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# The Economics of Structured Judgments Under CPLR Article 50-B 

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## Introduction

The CPLR Article 50-B ${ }^{1}$ was enacted in 1986 to delineate the terms for structuring judgments for personal injuries, property damage, and wrongful death. Its enactment essentially extended CPLR Article 50-A which already established structured judgments for medical and dental malpractice actions. While Article 50-B has generated much commentary concerning precisely how to implement a structured judgment, ${ }^{2}$ relatively little attention has been paid to the economic consequences of the structuring rules contained within the statute. ${ }^{3}$ In this Article, we explain how economists think about the types of pecuniary losses claimed in Article $50-\mathrm{B}$ cases. We pay particular attention to explaining the importance of calculating the present value of any settlement, both as a way of evaluating alternative settlement offers and as a standard for assessing the economic impact of Article 50-B. Building on this conceptual basis, we identify the specific features of Article 50-B which distort economic valuation and provide detailed estimates of the economic consequences of the application of Article 50-B methodology.

## I. Damage Judgments and Present Value

The economist approaches the valuation of damage judgments as a problem of assessing losses over time. Time introduces a par-

[^0]ticular valuation problem because payments received today are of greater value than the same nominal payments received in the future. ${ }^{4}$ Furthermore, since not all time paths of damages are the same, comparing different paths is problematic.

Current payments are more valuable than future payments for two reasons. First, payments received today provide the recipient with the opportunity to realize real growth through investment. Over the past four decades real growth in the United States has averaged $2-3 \%$ annually. Thus, the recipient pays an opportunity cost of $2-3 \%$ for every year that he or she must wait to receive payment, and this occurs regardless of any price inflation in the economy. ${ }^{5}$ Inflation is the second source of value difference. The same nominal dollar payment will buy more goods today than it would in the future because today's goods have lower nominal prices. Over the past thirty-five years, increases in prices have averaged $5 \%$ or so annually. ${ }^{6}$

Both sources of value difference imply that a dollar payment, e.g., ten years in the future is not the same as a dollar payment today. To illustrate, it is convenient to think of payments on different dates as being measured in different units. When comparing payments at different times, it is necessary to convert everything to a common unit of measure-today's dollars. This is analogous to converting payments in foreign currency to U.S. dollars to compare the cost of purchases made overseas to those made in the U.S.

Converting payments at different points in time to an equivalent value in today's dollars is accomplished by calculating the "present value." Discounting the value of a payment made in the future by the combination of inflation and real growth factors, currently $7-8 \%$, yields its present value if paid today. ${ }^{7}$ Discounting is simply the mechanism for converting future dollars into a common unit of today's dollars. Similarly, losses incurred in the past should be incremented by this same discount factor to compensate the victim for the lost use of money which should have already been received.

[^1]By appropriately discounting the entire time series of payments we can calculate the single present value payment required to compensate the recipient fully for past and future losses. This technique can be applied to any settlement offer and provides a common metric for comparing settlement offers. Figure 1 demonstrates the impact of discounting on the present value of payments made over time. If there was no time value to money, a nominal payment of $\$ 1000$ would be worth $\$ 1000$ to the recipient today, no matter what year the payment was received. This can be seen from the horizontal line in Figure 1, where the value of a $\$ 1000$ nominal payment does not change with the year the payment is made. If, however, greater value is placed on early receipt of payment, today's real value of payments received in the future would decline as a function of the discount rate. Figure 1 shows that future payments discounted at $10 \%$ have less real value than those discounted at $5 \%$. In fact, the same $\$ 1000$ nominal payment made twenty years in the future has a present value of less than $\$ 165$ today if discounted at $10 \%$, and less than $\$ 400$ if discounted at $5 \%$.

Table 1 provides a further numerical illustration of the relationship between the time path of losses, the discount rate, and the resulting present values. Columns 1 and 2 have the same $\$ 250,000$ present value at a $5 \%$ discount rate, but a quite different time pattern of losses. ${ }^{8}$ Although the nominal losses in column 2 exceed the nominal losses in column 1 by over $\$ 44,000$, column 1's losses occur later in time and have less real value. Column 3 illustrates the impact of a higher discount rate. Here the present value of a stream of larger nominal losses is shown to have the same $\$ 250,000$ present value if discounted at the higher $10 \%$ rate. The lower discount rate of $5 \%$ yields a higher present value of $\$ 314,167$ for this later series.

