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WRONGFUL DEATH AND DISABILITY AWARDS:

GROSS OR AFTER-TAX INCOME?

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The present value of future wage losses represent an important part of the total economic loss that results from a wrongful death. The economist's task, in the role of expert witness, is to provide to the interested parties a lump sum amount of income equal to the losses experienced by the decedent's beneficiary. This amount is obtained by increasing the decedent's wage at the time of death, by an appropriate annual wage growth rate, to generate estimates of what future wages would have been had the decedent been able to continue in his or her employment. Each of the annual future wages is then discounted to determine today's value of the future annual wage. The sum of these discounted future annual wages produces an amount of money, which when invested, will provide an income stream exactly equal to the decedent's lost income stream.[1]

An important question concerning wage losses, and one which has received the explicit attention of the United States Supreme Court, is whether gross wages or after-tax wages should be used in the calculations.[2] The decedent's wages prior to death, are subject to federal and state taxes, and some would argue that because of this, it is only logical and correct that the lost future wages of the decedent also be adjusted for taxes. In a recent ruling the Court held that in a wrongful death action under the Federal Employee Liability Act: "The amount of money that a wage earner is able to contribute to the support of his family is unquestionably affected by the amount of the tax he must pay to the Federal Government. It is his after-tax income, rather than his gross income before taxes, that provides the only realistic measure of his ability to support his family. It follows inexorably that the wage earner's income tax is a relevant factor in calculating the monetary loss suffered by his dependents when he dies."[3] Although this ruling does not usurp the authority of the state courts to specify gross or net of tax awards, it is reasonable to expect the principle involved will be of interest in wrongful death or disability litigation argued before these courts.[4] As the matter now stands, the economist may be asked to testify using gross wages in one court and after-tax wages in another.

It is not our intent, nor does our expertise allow us, to speak to the legal question of whether taxes should be included. We do, however, feel qualified to address the question from an economic point of view, and especially so in an area where the court, in its wisdom, has provided a relevant ecomomic test. Our argument will be twofold. First, using the "Hand Formula" for negligence, we will show that awards net of taxes can increase the occurrence of wrongful deaths and disablements. Second, applying the "American Rule" that a prevailing party is not entitled to attorney's fees as costs, we will show an award net of taxes is an award of no income to the decedent's beneficiary over a considerable period of the decedent's work life expectancy.

Economic Deaths and Disablements

The award of damages in a wrongful death or disability case has been associated with the idea of equitable compensation to an injured party. To the economist, however, the role of compensation is to prevent accidents which are not economical; that is accidents for which the cost of prevention is less than the losses from occurrence. The fact that a correct calculation and award of damages to the plaintiff prevents such accidents from occurring is an important but subsidiary point.

This view is, of course, no mystery to the law as the legal standard applied to many unintentional tort cases is that of Judge Learned Hand. Judge Hand, to establish negligence in a runaway barge suit, introduced the appropriate formula: "(T)he owner's duty, as in similar situations, to provide against resulting injuries is a function of three variables: (1) The probability that she will break away; (2) the gravity of the resulting injury if she does; (3) the burden of adequate precautions... (I)f the probability be called P; the injury, L; and the burden, B; liability depends upon whether B is less than L multiplied by P: i.e. whether $B < PL$."[5] This is an economic test. An accident which has a 10% probability of occurrence with a resulting injury of $1000 will be prevented if the cost of prevention is less than or equal to $100. Should the accident cost more than $100 to prevent, it will be allowed to occur.[6]

Taxes and Economical Accidents

Consider, for explanatory purposes, an individual who was fatally struck in 1980 by a motor vehicle due to improper installation, adjustment, maintenance or inspection of the braking system. The decedent was thirty years of age, married, a resident of Richmond, Virginia, and a maintenance carpenter employed by a manufacturing firm. His life expectancy at time of death is then 40.9 years (Virginia Code) and his work life expectancy to age 65 is 35 years. The economist is asked to calculate lost income.

The calculation of lost income requires an assumption regarding the wage trend or annual rate of increase in the wage paid to our hypothetical individual. This trend is determined by analyzing the history of wages paid to a maintenance carpenter in Richmond, Virginia, which is presented below:

Wage History
Maintenance Carpenter

Year	Hourly Wage
1975	$ 6.49
1976	6.74
1977	7.74
1978	8.60
1979	9.38
1980	10.11

The observed increase in wages from $6.49 in 1975 to $10.11 in 1980 requires that on average the annual rate of increase equal 9.2 percent. Should the decedent have continued to receive the average increase in his profession, his wage would then have risen 9.2 percent annually.

