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

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Unskilled work represents occupations not only having fewer complexities than either semi-skilled or skilled occupations, but also requiring less than 30 days of training and education to adequately perform requisite job duties. Unskilled workers typically work in positions offering quick-hires or replacements, mandating performance of mundane work tasks, or requiring exposure to work-site specific risks. As education and training requirements are typically minimal for unskilled workers, pay rates are similarly low, most often reflecting minimum wage, or below minimum wage. The present article examines prototype loss wage scenarios for three unskilled workers across a variety of occupations and wage ranges. Using economic cost projections, it was determined that present-day medical malpractice caps less than $500,000 adequately cover wage losses for unskilled workers earning minimum wage, or slightly higher (approximately 25% greater than minimum wage), but medical malpractice caps seldom cover wage losses for workers earning greater than minimum wage, or workers with more than 20 work years remaining. It was suggested that medical malpractice caps must be adjusted towards case-specific circumstances, as opposed to generalized caps based on legislative mandates.

Medical malpractice has two main components. First, a medical care provider (usually a physician) injured a patient. Second, the physician failed to follow proper procedures. If proper procedures had been followed, the injury would not have occurred. In this sense, the physician was negligent. As a result, a medical malpractice suit may follow the negligent act. Economic damages emanating from a medical malpractice incident are usually in the form of lost future wages (income). As a result of the medical negligent behavior, the patient may be unable to return to the labor force and earn an income, or if an injured worker can return to the labor force, return-to-work most often may be in a reduced earning capacity. Other damages may include lost household production (e.g., the injured party can no longer perform household chores such as cooking, cleaning, yard work, etc.). Furthermore, it may be appropriate for an injured party to claim medical expenses as a part of compensable losses, as these losses may concur with additional wage losses.

The largest components of economic losses are typically lost *future* wages. These losses may proceed years or decades into the future, depending on the age of the person who sustained the injury. The benchmark for defining lost wages of a low- skilled worker may be a person's *demonstrated* wages, as represented on tax returns. For example, he/ she may have been earning $10,000, $15,000 to $20,000 annually. Lost future wages may also be detailed in wage earning *capacity*. For example, a labor market analysis may reveal that a truck driver had the capability of earning $25,000 annually in a certain geographic region.

The objective of this article was to analyze the economic losses of three hypothetical individuals presumed to have been injured via medical malpractice. Three case studies were presented with injured individuals having differing demographic characteristics, but all earning relatively low wages – at or slightly above minimum wage. All economic losses were calculated and "discounted." Then it was observed whether medical malpractice award caps, of varying amounts, would be sufficient to adequately compensate for the referenced economic losses.

It was important to note that loss of wages and wage earning capacity for unskilled workers may be influ-

enced by both internal and external forces. External factors were largely beyond individual control and largely consist of macroeconomic factors such as overall job creation, level of consumer spending, and availability of publicly funded job training, among others. Also, one's age, gender and race may be influential factors. Internal factors unique to the individual may also include level of educational completion (seldom was it beyond high school), one's skill set, mobility, values placed on time spent in work and in leisure, one's internal "discount rate" (i.e. value placed on instant gratification vs. postponement into the future). As such, projections related to loss wages must be considered in relation to both internal and external factors affecting both employability and one's ability to earn wages in variable labor market conditions.

Assumptions for Case Studies

To accurately assess if medical malpractice award caps compensate for lost wages, other losses such as household production, and other expenses (e.g., medical), three case studies were examined. Each case involves an individual that had sustained an injury as a result of alleged medical malpractice. Each case also includes three scenarios: 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, though not all of the cases, the injured worker had incurred other losses such as lost household production. 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.)

Discounting Present Values

The method of discounted present value was employed to evaluate future lost wages/ income incurred. In addition, this same method had been utilized calculate additional future losses. If past losses were incurred by a worker, the losses were simply added to the worker's total economic losses; since these were not future losses, it was not necessary to apply discounted present value. A worker's *total economic losses* were the summation of past *and* future lost wages, household production and any other losses. If the injured worker was able to return to the labor force and earn wages below what he/ she earned before the injury, or if the worker was currently employed in a reduced earning capacity, then those actual or potential *residual* wages were discounted and subtracted from the higher wages the worker could have earned but for the injury.

In all three of the discussed case studies, the *below market discount rate method* was employed to estimate future losses in accordance with *Culver v. Slater Boat Co.* (1983). It was assumed that the recipient's settlement award could have been invested allowing proceeds from the investment to 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) had to be estimated.

