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August 12, 2003

Mr. Charles K. Purcell
Rodey, Dickason, Sloan, Akin & Robb
P. O. Box 1833
Albuquerque, NM 87103

Re: *Economic Evaluation of Injury to Douglas Copp*

Dear Mr. Purcell:

In response to your request, I have made an economic evaluation of the loss incurred by Mr. Douglas Copp due to the injury that he incurred working at the World Trade Center in New York in the aftermath of the September 11, 2001 disaster. In the process of writing this report, I have reviewed Mr. and Mrs. Copp's U. S. Individual Income Tax Returns for 2000, 2001, and 2002; U. S. and New Mexico Individual Income Tax Tables and Schedules for 2001; the Complaint in *American Rescue Team International v. Nikken* and the Settlement Agreement associated with that case; U. S. Department of Labor 2001 *National Occupational Employment and Wage Estimates* for First Line Supervisors/Managers of Fire Fighting and Prevention Workers and First Line Supervisors/Managers of Police and Detectives; U. S. Bureau of the Census, *Annual Demographic Survey*, Earnings by Education, Age and Sex; *Explanation of Process for Computing Presumed Economic Loss* (Revised August 27, 2002); *Explanation of Economic Loss Calculations for FDNY or NYPD Victims* (Revised May 15, 2002); a Vocational Evaluation dated November 8, 2002, prepared by Harry A. Whiting, Jr.; a letter from Rita Cosby; a November 20, 2002, letter from Richard Burke-Ward; a report dated August 10, 2003, prepared by Dr. Timothy J. Smith; a brochure describing The American Rescue Team, International (ARTI); a October 27, 2002, letter from Mr. Copp to Mr. Kenneth Feinberg; and a memo describing income received by ARTI between August 1998 and August 2001.

Summary Conclusions

I have estimated Mr. Copp's loss due to his injury based on his anticipated earnings as well as his loss of income earning capacity.¹ Based on his earnings in the

¹ Another important loss incurred by Mr. Copp due to his injury is his additional medical expenses. I have not estimated that loss in this report. Dr. Smith in his June 2, 2003, report presents the required treatments and their estimated costs. Normally, future values have to be converted to present value in situations such

years prior to his injury, the present value of his loss is almost \$600,000. He also had the potential for substantial endorsement and professional activities income and based on that potential income, the present value of his loss is almost \$1.5 million. Alternatively, Mr. Copp was not earning an income that reflected his income earning capacity. If he had been earning an income similar to that of others of his age, education and sex, the present value of his loss would be more than \$1 million. Two occupations that would have been appropriate for him given his education and experience would be as a Supervisor of Fire Fighters or Police. If he had been in those positions, his loss would be almost \$1 million as a Supervisor of Fire Fighters or slightly more than \$1 million as a Supervisor of Police. The method used to arrive at these figures is discussed below.

Analysis

While the *Explanation of Process for Computing Presumed Economic Loss* is very thorough in its explanation of the steps that an economist should take in calculating a loss, this case presents a challenge in terms of economic analysis. The usual assumption in the economic analysis of a loss due to an injury is that for most people, especially if they are not restricted by household responsibilities, their earnings from employment reflect their best financial alternative. So, we conclude that for most people, their actual earnings reflect their income earning capacity.

That is not a reasonable assumption for Mr. Copp. He is a well educated man with a bachelor's degree from Dalhousie University in Halifax, Nova Scotia; a wide range of skills; and earlier employment as a police officer and demolition expert. For the last 15 years he has been associated with American Rescue Team International (ARTI), of which he is the founder and principal. Numerous sources note that he is a unique individual and probably the leading expert in the world of disaster rescue management. He has pursued this vocation with a passion that generally ignored monetary gain. While he took a draw from ARTI, he did not take a regular salary. His income from ARTI for the period 1999-2002 is contained in Table 1. His earnings in 2000, the year before the WTC disaster and his injury, were \$20,373, which is extremely low for a man of his education, experience and abilities.