The payment today of a lump sum amount equal to these expected wage increases would, however, overcompensate the decedent's beneficiary. The actual wage losses will occur over time; thus, it is necessary to reduce the future stream of losses to a sum of money which, if received today, would be equivalent in value to the economic losses spread over the decedent's expected work life. This sum is the present value of the future earnings stream and is obtained by the technique of discounting each year of the future stream at whatever interest rate is deemed appropriate for investing funds and then summing all years. In this example we will use a discount rate of 8.1 percent which is the average annual yield on U.S. treasury bills, U.S. government bonds, state and local (AAA) bonds and corporate (AAA) bonds during the last five years. This is the amount by which the expected wage increase of 9.2 percent must be reduced.

The reader will note that it is the differential between the wage trend and the discount rate, rather than the nominal value of each, which is important when calculating the monetary losses in a wrongful death case. It is not possible, nor is it necessary, to know what the actual growth in wages or interest rates will be in the future as the relevant factor is the relationship between the two. The historical data show a differential of 1.1 percent between the wage trend and the discount rate and while this differential will not be the same each year, there is no reason that it will not be approximated in future periods since both wage trends and discount rates are economic variables which move with general economic conditions.

The 1.1 percent differential means that all future present value wages will increase by 1.1 percent a year. The sum of the increases will be equal to the total present value of lost income. This amount must be reduced to reflect the decedent's personal expenditures; income had the decedent lived, that would have been expended for purely personal needs. In this example we will use an amount of 20 percent of the decedent's gross income for the personal consumption allowance.

<u>Present value of lost wages: Gross Wage Method</u>

The decedent's income at the time of death was $10.11 an hour or $21,029 annually. His work life expectancy is 35 years. Using the 1.1 percent difference between the wage trend and the discount rate we have calculated the lost wages of $812,978 presented in Table I. The gross wage method as presented in column A requires this amount be reduced by $162,596 to reflect a personal consumption allowance. The balance of $650,382 represents the gross wage losses which, if paid to the decedent's beneficiary, would fail to account for taxes levied against the lifetime of lost income.

After-Tax Wage Method

The after-tax method is summarized in column B of Table I. This method requires the gross lost wages be reduced by a personal consumption allowance and an estimate of taxes paid. Such an estimate can be made by examination of the history of wages received and taxes paid. Table II shows the decedent's total annual wages for the years 1976 to 1980 as \$88,545. The decedent paid a total of \$21,472 in federal income, social security and state income taxes over these same years, or an amount equal to 24% of his total annual wages. Column B of Table I includes a reduction for taxes in the amount of \$195,115 or 24% of lost wages. The combined reduction for taxes and personal consumption leaves a net loss wage of \$455,267. This amount, which took full account of the tax liability, would, if paid to the decedent's beneficiary, provide full and equitable compensation for lost income.

More or Fewer Accidents

The relevant question is: Was the accident economical: To answer one must know the probability of occurrence and the cost of prevention. Assume there is one chance in a hundred over the 35 years such an accident would occur and the cost of maintenance, inspection, and installation to prevent its occurrence is \$5000 for 35 years. The expected losses from occurrence under the gross wage method are then one percent of \$650,382 or approximately \$6500. The owner of the vehicle involved has a \$1500 incentive to <u>prevent</u> the accident. The expected losses from occurrence using the after-tax method are one percent of \$455,267 or approximately \$4500.

The owner of the vehicle has a $500 incentive to allow the accident to occur.

The usual arrangement between employer and employee is unaffected by the tax collector. The parties negotiate a gross wage and this wage is not raised or lowered in an automatic fashion due to a change in the tax levy. To quote Supreme Court Justice Blackman: "Apart from required withholding, it just is not the payer's responsibility or, indeed any of his business"[7] how and what taxes are collected. In our example, as in any wrongful death case, the manner in which taxes are treated, is indeed a matter of concern to the defendant, be he employer or not. An award net of taxes transfers a benefit to the defendant as it reduces the expected costs of negligence. True to the layman's intuition, as well as the economist's Law of Demand, a reduction in price results in an increase in quantity purchased. Lowering the award to account for taxes results in a greater number of wrongful deaths and disabilities as those accidents which were economical to prevent under the gross tax method become uneconomical to prevent under the after-tax method.

Taxes and the American Rule

In a wrongful death case, no award will be granted unless liability is established. However, to collect the award for lost wages, which is designed to compensate the beneficiary for losses sustained through no fault of the decedent, the beneficiary is required to incur legal fees and other allowable expenses which would not have been necessary had the decedent been able to continue his employment. Under the generally applicable "American Rule" the plaintiff is not entitled to recover the amount of such fees from the defendant in a successful litigation.[8] The economist is asked to calculate an amount which, if awarded, will guarantee to the plaintiff an income stream equal to the decedent's, and one which will last for the entire period of the decedent's work life expectancy.