Clearly, present value calculations are sensitive to the time pattern of losses as well as the discount rate used. A pattern of losses that occurs relatively closer to today has a larger present value than a pattern with losses over a long time period (for the same nominal loss). Similarly, a stream of payments stretched over a longer time period has a smaller present value than one with the same nominal payment over fewer years. For example, an economist never thinks of a lottery payment of $\$ 100,000$ per year over ten years to be worth a million dollars. Rather, the present value is much smaller. Higher discount rates also make early payments

[^2]much more valuable than late payments.

## II. Estimating Article 50-B Losses

The general presumption in personal injury, property damage, and wrongful death actions is that compensation is required to make the injured party whole. Compensation is the monetary payment required to make the individual as whole as that person would have been before the negligent act. Of course, this is extremely difficult to calculate in the abstract. A full economic accounting includes all the pecuniary and non-pecuniary gains and losses to the injured party's welfare including the loss of compensation, the impact of taxes, the value of household production, the value of leisure time, the impact of uncertainty about the future, as well as changes in the quality of life activities. ${ }^{9}$ As such, compensation for pecuniary losses is taken by the courts as a starting point, while the monetary value of pain and suffering is added on a case by case basis.

Article $50-\mathrm{B}$ cases typically claim pecuniary losses including labor compensation, household production and medical expenses, all of which are incurred over time. Barring individual specific information, the standard way of estimating the value of compensation losses is to assume that the damaged party will work for the entire expected work life of a worker their age at the time of the disablement. Based on the individual's wage before the accident and on wage growth patterns for the individual or workers in the industry, the economist predicts the path of compensation losses suffered. The intent is to accurately estimate the unobserved but expected time path of compensation losses.

Historically, nominal wages in the United States have increased since the Great Depression, while real wages have enjoyed a bumpy but steadily rising path. ${ }^{10}$ Normally, economic projections about future nominal wage growth incorporate both the real wage growth that the individual can expect as well as inflationary effects. However, if the impact of inflation is disregarded, predicted wage growth paths are based only on real wage effects from either

[^3]increases in individual productivity or the economy as a whole. ${ }^{11}$ Either way, the economist arrives at the same present value for lost wages irrespective of whether inflation is included in the estimates. When projected wage growth includes inflation, the discount rate also includes inflation. Alternatively, when projected wage growth does not include inflation, the applicable discount rate is cleaned of inflation's effect. Thus, the present value calculation appropriately discounts future losses to arrive at the equivalent compensation if paid in one lump-sum today. The same cannot be said for the payment of judgment calculations made under Article 50-B.

The loss in the value of household production suffered by the injured party is a second component of Article 50-B damages. Despite the rarity of intra-family transfer payments in exchange for household services, household production has a clear economic value. After all, work not performed by the homeowner him or herself is subsequently replaced by additional work, other household members, hiring it out at the prevailing market wage or lowering household consumption. ${ }^{12}$ Thus, where there is a diminution in household productive capacity, reliance on outside service providers increases, thereby driving up the costs in running the household or alternatively making the household worse off. These household loss estimates measure the degree to which plaintiff's ability to provide household services is compromised, at a value equal to the prevailing wage for providing such services. In practice, economists frequently rely on survey evidence to calculate the range of tasks performed in the home and measure the value of this work by the market wage associated with those tasks if hired privately. While labor compensation losses are calculated over the expected work life of the individual, household production is assumed to exist throughout the expected lifetime. The nominal value of household losses is assumed to increase over time in line with nominal growth in compensation for services to households. Discounting these future values is required to calculate the present value of this loss stream, just as with losses in compensation. Again, the calculations dictated by Article 50-B distort these calculations, essentially by specifying an incorrect method of calculating present values.

In some instances, Article 50-B cases seek damages associated

[^4]with medical costs accompanying the injury. To measure these damages, economists typically estimate the future time path of medical costs based on expert medical testimony. Since medical costs change over time due to price and quality changes, health sector specific price indices are used to calculate the growth path of these costs. Perhaps more than other sectors, price increases in health care reflect both quality and inflation dimensions. Nevertheless, discounting to present value provides a comparison standard.

The final major category of Article 50-B losses includes pain and suffering damages. Since the economist has no way to objectively calculate the monetary value of pain and suffering, the economist must rely on the courts' judgment. The economist will, however, include any award for pain and suffering in calculation of a settlement. These awards must also be put in present value terms, which requires some indication of the time path over which these damages are incurred. Pain and suffering losses will differ from case to case. One view is that pain and suffering losses are analogous to losses suffered in household production or compensation they can be measured annually and increase with price changes. An alternative view is that pain and suffering losses are incurred within a finite time period (perhaps even instantaneously at the point of injury) and should be credited for a much abridged time period. Whatever is assumed, the present value calculation requires discounting over the appropriate specified time period.