Discount rates were 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: 4.00 percent. The average annual increase in cost of living (1990-2011) was approximately 2.72 percent. Therefore, the below market discount rate utilized in all scenarios was 1.28 percent (4.00 – 2.72).

Referenced Trial Dates

Also, *trail dates* were not assumed, but instead the standard practice of using *reference dates* as the beginning point of future economic loss calculations. It was also assumed that, while an injury had been sustained through medical malpractice, the exact amount of *future* medical expenses could not be determined, or the injured party had qualified for disability benefits to defray some of these costs. Therefore there were no *future* medical expenses included in economic loss calculations.

Case Study 1: Sandra Nguyen

Demographic Review

Sandra Nguyen, 34, was a third-generation Cambodian immigrant, residing in Westwego, LA. Previously, she worked as a "crab picker," primarily picking meat from blue crabs in Southeast Louisiana, and also working as a Hotel Housekeeper, on a less-than-full-time basis. Based on tax records from her last year of full-time employment, in 2009, Ms. Nguyen earned $8,525 picking crabs, and an additional $12,400 as a Hotel Housekeeper. Since 2004, her wages have been relatively consistent, with less than a 15% difference in wages. Ms. Ngueyn was married, 12 years, and also had two children: Tommy, age 11, and Stephanie, age 8. Both of her children attend public school in Jefferson Parish, Louisiana.

Two years ago she began having headaches and additionally noticed a reduction of coordination. Initially, she equated the headaches and coordination difficulties to fatigue, as she typically worked greater than 50

hours per week. After the headaches persisted for greater than 3 weeks, she was treated at a public health clinic in her parish. Over a period of six months, Ms. Nguyen presented several times to the clinic with complaints of headaches, vomiting, and nausea. Her husband also reported both behavioral and cognitive changes. During her visits Ms. Nguyen consistently reported to either a Nurse Practitioner or Internist. Ms. Nguyen and her husband repeatedly inquired about the need to be referred to a specialist, but the clinic staff equated the symptoms to fatigue and anxiety. After six months of treatment, Ms. Nguyen began having seizures, resulting in referral to Neurologist. After completion of diagnostic testing, Neurologist diagnosed Ms. Nguyen with metastatic brain tumor, with lesions (tumors) located not only in the cerebrum and brain stem, but also lungs and kidneys. If the cancer had been diagnosed and treated in its early stages, independent Oncologist opined that Ms. Nguyen had an eighty percent chance of an event-free survival and recovery. However, at present Ms. Nguyen's opportunity to live a normal life had been lost, as she not only had overlay from aggressive, but non-effect treatments, but also she was not able to maintain employment due to ongoing seizures and fatigue associated with chemotherapy. The Nguyen's were presently pursuing a medical malpractice suit against the clinic. Below was an outline of information needed to estimate, as well the actual calculation of, her economic losses.

Demographic Parameters

Date of birth: July 1, 1978

Date of accident (injury): August 1, 2010

Reference Date: January 1, 2013

Age at accident (injury): 32.08 years

Age at reference date: 34.50 years

Date of accident (injury) to reference date: 1.42 years

Life and Work Expectancy

Life expectancy at reference date: 47.60 years

Life expectancy at accident (injury): 49.50 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): 22.36 years
- Scenario 2 (To age of 65): 32.92 years
- Scenario 3 (To full retirement age of 67): 34.92 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): 20.85 years
- Scenario 2 (To age of 65): 30.58 years
- Scenario 3 (To full retirement age of 67): 32.58 years

Lost Future Wages

This represents income Mrs. Nguyen could have earned in absence of the injury (illness). Lost income (earnings) was estimated based on his previous income. Mrs. Nguyen wages have averaged about $20,925 over the last several years.

Lost Household Services

This represents the value of household activities that can no longer be performed because of the injury (illness). Given that Mrs. Nguyen had two small children, it was estimated that she would spent 20 hours per week in household activities (e.g., cooking laundry). These activities were typically valued at current minimum wage. For Mrs. Nguyen the amount was $7,540 annually (20 * $7.25/ week = $145/ week). $145/ week * 52 weeks = $7,540.

Sandra Nguyen's Economic Losses

- Scenario 1. Assuming Mrs. Nguyen fulfills her worklife expectancy, Table 1 shows her lost future earnings total $439,165 and the value of her lost household services total $112,021. Therefore her total economic losses in this scenario total $551,186.
- Scenario 2. Assuming Mrs. Nguyen works until age 65, Table 1A shows her lost future earnings total $564,865 and the value of her lost household services total $132,617. Therefore her total economic losses in this scenario total $697,483.
- Scenario 3. Assuming Mrs. Nguyen works until age 67, Table 1B shows her lost future earnings total $594,392 and the value of her lost household services total $136,883. Therefore, her total economic losses in this scenario totalled $731,225.

