



The use of worklife tables in estimates of lost earning capacity

DAVID M. NELSON

A March 1982 *Monthly Labor Review* article by Shirley J. Smith updated Bureau of Labor Statistics worklife expectancies of the population, using 1977 data.¹ Such statistics are frequently employed by economists and attorneys when preparing estimates of future lost earnings for personal injury and wrongful death cases.

The general procedure is for worklife estimates to be added to an individual's age at time of injury or death in order to estimate his or her probable age at final separation from the labor force (through retirement or death), had the injury or death not occurred. The probable age at final separation less the individual's current age is used to represent the years the person had potentially available for work. This is then used as the basis for calculating any economic loss of earning capacity. The courts have generally instructed that the estimate of loss be based on the worker's earning capacity—that is, potential earnings if he or she were to have been employed on an ongoing basis until retirement. Thus, the possibility of voluntary periods of inactivity during the working years prior to final separation should not reduce the loss estimate.

It is apparent that the above procedure represents an inappropriate use of the new worklife tables, because the new estimates using the increment-decrement model represent only the years actually spent in the labor force. As Smith's article points out, for increasing numbers of individuals, working life is not continuous, but is spread over a greater number of years of potential economic activity. What is needed for purposes of litigation are estimates of the median age of final separation for individuals of both sexes at various ages. Such estimates have been prepared for this communication, and are presented in table 1.

The probability of net final separation from the labor force at each stated age in the table was determined us-

ing data contained in the Bureau's complete 1977 increment-decrement working life tables. It was computed by dividing total labor force separations minus accessions at each age by the active population at that age. Separations include those who were active in the labor force

Table 1. Determination of the median age of final separation from the labor force, by sex and age, 1977

Age	Men			Women		
	Probability of net final separation at stated age	Median number of years until final separation	Median age at final separation	Probability of net final separation at stated age	Median number of years until final separation	Median age at final separation
Under 24	—	—	61.5	—	—	61.0
24	—	37.5	61.5	.00532	37.0	61.0
25	—	36.5	61.5	.00769	36.0	61.0
26	—	35.5	61.5	.00934	35.1	61.1
27	—	34.5	61.5	.01120	34.1	61.1
28	—	33.5	61.5	.01190	33.2	61.2
29	—	32.5	61.5	.01086	32.3	61.3
30	—	31.5	61.5	.00513	31.4	61.4
31	—	30.5	61.5	-.00294	30.4	61.4
32	.00016	29.5	61.5	-.01179	29.4	61.4
33	.00107	28.5	61.5	-.01208	28.3	61.3
34	.00097	27.5	61.5	-.01208	27.2	61.2
35	.00138	26.5	61.5	-.00835	26.1	61.1
36	.00251	25.5	61.5	-.00291	25.1	61.1
37	.00361	24.6	61.6	-.00159	24.1	61.1
38	.00264	23.6	61.6	-.00082	23.1	61.1
39	.00389	22.6	61.6	.00033	22.1	61.1
40	.00546	21.6	61.6	.00025	21.1	61.1
41	.00587	20.7	61.7	.00230	20.1	61.1
42	.00585	19.7	61.7	.00304	19.1	61.1
43	.00711	18.7	61.7	.00638	18.1	61.1
44	.00826	17.8	61.8	.00846	17.1	61.1
45	.00905	16.8	61.8	.01159	16.2	61.2
46	.00967	15.9	61.9	.01343	15.3	61.3
47	.01341	14.9	61.9	.01564	14.4	61.4
48	.01579	14.0	62.0	.01793	13.5	61.5
49	.01639	13.1	62.1	.02258	12.6	61.6
50	.01764	12.2	62.2	.02706	11.8	61.8
51	.01961	11.3	62.3	.02857	10.9	61.9
52	.02193	10.4	62.4	.02897	10.1	62.1
53	.02538	9.6	62.6	.03041	9.3	62.3
54	.02967	8.7	62.7	.03236	8.5	62.5
55	.03377	7.9	62.9	.03847	7.7	62.7
56	.03752	7.1	63.2	.04620	6.9	62.9
57	.04521	6.3	63.3	.05984	6.1	63.1
58	.06081	5.5	63.5	.07247	5.5	63.5
59	.08181	4.8	63.8	.08674	4.8	63.8
60	.11344	4.2	64.2	.11210	4.3	64.3
61	.14209	3.7	64.7	.13711	3.9	64.9
62	.16281	3.5	65.5	.16203	3.6	65.6
63	.17901	3.2	66.2	.17578	3.5	66.5
64	.19756	3.0	67.0	.18100	3.5	67.5
65	.20736	3.1	68.1	.18285	3.6	68.6
66	.20697	3.3	69.3	.17550	3.8	69.8
67	.19495	3.5	70.5	.17262	3.9	70.9
68	.18207	3.7	71.7	.16491	4.0	72.0
69	.16953	3.9	72.9	.15698	4.1	73.1
70	.16875	4.0	74.0	.15929	4.0	74.0
71	.15576	4.0	75.0	.15710	4.0	75.0

David M. Nelson is an associate professor of economics at Western Washington University, Bellingham, Wash.

but who died during the year, plus those who became inactive. For men, separations exceed accessions for the first time at age 32. From this age on, there is, on balance, a net outflow of men from active life. During the early years, this outflow is very small, remaining less than 1 percent until age 47. From the mid-50's on, however, the probability of final separation in any given year accelerates quickly from around 3 percent to a peak of 20.7 percent at age 65.

For women, separations exceed accessions for the first time at age 24 and remain that way through age 30. From age 31 through 38, accessions exceed separations. This can, undoubtedly, be explained by women who leave the work world temporarily during the child-bearing years. During this entire time the net flow of women in and out of the labor force in any given year is very nearly balanced. From age 39 on, separations exceed accessions but the probability of final termination from an active working life in any given year remains less than 1 percent until age 45.

The estimates for median number of years until final separation in table 1 show how many years will elapse from the stated age until 50 percent of the active population of that age has become inactive through death or retirement. This figure was added to the stated age to obtain the median age of final separation from the work

force. Median ages of final separation are remarkably similar for both men and women over the entire spectrum, varying from each other by less than 1 year. Among persons of the same age, men have a higher final separation age until age 59, and women have a higher separation age thereafter. Increased mortality rates for men during these later years may account for the switch.

One may also compare worklife expectancies of the male and female population with the median number of years until final separation to estimate the median number of years persons will be inactive during their "pre-retirement" years. For a man age 20, it is 4.7 years, but for a woman of the same age, it is 15 years. At age 30, it is 2.3 years for men, while for women it is 11.5 years. At age 40, there are 1.3 years of pre-retirement inactivity for men and 7.4 years for women. The figures indicate that, while men and women do differ significantly in the number of years each group works, there is little difference in the median age at which each group finally withdraws from the labor force. □

— FOOTNOTE —

¹ Shirley J. Smith, "New worklife estimates reflect changing profile of labor force," *Monthly Labor Review*, March 1982, pp. 15-20.

A note on communications

The *Monthly Labor Review* welcomes communications that supplement, challenge, or expand on research published in its pages. To be considered for publication, communications should be factual and analytical, not polemical in tone. Communications should be addressed to the Editor-in-Chief, *Monthly Labor Review*, Bureau of Labor Statistics, U.S. Department of Labor, Washington, D.C. 20212.