## III. Article 50-B and the Treatment of Pecuniary Losses

Article 50-B is New York State's law governing payment of jury judgments for personal injury, damage, and wrongful death. The Article 50-B calculations begin with a jury award specifying nominal losses from different sources and the time frame for these losses. ${ }^{13}$ The law then specifies how these losses are converted into payments to the injured parties and their attorneys. ${ }^{14}$

Article 50-B requires that damages be grouped into two clas-

[^5]ses, past damages sustained before the trial and future damages. Total past damages and the first $\$ 250,000$ of future damages are paid in one lump sum. By statute these lump sum payments are divided two-thirds to the plaintiff and one-third for plaintiff's attorney fees. To structure the award of the remaining future damages, the $\$ 250,000$ lump sum payment is deducted from total nominal future damages in proportion to the source of damage judgment. ${ }^{15}$ The residual nominal value of future damages from each source is then divided by the time period over which losses are incurred to calculate an average annual loss. ${ }^{16}$ This base year loss is incremented $4 \%$ annually for the entire loss period as required by statute. One-third of the present value of this constructed future stream of damages is paid to the attorney as a lump sum payment. The remaining two-thirds of the stream forms the annuity to be purchased for the plaintiff.

## IV. Article 50-B as Economic Justice

The value of the judgment structured under the rules of Article $50-\mathrm{B}$ deviates significantly from the present value standard. It is useful at this point to analyze the sources of deviation contained within the statute and to calculate the size of the economic distortion these Article 50-B provisions create.

## A. Past Losses Under Article 50-B

Article 50-B's treatment of past losses understates the true present value of past losses. Under Article 50-B, losses incurred prior to the time of the trial must be aggregated and paid in one sum. In contrast, present value accounting requires incrementing the value of losses suffered in the past to compensate for lost use of these funds from the time the loss was incurred until the time of payment. At the prevailing discount rate, failure to discount past losses results in a diminution of value in the payment to the plaintiff of $7.6 \%$ for each year in the past. For example, for the losses incurred in the year three years prior to settlement, failure to discount reduces the present value of the payment nearly $25 \%$. Even

[^6]losses incurred one year prior to the settlement will lose $7.6 \%$ of their value if there is no discount adjustment made. However, it is likely that the degree to which Article 50-B understates the value of past losses is limited because trial settlements are likely to be reached relatively close to the time that the past losses are incurred. ${ }^{17}$ In contrast, future losses may be suffered far into the future. As we will see, Article 50-B's failure to discount these losses properly results in the present value of the Article 50-B judgment severely overstating the true present value of the losses.

## B. Future Losses Under Article 50-B

Article 50-B's treatment of future losses is inconsistent with the present value criteria because it consistently overstates the present value of future losses to plaintiffs. To illustrate the degree to which these values are overstated we have calculated the present value of losses for three representative cases. Case I involves a forty-one year old male plaintiff who earns $\$ 45,000$ per year (including fringes), growing at $5 \%$ annually, at the time of his disablement. ${ }^{18}$ We assume he loses all earning capacity and that he would have continued working through age sixty. ${ }^{19}$ In addition, the individual loses household production of approximately five hours per week until expected mortality (age seventy-five), and suffers pain and suffering losses of approximately $\$ 500,000$ nominal value which are spread over his expected lifetime. ${ }^{20}$ Case II is identical, with the exception of pain and suffering losses being doubled (approximately $\$ 1$ million nominal value). Case III develops a representative calculation for a much younger individual. Here a twenty-six year old man loses his earning capacity of $\$ 30,000$ per year, which is assumed to grow at $5 \%$ annually through his expected work life. Household losses also start at the earlier age. Pain and suffering damages are nominally set at approximately $\$ 1,000,000$ and experienced through the entire lifetime.

For evaluation purposes the present value of the losses suf-

[^7]fered in each representative case can serve as a baseline for comparison. As indicated above, the present value is an accurate statement of the total losses expressed in terms of the equivalent payment required today. In other words, if given a payment today equal to the present value, an individual could invest the payment and withdraw funds in the future to duplicate exactly the stream of future losses.

Figure 2 compares the present value of the Article 50-B structured judgment to the true present value of the losses suffered in each of our representative cases. Figure 2 demonstrates that the present value of the Article 50-B payments far exceeds the true economic value of the losses suffered. The settlement provided under Article 50-B increases the present value cost to the defendant by approximately two to three times, depending on the case. For example, Article 50-B increases the present value of the losses assumed in Case III by over $\$ 1.7$ million. Although the degree to which these present values are influenced by Article 50-B will depend on a number of parameters (including the composition, extent and time path of damages, and the prevailing discount rate), the three representative cases we examine provide insight into the extent of the economic distortions created.

