A Simple Analysis Of New York State Tort Reform

Larry Lichtenstein, Canisius College, USA
Ronald R. Reiber, Canisius College, USA

ABSTRACT

In New York State, there has been a rapid increase in personal injury litigation over the recent past. We show empirically that the tort reform that occurred in the 1980s may be, in part, responsible for this phenomenon by increasing the effective structured award that the plaintiff receives. However, despite this generous compensation scheme, some cohorts of plaintiffs may still not receive economic justice.

Keywords: economic justice, structured annuity, personal injury litigation

INTRODUCTION

During the 1980s and 1990s, several state legislatures passed tort reforms because of increasing liability insurance costs. The intention was often to reduce the amount of litigation. Some reforms, however, may have had the opposite unintended effect. It has been argued by forensic economists that mandated methods for compensating plaintiffs in personal injury litigation may distort settlement negotiations, thus increasing the incentives to go to trial (Spizman 2000).

The rapid growth in the number of attorneys nationwide supports the popular impression that litigation has grown dramatically. In recent years, the growth rate in the number of attorneys has exceeded the growth rate of the population.

The number of attorneys in the U.S. increased from 355,242 in 1970 to 954,000 in 2004, a 2.95% per year increase. The U.S. population over this same time period increased from 203 million to 296 million, a 1.12% per year increase. This phenomenon is especially pronounced in New York State where the number of attorneys increased from 48,312 in 1970 to 142,538 in 2004, a 3.22% per year increase. Over this same time period, New York's population only increased from 18.237 million to 19.190 million, a .15% per year increase (Statistical Abstracts).

This increase in the number of attorneys may be caused by a change in the magnitude of compensation attorneys receive for representing plaintiffs at trial which is a fixed percentage of the award. There is a greater incentive to litigate if the calculation of compensation results in an overstatement of economic loss. If an injured person incurs losses that have a true present value of \$X and that person is awarded an amount exceeding \$X, then over-compensation occurs. If this procedure is systematic rather than occasional, it will be in both the injured party's and attorney's self interest to litigate. Lawsuits of marginal value may be undertaken because the expected financial return outweighs the risk.

During the mid-1980's, the New York State legislature passed the Article 50-B statute that altered the procedure for reducing future economic damages to present value. This statute has been controversial since its inception. Several authors have argued that Article 50-B has a pro-plaintiff bias. Wolkoff and Hanushek (1995) and Lambrinos and Harmon (1995) examine hypothetical situations in which they compare the present value of the award under 50-B with the true present value of damages suffered by the plaintiff. They find that under the vast majority of cases, Article 50-B over-compensates the plaintiff by 60 to 140 percent. Spizman and Dunn-Schmitt (2000) have mathematically demonstrated that the present value of the 50-B structure is always greater than the true

present value of damages suffered by the plaintiff.

The Public Policy Institute of New York State (“An Accident and a Dream”, 1995) also note that this well-intentioned reform increased legal costs. We agree with these conclusions. In this paper, we illustrate the nature of the over-compensation through a numerical example and then explore the factors that influence the degree of over-compensation under 50-B.

A NUMERICAL ILLUSTRATION

Jury awards are typically comprised of a past and a future component for a variety of categories of loss, such as wages, fringe benefits, pain and suffering, and medical expenses. For expositional ease, we consider a potential jury award made solely for future medical expenses that will be incurred by the plaintiff.

Suppose the medical expert will testify that the plaintiff will incur medical expenses over a 20 year period with medical expenses of \$100,000 in year one. Furthermore, medical expenses will grow by 4.5% per year over this period. Future lifetime medical expenses are shown in Table 1 in the amount of \$3,137,142. If the award for future medical expenses is given as a lump-sum payment, economic theory requires that future losses be reduced to their present values. Assuming a market interest rate of 5%, the present value of these cash flows amounts to \$1,821,007, as shown in Table 1. If \$1,821,007 were invested today at a 5% interest rate, the plaintiff would be able to pay for the costs of future medical care over the next 20 years.

Table 1: True Present Value

<u>Year</u>	<u>Actual Cost</u>	<u>Present Value</u>
1	\$100,000	\$95,238
2	\$104,500	\$94,785
3	\$109,203	\$94,333
4	\$114,117	\$93,884
5	\$119,252	\$93,437
6	\$124,618	\$92,992
7	\$130,226	\$92,549
8	\$136,086	\$92,108
9	\$142,210	\$91,670
10	\$148,610	\$91,233
11	\$155,297	\$90,799
12	\$162,285	\$90,367
13	\$169,588	\$89,936
14	\$177,220	\$89,508
15	\$185,194	\$89,082
16	\$193,528	\$88,658
17	\$202,237	\$88,235
18	\$211,338	\$87,815
19	\$220,848	\$87,397
20	<u>\$230,786</u>	<u>\$86,981</u>
Total	\$3,137,142	\$1,821,007

Article 50-B does not provide a structured settlement based entirely on trial testimony. The procedure is rather convoluted. The following steps are employed. First, future lifetime medical expenses are computed at trial (\$3,137,142). Second, \$250,000 of the future damages is paid as a lump sum. Third, an annuity is then created for the remaining amount by subtracting \$250,000 from the \$3,137,142 total award, yielding \$2,887,142. Fourth, this remainder is divided by the time frame over which the jury made the award (20 years), yielding a first year annuity payment of \$144,357. This is shown in Table 2.