Year	Film Income	Consulting Income	Total Income
1999	\$8,000	\$16,888	\$24,888
2000	10,000	10,373	20,373
2001	3,500	7,871	11,371
2002	2,500	13,404	15,904

as this. However, since the compounding factor based on the inflation rate for medical services and the discounting rate based on the after tax interest rate have been similar during the past decade, it would be appropriate to treat the current costs presented by Dr. Smith as equivalent to the amount necessary now to cover those future expenses.

I have estimated his loss under five scenarios based on: the average of his 1999 and 2000 earnings, potential endorsements and professional fees, a bachelor's degree, a fire fighter supervisor, and a police supervisor. In all the scenarios I use the assumptions contained in *Explanation of Process for Computing Presumed Economic Loss*. Mr. Copp has a life expectancy of 26 years and a work life expectancy of 12.4 years based on U. S. Government sources.² I have increased earnings each year in the future at 2% for inflation and 1% for productivity and then adjusted them for 3% unemployment. Because of Mr. Copp's age, I have not made any adjustment for life-cycle effects. His gross income loss in each year was adjusted for taxes for someone living in New Mexico in 2001. Last, I have discounted future losses to the present at 3.9%.

Household Services

I make the same analysis of the loss of household services in all the scenarios. Prior to the injury, Mr. Copp was very actively involved in household tasks. He was particularly involved in many of the mechanical aspects of his home as well as the yard work. It has been estimated that he spent 20 hours a week on these tasks. Because of his respiratory condition, he is unable to do essentially any of these tasks. His wife has to do all the housework now. The most systematic study of household services finds that the typical man does 15 hours of housework per week.³ In that study, Dr. Peskin values those services at their replacement cost. Therefore, I calculated the value of 20 hours per week of housework over Mr. Copp's life expectancy. Converted to a present value, those household services have a value of \$337,861. That amount is contained in his loss in each of the scenarios.

1999-2000 Earnings

My estimate of his loss based on the average of his earnings for 1999 and 2000 is contained in Table 2. In those years he earned, \$24,888 and 20,373. For 2001, I have adjusted his income without the injury to reflect the average of those years adjusted for the increase in wages over that period. For his income with the injury, I treated all of his income in 2001 as earnings, while in 2002 I only attributed his consulting income to earnings. He was in no condition to film, so the \$2,500 film income has to reflect earlier efforts. Based on Dr. Timothy Smith's report of August 10, 2003, and Mr. Harry Whiting's report of November 3, 2002, I have considered that Mr. Copp was totally disabled as of 2003 and probably earlier. When converted to a present value, his earnings loss is \$250,311, which when combined with his household services loss, results in a total loss at the present time of \$588,172.

² The life expectancy is based on U. S. National Center for Health Statistics, *National Vital Statistics Reports, United States Life Tables, 2000*, December 19, 2002 and the work life expectancy is based on James Ciecka, Thomas Donley, and Jerry Golman, "A Markov Process Model of Work life Expectancies Based on Labor Market Activity in 1997-98," *Journal of Legal Economics*, Winter 1999-2000, pp. 33-68.

³ Janice Peskin, "Measuring Household Production for the GNP," *Family Economics Review*, 1982, pp. 16-23.

Potential Earnings From Endorsements or Professional Activities

As Mr. Copp became better known, opportunities developed for him to endorse products and to pursue other professional activities. Two such endorsements consisted of an agreement with Casio watches that paid ARTI \$17,000 and 400 watches worth approximately \$300 each and one for a water purification system that recently resulted in a \$270,000 settlement. In addition, Richard Burke-Ward, an award winning television documentary maker in Britain, wrote a November 20, 2002, letter in which he details the professional activities in which he feels Mr. Copp could have participated except for his injury. He estimates that Mr. Copp's loss is in excess of \$5 million. Taking a more conservative approach, I have estimated the value of Mr. Copp having been able to receive endorsements and other professional activities worth \$300,000 every other year over the remainder of his work life. My calculations are contained in Table 3. In this scenario, his income loss is \$1,112,826 for a total loss of \$1,450,687.