In each scenario, medical malpractice caps less than $500,000 would not adequately compensate Mrs. Nguyen for her total future economic losses. In fact, as Table 1 shows, in most instances medical practice caps of up to 1 and 2 million were not adequate to cover losses.

Case Study 2: Jose Marendez

Demographic Review

On January 30, 2012, Mr. Jose Marendez, 48 years old, was seriously injured in a car crash in Plant City, Florida. Severe spinal trauma necessitated immediate surgery. Later spinal fusion surgery left Mr. Marendez in severe pain and unable to return to work as field hand in the Florida citrus industry.

Demographic Parameters

Date of birth: June 30, 1964

Date of accident (injury): January 30, 2012

Anticipated Trial Date: N/A

Reference Date: January 1, 2013

Age at accident (injury): 47.57 years

Age at reference date: 48.50 years

Date of accident (injury) to reference date: 0.92 years

Life and Worklife Expectancies

Life expectancy at reference date: 30.80 years

Life expectancy at accident (injury): 31.70 years

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

- Scenario 1 (Worklife: Utilizing figures from Ciecka, Donley & Goldman, 2000-2001; Donley & Goldman, 1999-2000): 12.38 years
- Scenario 2 (To age of 65): 17.42 years
- Scenario 3 (To full retirement age of 67): 19.42 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): 11.70 years
- Scenario 2 (To age of 65): 16.50 years
- Scenario 3 (To full retirement age of 67): 18.50 years

Lost Past/ Future Wages

This represents income Mr. Marendez could have earned in absence of the injury (death). Lost income (earnings) was estimated based on his previous income. Mr. Marendez wages have averaged about $41,700 over the last several years.

Lost Benefits: Given that Mr. Marendez was an unskilled laborer working with no benefits, no lost benefits calculation was necessary.

Lost Household Services

This represents the value of household activities that can no longer be performed because of the injury (illness). Given that Mr. Marendez's was married with two young children living at home, lost household services was estimated to be $3,770 annually. It was assumed he would have spent about 10 hours per week in household services, which were valued at current minimum wage of $7.25 per hour.

Jose Marendez Economic Losses

- Scenario 1. Assuming Mr. Marendez would have fulfilled his worklife expectancy, Table 1 shows his lost *future* earnings total $499,883 and lost household services total $35,382. Therefore his total economic losses in this scenario total $485,265.
- Scenario 2. Assuming Mr. Marendez would have worked until age 65, Table 1A shows his lost *future* earnings total $650,962 and lost household services total $47,726. Therefore his total economic losses in this scenario total $698,687.
- Scenario 3. Assuming Mr. Marendez would have worked until age 67, Table 1B shows his lost *future* earnings total $714,735 and lost household services total $51,226. Therefore his total economic losses in this scenario total $765,971.

Case Study 3: Steve Stricker

Demographic Review

Mr. Steve Stricker, 54 years old, was injured in a boat collision while working offshore in the Gulf of Mexico. In the scope of completion of a neurological surgery, physician was reported to inappropriately lean on patient, resulting in later diagnosed brachial plexus. Patient was deemed to later not be able to return-to-the workforce due to work restrictions, coupled with both low educational skills and limited work history. Below data represents an outline of information needed to estimate, as well the actual calculation of, his economic losses.

Demographic Parameters

Date of birth: June 1, 1958

Date of accident (injury): August 2, 2009

Anticipated Trial Date: N/A

Reference Date: January 1, 2013

Age at accident (injury): 51.17 years

Age at reference date: 54.58 years

Date of accident (injury) to reference date: 3.41 years

Life and Worklife Expectancies

Life expectancy at reference date: 25.70 years

Life expectancy at accident (injury): 28.20 years (National Center for Health Statistics, 2010)

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): 11.45 years
- Scenario 2 (To age of 65): 13.83 years
- Scenario 3 (To full retirement age of 67): 15.83 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): 9.34 years
- Scenario 2 (To age of 65): 10.42 years
- Scenario 3 (To full retirement age of 67): 12.42 years

Lost Past and Future Wages

This represents income Mr. Stricker could have earned in absence of the injury (illness). Lost income (earnings) was estimated based on his previous income. Mr. Stricker's wages have averaged about $32,000 over the last several years. In his current position with the same employer, he earns $18,500 annually. Mr. Stricker's lost earnings were represented by the *difference* between the discounted present value of $32,000 – what he could have earned but for the injury – and the discounted present value of $18,500 – the amount he can still earn even though he sustained an injury.

