

H Teasley MA(Econ) CGA

Applied economics • Business valuation • Litigation analysis

Future losses — multipliers and life expectancies

At age	Multipliers — survival-adjusted present values per \$1,000 per year				BC life expectancies [years]			
	Earning capacity or loss to 65 @ 2 1/2% per year		Lifetime cost of care @ 3 1/2% per year		Remaining		From birth	
	Females	Males	Females	Males	Females	Males	Females	Males
20	26,774	26,438	25,450	24,754	64.0	59.5	84.0	79.5
25	25,023	24,707	24,823	24,058	59.1	54.8	84.1	79.8
30	23,035	22,741	24,076	23,229	54.2	50.0	84.2	80.0
35	20,792	20,525	23,193	22,259	49.3	45.3	84.3	80.3
40	18,271	18,037	22,173	21,139	44.5	40.5	84.5	80.5
45	15,438	15,242	20,994	19,850	39.7	35.9	84.7	80.9
50	12,258	12,109	19,649	18,386	35.0	31.3	85.0	81.3
55	8,682	8,585	18,131	16,741	30.4	26.9	85.4	81.9
60	4,639	4,602	16,445	14,948	25.9	22.6	85.9	82.6
65			14,590	13,030	21.7	18.6	86.7	83.6
70			12,573	11,012	17.6	14.9	87.6	84.9
75			10,451	8,996	13.8	11.5	88.8	86.5
80			8,312	7,105	10.4	8.7	90.4	88.7
85			6,316	5,442	7.5	6.4	92.5	91.4
90			4,704	4,081	5.4	4.6	95.4	94.6
95			3,403	2,966	3.8	3.2	98.8	98.2
100			2,412	2,044	2.5	2.2	102.5	102.2

Notes

The multipliers incorporate these standard actuarial factors (before labour-market contingencies) applied at midyear to the usual \$1,000 per year:

Time value of money— The indicated discount rates prescribed for future amounts that tend to follow the current wage and price levels

Survival — From Statistics Canada's 2000 ~ 2002 life tables for BC adjusted for 2005 ~ 2007 life expectancies at birth

Comparing the multipliers and total life expectancies for younger and older persons shows the greater likelihood of someone, say, 60 years old reaching 61 or 80 than for someone 30 years old, who still has to survive the intervening 30 years

Example

A 30-year-old woman with a normal BC life expectancy will tend to lose a steady annual amount (that tends to follow the wage level) until retiring ...

Steady annual loss @ \$10,000 @ multiplier 24,076 ÷ 1,000 = 240,760