

Key Elements of Projecting Lost Earnings of Individuals



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Topics of Discussion

Base Earnings	Earnings Capacity	Other Earnings Considerations	Retirement Plans
Fringe Benefits	Growth Rates	Work-Life and Life Expectancy	Mitigating Factors
Personal Consumption	Discount Rates & Present Value	Sample Analyses	Household Services

Base Earnings

- Employer Records
- Employee Paystubs
- Income Tax Records/W-2's
- Social Security Records
- IRS Transcripts

***Review 5-10 Years of Earnings Records to
Establish the Base Earnings***

Lost Earnings Capacity

Loss of earning capacity is income that was likely to be earned, but for the consequences of an accident. It is what the Plaintiff/Claimant could reasonably have earned had it not been for the accident/incident. Loss of earnings capacity is often referred to as Future Lost Earnings.

Loss of income is the cost of missing work while recovering from an accident. These are losses that have happened in the past.

Lost Earnings Capacity (cont.)

The key difference between loss of income and lost earning capacity is when they happen:

Loss of income covers the time after the incident and before the Trial/Report

Lost earning capacity covers the time after the Trial/Report

Lost Earnings Capacity (cont.)

- Level of speculation. Income that has been lost in the past can be easy to prove. Income that was likely to be earned in the future, on the other hand, is less certain.
- Need for expert testimony. Back wages that have been lost can be done with little more than personnel documents. Proving what someone was likely to earn in the future can require vocational experts. It may also require medical testimony. That testimony would show that the Plaintiff has become disabled. They can no longer earn what they could have made, before the accident.
- Who can recover for loss of earnings Capacity. Wages lost in the past can only be recovered by people in the workforce. People who do not have a job at the time of the accident will have no loss of income. Those with no job, though, can still potentially recover compensation for their loss of earning capacity.

Other Earnings Considerations

- Unemployed at time of incident
- Limited work history/student
- Minor child
- Self-Employed

Retirement Plans

- Defined Contribution Plans
 - ✓ Employer contributions regarded as a portion of lost earnings in years contributions would have been made
 - ✓ Calculate the sum of the employer contributions that would have been made
- Defined Benefit Plans
 - ✓ Project the actual benefit stream following the plaintiff's retirement
 - ✓ Benefit depends on plan's details, along with the plaintiff's years of service, salary levels, expected retirement date and life expectancy

Fringe Benefits

- Compare the benefits received before the incident to those received after, possibly taking into account the replacement cost of the lost benefits
 - ✓ Individual insurance premiums usually are higher than those paid under a group plan. Experts distinguish between benefits that depend on the recipient's level of income and those that depend merely on being employed. Those that are triggered only by death or disability are removed from consideration.
- Benefits to which both the employer and the employee contribute are closely examined. Because an employee's contribution is deducted from lost wages, he or she would be doubly compensated if damages were paid for both the contribution and lost wages. Double-dipping also can happen if vacation and sick pay are included in cash earnings, or if fringe benefits such as health insurance are included in lost earnings when the plaintiff is also seeking compensation for specific losses, such as medical bills.
- Bureau of Labor Statistics – Employer Costs for Employee Compensation

Growth Rates

- *Earnings typically grow over time with inflation and productivity.*
- *What was the individual's earnings growth over time?*
- *Earnings growth based on contract?*
- *Other Economic Indicators*
 - *Bureau of Labor Statistics (Employment Cost Index)*
 - *Economic Report of the President*
 - *US Inflation Rates (Consumer Price Index)*

Work-Life Expectancy

- Work life expectancy is the length of time an individual is expected to participate in the workforce.
- A person's work life is influenced by a variety of factors including training, educational attainment, health, marital and family responsibilities, economic opportunity, and additional sources of income.
- Work life is also influenced by unemployment and a person's voluntary or involuntary withdrawal from the workforce.
- Skoog, Ciecka, & Krueger Tables
- Standard Retirement Age of 65-67?