There are five distinct features of CPLR Article 50-B that distort the economic value of the judgment as outlined below. ${ }^{21}$ The economic impact of each of these provisions can be seen in Figure 2 and is detailed in Tables 2-4. ${ }^{22}$ The top two rows of Tables 2-4 display the assumed nominal and present value losses for each of the three loss categories for these three representative cases. Row 3 in each table shows the present value of the Article 50-B structured settlement for each loss category. This can be contrasted with row 2 which shows the true present value of the losses based on the assumed time pattern of damages. By subtracting row 3 from row 2 we can calculate the size of the bias introduced by the Article 50-B structured judgment. In our examples, the Article 50B structured judgment exceeds the present value of the losses by approximately $\$ 750,000$ to $\$ 1,750,000$ (row 4 , Tables $2-4$ ). Subsequent rows of Tables 2-4 apportion the bias to each of the various

[^8]Article 50-B provisions discussed below. ${ }^{23}$

1. Lump Sum Payment of $\$ 250,000$ Future Losses. Article 50-B requires a lump sum payment of the first $\$ 250,000$ of future losses. Specifying such a payment is problematic only to the extent that it distorts the calculations of present value. ${ }^{24}$ Preserving the true present value of losses requires lump sum payments to be subtracted from the present value of the future loss stream. Instead, Article $50-\mathrm{B}$ credits lump sum payments against the nominal value of future losses. The effect of this provision can be seen from the example constructed in Table 1. Columns 1 and 2 both have present values equal to $\$ 250,000$ (at a $5 \%$ discount rate) but nominal values that are much higher. Done correctly, an initial settlement of $\$ 250,000$ would exactly match the present value of the loss, and no further payments should be made. Yet under the lump sum provision of Article $50-\mathrm{B}$, a lump sum payment of $\$ 250,000$ is paid to the plaintiff while an additional annuity based on the value of the remaining loss stream is also awarded. In Table 1, this leaves future payments between $\$ 73,760$ and $\$ 118,500$ to be annuitized. The result is an award whose value exceeds the $\$ 250,000$ present value of the loss stream.

In general, the higher the ratio of nominal loss to present value, the larger the bias introduced by this provision. The extent of this bias can be seen by the area of the bar graph in Figure 1 marked " $\$ 250 \mathrm{~K}$ upfront" and in Tables 2-4: row 5, column 4. For example, in Case I, $\$ 73,141$ of the $\$ 754,039$ difference between the higher present value of the Article $50-\mathrm{B}$ structured judgment and the true present value of the losses is attributed to this provision. For the set of three representative cases this provision accounts for $5.9-9.7 \%$ of the total present value increases due to Article $50-\mathrm{B} .{ }^{25}$ In Case III the $\$ 250,000$ lump sum payment is responsible for $5.9 \%$ of the impact, increasing the present value by over $\$ 100,000$. This reflects the relatively longer loss period in Case III, which in turn makes nominal losses large relative to present values.

[^9]2. Averaging the Time Path of Future Losses. Expert testimony concerning future losses typically contains estimates of the predicted time path of wages and prices. Figure 3, which displays a typical loss time path based on the assumed wage profile for Case II, shows increasing nominal compensation losses as a result of real growth and inflation. Juries are typically not asked to specify the precise time path over which losses are incurred, even though the present value of these future losses depends on the precise time path. Article $50-\mathrm{B}$ alters the present value of these losses by implicitly changing their predicted time path into an alternative path based on the average loss of the entire time period. This averaging of future losses shifts the loss profile from upward sloping to horizontal as shown in Figure 3. Although this change in the loss profile does not affect the sum of nominal future losses, it increases losses in earlier years and lowers them in later years relative to the predicted loss pattern. Since discounting to present value gives greater weight to those observations nearest in time, the present value calculated from this stream will exceed that of the actual non-smoothed stream. The distortion from this source depends on both the steepness of the path of nominal losses and the length of time for averaging. The steeper the losses and the longer the time period, the greater the distortion. Figure 2 shows that the present value impact of averaging the loss stream is considerably larger than the impact of the $\$ 250,000$ lump sum payment. Tables 2-4 show that smoothing the loss path is responsible for approximately $20 \%-26 \%$ of the total present value increase caused by Article 50B. This amounts to an increase in present value of anywhere from $\$ 212,000$ to $\$ 468,000$ in present value. The total effect of these first two provisions is to raise the present value of the Article 50-B judgments by approximately $35 \%$ above its true economic value.
3. Inflation Adjustment. Once the time path of future losses is calculated, Article $50-\mathrm{B}$ requires incrementing this calculation $4 \%$ annually into the future. At issue is whether the time path of losses should be presented in real (inflation adjusted) or nominal terms. In Brown v. State of New York ${ }^{26}$ the Court noted that while the justification for a $4 \%$ annual increment cannot be gleaned from legislative history, the statute does require annual payments to be incremented by this factor. ${ }^{27}$ Since CPLR 4111(f) authorizes the trier of fact to "award the full amount of future damages . . . with-

[^10]out reduction to present value, ${ }^{, 28}$ testimony on future losses in nominal terms is admissible. As a result, Article $50-\mathrm{B}$ provides a double adjustment for inflation.