Lost Benefits

Given that Mr. Stricker would have remained employed by his current firm and would have still been eligible for benefits, no lost benefits calculation was necessary.

Lost Household Services

This represents the value of household activities that can no longer be performed because of the injury (illness). Given that Mr. Stricker's children were grown and no longer reside at home and he does not report any time in household activities, no lost household services calculation was necessary.

Steve Stricker Economic Losses

- Scenario 1. Assuming Mr. Stricker fulfills his worklife expectancy, his *past* lost earnings total $40,500 and his lost *future* earnings total $126,191. Table 1 offers his total economic losses in this scenario total $166,691.
- Scenario 2. Assuming Mr. Stricker works until age 65, his *past* lost earnings total $40,500 and his lost *future* earnings total $137,972. Table 1A shows his total economic losses in this scenario total $178,472.
- Scenario 3. Assuming Mr. Stricker works until age 67, Table 1B shows his *past* lost earnings total $40,500 and his lost *future* earnings total $161,100. Table 1B shows his total economic losses in this scenario total $201,600.

Further Analysis of Medical Malpractice Caps

Table 4 offers an avenue to further assess medical malpractice caps. The table shows scenarios of economic losses (in the form of only lost wages) utilizing two variables. One was the worker's wage rate, which is: minimum wage ($7.25 per hour); $8.25 per hour; and $10.00 per hour. The other variable was years of workilfe expectancy remaining from the date of a hypothetical injury. These years were denominated in ten-year increments. The losses were discounted using 1.28 percent.

Of course, as the wage rate increases and the years of workife remaining increase, the economic losses rise substantially. Particularly noteworthy was that a cap would have to be set at an amount above $600,000 to offer adequate compensation in all scenarios. It was also important to note that the table *does not* include other losses such as household production and medical expenses. If these were included, the amount of the cap would have risen potentially to the high six-figure to $1 million range to offer adequate compensation for damages.

Conclusion

With some exceptions, medical malpractice award caps would have adequately compensate a unskilled worker for economic losses incurred as a result of medical malpractice. However the cap usually must be set at $1 million or higher to properly compensate loss wages for injured unskilled and unskilled 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.

Table 1
Economic Losses of Unskilled Workers and Medical Malpractice Caps (Worklife)

	Nguyen	Marendez	Stricker
Economic Loss (wages)	$ 439,165	$ 449,883	$ 166,691
Economic Loss (HH production)	$ 112,021	$ 35,382	NA
Economic Loss (medical)	NA	NA	NA
Economic Loss (total)	$ 551,186	$ 485,265	$ 166,691
Medical Malpractice Cap ($500,000)	not adequate	adequate	adequate
Medical Malpractice Cap ($1 million)	adequate	adequate	adequate
Medical Malpractice Cap ($2 million)	adequate	adequate	adequate

Table 2
Economic Losses of Unskilled Workers and Identified Caps (Work to age 65)

	Nguyen	Marendez	Stricker
Economic Loss (wages)	$ 564,865	$ 650,962	$ 178,472
Economic Loss (HH production)	$ 132,617	$ 47,726	NA
Economic Loss (medical)	NA	NA	NA
Economic Loss (total)	$ 697,483	$ 698,687	$ 178,472
Medical Malpractice Cap ($500,000)	not adequate	not adequate	adequate
Medical Malpractice Cap ($1 million)	adequate	adequate	adequate
Medical Malpractice Cap ($2 million)	adequate	adequate	adequate

Table 3
Economic Losses of Unskilled Workers and Medical Malpractice Caps (Work to age 67)

	Nguyen	Marendez	Stricker
Economic Loss (wages)	$ 594,392	$ 714,735	$ 201,600
Economic Loss (HH production)	$ 136,833	$ 51,236	NA
Economic Loss (medical)	NA	NA	NA
Economic Loss (total)	$ 731,225	$ 765,971	$ 201,600
Medical Malpractice Cap ($500,000)	not adequate	not adequate	adequate
Medical Malpractice Cap ($1 million)	adequate	adequate	adequate
Medical Malpractice Cap ($2 million)	adequate	adequate	adequate

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

Years of Worklife Remaining	$ 7.25 hr.	$ 8.25 hr.	$ 10 hr.
10 Years	$ 148,894	$ 169,431	$ 205,371
20 Years	$ 297,788	$ 338,863	$ 410,742
30 Years	$ 446,682	$ 508,294	$ 616,114

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