Table 7
 Characteristics for Initially Active Men with Some College, No Degree

Age	WLE											
	Mean	Median	Mode	SD	SK	KU	10%	25%	75%	90%	WLE-B	SE-B
18	38.88	40.50	41.50	9.60	-1.00	4.89	27.50	34.50	45.50	49.50	38.86	0.35
19	38.25	39.50	41.50	9.49	-0.98	4.82	26.50	33.50	44.50	48.50	38.23	0.35
20	37.59	38.50	40.50	9.37	-0.96	4.74	26.50	32.50	43.50	48.50	37.57	0.35
21	36.96	38.50	39.50	9.25	-0.93	4.66	25.50	32.50	43.50	47.50	36.94	0.35
22	36.30	37.50	38.50	9.12	-0.90	4.55	25.50	31.50	42.50	46.50	36.29	0.35
23	35.60	36.50	38.50	8.98	-0.86	4.44	24.50	30.50	41.50	45.50	35.60	0.34
24	34.88	35.50	37.50	8.85	-0.82	4.31	23.50	30.50	40.50	44.50	34.88	0.33
25	34.13	35.50	36.50	8.73	-0.78	4.19	23.50	29.50	40.50	44.50	34.12	0.33
26	33.34	34.50	36.50	8.61	-0.74	4.07	22.50	28.50	39.50	43.50	33.33	0.32
27	32.51	33.50	35.50	8.51	-0.70	3.95	21.50	27.50	38.50	42.50	32.50	0.32
28	31.67	32.50	34.50	8.41	-0.67	3.84	20.50	26.50	37.50	41.50	31.66	0.32
29	30.82	31.50	33.50	8.31	-0.63	3.73	20.50	26.50	36.50	40.50	30.81	0.31
30	29.97	30.50	32.50	8.22	-0.60	3.63	19.50	25.50	35.50	39.50	29.95	0.31
31	29.10	29.50	31.50	8.13	-0.56	3.53	18.50	24.50	34.50	38.50	29.09	0.30
32	28.23	28.50	30.50	8.04	-0.53	3.44	17.50	23.50	33.50	37.50	28.22	0.30
33	27.35	28.50	29.50	7.95	-0.50	3.36	16.50	22.50	32.50	36.50	27.35	0.30
34	26.49	27.50	28.50	7.86	-0.47	3.28	16.50	21.50	31.50	35.50	26.48	0.30
35	25.62	26.50	27.50	7.78	-0.43	3.21	15.50	20.50	30.50	34.50	25.61	0.30
36	24.74	25.50	26.50	7.69	-0.40	3.14	14.50	20.50	30.50	34.50	24.74	0.30
37	23.87	24.50	25.50	7.60	-0.37	3.08	13.50	19.50	29.50	33.50	23.87	0.29
38	23.00	23.50	24.50	7.51	-0.34	3.02	12.50	18.50	28.50	32.50	22.99	0.29
39	22.13	22.50	23.50	7.42	-0.31	2.97	12.50	17.50	27.50	31.50	22.13	0.30
40	21.28	21.50	23.50	7.32	-0.28	2.92	11.50	16.50	26.50	30.50	21.27	0.29
41	20.42	20.50	22.50	7.22	-0.25	2.87	10.50	15.50	25.50	29.50	20.41	0.29
42	19.58	20.50	21.50	7.11	-0.21	2.83	9.50	14.50	24.50	28.50	19.57	0.29
43	18.75	19.50	20.50	7.00	-0.18	2.79	9.50	14.50	23.50	27.50	18.74	0.29
44	17.94	18.50	19.50	6.88	-0.14	2.75	8.50	13.50	22.50	26.50	17.92	0.29
45	17.14	17.50	18.50	6.75	-0.11	2.72	7.50	12.50	21.50	25.50	17.12	0.29
46	16.35	16.50	17.50	6.61	-0.07	2.70	7.50	11.50	20.50	24.50	16.33	0.28
47	15.56	15.50	16.50	6.48	-0.03	2.67	6.50	11.50	20.50	23.50	15.54	0.28
48	14.78	14.50	15.50	6.34	0.02	2.66	6.50	10.50	19.50	22.50	14.76	0.27
49	14.03	14.50	14.50	6.19	0.06	2.65	5.50	9.50	18.50	22.50	14.00	0.27
50	13.29	13.50	13.50	6.04	0.10	2.65	5.50	9.50	17.50	21.50	13.26	0.27
51	12.56	12.50	12.50	5.88	0.15	2.65	4.50	8.50	16.50	20.50	12.52	0.27
52	11.86	11.50	11.50	5.72	0.20	2.66	4.50	7.50	15.50	19.50	11.82	0.26
53	11.17	10.50	10.50	5.55	0.25	2.69	3.50	7.50	14.50	18.50	11.13	0.26
54	10.51	10.50	9.50	5.38	0.30	2.72	3.50	6.50	14.50	17.50	10.47	0.25
55	9.88	9.50	8.50	5.20	0.35	2.76	3.50	5.50	13.50	16.50	9.84	0.25
56	9.26	8.50	7.50	5.02	0.41	2.80	2.50	5.50	12.50	16.50	9.22	0.24
57	8.65	8.50	6.50	4.84	0.47	2.86	2.50	4.50	11.50	15.50	8.61	0.23
58	8.06	7.50	6.50	4.67	0.53	2.93	2.50	4.50	11.50	14.50	8.02	0.23
59	7.50	7.50	5.50	4.50	0.59	3.00	1.50	4.50	10.50	13.50	7.46	0.22
60	6.97	6.50	4.50	4.33	0.64	3.08	1.50	3.50	9.50	12.50	6.92	0.22
61	6.47	5.50	4.50	4.15	0.70	3.17	1.50	3.50	9.50	12.50	6.42	0.22
62	6.00	5.50	3.50	3.99	0.75	3.27	1.50	2.50	8.50	11.50	5.95	0.24
63	5.59	4.50	3.50	3.82	0.80	3.38	1.50	2.50	7.50	10.50	5.53	0.24

