STUDY OF ECONOMIC LOSS

RE:

LAWRENCE A. COLBY

Submitted

to

Levinson, Axelrod, Wheaton & Grayzel

Attorneys at Law

Prepared by

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Summary of Findings

The economic loss due to the death of Mr. Lawrence Colby totals $743,739. It includes $332,335 in wage loss and $411,404 for loss of household services. (All figures are in present value.)

The analysis, assumptions, and calculations underlying my conclusion are found in subsequent sections of this report. The components of the loss are:

Earnings Loss

To assumed date of trial 5/5/1989 - 3/31/1993	$212,659
Future (Discounted) 4/1/1993 - 10/21/1998	310,873
Unemployment Allowance	(58,112)
Fringe Benefits	186,168
Work-Related Expenses	(54,920)
Personal Maintenance	(178,949)
Income Tax Liability	(85,384)
Net Loss	$332,335

Household Services

To assumed date of trial 5/5/1989 - 3/31/1993	$ 16,186
Future (Discounted) 4/1/1993 - 10/7/2011	395,218
Total Pecuniary Loss	$743,739

Personal Status

Lawrence Colby died on May 5, 1989. He is survived by his wife Phyllis and three grown children, Lawrence, Michael and Monica. Life expectancies at the time of death were:

	D.O.B.	Age on 5/5/89	Life Expectancy Years	Life Expectancy To Age
Lawrence Colby	10/21/33	55.5	23.5	79.0
Phyllis Colby	7/24/32	56.8	22.4	79.2

The life expectancy figures are based on U.S. Life Tables incorporated in Rules Governing the Courts of the State of New Jersey, 1993.

I have been advised that Mr. Colby had intended to work to age 65. This is consistent with the worklife for men of Mr. Colby's cohort (U.S. Department of Labor, Bureau of Labor Statistics, Bulletin 2254). My calculations assume retirement at this age.

Employment and Earnings

Mr. Colby had worked as an operating engineer. He was a member of Local 825, International Union of Operating Engineers. In 1988, the last full year of work prior to his death, Mr. Colby earned $46,373 (W-2). This pay is assumed to increase consistent with contractual wage increases obtained by Local 825. Accordingly, the wage loss to the assumed trial date is:

1989	--	$ 39,460	($48,506-$9,046)
1990	--	50,737	
1991	--	53,071	
1992	--	55,513	
1/1 - 3/31/1993	--	13,878	
Past Loss:		$212,659	

The future loss is projected from a current estimated pay of $55,513, derived above. The wage loss is reduced to reflect unemployment in construction and disability contingencies. The data underlying this adjustment are contained in government publications (U.S. Department of Labor, Employment and Earnings, 1992; U.S. Department of Labor, Monthly Labor Review, January, 1992). Reduced earnings attributable to periods of unemployment will, however, be partially mitigated by State unemployment compensation plans. Incorporating the effect of this program, the net reduction for unemployment which needs to be made is 11.1 percent.

The earnings loss projected for Mr. Colby would be subject to income tax at the Federal and State level. A deduction for this liability need therefore be made. Based on applicable tax schedules, I have calculated this reduction to be 20.8 percent. An additional allowance of 11.8 percent was made for employment-related expenses, claimed by Mr. Colby.

As a member of the International Union of Operating Engineers, Mr. Colby received various employer-paid benefits. These benefits included medical coverage and annuity and savings plans. I value the loss of these benefits at forty percent of earnings, based on the cost to the employer.

In order to estimate the loss suffered by Mr. Colby's dependents, the projected income needs to be reduced by the decedent's personal maintenance expenditures. This calculation requires that the portion of income used for family housing and utilities be excluded, since they would not be affected by the death. These expenditures are consistently estimated at about thirty percent of family income (See for example, U.S. Department of Labor, Bureau of Labor Statistics, April 14, 1988). The remaining seventy percent of the decedent's income is assumed to be distributed equally. Making these calculations for each year over the loss period the personal maintenance expense is estimated to be thirty-five percent of after-tax earnings. The earnings loss calculated in this study is reduced by this percentage.

Service Loss

Mr. and Mrs. Colby have lived in their own single-family home. I have been advised that Mr. Colby handled all home maintenance and repairs, auto maintenance, and managed the family finances.

Mr. and Mrs. Colby's son, Lawrence, is disabled with agoraphobia. He depends on his parents to take him to appointments and shopping. Most significantly, he is unable to work steadily, and he has been supported by his parents, who also have been paying his medical bills and cost of medications. Mrs. Colby told me that since her husband's death she has nobody to share her concerns about Lawrence's future and she has been deprived of her husband's assistance and guidance in dealing with Lawrence.

My calculations assume that while Mr. Colby would continue to be employed, the aforementioned services would average seven hours a week. This is consistent with the average reported in family surveys (Time Use: A Measure of Household Production of Family Goods and Services, by Kathryn E. Walker and Margaret E. Woods). Beyond age 65, namely, after Mr. Colby retires, it is assumed that the aforementioned services, along with companionship, care and guidance, would average four to eight hours a day. Using the mid-point of the range, or an average of six hours a day, this assumption translates to forty-two hours a week.