While the Court in Brown has recognized that Article 50-B may over-adjust for inflation, the magnitude of the $4 \%$ annual inflation adjustment on the present value of the losses is rarely addressed. Figure 2 and Tables 2-4 illustrate that the $4 \%$ inflation adjustment provision of Article 50-B is responsible for a $46 \%-51 \%$ increase in present value. This results in a present value increase ranging from $\$ 387,576$ in Case I to $\$ 813,991$ in Case III, representing the largest increase caused by any of the provisions.

In general, the impact of the annual $4 \%$ inflation adjustment depends on the time period over which the losses occur. Figure 4 shows the impact of this inflation provision on the present value of compensation losses for four different Article 50-B judgments, all with different loss periods. In this figure we attribute the present value of Article 50-B structured judgments to three sources: the true present value of the losses, the present value added by the Article $50-\mathrm{B}$ smoothing and $\$ 250,000$ lump sum payment provisions, and the present value added by the Article 50-B inflation provision. The examples displayed in Figure 4 consist of four cases with identical wage profiles, differing only in the age at which disablement occurs. ${ }^{29}$ Two conclusions stand out in Figure 4. First, the true economic value of the loss stream is higher the later the disablement. This reflects the implicit assumption that wage growth trails the rate of growth of the economy. Second, the importance of the inflation provision corresponds to the time length of earnings loss. The longer the loss period, the greater the Article $50-\mathrm{B}$ distortion to true economic value.
4. Limiting Pain and Suffering Payout to a Ten-Year Period. Article 50-B specifies that pain and suffering damages be paid over a ten-year period or for the time period over which the jury awards pain and suffering damages, if shorter. This provision does not restrict pain and suffering compensation to damages that are endured for ten years or less. Rather, all recognized pain and suffering losses, over the entire expected life span, are paid over the ten year period (or such shorter period where appropriate). For our purposes, we have assumed that pain and suffering losses are experienced throughout the entire expected life of the plaintiff and that the award is paid over ten years.

[^11]Article 50-B increases the present value of the losses by restricting the payment of pain and suffering losses to a time period which is in practice shorter than the actual time period in which pain and suffering damages are incurred. ${ }^{30}$ The three representative cases illustrate that the present value of pain and suffering losses increases approximately three to five times when payments are restricted to a ten year period. This restriction results in increases in present values from nearly $\$ 300,000$ in Case I to over $\$ 730,000$ in Case III.
5. Termination of Payment of Non-Economic Losses upon Death of Creditor. Under section 5045 of Article 50-B, the liability for future periodic payments of "non-economic" losses are terminated upon the death of the judgment creditor. Non-economic losses are interpreted as losses other than compensation losses. This termination provision is inconsistent with economic logic in two ways. First, compensation losses are no more real than other losses. Why then should compensation damage payments be continued while other damage payments are not? ${ }^{31}$ Second, the decision to truncate damage payments if the plaintiff dies prematurely is asymmetric. Since damage judgments are based on expectations about work life and mortality, symmetric treatment of the actual mortality experience of the plaintiff requires continued payments should the individual live beyond their expected lifetime. The bias introduced by this provision deflates the value of an expected settlement depending upon the actual mortality experience of the individual. ${ }^{32}$

## V. Summary of Article 50-B Impact

The provisions of Article $50-\mathrm{B}$ greatly inflate the economic value of compensation paid to plaintiffs (as well as to plaintiffs' attorneys). The extent to which Article 50-B distorts the true economic value of judgments depends on a number of factors including: the size, composition and timing of losses, the time period over which losses occur, and the discount rate and growth rate of damages. Indeed, Article 50-B judgments increase the economic value of losses approximately two to three times. The three representa-

[^12]tive cases highlighted this distortion with increases in defendant liability of approximately $\$ 750,000$ to $\$ 1,750,000 .{ }^{33}$ Even if pain and suffering is excluded, the present value of Article 50-B structured judgments is $60-140 \%$ higher than the present value of the loss stream it is based on.