Table 2: Calculation of First-year Annuity under Article 50-B

Actual total lifetime cost:	\$3,137,142
- First \$250,000 paid now:	\$ 250,000
Amount to be annuitized:	\$2,887,142
/ Number of years:	20
First year annuity:	\$ 144,357

Fifth, although medical inflation has already been accounted for, the statute requires the first year annuity of \$144,357 with an incremental increase of 4% per year over the entire period, as shown in Table 3. The present value of this annuity amounts to \$2,514,538 as shown in Table 3. Under 50-B, the combined present value is \$250,000 + \$2,514,538 = \$2,764,538. The Article 50-B statute results in a pro-plaintiff bias since the present value of the award under 50-B exceeds the true present value by \$943,531 (\$2,764,538 - \$1,821,007). The percentage by which the present value under 50-B exceeds the true present value of losses (percent overpayment) is \$943,531 / \$1,821,007 = 51.8%.

Table 3: Present Value under Article 50-B

Year	Annuity	Present Value
1	\$144,357	\$ 137,483
2	\$150,131	\$ 136,174
3	\$156,137	\$ 134,877
4	\$162,382	\$ 133,592
5	\$168,877	\$ 132,320
6	\$175,633	\$ 131,060
7	\$182,658	\$ 129,811
8	\$189,964	\$ 128,575
9	\$197,563	\$ 127,351
10	\$205,465	\$ 126,138
11	\$213,684	\$ 124,936
12	\$222,231	\$ 123,747
13	\$231,120	\$ 122,568
14	\$240,365	\$ 121,401
15	\$249,980	\$ 120,245
16	\$259,979	\$ 119,099
17	\$270,378	\$ 117,965
18	\$281,193	\$ 116,842
19	\$292,441	\$ 115,729
20	\$304,139	\$ 114,627
	Total	\$2,514,538
50B Present Value of annuity:		\$2,514,538
+ Lump-sum payment \$250,000:		\$ 250,000
Total 50-B Present Value:		\$2,764,538

FACTORS THAT INFLUENCE PERCENT OVERPAYMENT

The percent overpayment is not fixed but rather a function of the age of the plaintiff as well as medical inflation and discount rates. Let T = number of years into the future that the plaintiff will incur medical expenses, m = medical inflation rate, and d = discount rate. The first year medical expense is assumed to be \$100,000¹. The true present value of the future medical expenses (PV_{True}) can be expressed as²:

$$PV_{True} = \left(\frac{100,000}{1+m} \right) \left[\frac{1 - \frac{1}{\left(\frac{1+d}{1+m} \right)^T}}{\left(\frac{d-m}{1+m} \right)} \right] \quad (1)$$

The present value of all payments made by the defendant under 50-B (PV_{50B}) can be expressed as³:

$$PV_{50B} = \frac{\left\{ 100,000 \left[\frac{(1+m)^T - 1}{m} \right] - 250,000 \right\}}{1.04^T} \left[\frac{1 - \frac{1}{\left(\frac{1+d}{1.04} \right)^T}}{\left(\frac{d-.04}{1.04} \right)} \right] + 250,000 \quad (2)$$

The percent overpayment (PO) can be expressed as:

$$PO = \text{Percent Overpayment} = \frac{PV_{50B} - PV_{True}}{PV_{True}} = \frac{PV_{50B}}{PV_{True}} - 1 \quad (3)$$

This may be rewritten as (4).

$$\frac{\left\{ 100,000 \left[\frac{(1+m)^T - 1}{m} \right] - 250,000 \right\}}{1.04^T} \left[\frac{1 - \frac{1}{\left(\frac{1+d}{1.04} \right)^T}}{\left(\frac{d-.04}{1.04} \right)} \right] + 250,000}{\left(\frac{100,000}{1+m} \right) \left[\frac{1 - \frac{1}{\left(\frac{1+d}{1+m} \right)^T}}{\left(\frac{d-m}{1+m} \right)} \right]} - 1 \quad (4)$$

We are interested in examining how PO is influenced by changes in the variables T, m and d. Given the difficulty of finding and signing the following partial derivatives:

$$\frac{\partial PO}{\partial T}, \frac{\partial PO}{\partial m}, \text{ and } \frac{\partial PO}{\partial d}, \quad (5)$$

We have chosen to draw inferences about these partial derivatives by varying the values for each variable, one at a time, holding the values of the other variables constant. In Table 4, we compute percent overpayment for various levels of m , T and d . We vary the discount rate and medical inflation rate from 4% to 7%. We also vary the time horizon of the future payments from 10 to 50 years in 10 year increments. The evidence provided in Table 4

suggests $\frac{\partial PO}{\partial T} > 0$, $\frac{\partial PO}{\partial m} > 0$, and $\frac{\partial PO}{\partial d} > 0$.

