999-2000): 9.81 years
- Scenario 2 (To full retirement age of 65): 15.27 years

Worklife expectancy (and potential time to full retirement) at reference date, used in the following scenarios:

- Scenario 1 (Worklife: Utilizing figures from Ciecka, Donley & Goldman, 2000-2001; Donley & Goldman, 1999-2000): 8.70 years

- Scenario 2 (To full retirement age of 65): 12.47 years

### Lost Future Wages

This represents income Ms. Evans could have earned in absence of the injury. Lost income (earnings) is estimated based on her education and projected career path as a physical therapist. Ms. Evan's wages would have averaged about \$80,700 per year.

### Lost Benefits

Ms. Evans is a skilled laborer and enjoyed fringe benefits from her employer, so lost benefit calculations are performed as necessary.

Future Post-injury Residual Earnings: Post accident wage earning capacity working part-time at 17.5 hours per week at \$7.63 per hour. Annual wages will be \$6,943.

### Andrea Evans Economic Losses

- Scenario 1. Assuming Ms. Evans would have fulfilled her worklife expectancy, Table 1 shows lost past earnings and benefits \$286,889. Total lost *future* earnings and benefits total \$1,816,056 (Less:

present value of post-accident residual earning capacity of \$57,209=\$1,758,847). Therefore her total economic losses in this scenario total \$2,045,736.

- Scenario 2. Assuming Ms. Evans would have worked until age 65, Table 2 shows lost past earnings and benefits \$286,889. Total lost *future* earnings and benefits total \$2,116,056 (Less: present value of post-accident residual earning capacity of \$80,659=\$2,035,397). Therefore her total economic losses in this scenario total \$2,332,286.

## Case Study 2: Andrew Forsythe

### Demographic Review

Mr. Andrew Forsythe, age 28, resides in Picayunne, MS. In December 2010 Mr. Forsythe worked in the capacity as a Petroleum Geologist. Working 4 months of the year, Mr. Forsythe earned approximately \$75,000 annually. While working in the Gulf of Mexico, Mr. Forsythe incurred chest pains. Mr. Forsythe consulted with onsite Emergency Medical Technician, whom later referred Mr. Forsythe to an Occupational Physician. With only interview and without additional diagnostic testing, the Occupational Physician released Mr. Forsythe to return-to-work. During transport via heli-

**Table 1**

*Economic Losses of Skilled Workers and Medical Malpractice Caps (Worklife)*

|                                       | Evans        | Forsythe     | Becker       |
|---------------------------------------|--------------|--------------|--------------|
| Economic Loss (wages and benefits)    | \$ 1,758,847 | \$ 1,929,187 | \$ 1,124,718 |
| Economic Loss (HH production)         | NA           | NA           | NA           |
| Economic Loss (medical)               | NA           | NA           | \$ 1,311,140 |
| Economic Loss (total)                 | \$ 1,758,847 | \$ 1,929,187 | \$ 2,435,858 |
| Medical Malpractice Cap (\$500,000)   | not adequate | not adequate | not adequate |
| Medical Malpractice Cap (\$1 million) | not adequate | not adequate | not adequate |
| Medical Malpractice Cap (\$2 million) | adequate     | adequate     | not adequate |

**Table 2**

*Economic Losses of Skilled Workers and Identified Caps (work to age 65)*

|                                       | Evans        | Forsythe     | Becker       |
|---------------------------------------|--------------|--------------|--------------|
| Economic Loss (wages and benefits)    | \$ 2,035,397 | \$ 2,633,867 | \$ 1,233,387 |
| Economic Loss (HH production)         | NA           | NA           | NA           |
| Economic Loss (medical)               | NA           | NA           | \$ 1,311,140 |
| Economic Loss (total)                 | \$ 2,035,397 | \$ 2,633,867 | \$ 2,544,527 |
| Medical Malpractice Cap (\$500,000)   | not adequate | not adequate | not adequate |
| Medical Malpractice Cap (\$1 million) | not adequate | not adequate | not adequate |
| Medical Malpractice Cap (\$2 million) | not adequate | not adequate | not adequate |

copter to petroleum rig in the Gulf of Mexico, Mr. Forsythe incurred cardiac aneurysm, resulting in death. A medical malpractice suit has been filed against the Occupational Medicine physician for failing to properly diagnose, and allowing Mr. Forsythe to return to the workforce without completion of proper diagnostics.