Figure 2 illustrates the impact various provisions of Article 50B have on damage judgments. Of particular importance is the $4 \%$ inflation adjustment. This provision accounts for approximately $50 \%$ of the increase in the economic value of the judgment. Smoothing the loss series and telescoping pain and suffering damages into a ten year time period also have important effects, particularly if the plaintiff is injured at an early age. ${ }^{34}$

While we find the results of this analysis to be quite interesting in their own right, the implications for trying Article 50-B cases cannot be overstated. The provisions of Article 50-B create an appreciable wedge between the present value of structured judgments and the present value of predicted damages. This has important implications for negotiating settlement offers. Furthermore, we find these results to be quite ironic in the context of section 5501, which grants the Appellate Division the right to review a money judgment and determine whether an award is excessive or inadequate if "it deviates materially from what would be reasonable compensation." ${ }^{35}$ Based on the present value standard set out above, the provisions of Article 50-B itself create an award that "deviates materially from reasonable compensation."

[^13]Table 1
Alternative Patterns of Losses over Ten Years

| YEAR | $(1)$ | $(2)$ | $(3)$ |
| :--- | ---: | ---: | ---: |
| 1 | $\$ 32,376$ | $\$ 0$ | $\$ 40,686$ |
| 2 | $\$ 32,376$ | $\$ 0$ | $\$ 40,686$ |
| 3 | $\$ 32,376$ | $\$ 0$ | $\$ 40,686$ |
| 4 | $\$ 32,376$ | $\$ 0$ | $\$ 40,686$ |
| 5 | $\$ 32,376$ | $\$ 0$ | $\$ 40,686$ |
| 6 | $\$ 32,376$ | $\$ 73,700$ | $\$ 40,686$ |
| 7 | $\$ 32,376$ | $\$ 73,700$ | $\$ 40,686$ |
| 8 | $\$ 32,376$ | $\$ 73,700$ | $\$ 40,686$ |
| 9 | $\$ 32,376$ | $\$ 73,700$ | $\$ 40,686$ |
| 10 | $\$ 32,376$ | $\$ 73,700$ | $\$ 40,686$ |
| Nominal Total | $\$ 323,760$ | $\$ 368,500$ | $\$ 406,860$ |
| Discount $@$ <br> $5 \%$ | $\$ 250,000$ | $\$ 250,000$ | $\$ 314,167$ |
| Discount $@$ <br> $10 \%$ | $\$ 198,937$ | $\$ 173,473$ | $\$ 250,000$ |

Table 2
Impact of Article 50-B Provisions on Present Value of Settlement
Case I

|  | Compensation <br> Losses | Household <br> Losses |  <br> Suffering <br> Losses | Total Loss |
| :---: | ---: | ---: | ---: | ---: |
| Nominal Losses | $\$ 1,487,968$ | $\$ 147,304$ | $\$ 515,566$ | $\$ 2,150,838$ |
| Present Value | $\$ 694,931$ | $\$ 39,444$ | $\$ 138,054$ | $\$ 872,429$ |
| Article 50-B Present | $\$ 1,099,030$ | $\$ 90,478$ | $\$ 436,961$ | $\$ 1,626,468$ |
| Change in Present | $\$ 404,099$ | $\$ 51,034$ | $\$ 298,906$ | $\$ 754,039$ |
| \% Article 50-B Impact <br> due to \$250,00 up-front <br> payment | $9.8 \%$ | $14.6 \%$ | $8.8 \%$ | $9.7 \%$ |
| \% Article 50-B Impact <br> due to smoothing | $25.7 \%$ | $30.1 \%$ | $18.0 \%$ | $23.0 \%$ |
| \% Article 50-B Impact <br> due to double inflation <br> adjustment | $64.6 \%$ | $55.2 \%$ | $33.0 \%$ | $51.4 \%$ |
| \% Article 50-B Impact <br> due to 10 year Pain and <br> Suffering Period |  |  | $40.2 \%$ | $16.0 \%$ |

Table 3
Impact of Article 50-B Provisions on Present Value of Settlement
Case II

|  | Compensati on Losses | Household Losses | Pain \& Suffering Losses | Total Loss |
| :---: | :---: | :---: | :---: | :---: |
| Nominal Losses | \$1,487,968 | \$147,304 | \$1,031,131 | \$2,666,404 |
| Present Value | \$694,931 | \$39,444 | \$276,108 | \$1,010,483 |
| Article 50-B Present Value | \$1,089,139 | \$89,033 | \$869,923 | \$2,048,095 |
| Change in Present Value due to Article 50B | \$394,208 | \$49,5899 | \$593,815 | \$1,037,612 |
| \% Article 50-B Impact due to $\$ 250,00$ up-front payment | 8.1\% | 12.2\% | 7.1\% | 7.7\% |
| \% Article 50-B Impact due to smoothing | 24.1\% | 29.6\% | 17.3\% | 20.5\% |
| \% Article 50-B Impact due to double inflation adjustment | 67.9\% | 58.3\% | 34.1\% | 48.1\% |
| \% Article 50-B Impact due to 10 year Pain and Suffering Period |  |  | 41.5\% | 23.8\% |