Table 4: Percent Overpayment

		10 Years Discount Rate			
<u>Medical Inflation</u>	<u>4.0%</u>	<u>5.0%</u>	<u>6.0%</u>	<u>7.0%</u>	
4.0%	21%	22%	24%	25%	
5.0%	21%	23%	24%	26%	
6.0%	22%	23%	25%	26%	
7.0%	22%	24%	25%	27%	
		20 Years Discount Rate			
<u>Medical Inflation</u>	<u>4.0%</u>	<u>5.0%</u>	<u>6.0%</u>	<u>7.0%</u>	
4.0%	49%	51%	52%	54%	
5.0%	51%	53%	55%	57%	
6.0%	53%	55%	57%	59%	
7.0%	55%	57%	60%	62%	
		30 Years Discount Rate			
<u>Medical Inflation</u>	<u>4.0%</u>	<u>5.0%</u>	<u>6.0%</u>	<u>7.0%</u>	
4.0%	87%	89%	90%	92%	
5.0%	92%	95%	98%	100%	
6.0%	97%	101%	105%	109%	
7.0%	103%	108%	113%	118%	
		40 Years Discount Rate			
<u>Medical Inflation</u>	<u>4.0%</u>	<u>5.0%</u>	<u>6.0%</u>	<u>7.0%</u>	
4.0%	138%	139%	141%	142%	
5.0%	149%	153%	158%	162%	
6.0%	161%	168%	176%	183%	
7.0%	172%	183%	194%	205%	
		50 Years Discount Rate			
<u>Medical Inflation</u>	<u>4.0%</u>	<u>5.0%</u>	<u>6.0%</u>	<u>7.0%</u>	
4.0%	206%	207%	208%	210%	
5.0%	228%	236%	243%	251%	
6.0%	251%	265%	280%	295%	
7.0%	273%	295%	318%	343%	

CONCLUSION

Under statute 50-B, we have demonstrated, through an illustration, that the value of PO is always positive. In New York State, therefore, if plaintiffs prevail at trial, the structured award received will exceed the true economic loss and increase the incentive to litigate relative to states that structure the award based on the true present value. This explains, in part, the more rapid growth of attorneys in New York State than nationwide.

Clearly, the incentive to litigate in New York State is greater than in other states. This incentive is most pronounced when the time horizon is longest, which occurs for young plaintiffs. For example, given a medical inflation rate and discount rate of 6%, there will be an overpayment of 25% for a plaintiff with a life expectancy of 10 years. This contrasts with an overpayment of 280% for a plaintiff with a 50-year life expectancy. We would expect the demographic composition of the litigation pool in New York State to be more heavily weighted with younger individuals. Similarly, we would expect the incentive to litigate in New York State to be greater during periods of high inflation, which results in high medical inflation and discount rates.

Finally, there is the issue of justice for the plaintiff. If the defendant paid attorney fees in addition to the economic damages, a PO of 0% would make the plaintiff whole; that is, the plaintiff would receive the necessary amount of dollars to pay future medical expenses, but in New York State, the plaintiff is obligated to pay attorney fees out of the award. Assuming that attorney fees are 1/3 of the award, a PO of 50% is necessary to make the plaintiff whole. For example, if the true present value is \$100, a 50-B present value of \$150 allows for an attorney fee of \$50 and provides the plaintiff with the remainder of \$100. We see from Table 4 that a percent overpayment of approximately 50% occurs when the time horizon is 20 years. This suggests that even in a progressive state, such as New York, older plaintiffs (those with life expectancies of fewer than 20 years) will not receive adequate compensation to make them whole. Only younger plaintiffs will receive an award that just compensates or overcompensates them for their injury.

AUTHOR INFORMATION

Ronald Reiber, Ph.D., is Associate Professor of Economics and Finance at Canisius College. He received his doctorate in Economics from the University of Arizona. His research interests include investments and litigation economics.

Larry Lichtenstein, Ph.D., is Associate Professor of Economics and Finance at Canisius College. He received his doctorate in Economics from the State University of New York at Binghamton. His research interests include microeconomics and the housing market.

ENDNOTES

¹It can be shown that, for all intents and purposes, the analysis is invariant with respect to the magnitude of the first year payment.

²This expression is valid as long as $d \neq m$. When $d = m$, $PV_{\text{True}} = [FYC / (1 + m)] T$.

³This expression is valid as long as $d \neq .04$. When $d = .04$, a similar adjustment to that shown in Endnote 1 is made.

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