A Bachelor's Degree

There are at least two reasons why income earning capacity rather than just earnings is the more appropriate measure of his loss due to his injury. First, there was substantial psychic income associated with Mr. Copp's career choice. He could have made substantially more doing something else, but he enjoyed the career that he had chosen. Having rejected those alternatives, fundamental economic analysis suggests that he valued his career choice (ARTI) more than what he could have earned elsewhere. Not being able to work for ARTI has not only resulted in a loss of his earnings, but also in the loss of the psychic income associate with his career. His total loss, therefore, is what he could have earned somewhere else. Second, while he had worked for ARTI for many years, he might in the future have decided to pursue another career in line with his education and abilities and, therefore, his income earning capacity. Due to his injury, that option no longer exists.

According to the U.S. Bureau of the Census, the typical white male between 50 and 54 who worked full time in 2001, earned \$72,770. My calculations under this scenario are contained in Table 4. In an employed position, I assumed that he would have also received fringe benefits worth 20% of his salary. The present value of his earnings loss is \$671,585 for a total loss of \$1,175,269.

Supervisor of Fire Fighters

Mr. Copp has functioned for many years as the leader of teams that performed duties similar to those of fire fighters. Given his education and experience, it is reasonable to assume that he could be a Supervisor of Fire Fighters. According the U.S. Department of Labor's *National Occupational Employment and Wage Estimates*, people in those positions in 2001 had mean annual wages of \$54,880. These individuals are described as those who supervise and coordinate activities of workers engaged in fire fighting and fire prevention and control. The figures for Fire Chiefs are certainly higher.

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Moreover, the *Explanation of Economic Loss Calculations for FDNY or NYPD Victims* uses the example of a 30-year-old earning \$75,000 with FDNY. My calculations under this scenario are contained in Table 5. In an employed position, I assumed that he also would have received fringe benefits worth 20% of his salary. The present value of his earnings loss is \$506,274 for a total loss of \$969,140.

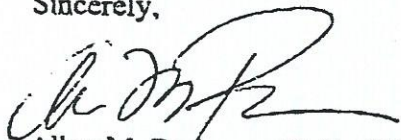
Supervisor of Police

Mr. Copp also had experience as a police officer, so with his education and experience, he could be a Supervisor of Police either now or in the future except for his injury. According to the U.S. Department of Labor's *National Occupational Employment and Wage Estimates*, people in those positions in 2001 had mean annual wages of \$59,940. These individuals are described as those who supervise and coordinate activities of members of a police force. Again, the higher-ranking individuals such as the Chiefs of Police would be expected to make more than this figure. My calculations under this scenario are contained in Table 6. In an employed position, I also assumed that he would have received fringe benefits worth 20% of his salary. The present value of his earnings loss is \$553,030 for a total loss of \$1,027,442.

Conclusion

Based on Mr. Copp's anticipated earnings, the present value of his loss ranges from \$588,172 to \$1,450,687. Alternatively, based on his income earning capacity, his loss ranges from \$969,140 to \$1,175,269.

Sincerely,



Allen M. Parkman, Ph.D., J.D.
Economic Consultant

Table 2
An Economic Analysis of the Injury to Douglas Copp

Date of Analysis: 11-Aug-03
 Date of Birth: 3-Aug-51
 Date of Injury: 12-Sep-01
 Life Expectancy: 26 years to Aug-29
 Worklife Expectancy: 12.4 years to Jan-16
 Based on Actual Earnings

Assumptions:

a) Productivity: 1.0%
 b) Inflation: 2.0%
 c) Federal Tax Rate: 5.0%
 d) State Tax Rate: 0.5%
 e) Fringe Benefits: Not Applicable
 f) Loss of Household Services: At Their Replacement Cost
 g) After Tax Discount Rate: 3.9%
 h) Unemployment Rate: 3.0%