### Demographic Parameters

Date of birth: April 25, 1981

Date of accident (injury): January 28, 2009

Anticipated Trial Date: N/A

Reference Date: December 21, 2010

Age at accident (injury): 27.76 years

Age at reference date: 29.65 years

Date of accident (injury) to reference date: 1.89 years

### Life and Work Expectancy

Life expectancy at reference date: 42.53 years

Life expectancy at accident (injury): 44.42 years

Worklife expectancy (and potential time to full retirement) at accident (injury), used in following scenarios:

- Scenario 1 (Worklife: Utilizing figures from Ciecka, Donley & Goldman, 2000-2001; Donley & Goldman, 1999-2000): 27.53 years
- Scenario 2 (To full retirement age of 65): 39.24 years
- Scenario 3 (To age of 67): 42.24 years

Worklife expectancy (and potential time to full retirement) at reference date, used in the following scenarios:

- Scenario 1 (Worklife: Utilizing figures from Ciecka, Donley & Goldman, 1999-2000, 2000-2001): 25.64 years
- Scenario 2 (To full retirement age of 67): 37.35 years
- Scenario 3 (To age of 70): 40.35 years

### Lost Past/ Future Wages

This represents income Mr. Forsythe could have earned in absence of the injury (death). Lost income (earnings) is estimated based on his previous income. Mr. Forsythe wages have averaged about \$73,296 over the last several years.

### Lost Benefits

Given that Mr. Forsythe was a skilled laborer working with retirement benefits and insurance from a major offshore oil drilling company, lost benefits are calculated as necessary.

### Lost Employer Provided Meals

This represents the value of on-the-job meals. These are estimated to be \$3,640 annually. Post-accident residual earning capacity working full time, used as offset: Can earn only minimum hourly wage is \$7.25. Annual earning capacity is \$7,540, which would reflect working part-time at 20 hours per week.

### Andrew Forsythe Economic Losses

- Scenario 1. Assuming Mr. Forsythe would have fulfilled his worklife expectancy, Table 1 shows his lost past earnings at \$134,865 and lost past benefits at \$11,851. Lost past employer provided meals totals \$6,698. Lost *future* earnings and benefits and employer meals total \$1,944,097 so past and future economic losses are \$2,097,511 (Less: present value of post-accident residual earning capacity of \$168,324). Therefore his total economic losses in this scenario total \$1,929,187.
- Scenario 2. Assuming Mr. Forsythe would have worked until age 65, Table 2 shows his lost past earnings at \$134,865 and lost past benefits again at \$11,851. Lost past employer provided meals totals \$6,698. Lost *future* earnings and benefits and employer meals total \$2,718,849 so past and future economic losses are \$2,872,263 (Less: present value of post-accident residual earning capacity of \$238,387). Therefore his total economic losses in this scenario total \$2,633,867.
- Scenario 3. Assuming Mr. Forsythe would have worked until age 67, Table 3 shows his lost past earnings at \$134,865 and lost past benefits at \$11,851. Lost past employer provided meals totals \$6,698. Lost *future* earnings and benefits and employer meals total \$2,993,721 so past and future economic losses are \$3,147,135 (Less: present value of post-accident residual earning capacity of \$467,682). Therefore his total economic losses in this scenario total \$2,679,453.

## Case Study 3: Lindsey Becker

### Demographic Review

Ms. Lindsey Becker, 25 years of age, resides in Memphis, TN. She is single. At the age of 14, Ms. Becker was diagnosed as having Gastroesophageal Reflux Disease, or GERD. On an ongoing basis, since the age of 14, Ms. Becker was prescribed to Metaclopramide to not only treat nausea and vomiting, but also address gastric stasis. At the age of 24, Ms. Becker began having a series of complications associated with the medication, including hypertension, and, most recently, tardive dyskinesia. As a result of the tardive dyskinesia, Ms. Becker has poor mobility control in her upper extremities. Educationally, Ms. Becker ob-

tained a graduate degree in kinesiology, with the goal to pursue physical therapy studies, to later become a Physical Therapist. Due to poor mobility control, Ms. Becker is not able to pursue her graduate studies in physical therapy. However, it is projected that Ms. Becker may return to the workforce in some capacity, and these projections have been accounted for in the summary of lost wages. Adverse drug reactions have been determined to be nonreversible. Ms. Becker has presented a lawsuit against her treating physician for continuing to script Metaclopramide without offering advisement of the potential adverse drug reactions.

### Demographic Parameters

Date of birth: August 30, 1984

Date of accident (injury): October 28, 2009

Anticipated Trial Date: N/A

Reference Date: September 17, 2012

Age at accident (injury): 25.16 years

Age at reference date: 28.04 years

Date of accident (injury) to reference date: 2.89 years

### Life and Worklife Expectancies

Life expectancy at reference date: 53.70 years

Life expectancy at accident (injury): 56.60 years

Worklife expectancy (and potential time to full retirement) at accident (injury), used in following scenarios:

- Scenario 1 (Worklife: Utilizing figures from Ciecka, Donley & Goldman, 2000-2001; Donley & Goldman, 1999-2000): 34.13 years
- Scenario 2 (To full retirement age of 65): 41.84 years

Worklife expectancy (and potential time to full retirement) at reference date, used in the following scenarios:

- Scenario 1 (Worklife: Utilizing figures from Ciecka, Donley & Goldman, 2000-2001; Donley & Goldman, 1999-2000): 32.39 years
- Scenario 2 (To full retirement age of 65): 38.96 years

### Lost Future Wages

This represents income Ms. Becker could have earned in absence of the injury. Lost income (earnings) is estimated based on her education and projected career path as a physical therapist. Ms. Becker's wages would have averaged about \$90,000 per year.