Life Expectancy

- Life expectancy refers to the number of years a person is expected to live based on the statistical average.
- Probability of life is developed from data published by the U.S. Department of Health and Human Services, National Center for Health Statistics, Vital Statistics of the United States.
- Projecting Pension Benefits
- Projecting Life Care Plans and Household Services

Table 3. Life table for females: United States, 2016Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/68_04/Table03.xlsx.

Age (years)	Probability of dying between ages x and $x + 1$	Number surviving to age x	Number dying between ages x and $x + 1$	Person-years lived between ages x and $x + 1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
0-1.....	0.005335	100,000	534	99,532	8,112,605	81.1
1-2.....	0.000359	99,466	36	99,449	8,013,073	80.6
2-3.....	0.000243	99,431	24	99,419	7,913,625	79.6
3-4.....	0.000164	99,407	16	99,398	7,814,206	78.6
4-5.....	0.000151	99,390	15	99,383	7,714,807	77.6
5-6.....	0.000135	99,375	13	99,369	7,615,425	76.6
6-7.....	0.000120	99,362	12	99,356	7,516,056	75.6
7-8.....	0.000108	99,350	11	99,345	7,416,700	74.7
8-9.....	0.000100	99,339	10	99,334	7,317,355	73.7
9-10.....	0.000094	99,329	9	99,325	7,218,021	72.7
10-11.....	0.000092	99,320	9	99,315	7,118,696	71.7
11-12.....	0.000098	99,311	10	99,306	7,019,381	70.7
12-13.....	0.000113	99,301	11	99,295	6,920,075	69.7
13-14.....	0.000140	99,290	14	99,283	6,820,780	68.7
14-15.....	0.000175	99,276	17	99,267	6,721,497	67.7
15-16.....	0.000216	99,259	21	99,248	6,622,229	66.7
16-17.....	0.000257	99,237	26	99,224	6,522,981	65.7
17-18.....	0.000300	99,212	30	99,197	6,423,757	64.7
18-19.....	0.000342	99,182	34	99,165	6,324,560	63.8
19-20.....	0.000382	99,148	38	99,129	6,225,395	62.8
20-21.....	0.000424	99,110	42	99,089	6,126,266	61.8
21-22.....	0.000467	99,068	46	99,045	6,027,177	60.8
22-23.....	0.000505	99,022	50	98,997	5,928,132	59.9
23-24.....	0.000539	98,972	53	98,945	5,829,135	58.9
24-25.....	0.000569	98,919	56	98,890	5,730,190	57.9
25-26.....	0.000598	98,862	59	98,833	5,631,299	57.0
26-27.....	0.000629	98,803	62	98,772	5,532,467	56.0
27-28.....	0.000664	98,741	66	98,708	5,433,695	55.0
28-29.....	0.000705	98,675	70	98,641	5,334,986	54.1
29-30.....	0.000752	98,606	74	98,569	5,236,346	53.1
30-31.....	0.000803	98,532	79	98,492	5,137,777	52.1
31-32.....	0.000855	98,453	84	98,410	5,039,285	51.2
32-33.....	0.000909	98,368	89	98,324	4,940,875	50.2
33-34.....	0.000961	98,279	94	98,232	4,842,551	49.3
34-35.....	0.001013	98,185	99	98,135	4,744,319	48.3
35-36.....	0.001072	98,085	105	98,033	4,646,184	47.4
36-37.....	0.001138	97,980	111	97,924	4,548,152	46.4
37-38.....	0.001201	97,869	118	97,810	4,450,228	45.5
38-39.....	0.001262	97,751	123	97,689	4,352,418	44.5
39-40.....	0.001326	97,628	129	97,563	4,254,729	43.6
40-41.....	0.001401	97,498	137	97,430	4,157,166	42.6
41-42.....	0.001494	97,362	145	97,289	4,059,736	41.7

Mitigating Factors

- **Duty to Mitigate**

Reasonable mitigation efforts do not require that you exert unlimited efforts in order to prevent further losses. What is deemed “reasonable” will depend largely on the circumstances. Exposing yourself to significant harm is not required, nor is the exertion of effort that may confound your abilities.