One guide for valuing the household services are wage rates in maintenance occupations. These wage rates, based on the earnings of full-time employees, are $11.25 to $15.26 an hour (Exhibit 4). Another guide relevant to this valuation are fees charged by homemakers. These individuals are hired to assist with household chores and family care, and their fees are mostly $14.25 an hour. My conclusion is that the services in question have a current value of $14.25 an hour, or $5,187 a year (7 hrs. X $14.25/hr. X 52 weeks). The post-retirement services have a value of $31,122 a year (42 hours X $14.25/hr. X 52 weeks). If a different service assumption is developed at the time of trial, the valuation will change in the same proportion.

I'd note that the value of guidance and advice which Mr. Colby has also provided his wife and son, based on rates charged by professional counselors, is $30-$50 an hour. The aforementioned yearly values do not reflect this higher value of advice and guidance because at present I have no reliable estimate of the proportion of time expended on these, more specialized, activities.

The service loss is projected to continue over Mr. Colby's remaining life expectancy, but is reduced for contingencies of disability which might have precluded him from providing the services continuously in the future. Based on Mr. Colby's age, this reduction is 8.2 percent (U.S. Department of Commerce, Bureau of the Census, Household

Economic Studies, 1986). This reduction incorporates, in effect, inability to offer any assistance approximately four weeks a year.

Wage Increase Trends

The replacement value of services examined in this study can be expected to rise over time along with the general increase in wages. General wage increase trends in New Jersey for past periods are shown in Exhibit 1, based on data reported by the New Jersey Department of Labor. Wages in the total private economy have risen an average of 5.6 percent annually over the last twenty years (U.S. Department of Labor, Employment and Earnings, April, 1992). Personal income increases in New Jersey are shown in Exhibit 2. Consumer price increases over the last fifteen, ten, and five years are shown in Exhibit 3. Considering the aforementioned and likely future inflation and productivity trends, my study projects a five to six percent overall wage increase.

Present Value Calculation

To obtain the present-day value of the projected future loss it is necessary to discount all future amounts by the interest which can be earned from the date of trial until the loss would actually occur. The discounted value of all future amounts is termed the present value of the loss.

Interest rates which can be earned on various investments will vary greatly, due to differences in risk and liquidity. My calculations assume that the award will be invested in U.S. Treasury securities to ensure the lowest degree of risk and provide adequate liquidity. However, interest income on U.S. Treasury securities is subject to Federal Income Tax. The net, after-tax, interest rate applicable here is at present within the same range as the projected wage increase. As a result under current economic conditions discounting to present value will be offset by the likely wage increase. Future interest rates may, of course, change. However, a future rise in interest rates will most probably be associated with rising inflationary expectations and rising wages. Therefore, the impact of a higher interest rate on investment income, will be diminished, partially or totally, by the likely accompanying increase in wages.

Respectfully submitted,

Exhibit 1

WAGE INCREASE TRENDS
New Jersey

	1981-91	1986-91
Total Economy	6.1%	6.1%
Manufacturing	6.3	6.2
Construction	5.5	5.6
Services	6.8	7.1
Government	N.A.	6.6

Source: New Jersey Department of Labor.

Exhibit 2

PERSONAL INCOME PER CAPITA

	New Jersey
1971	5,103
1972	5,492
1973	6,000
1974	6,531
1975	6,991
1976	7,653
1977	8,348
1978	9,250
1979	10,277
1980	11,579
1981	12,853
1982	13,823
1983	15,065
1984	16,442
1985	17,622
1986	18,773
1987	20,300
1988	22,200
1989	23,628
1990	24,881
1991	25,372

Annual Increase:

1971 - 91	8.3%
1981 - 91	7.0
1986 - 91	6.2

Source: U.S. Department of Commerce, Survey of Current Business.

Exhibit 3

AVERAGE ANNUAL PRICE INCREASES

	1986-1991	1981-1991	1976-1991
All Items	4.44%	4.13%	5.99%
Food	4.57	3.83	5.44
Shelter	4.79	4.92	7.21
Transportation	3.89	2.88	5.55
Medical Care	7.73	7.88	8.51

Source: Economic Report of the President, 1992

Exhibit 4

MAINTENANCE OCCUPATIONS WAGE RATES
(New Jersey)

	Hourly Earnings
Maintenance Carpenters	$15.26
Maintenance Painters	14.47
Homemakers/Home Health Aides	14.25
General Maintenance Workers	11.25

Source: Average for various areas based on Compendium of New Jersey Wage Surveys, October, 1991, and surveys.

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Position

Professor of Economics, Rutgers University, New Brunswick, NJ (Formerly Department Chairman and Director of Graduate Studies in Economics)

Academic Education

B.A. Brooklyn College, 1959
(Phi Beta Kappa, Magna Cum Laude)

Ph.D., Brown University, 1963 (Economics)

Publications in Economics and Finance

The Review of Economics and Statistics
The Journal of the American Institute of Planners
Land Economics
The Journal of Industrial Economics
The Canadian Journal of Economics
The Southern Economic Journal
The Antitrust Bulletin
Bulletin of the Oxford University Institute
Public Utilities Fortnightly
Journal of Behavioral Economics
Financial Review
Journal of Retailing
Journal of Finance
Research in Finance
The International Journal of Finance

Professional Affiliations

American Economic Association

American Association of University Professors

Consulting Experience

Prepared reports dealing with the appraisal of economic loss for both plaintiffs and defendants and have testified in court on such matters.

Conducted cost of capital studies involving electric, telephone, gas, and water utilities.

Consultant for various public and private organizations including U.S. Department of Agriculture; Office of Telecommunications Policy; Western Electric and the Council on Library Resources.