Year	Age	Income Without Injury	Income With Injury	Gross Income Loss	Deductions	Net Income Loss	Fringe Benefits	Household Services	Present Value of Income Loss	Present Value of FB Loss	Present Value of Household Services Loss
2001	50	\$23,310	\$11,371	\$11,939							
2002	51	23,289	13,404	9,885	\$657	\$11,282	\$0	\$3,588	\$12,179	\$0	\$3,873
2003	52	23,268	0	23,268	544	9,341	0	14,595	9,706	0	15,164
2004	53	23,247	0	23,247	1,280	21,988	0	15,000	21,988	0	15,000
2005	54	23,226	0	23,226	1,279	21,968	0	15,300	21,144	0	14,726
2006	55	23,205	0	23,205	1,277	21,949	0	15,606	20,332	0	14,457
2007	56	23,184	0	23,184	1,276	21,929	0	15,919	19,551	0	14,192
2008	57	23,163	0	23,163	1,275	21,909	0	16,237	18,800	0	13,933
2009	58	23,143	0	23,143	1,274	21,889	0	16,562	18,078	0	13,678
2010	59	23,122	0	23,122	1,273	21,870	0	16,893	17,384	0	13,428
2011	60	23,101	0	23,101	1,272	21,850	0	17,231	16,716	0	13,182
2012	61	23,080	0	23,080	1,271	21,830	0	17,575	16,075	0	12,941
2013	62	23,059	0	23,059	1,269	21,811	0	17,927	15,457	0	12,705
2014	63	23,039	0	23,039	1,268	21,791	0	18,285	14,864	0	12,472
2015	64	23,018	0	23,018	1,267	21,772	0	18,651	14,293	0	12,244
2016	65				1,266	21,752	0	19,024	13,744	0	12,020
2017	66							19,405	0	0	11,801
2018	67							19,793	0	0	11,585
2019	68							20,189	0	0	11,373
2020	69							20,592	0	0	11,165
2021	70							21,004	0	0	10,961
2022	71							21,424	0	0	10,760
2023	72							21,853	0	0	10,564
2024	73							22,290	0	0	10,370
2025	74							22,736	0	0	10,181
2026	75							23,190	0	0	9,995
2027	76							23,654	0	0	9,812
2028	77							24,127	0	0	9,632
2029	78							24,610	0	0	9,456
								16,735	0	0	6,189
Total									\$250,311	\$0	\$337,861
Loss if he worked to his work life expectancy:									\$588,172		

Table 4
An Economic Analysis of the Injury to Douglas Copp

Date of Analysis: 11-Aug-03
 Date of Birth: 3-Aug-51
 Date of injury: 12-Sep-01
 Life Expectancy: 26 years to Aug-29
 Worklife Expectancy: 12.4 years to Jan-16
 Based on the Earnings of White Males with a Bachelor's Degree

Assumptions:

- a) Productivity: 1.0%
- b) Inflation: 2.0%
- c) Federal Tax Rate: 15.0%
- d) State Tax Rate: 4.0%
- e) Fringe Benefits: 20% of Gross Income Loss
- f) Loss of Household Services: At Their Replacement Cost
- g) After Tax Discount Rate: 3.9%
- h) Unemployment Rate: 3.0%