Table 4
Impact of Article 50-B Provisions on Present Value of Settlement
Case III

|  | Compensati <br> on Losses | Household <br> Losses |  <br> Suffering <br> Losses | Total Loss |
| :---: | ---: | ---: | ---: | ---: |
| Nominal Losses | $\$ 2,709,609$ | $\$ 305,334$ | $\$ 1,068,670$ | $\$ 4,083,613$ |
| Present Value | $\$ 683,963$ | $\$ 46,077$ | $\$ 161,270$ | $\$ 891,309$ |
| Article 50-B Present <br> Value | $\$ 1,599,238$ | $\$ 150,769$ | $\$ 895,594$ | $\$ 2,645,601$ |
| Change in Present <br> Value due to Article 50- <br> B | $\$ 915,276$ | $\$ 104,692$ | $\$ 734,324$ | $\$ 1,754,292$ |
| \% Article 50-B Impact <br> due to \$250,00 up-front <br> payment | $6.3 \%$ | $9.6 \%$ | $4.8 \%$ | $5.9 \%$ |
| \% Article 50-B Impact <br> due to smoothing | $33.5 \%$ | $34.4 \%$ | $17.2 \%$ | $26.7 \%$ |
| \% Article 50-B Impact <br> due to double inflation <br> adjustment | $60.2 \%$ | $56.0 \%$ | $27.9 \%$ | $46.4 \%$ |
| \% Article 50-B Impact <br> due to 10 year Pain and <br> Suffering Period |  |  | $50.1 \%$ | $21.0 \%$ |

Table 5
Value of Article 50-B Structured Settlement

|  | Case 1 | Case 2 | Case 3 |
| :--- | ---: | ---: | ---: |
| Nominal Damages | $\$ 2,150,838$ | $\$ 2,666,404$ | $\$ 4,083,613$ |
| Present Value of Damages | $\$ 872,429$ | $\$ 1,010,483$ | $\$ 891,309$ |
| Article 50-B Present Value | $\$ 1,626,468$ | $\$ 2,048,095$ | $\$ 2,645,601$ |
| Ratio of Article 50-B Present <br> Value/ True Present Value | 1.86 | 2.03 | 2.97 |