- **Returning to Work**

- **Collateral Income Sources**

- **Potential Offsets**

Personal Consumption

Personal Consumption is generally defined as the amount of money a decedent would have spent on himself or herself that would not have benefited the decedent's survivors, such as food, clothing and personal maintenance.

Compute Consumption Based on:

- Case Specific Data
- Economic Tables
 - Krueger Consumption Tables
 - Consumer Expenditure Survey (BLS)

Offset of Projected Earnings

Discount Rates & Present Value

- Discount Future Losses to their Present Value to identify Lump Sum Payment
- Lump Sum paid in the present that will grow when invested to the amount of lost earnings and benefits that would have been earned in the future
- Risk Free Rate (T-Bills)
- Historical Rates v. Current Rates v. Forecasted Future Rates

Sample Analysis I – Personal Injury

- Plaintiff, Female, Age 55 at time of Incident
- Work-Life to 65; Life Expectancy of 84
- Projected Wages of \$53,582 at time of incident
- Growth Rate of 2% based on historical wage growth
- Discount Rate of 1.25%
- No Loss of Health Benefits – Covered Under Spouse's Policy
- Defined Benefit Pension

Personal Injury - Projected Net Economic Loss

Growth Rate 2.00%

Discount Rate 1.25%

From Age	To Age	Part of Year	Year	Projected Earnings	Projected Pension	Less: Actual Pension	Net Loss	Net Present Value
55.04	56.04	1.00	2019	53,582			53,582	53,582
56.04	57.04	1.00	2020	54,654			54,654	54,654
57.04	58.04	1.00	2021	55,747			55,747	55,058
58.04	59.04	1.00	2022	56,862			56,862	55,466
59.04	60.04	1.00	2023	57,999			57,999	55,877
60.04	61.04	1.00	2024	59,159			59,159	56,291
61.04	62.04	1.00	2025	60,342			60,342	56,708
62.04	63.04	1.00	2026	61,549			61,549	57,128
63.04	64.04	1.00	2027	62,780			62,780	57,551
64.04	65.04	1.00	2028	64,035			64,035	57,978
65.04	66.04	1.00	2029		35,934	17,697	18,237	16,308
66.04	67.04	1.00	2030		36,653	18,051	18,602	16,429
67.04	68.04	1.00	2031		37,386	18,412	18,974	16,550
68.04	69.04	1.00	2032		38,133	18,780	19,353	16,673
69.04	70.04	1.00	2033		38,896	19,156	19,740	16,796
70.04	71.04	1.00	2034		39,674	19,539	20,135	16,921
71.04	72.04	1.00	2035		40,468	19,930	20,538	17,046
72.04	73.04	1.00	2036		41,277	20,328	20,949	17,173
73.04	74.04	1.00	2037		42,102	20,735	21,368	17,300
74.04	75.04	1.00	2038		42,944	21,150	21,795	17,428
75.04	76.04	1.00	2039		43,803	21,573	22,231	17,557
76.04	77.04	1.00	2040		44,679	22,004	22,675	17,687
77.04	78.04	1.00	2041		45,573	22,444	23,129	17,818
78.04	79.04	1.00	2042		46,484	22,893	23,592	17,950
79.04	80.04	1.00	2043		47,414	23,351	24,063	18,083
80.04	81.04	1.00	2044		48,362	23,818	24,545	18,217
81.04	82.04	1.00	2045		49,330	24,294	25,035	18,352
82.04	83.04	1.00	2046		50,316	24,780	25,536	18,488
83.04	84.04	1.00	2047		51,323	25,276	26,047	18,625
				\$ 586,708	\$ 820,753	\$ 404,209	\$ 1,003,251	\$ 891,694

*Calculations have not been adjusted for minor rounding differences or potential offsets.