Year	Age	Income Without Injury	Income With Injury	Gross Income Loss	Deductions	Net Income Loss	Fringe Benefits	Household Services	Present Value of Income Loss	Present Value of FB Loss	Present Value of Household Services Loss
2001	50	\$23,310	\$11,371	\$11,939	\$2,268	\$9,671	\$2,388	\$3,588			
2002	51	72,705	13,404	59,301	11,267	48,033	11,860	14,595	\$10,440		
2003	52	72,639	0	72,639	13,801	58,838	14,528	15,000	49,907	\$2,578	\$3,873
2004	53	72,574	0	72,574	13,789	58,785	14,515	15,300	58,838	12,323	15,164
2005	54	72,508	0	72,508	13,777	58,732	14,502	15,606	56,578	14,528	15,000
2006	55	72,443	0	72,443	13,764	58,679	14,489	15,919	54,405	13,970	14,726
2007	56	72,378	0	72,378	13,752	58,626	14,476	16,237	52,316	12,918	14,457
2008	57	72,313	0	72,313	13,739	58,573	14,463	16,562	50,307	12,421	14,192
2009	58	72,248	0	72,248	13,727	58,521	14,450	16,893	48,375	11,944	13,933
2010	59	72,183	0	72,183	13,715	58,468	14,437	17,231	46,517	11,486	13,678
2011	60	72,118	0	72,118	13,702	58,415	14,424	17,575	44,731	11,045	13,428
2012	61	72,053	0	72,053	13,690	58,363	14,411	17,927	43,013	10,621	13,182
2013	62	71,988	0	71,988	13,678	58,310	14,398	18,285	41,361	10,213	12,941
2014	63	71,923	0	71,923	13,665	58,258	14,385	18,651	39,773	9,821	12,705
2015	64	71,858	0	71,858	13,653	58,205	14,372	19,024	38,246	9,443	12,472
2016	65							19,405	36,777	9,081	12,244
2017	66							19,793	0	0	12,020
2018	67							20,189	0	0	11,801
2019	68							20,592	0	0	11,585
2020	69							21,004	0	0	11,373
2021	70							21,424	0	0	11,165
2022	71							21,853	0	0	10,961
2023	72							22,290	0	0	10,760
2024	73							22,736	0	0	10,564
2025	74							23,190	0	0	10,370
2026	75							23,654	0	0	10,181
2027	76							24,127	0	0	9,995
2028	77							24,610	0	0	9,812
2029	78							16,735	0	0	9,652
Total									0	0	9,456
											6,189

Loss if he worked to his work life expectancy:

\$1,175,269

\$671,585

\$ 65,823

\$337,861

Table 5
An Economic Analysis of the Injury to Douglas Copp

Date of Analysis: 11-Aug-03
 Date of Birth: 3-Aug-51
 Date of Injury: 12-Sep-01
 Life Expectancy: 26 years to Aug-29
 Worklife Expectancy: 12.4 years to Jan-16

Based on the Earnings of First Line Supervisors/Managers of Fire Fighting and Prevention Workers

Assumptions:

- a) Productivity: 1.0%
- b) Inflation: 2.0%
- c) Federal Tax Rate: 15.0%
- d) State Tax Rate: 4.0%
- e) Fringe Benefits: 20% of Gross Income Loss
- f) Loss of Household Services: At Their Replacement Cost
- g) After Tax Discount Rate: 3.9%
- h) Unemployment Rate: 3.0%

Year	Age	Income Without Injury	Income With Injury	Gross Income Loss	Deductions	Net Income Loss	Fringe Benefits	Household Services	Present Value of Income Loss	Present Value of FB Loss	Present Value of Household Services Loss
2001	50	\$23,310	\$11,371	\$11,939	\$2,268	\$9,671	\$2,388	\$3,558			
2002	51	54,831	13,404	41,427	7,871	33,556	8,285	14,595	\$10,440	\$2,578	\$3,873
2003	52	54,781	0	54,781	10,408	44,373	10,956	15,000	34,564	8,608	15,154
2004	53	54,732	0	54,732	10,399	44,333	10,946	15,200	44,373	10,956	15,000
2005	54	54,683	0	54,683	10,390	44,293	10,937	15,506	42,669	10,536	14,726
2006	55	54,633	0	54,633	10,380	44,253	10,927	15,919	41,030	10,131	14,457
2007	56	54,584	0	54,584	10,371	44,213	10,917	16,237	39,455	9,742	14,192
2008	57	54,535	0	54,535	10,362	44,174	10,907	16,562	37,939	9,368	13,933
2009	58	54,486	0	54,486	10,352	44,134	10,897	16,893	36,482	9,008	13,678
2010	59	54,437	0	54,437	10,343	44,094	10,887	17,231	35,081	8,662	13,428
2011	60	54,388	0	54,388	10,334	44,054	10,878	17,575	33,734	8,329	13,182
2012	61	54,339	0	54,339	10,324	44,015	10,868	17,927	32,439	8,010	12,941
2013	62	54,290	0	54,290	10,315	43,975	10,858	18,285	31,193	7,702	12,705
2014	63	54,241	0	54,241	10,306	43,936	10,848	18,651	29,995	7,406	12,472
2015	64	54,193	0	54,193	10,297	43,896	10,839	19,024	28,843	7,122	12,244
2016	65							19,405	27,736	6,848	12,020
2017	66							19,793	0	0	11,801
2018	67							20,189	0	0	11,585
2019	68							20,592	0	0	11,373
2020	69							21,004	0	0	11,165
2021	70							21,424	0	0	10,961
2022	71							21,853	0	0	10,760
2023	72							22,290	0	0	10,564
2024	73							22,736	0	0	10,370
2025	74							23,190	0	0	10,181
2026	75							23,654	0	0	9,995
2027	76							24,127	0	0	9,812
2028	77							24,608	0	0	9,632
2029	78							16,735	0	0	9,455
Total									\$506,274	\$125,006	\$337,861