Figure 2
Article 50-B Impact on Present Value



Figure 4: Impact of Age of Injury on
Value of 50-B Judgment for Compensation



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    1. N.Y. Civ. Prac. L. \& R. 5041-5049 (McKinney 1994).
    2. See, e.g., Jacqueline Argentine, Comment, From Verdict to Judgment: The Evolution, Confusion and Reformation of CPLR Articles 50-A and 50-B, 40 Buff. L. Rev. 917 (1992).
    3. Notable exceptions are Brown v. State, 592 N.Y.S.2d 533 (App. Div. 1992); Singletary v. Three City Ctr., 601 N.Y.S.2d 649 (Sup. Ct. 1993); Rohring v. City of Niagara Falls, 584 N.Y.S.2d 513 (Sup. Ct. 1992), aff'd, 601 N.Y.S.2d 740 (App. Div. 1993), aff'd, 638 N.E.2d 62 (N.Y. 1994).
[^1]:    4. Nominal payments refer to payments in current dollars that are not adjusted for inflation. In contrast, real dollars already have accounted for the effects of inflation.
    5. In the 20 years following the end of World War II real productivity growth averaged $3-3.5 \%$ in the U. S. economy. Since 1968 real productivity growth has slowed to rates which are half of the immediate post-war period. See Martin N. Baily et al., Growith With Equity 21-23 (1993).
    6. United States Bureau of the Census, Statistical Abstract of the United States tbl. 757 (1993).
    7. The 30 -year average return of Treasury Bills is one way to measure the discount rate. At the time this article was written, the 30 -year average return on 1-year T-Bills was 7.6\%.
[^2]:    8. The discount rate is typically based on expected interest rates and includes both real growth and inflation expectations as discussed above.
[^3]:    9. For example, a full utility accounting would require the economist to estimate the change in the value of current leisure time which may very well be reduced because of injury. On the other hand, the plaintiff may very well experience a gain in the number of hours of leisure time due to separation from the work force. A full economic accounting would incorporate both of these effects.
    10. See, Frank Levy \& Richard J. Murnane, U.S. Earnings Levels and Earnings Inequality: A Review of Recent Trends and Proposed Explanations, 30 J. Econ. Lir. 1333, 1335-37 (1992).
[^4]:    11. There is some disagreement over whether Article 50-B requires that loss estimates include or ignore the effects of inflation. See, e.g., Brown v. State, 592 N.Y.S. 2 d 533 (App. Div. 1992).
    12. A phenomenon increasingly observed is the brisk businesses of lawn and snow plowing services as well as the popularity of condominium housing arrangements where the association provides all maintenance.
[^5]:    13. Before Article 50-B's enactment, it was common to introduce evidence on nominal losses and their present values. After Article 50-B's enactment, testimony is confined to nominal losses on which a jury passes judgment. The structured settlement procedures are designed to convert these nominal losses into present values.
    14. This approach to calculating Article $50-\mathrm{B}$ judgments is set forth in Ursini v. Sussman, 541 N.Y.S. 2 d 916 (Sup. Ct. 1989). See Peterson v. Zuercher, 584 N.Y.S.2d 968 at 969 (Sup. Ct. 1992), for a numerical demonstration of this methodology. A recent Court of Appeals decision revises one component of the Ursini approach in line with economic principles. Rohring v. City of Niagara Falls, 638 N.E.2d 62 (N.Y. 1994). We have adapted the Ursini methodology to incorporate the Rohring decision.
[^6]:    15. Thus, if $40 \%$ of the damages awarded to a plaintiff were based on the loss of compensation, then $40 \%$ of $\$ 250,000$, or $\$ 100,000$, would be deducted from the award for future compensation losses.
    16. Earnings losses are averaged over the time period specified by the award which is normally the expected work life of the plaintiff. Medical expenses and other miscellaneous categories would be based on their respective damage periods. The one exception is losses for pain and suffering which are restricted to a 10 -year time period by Article 50-B. CPLR 5041(e).
[^7]:    17. For this reason we ignore past losses for our representative cases. The inclusion of past losses would reduce the extent to which Article 50-B inflates the present value of the settlement, as we discuss below.
    18. Earnings assumed in Case I approximate average earnings experienced by male workers of this age. United States Bureau of the Census, Statistical Abstract of the United States (1993).
    19. The New York State Pattern Jury Instruction tables show an expected work life to age 60.6 for a 41 year old male currently in the labor force. See generally 1 New York Pattern Jury Instructions-Civil app. B, tbl. 1 (2d ed. Supp. 1995).
    20. As discussed above, we assume here that annual pain and suffering losses continue through expected mortality and increase annually with inflation.
[^8]:    21. Until the Court of Appeals' decision in Rohring v. City of Niagara Falls, 638 N.E.2d 62 (N.Y. 1994), there were actually six provisions of Article 50-B that distorted the present value of the settlement.
    22. We only provide estimates of economic impact for the first four of these provisions because of the uncertainty surrounding the alternative damage path assumed in the fifth provision: termination of payment of non-compensation related losses occurs on the creditor's death.
[^9]:    23. This apportionment of bias should be viewed as a first order approximation because the provisions interact with each other in complex ways, thereby complicating the attribution of each provision's impact.
    24. See Rohring, 638 N.E.2d 62. Ironically, the Court has not recognized that the same distortion in present value occurs in this provision too. If the Court of Appeals had not issued this opinion, then the lump sum payment of attorney fees would have introduced a distortion of similar magnitude.
    25. The impact on the present value of the specific loss categories varies. Household and pain and suffering losses are particularly distorted because they are until mortality, unlike compensation losses which for Cases I and II, are truncated fifteen years earlier, at retirement.
[^10]:    26. 592 N.Y.S.2d 533 (App. Div. 1992) (involving prisoner's personal injury action against New York state for loss of hand).
    27. Id.
[^11]:    28. Id. at 534.
    29. Each individual is assumed to work until age 60, enjoy a $5 \%$ annual compensation increase and achieve total annual compensation of $\$ 45,000$ at age 41.
[^12]:    30. Pain and suffering losses are smoothed and augmented $4 \%$ annually over the 10 year time period.
    31. For example, loss of the value of household services seems perfectly analogous to the loss of labor compensation.
    32. Due to mortality uncertainty, calculating an accurate monetary impact for the three representative cases is impossible.
[^13]:    33. Figure 2 and Table 5 show the cumulative effect of the various Article 50-B provisions.
    34. See infra Figure 4.
    35. CPLR 5501(c).