Sample Analysis II – Wrongful Death

- Plaintiff, Male, Age 44.50 at time of Incident
- Work-Life to 65; Life Expectancy of 81
- Average Annual Wages of \$68,000 at time of Death
- Growth Rate of 2.00%
- Discount Rate of 1.25%
- Loss of Health Benefits - \$7,500 annually
- Defined Contribution Retirement @ 3.5%
- Personal Consumption @ 28%

Wrongful Death - Projected Net Economic Loss

Growth Rate 2.00%

Discount Rate 1.25%

From Age	To Age	Part of Year	Year	Projected Earnings	Health Benefits	Pension Benefits	Projected Social Security Benefits	Less: Personal Consumption	Net Loss	Net Present Value
44.50	45.50	1.00	2016	68,000	7,500	2,380	5,202	(19,040)	64,042	64,042
45.50	46.50	1.00	2017	69,360	7,650	2,428	5,306	(19,421)	65,323	65,323
46.50	47.50	1.00	2018	70,747	7,803	2,476	5,412	(19,809)	66,629	66,629
47.50	48.50	1.00	2019	72,162	7,959	2,526	5,520	(20,205)	67,962	67,962
48.50	49.50	1.00	2020	73,605	8,118	2,576	5,631	(20,610)	69,321	69,321
49.50	50.50	1.00	2021	75,077	8,281	2,628	5,743	(21,022)	70,708	69,835
50.50	51.50	1.00	2022	76,579	8,446	2,680	5,858	(21,442)	72,122	70,352
51.50	52.50	1.00	2023	78,111	8,615	2,734	5,975	(21,871)	73,564	70,873
52.50	53.50	1.00	2024	79,673	8,787	2,789	6,095	(22,308)	75,035	71,398
53.50	54.50	1.00	2025	81,266	8,963	2,844	6,217	(22,755)	76,536	71,927
54.50	55.50	1.00	2026	82,892	9,142	2,901	6,341	(23,210)	78,067	72,460
55.50	56.50	1.00	2027	84,549	9,325	2,959	6,468	(23,674)	79,628	72,996
56.50	57.50	1.00	2028	86,240	9,512	3,018	6,597	(24,147)	81,221	73,537
57.50	58.50	1.00	2029	87,965	9,702	3,079	6,729	(24,630)	82,845	74,082
58.50	59.50	1.00	2030	89,725	9,896	3,140	6,864	(25,123)	84,502	74,631
59.50	60.50	1.00	2031	91,519	10,094	3,203	7,001	(25,625)	86,192	75,183
60.50	61.50	1.00	2032	93,349	10,296	3,267	7,141	(26,138)	87,916	75,740
61.50	62.50	1.00	2033	95,216	10,502	3,333	7,284	(26,661)	89,674	76,301
62.50	63.50	1.00	2034	97,121	10,712	3,399	7,430	(27,194)	91,468	76,867
63.50	64.50	1.00	2035	99,063	10,926	3,467	7,578	(27,738)	93,297	77,436
64.50	65.00	0.50	2036	50,522	5,572	1,768	3,865	(14,146)	47,582	39,005
				<u>\$ 1,702,743</u>	<u>\$ 187,803</u>	<u>\$ 59,596</u>	<u>\$ 130,260</u>	<u>\$ (476,768)</u>	<u>\$ 1,603,634</u>	<u>\$ 1,475,900</u>

*Calculations have not been adjusted for minor rounding differences or potential offsets.

Household Services

Lost Household Services are services that would have otherwise been provided by the injured party or deceased. They include, cleaning, cooking, lawn and garden work, shopping and consumer goods purchasing, household management, and caring and helping other household or family members.

Household Services (cont.)

The analysis assesses the replacement cost needed, stated in terms of current dollars, based on an estimate for the hourly wage of persons performing similar tasks. The estimate of pre-injury hours is based on data from the American Time Use Survey (ATUS) collected from 2003 through 2017. The ATUS, sponsored by the U.S. Bureau of Labor Statistics and conducted by the U.S. Census Bureau, is the largest time survey taken in the United States. The average hours for household services are based on gender and age.

Household Services (cont.)

In *Schultz v. Harrison Radiator Division General Motors Corporation*, 90 N.Y.2d 311,660 N.Y.S. 2d 685,683 N.E.2d 307 (1997), the court excluded economic testimony concerning an individual's loss of ability to perform household services. The testimony was excluded since the value of such services did not serve a compensatory function. This case involved an unmarried individual with no dependents, and defense attorneys made the argument that there can be no testimony concerning household services loss in any case unless the plaintiff has actually incurred costs to replace the lost ability to perform household services.

Questions

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