Loss if he worked to his work life expectancy: \$969,140

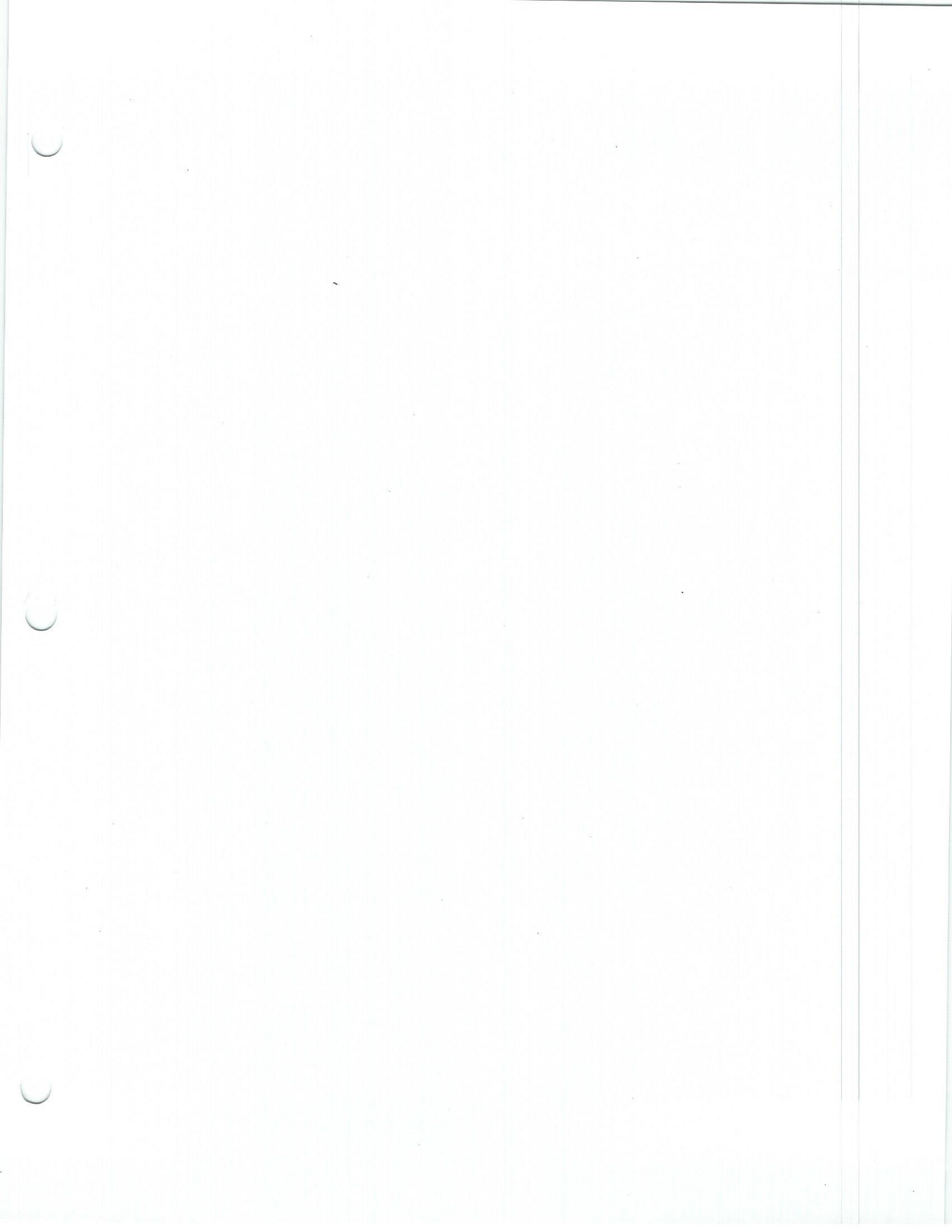


Table 6
An Economic Analysis of the Injury to Douglas Copp

Date of Analysis: 11-Aug-03
 Date of Birth: 3-Aug-51
 Date of Injury: 12-Sep-01
 Life Expectancy: 26 years to Aug-29
 Worklife Expectancy: 12.4 years to Jan-16
 Based on the Earnings of First Line Supervisors/Managers of Police and Detectives

Assumptions:

- a) Productivity: 1.0%
- b) Inflation: 2.0%
- c) Federal Tax Rate: 15.0%
- d) State Tax Rate: 4.0%
- e) Fringe Benefits: 20% of Gross Income Loss
- f) Loss of Household Services: At Their Replacement Cost
- g) After Tax Discount Rate: 3.9%
- h) Unemployment Rate: 3.0%

Year	Age	Income Without Injury	Income With Injury	Gross Income Loss	Deductions	Net Income Loss	Fringe Benefits	Household Services	Present Value of Income Loss	Present Value of FB Loss	Present Value of Household Services Loss
2001	50	\$23,310	\$11,371	\$11,939	\$2,268	\$9,671	\$2,388	\$3,588			
2002	51	59,886	13,404	46,482	8,832	37,650	9,296	14,595	\$10,440	\$2,578	\$3,873
2003	52	59,832	0	59,832	11,368	48,464	11,966	15,000	39,119	9,659	15,164
2004	53	59,778	0	59,778	11,358	48,420	11,936	15,300	48,464	11,966	15,000
2005	54	59,725	0	59,725	11,348	48,377	11,945	15,606	46,603	11,507	14,726