### Lost Benefits

Though Ms. Becker is a skilled laborer, no lost benefits calculation is performed due to lack of adequate information at time of report.

### Future Post-injury Residual Earnings

As an *Intake Coordinator*, and assuming continued employment therein, Ms. Becker's wages will have average about \$41,900 per year.

### Medical Care Expense (Cost) Inflation Factor

According to her Life Care Plan, Ms. Becker will require medical treatment for her remaining life expectancy. Without examination of individual factors, numerous medical costs were projected, including outpatient (e.g., chiropractic); inpatient (e.g., Orthopedic Surgery); and, pharmacy (e.g., pain medication). Costs in each scenario were expected to rise (inflate) annually over her life expectancy. To account for this, the totals are divided by 53.7 (life expectancy) to give an average annual cost, and her medical costs in each category (Outpatient, Inpatient, Pharmacy) are inflated by the inflation factor in that category (which is an annual percentage increase. The average annual increase in the cost of medical care in these categories is as follows: Outpatient, 10.76%; inpatient, 8.81%, and, pharmacy, 9.36%

### Lindsey Becker Economic Losses

- Scenario 1. Assuming Ms. Becker would have fulfilled her worklife expectancy and assuming high total cost of medical care, Table 1 shows lost *future* earnings total \$2,016,056 (Less: present value of post-accident residual earning capacity of \$891,338 = \$1,124,718). Plus a *high* cost of medical care of \$3,344,901. Therefore her total economic losses in this scenario total \$4,469,619. Assuming Ms. Becker would have fulfilled her worklife expectancy and assuming low total cost of medical care, Table 1A shows lost *future* earnings total \$2,016,056 (Less: present value of post-accident residual earning capacity of \$891,338 = \$1,124,718). Plus a *low* cost of medical care of \$1,311,140. Therefore her total economic losses in this scenario total \$2,404,461.
- Scenario 2. Assuming Ms. Becker would have worked until age 65 and assuming high total cost of medical care, Table 2 shows lost *future* earnings total \$2,308,641 (Less: present value of post-accident residual earning capacity of \$1,075,254 = \$1,233,387). Plus a *high* cost of medical care of \$3,344,901. Therefore her total economic losses in this scenario total \$4,578,288. Assuming Ms. Becker would have worked until age 65 and assuming low total cost of medical care, Table 2 shows lost *future* earnings total \$2,308,641 (Less:

**Table 3***Economic Losses of Skilled Workers and Medical Malpractice Caps (work to age 67)*

|                                       | Evans      | Forsythe     | Becker |
|---------------------------------------|------------|--------------|--------|
| Economic Loss (wages)                 | NA         | \$ 2,679,453 | NA     |
| Economic Loss (HH production)         | NA         | NA           | NA     |
| Economic Loss (medical)               | NA         | \$ 2,679,453 | NA     |
| Economic Loss (total)                 | \$ 731,225 | \$ 765,971   | NA     |
| Medical Malpractice Cap (\$500,000)   | NA         | not adequate | NA     |
| Medical Malpractice Cap (\$1 million) | NA         | adequate     | NA     |
| Medical Malpractice Cap (\$2 million) | NA         | adequate     | NA     |

**Table 4***Economic Losses of Skilled Workers by Years of Lost Employment and Wages*

| Years of Worklife Remaining | \$ 60K annual | \$ 80K annual | \$ 100K annual |
|-----------------------------|---------------|---------------|----------------|
| 10 Years                    | \$ 592,417    | \$ 789,889    | \$ 987,362     |
| 20 Years                    | \$ 1,184,834  | \$ 1,579,779  | \$ 1,974,724   |
| 30 Years                    | \$ 1,777,251  | \$ 2,369,668  | \$ 2,962,085   |

present value of post-accident residual earning capacity of \$1,075,254=\$1,233,387). Plus a low cost of medical care of \$1,311,140. Therefore her total economic losses in this scenario total \$2,544,528.

### Conclusion

Without any identified exceptions in the present study, medical malpractice award caps less than \$2 million would not adequately compensate a skilled worker for economic losses incurred as a result of medical malpractice. Furthermore, an additional exercise was conducted, wherein, workers with injuries with wage losses of \$60K, \$80K, and \$100K annually were examined across 10, 20, and 30 years of losses. In these additional exercises, caps less than \$1 million additionally would not adequately these wage losses. As such, medical malpractice caps must be set at \$1 million or higher to properly compensate loss wages for skilled workers. For caps set at \$500,000 and lower, failure to adequately compensate an injured worker can occur. Perhaps, one of the potential reasons for under-compensation was the failure to index the size of the cap for inflation, which may be common to many tort reform laws.

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