In our previous example we have calculated two such streams. The amount of $650,382 will generate an income equal to the decedent's gross wages for 35 years. The amount of $455,267 will generate an income equal to the decedent's after-tax or net wages for 35 years. Neither of these amounts, if accepted by the court, will be received by the plaintiff. The usual practice in personal liability cases is a payment of one-third of the amount awarded to the representing attorney. The economist cannot and should not take account of this practice in his calculations. To do so would jeopardize the credibility of his testimony and, in fact, it is none of his business. The impact of the attorney fees under the "American Rule" is, however substantial.

Reference to Table I indicates an award of net income or after-tax wages will be reduced by the attorney fee to a net to beneficiary of $303,663. This amount will not provide an appropriate income for 35 years. Should the decedent's beneficiaries be paid an amount equal to his <u>after-tax wages</u>, this fund will be exhausted in the 24th year and no income will be available for the final eleven years of the decedent's work life expectancy.

Table I also shows the impact of the attorney fee on an award of gross wages. The net to beneficiary of $433,805 will allow a payment equal to the decedent's <u>after-tax wages</u> for 34 of the 35 years of his work life expectancy. The Court has argued, and we would agree, the appropriate award is one equal to net or after-tax wages. In our example, as in most cases, the beneficiary will receive the appropriate award if gross wages are used in the economist's calculations.

Summary

In a wrongful death case the award is designed to place the beneficiary in the same financial position he or she would have enjoyed had the death not occurred. If the decedent had been allowed to continue his employment, his lifetime income would have been subject to federal and state taxes, but he would not have been required to incur legal expenses in collecting his income. The obvious solution is a dual award; one to compensate the beneficiary for lost after-tax income, the second to compensate for the extraordinary expense of recovery. Under the "American Rule" this solution is not feasible and, in fact, if feasible, may be an uneconomical solution.[9] A second solution, or rule of thumb will approximate the same result; specifically, a calculation of lost income using gross wages rather than after-tax wages and, at the same time, recognizing as a fact the legal and other expenses that will be incurred by the beneficiary. An additional and desirable result of gross wage calculations is a reduction in the probable number of accidental deaths and disabilities.

Table I

Present Value of Lost Income

A Gross Wage Method		B After Tax Wage Method	
Lost Wages	$812,978	Lost Wages	$812,978
		Taxes	195,115
		Disposable Wages	617,863
Consumption Allowance	162,596	Consumption Allowance	162,596
Net Lost Wages	650,382	Net Lost Wages	455,267
Legal Fees	216,577	Legal Fees	151,604
Net to Beneficiary	$433,805	Net to Beneficiary	$303,663

Table II

Annual Wages and Taxes Paid by Decedent

Year	Annual Wage	Federal Income Tax[a.]	Social Security Tax[b.]	State Income Tax[c.]
1976	$14,019	$1,640	$ 820	$ 411
1977	16,099	2,270	942	522
1978	17,888	2,522	1,071	625
1979	19,510	2,751	1,196	718
1980	21,029	3,890	1,289	805
Totals	$88,545	$13,073	$5,318	$3,081

a. Federal income tax estimated using rates published by the Internal Revenue Service. See: U. S. Department of Treasury, Internal Revenue Service, Individual Income Tax Returns, June 1980.

b. Percent rates and base provided by Social Security District Office, Richmond, Virginia.

c. State income tax calculated using the standard deduction for married individual.

Footnotes

1) For a complete discussion of the calculation of lost income see Edwards, N. Fayne, "The Economist as an Expert Witness in Personal Injury and Wrongful Death Cases". The Virginia Bar Association Journal, Vol. III, No. 4 (Fall, 1977) pp. 16-20.

2) Norfolk and Western Railway Company v. Kandythe J. Liepelt, Administratrix, etc., 100 S. Ct. 755 (1980).

3) Ibid., p. 757.

4) For a separate discussion of the impact of Norfolk and Western v. Liepelt see Ward, John O., and Olson, Gerald W., "The Economic Impact of Income Tax on Damage Awards" Trial (August, 1981).

5) United States v. Carroll Towing Co., 159 F. 2d. 109, p. 173.

6) The issue of contributory negligence although ignored for purposes of the following example does not affect the argument.

7) Norfolk and Western v. Liepelt, p. 760.

8) Alyeska Pipeline Service Company v. The Wilderness Society, et al., 421 U. S. 240, 44 L. Ed. 2d. 141, 95 S. Ct., 1612.

9) Legal expertise spent on matters of arithmetic may be more valuably spent on matters of litigation. To burden the court with a dual award may be more "costly" than the result achieved.