2006	55	59,671	0	59,671	11,337	48,333	11,934	15,919	44,813	11,065	14,457
2007	56	59,617	0	59,617	11,327	48,290	11,923	16,237	43,092	10,640	14,192
2008	57	59,563	0	59,563	11,317	48,246	11,913	16,562	41,437	10,231	13,933
2009	58	59,510	0	59,510	11,307	48,203	11,902	16,893	39,846	9,839	13,678
2010	59	59,456	0	59,456	11,297	48,160	11,891	17,231	38,316	9,461	13,428
2011	60	59,403	0	59,403	11,287	48,116	11,881	17,575	36,845	9,097	13,182
2012	61	59,349	0	59,349	11,276	48,073	11,870	17,927	35,430	8,748	12,941
2013	62	59,296	0	59,296	11,266	48,030	11,859	18,285	34,069	8,412	12,705
2014	63	59,242	0	59,242	11,256	47,986	11,848	18,651	32,761	8,089	12,472
2015	64	59,189	0	59,189	11,246	47,943	11,838	19,024	31,503	7,778	12,244
2016	65							19,405	30,293	7,480	12,020
2017	66							19,793	0	0	11,801
2018	67							20,189	0	0	11,585
2019	68							20,592	0	0	11,373
2020	69							21,004	0	0	11,165
2021	70							21,424	0	0	10,961
2022	71							21,853	0	0	10,760
2023	72							22,290	0	0	10,564
2024	73							22,736	0	0	10,370
2025	74							23,190	0	0	10,181
2026	75							23,654	0	0	9,995
2027	76							24,127	0	0	9,812
2028	77							24,610	0	0	9,632
2029	78							16,735	0	0	9,456
Total									0	0	6,189

Loss if he worked to his work life expectancy: \$1,027,442

\$553,030

\$ 36,551

\$357,861